

GIS and Facility Concept
Study for

**Watertown Fire
Department**

Watertown, WI



April 2022

TITLE	SECTION
Introduction	1
Space Needs Analysis	2
Site Analysis	3
Existing - 106 Jones Street	
Site 1 - 304 Hart Street	
Site 2 - 709 Lafayette Street	
Site 3 - 727 W Cady Street	
Site 4 - 828 W Division Street	
Site 5 - 800 S Montgomery Street	
Site 6 - 701 S Church Street	
Conceptual Design	4
New Facility Probable Costs	5
Conclusion and Recommendations	6
Appendices	
Space Needs Analysis	Appendix A
Sites	Appendix B
Site Response Times	Appendix C
GIS Response Time Summary	Appendix D
Conceptual Plans	Appendix E
Probable Cost Analysis	Appendix F

Introduction

Project Background

The City of Watertown and the Watertown Fire Department (WFD) has engaged Five Bugles Design/Wendel (FBD) Companies to perform a space needs analysis, an assessment of respective sites, and conceptual planning services for a new fire station to replace the existing station.

This project was a dynamic, team effort between members of the WFD, city council, city engineering department, and FBD to provide the following:

- Provide a Space Needs Analysis to determine the Departments' needs when designing and constructing a new station to replace the existing station, located at 106 Jones Street.
- Provide a Site Analysis of six potential properties to determine the best location for the new station.
- Provide concept design(s), considering needs, site, and future growth.
- Provide potential costs associated with each concept.

WFD/Community highlights include:

- WFD was established in 1857
- ISO rating of Class 2
- Full-time department consisting of twenty-six fulltime firefighters, one fulltime and one part-time administrative staff members, and two part-time fire inspectors
- Coverage area includes 101 square miles in the City of Watertown portions of four surrounding townships: Emmet, Milford, Shields and Watertown
 - Coverage for paramedic transport includes an additional 54 square miles
- Watertown is an urbanized city with 68.9% being residential properties, 21.6 % Commercial properties, 6.5 % Manufacturing, and 3% making up other types of properties
- On average, the WFD responds to eight emergency calls in a 24-hour period which equals approximately 2,750 total calls per year
- "All Hazards" type emergency service delivery organization
- Participates in the Mutual Aid Box Alarm System (MABAS)
- Services are provided from one station located at 106 Jones Street
- Station houses two fire pumpers, three ambulances, one mid-mount ladder truck, two water tenders, one brush truck, one rescue boat and two command cars.
 - Off-site storage includes one engine, one ambulance, and three rescue trailers.

There were several meetings (in-person and virtual) held to establish and meet the expectations of the Department/Community. These meetings included tours of the existing fire station and four other fire stations in Wisconsin recently constructed; programming sessions to determine the space needs of the WFD for a new fire station; GIS review of call times from potential sites for a new station throughout the city; numerous concept reviews; and meetings to determine the desired format and timeline for this report.

Space Needs Analysis

A buildings space needs are often called its Building Program. In the fall of 2021, a programming session was completed to determine the individual room and overall square footage needs for a potential new fire station for the WFD, while at the same time addressing the needs and concerns of the community. This guided discussion was led by FBD’s Emergency Services Specialist, a retired fire chief, and was attended by members of the WFD, City Council, City Engineering, and the mayor, as well as additional members of the FBD team. The diverse team was challenged to not only design a new station to overcome the existing deficiencies of the current fire station, but also have a vision to design a station to meet the department and community needs for the next 20 plus years.

We view programming as the fundamental basis of design and attribute the success of projects to this strong foundation. The spaces, sizes, and relationships identified in the program sessions are what we base all concepts on throughout the course of the project.

Within any contemporary fire station, there are six different categories that spaces are divided into, based on relationships and function. The following table identifies the totals of these areas. Greater detail of individual spaces can be found in appendix A.

Table 2 - 1: New Station Program

Space	20 Year Need
Apparatus Bays	16,953 SF
Apparatus Support	5,508 SF
Training	4,503 SF
Administration/Office	3,980 SF
Living Quarters & Support	4,516 SF
Mechanical and Electrical Spaces	5,319 SF
Total New Construction	40,779 SF

Note: To provide a greater sense of what sizes of spaces in a new station design could look and feel like, members of the team were invited to tour four stations throughout Wisconsin: Wausau Station 2, and the Riverside Fire District to see their decontamination practices; and Verona Fire Station, and Janesville’s Central Station to see facilities of a similar scale. These tours also provided an opportunity to determine what features the team may desire to be included in the conceptual plans moving forward.

Site Analysis

There are several factors that need to be considered when locating a career fire station. The most significant factors include call volume/location, station location/response time, and site conditions.

Call Volume / Locations

The WFD responds to an average of 2,750 calls for service annually. Though the WFD provides fire and EMS response for more municipalities than just the City of Watertown, the majority of calls for service are within the municipal boundaries of the city.

Calls for service for the entire service area were reviewed as it relates to all six sites. However, after identifying the highest concentration of calls for service were within the city limits, the remaining focus of this study was on sites located within the city limits.

Station Location and Response Time Study

For this portion of the study, FBD staff utilized our in-house Geographical Information System (GIS) department to create response time mapping of the WFD’s existing fire station location to serve as a benchmark for comparison with other sites.

This data was also then compared to response times recommended in National Fire Protection Association (NFPA) Standard 1710. NFPA 1710 is a Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. The applicable response time standards consistent with the recommendations found in NFPA 1710 include:

- Travel time of four minutes (240 seconds) or less for arrival of first arriving company for fire calls
- Travel time of eight minutes (480 seconds) or less for arrival of an ALS unit at an EMS incident

Figure 3 – 1: Drive Time Legend

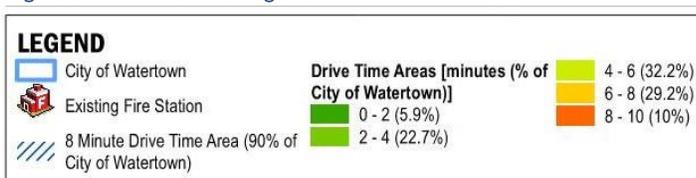


Figure 3 – 2: Existing Site

Figure 3 – 2 is a map indicating the response times for arrival on scene from the existing station, at 106 Jones Street.

The majority of the City of Watertown is responded to within the NFPA guidelines of 4-minutes for a fire call, and 8-minutes for an EMS related call.

Built in 1964, the existing station 17,268 square feet. Having no medical services department, the station was designed to house five apparatus. Additionally, it was intended to only housed men, in an open bunk room with multi-occupant showers. Since that time, there have been significant changes to the department and the emergency services industry in general.

Just prior to this facility being constructed, the US Department of Transportation changed the minimum for vertical clearance for vehicles on interstate roadways from 14’-0” to be 16’-0”. This change caused a ripple effect in the size of vehicles for the following decades, with apparatus continuing to grow and, in many cases, physically outgrowing their stations.

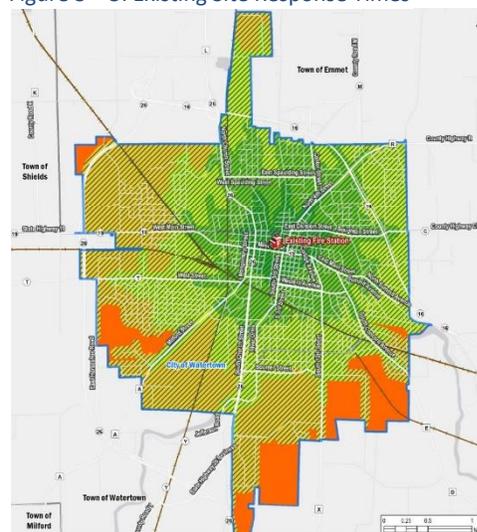
In 1975, the WFD also began providing EMS services.

The demographics of the department also continued to grow over, encouraging all genders to participate.

Today, this station houses twelve apparatus on-site, with an additional five apparatus being stored off-site, continues to



Figure 3 – 3: Existing Site Response Times



provide EMS services, and now has responders of all genders on staff.

With a building program of over 40,000sf, the department has outgrown their space within the current municipal complex. Its landlocked location makes expansion in any meaningful way impossible without vacating streets.

Understanding the existing site serves the department well in terms of response time, consideration was given to consider the site directly to the south, which is currently occupied by a parking lot and a restaurant.

Because of the complications of the existing site and facility, renovating or building new in its current location was no longer considered.

The following pages contain both positives and negatives for each of the six additional properties that were considered in the GIS study.

Site 1: 304 Hart Street

Positives

- Vacant Land
- Large parcel of land
 - Allows for necessary turn radius without impeding traffic patterns
 - Allows for flexibility in design of station
 - Allows for proper stormwater management
- Relatively Flat site
- Could control adjacent traffic light for response
- Have space for outdoor training
- Has space for future growth

Negatives

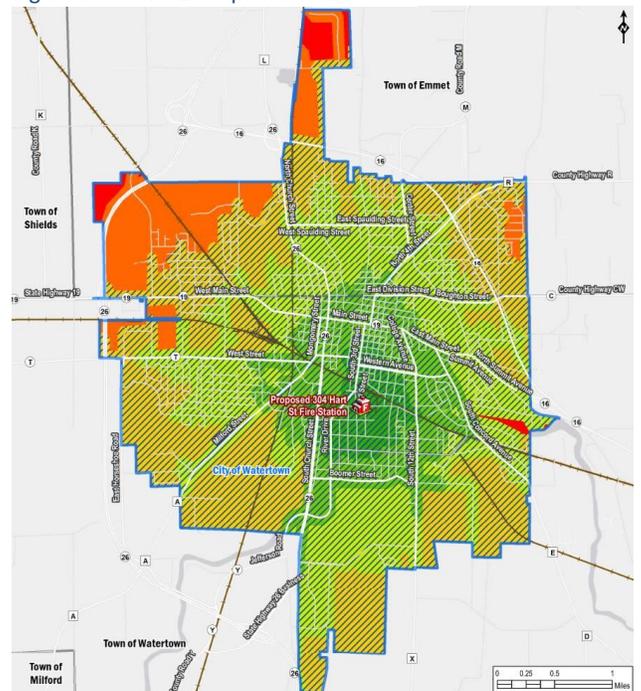
- Response times are not as good as other sites considered.
- Located in an older part of the city – not as much future growth potential in this area.
- Response is into a residential neighborhood.

Overall, this site was ranked 4 of 6 by the committee and was not considered further.

Figure 3 – 5: Site 1



Figure 3 – 6: Site 1 Response Times



Site 2: 709 Lafayette Street

Positives

- City-owned
- Flat Site

Negatives

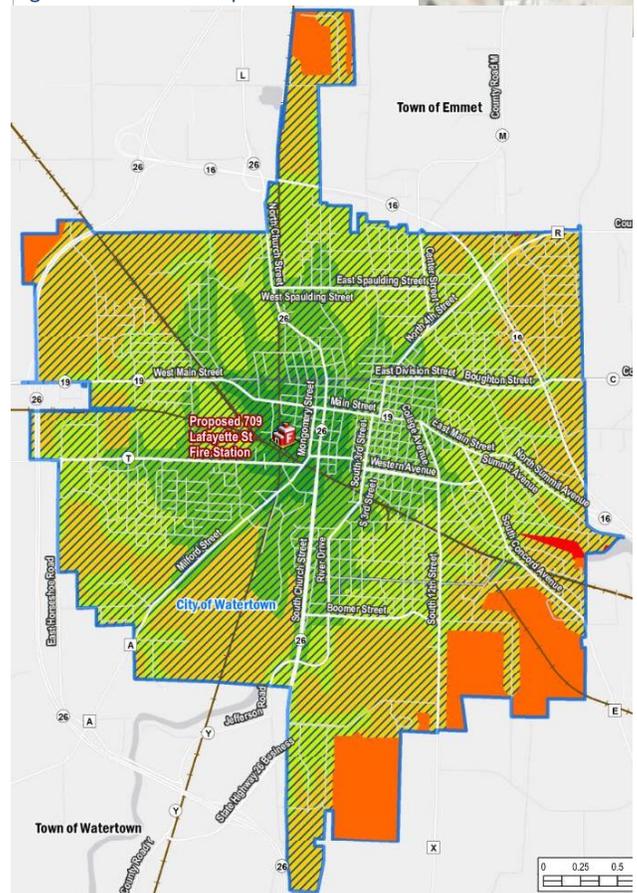
- Undersized for department needs
- Challenging to access – requires using numerous side streets
- Limited green space on site after facility and paving
- Currently a ball field
- No area for future growth
- No area for outdoor training
- Ranked 4 of 6 in response time study.

Overall, this site was ranked 5 of 6 by the committee and was not considered further.

Figure 3 – 7: Site 2



Figure 3 – 8: Site 2 Response Times



Site 3: 727 W. Cady Street

Positives

- Apparatus could respond onto O’Connell Street and return on Cady Street.
- Partially owned by the City of Watertown.

Negatives

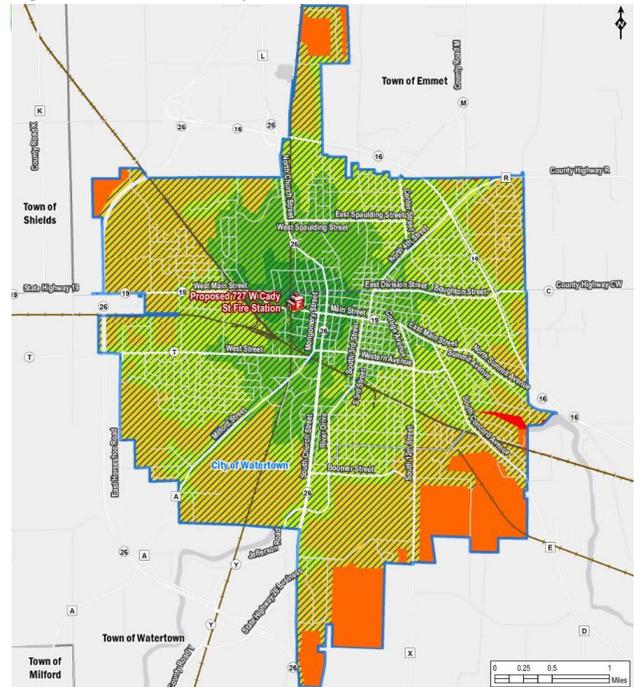
- On the smaller side of the sites.
- Has a steep slope to the east.
- Ranked 5 of 6 for response times.
- Limited space for future expansion.
- Would require combining several properties.
- Would require purchasing of several residential properties.

Overall, this site was ranked 3 of 6 by the committee and was not considered further.

Figure 3 – 9: Site 3



Figure 3 – 10: Site 3 Response Times



Site 4: 828 W. Division Street

Positives

- Very large site

Negatives

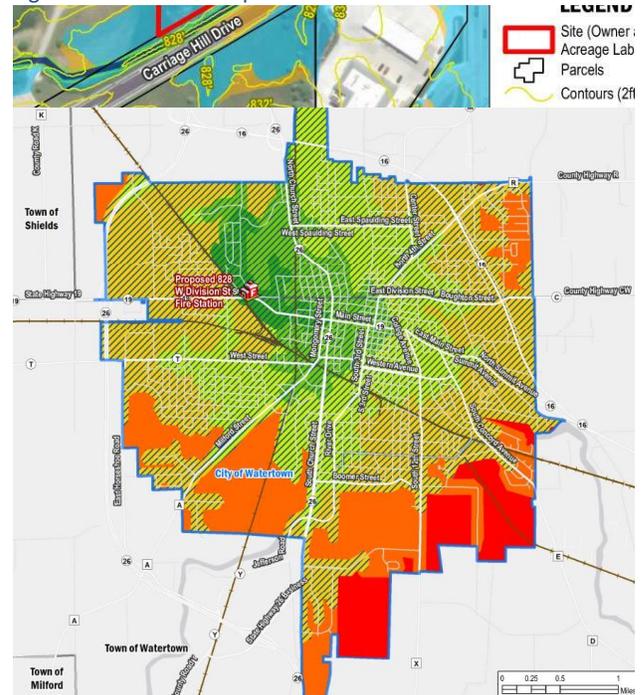
- Challenging slopes throughout the property
- Not currently owned by the city
- Worst response times of all sites considered, covering only 75% of the municipal boundary within the NFPA recommended 8-minute response time.

Overall, this site was ranked 6 of 6 by the committee and was not considered further.

Figure 3 – 11: Site 4



Figure 3 – 12: Site 4 Response Times



Site 5: 800 S. Montgomery Street

Positives

- Large site.
- Flat Site.
- Excellent response times, covering over 93.4% of the municipal boundary within the NFPA guideline of 8-minutes.
- Potentially allows for future expansion.

Negatives

- Not currently owned by the city.
- Currently has a facility on-site
 - Would have to either divide the property into two separate parcels or raze the existing structure
- Partially under 100-year flood zone.
- Has some federal wetlands.

Overall, this site was ranked 1 of 6 by the committee and received further consideration.

Figure 3 – 13: Site 5

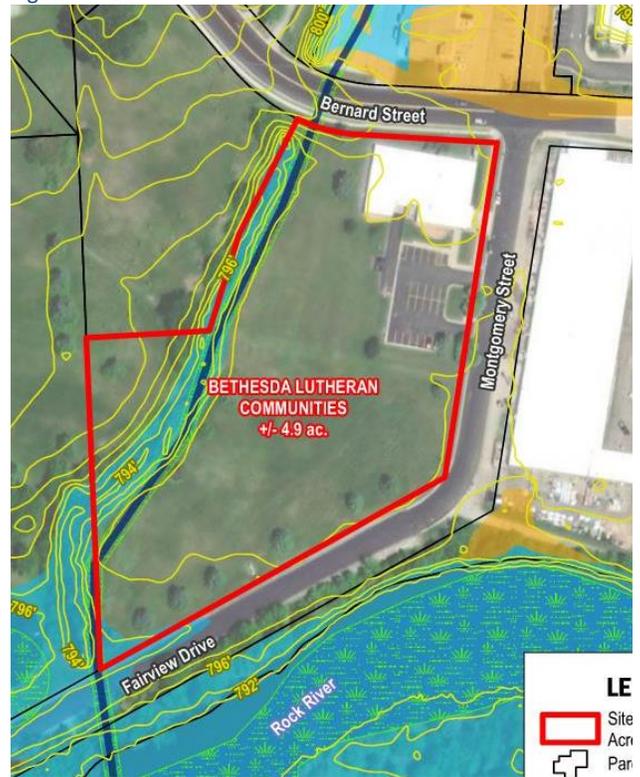
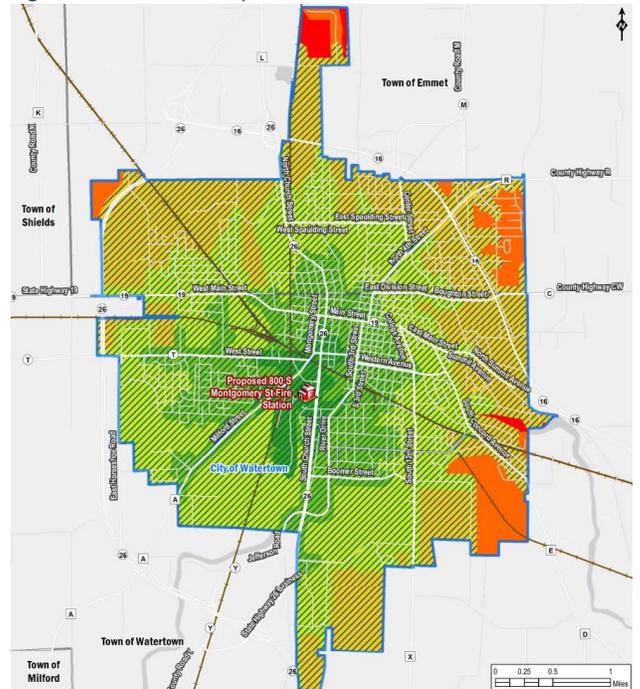


Figure 3 – 12: Site 5 Response Times



Site 6: 701 S Church Street

Positives

- Large site.
- Relatively flat Site.
- The best response times, covering over 97.8% of the municipal boundary within the NFPA guideline of 8-minutes.
- Already developed land.

Negatives

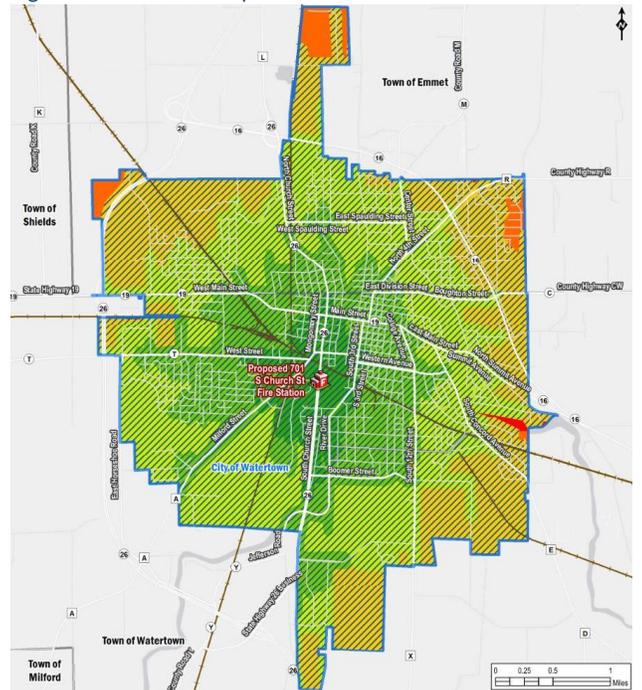
- Not currently owned by the city.
- Will not allow for future expansion.
- Uncontrolled civilian traffic from neighboring facilities will be in the path of response vehicles.
- Currently has several facilities on-site
 - Would have to either divide the property into separate facilities.
 - Would need to create a road to the station to provide safe access/egress.
 - Would need to consider its location to the vacant Shopko building for potential future investors.

Overall, this site was ranked 2 of 6 by the committee and received further consideration.

Figure 3 – 13: Site 6



Figure 3 – 14: Site 6 Response Times



Conceptual Design

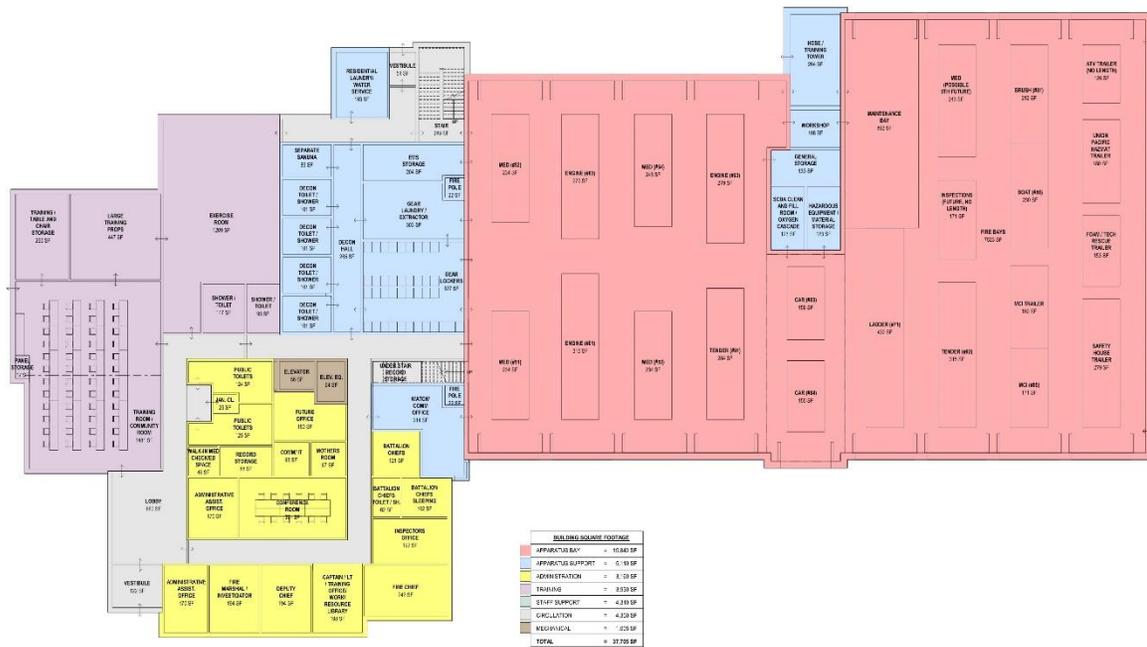
Following programming, several concepts were created and presented to the committee as initial conceptual design. Following the review of the initial concepts, FBD staff coordinated and accompanied WFD staff on tours of four similar facilities throughout Wisconsin to review sizes, room adjacencies, functionality, and to listen to feedback from the departments. These considerations were addressed in another round of conceptual designs, leading to Concept 1.

In an effort to scale down the overall footprint of the facility for consideration, FBD re-evaluated the concepts a final time and reduced square footages of individual spaces, while not comprising the operational characteristics of the facility. The following concepts are a demonstration of space sizes and relationships.

Full sized images of concepts can be found in the Appendix.

Concept 1:

Figure 4 – 1: Concept 1, First Floor



First Floor:

The first floor of this facility contains the administration, community zones, apparatus bay, support spaces, and the personal decontamination (decon) area.

Visitors enter the facility through a secure vestibule on the plan southwest façade. This vestibule, located alongside the stations administration wing, will lead visitors into the lobby and community-zone of the facility. Located directly off the lobby space, visitors have access to a large community training room, exercise room, public toilets, a walk-in med check space, and the administrative assistant offices.

Community Zone: (noted in purple)

The training room is sized to accommodate forty-eight people at tables and chairs and can be divided into two separate rooms with an operable partition. The training room’s location on an exterior wall would allow the department to provide training both inside the training room and outside in a grass area and will have direct access to the exercise room to facilitate their training needs. A space for large training props storage is located in this area as well for convenient training access.

The exercise room is designed to allow non-fire city staff members to utilize the space. Two toilets/showers are located between the lobby and exercise room to for use by non-fire service staff members.

Administration: (noted in yellow)

The Administration area of the facility will be comprised of private offices for the Chief, Deputy Chief, Fire Investigator, Inspector, and Administrative Assistant. These offices focus around a shared conference room, and an open office for the captains and a work room. Bridging the gap between the administrative staff and the Watch Room serving the shift personnel is a Battalion Chief office and dorm.

The administrative area also provides an additional office for future growth, a mother's room, and record storage.

Apparatus Bays and Support: (Noted in Red and Blue)

The Watch Room provides views into the Battalion Chiefs office, and the interior and exterior portions of the front of the station. A fire pole from the second floor will be in this room, allowing responders to quickly assess the type and location of the incident prior to proceeding to the apparatus bay.

The apparatus area is designed with four drive-through bays on either side of a support bay, for a total of eight drive-through bays, and one smaller back-in only bay. Though all eight large bays are designed to be similar in size to allow the department flexibility on where apparatus are positioned, the concept arranges the space with the primary apparatus in the first four bays, and secondary in the last four.

The central support bay will house a training tower, workshop, storage, self-contained breathing apparatus (SCBA) clean and fill stations, hazardous material storage space, and a mezzanine space.

Upon returning to the station after an incident, a series of rooms along the first bay guide staff through the personal decon process. In this process, personnel will enter the gear/laundry room where they are able to clean their outer layers of personal protective equipment (PPE). Once the PPE is clean, it can be returned to their turnout locker, located off both the apparatus bay and the gear laundry room. From the gear laundry, responders will enter the decon hallway featuring single occupancy decon showers and toilets. Finally, after showering, staff members will wash their uniforms in a residential laundry machine, located in the decon hallway.

A department use only vestibule is located on the plan north side of the station to allow direct access from staff parking to the stairs leading up to the living quarters on the second floor.

Figure 4 – 2: Concept 1, Second Floor



Second Floor:

Living Quarters: (Noted in green)

The second floor of the facility is dedicated to living quarters and mechanical spaces.

A series of fourteen (14) dorm rooms line the exterior perimeter of the second floor, with seven along the plan north wall and seven along the plan south wall. Each group of dorms is provided with two all-gender-single occupancy toilet/shower spaces. The dorms would all be single occupancy with three pass-through lockers allowing each shift member to access their belongings in their lockers without disturbing anyone already inside their room.

An additional residential laundry area for staff members to clean their linen and un-contaminated uniforms is provided.

Two stairwells and fire poles, provide direct access from the second floor to the apparatus bay to minimize response times.

An open concept kitchen and dining room is located in the center of the second level with access to a rooftop patio. The day room is located just off these two rooms.

Lastly, a mechanical space will occupy the remaining second floor space.

701 S. Church Street (Former Shopko) Site:

This concept was designed to be located on the former Shopko site, utilizing about 2.5 acres of the existing parking lot. A black dashed line indicates the proposed property line for the new station.

Shown in dark gray, a roadway would be created from the traffic light at the corner of Church Street and Bernard Street to wrap around the proposed stations property line. This road would serve the department and all adjacent commercial properties, including the self-storage provider to the plan west.

Safety and minimization of response times drive the layout of the site for the station. Consequently, the site is divided into public and administrative parking/access (plan southwest), responder parking/access (plan northwest), response apron (plan southeast), and a return apron (plan northeast).

Green space is provided along the training room for the departments use, and additional green space would be created along the properties plan north property line to allow for training, and any future storage needs.

Figure 4 – 3: Concept 1, Overall Former Shopko Site

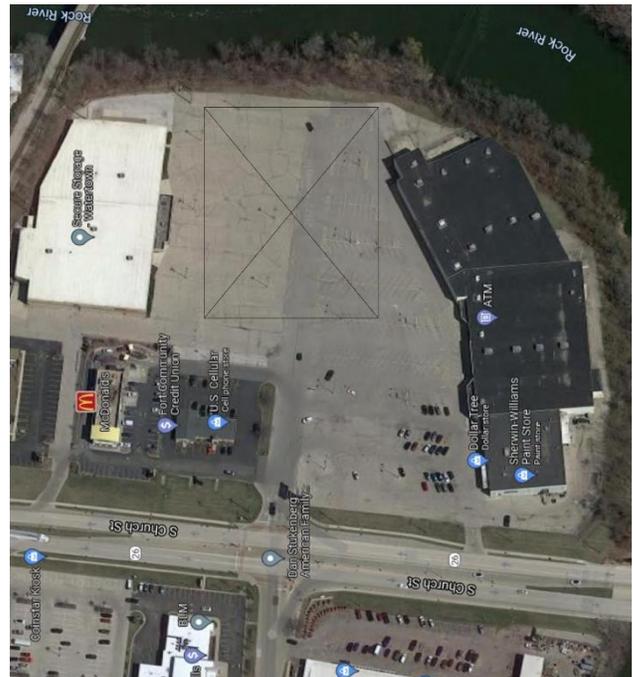


Figure 4 – 4: Concept 1, Site



Concept 2:

Concept 2 was created by reducing the square footages of each individual space in Concept 1, without negatively affecting the operational needs of the WFD.

First Floor:

Figure 4 – 5: Concept 2, First Floor



As in Concept 1, the first floor of this facility contains the administration, community zones, apparatus bay, support spaces, and the personal decontamination (decon) area.

Visitors enter the facility through a secure vestibule on the plan southwest façade. This vestibule, located alongside the stations administration wing, will lead visitors into the lobby and community-zone of the facility. Located directly off the lobby space, visitors have access to a large community training room, exercise room, public toilets, a walk-in med check space, and the administrative assistant offices.

Community Zone: (noted in purple)

The training room is sized to accommodate forty-eight people at tables and chairs and can be divided into two separate rooms with an operable partition. The training room’s location on an exterior wall provides an opportunity for staff to attend training both inside the training room and outside in a grass area and will have direct access to the exercise room to facilitate their training needs. A space for large training props storage is located in this area as well for convenient training access.

The exercise room is designed to allow non-fire city staff members to utilize the space. A toilets/shower is provided in the exercise room for these same individuals.

Administration: (noted in yellow)

The Administration area of the facility will be comprised of private offices for the Chief, Deputy Chief, Fire Investigator, Inspector, and administrative assistant. These offices focus around a shared conference room, and an open office for the captains and a work room. Bridging the gap between the administrative staff and the Watch Room serving the shift personnel, is a Battalion Chief office and dorm.

The administrative area also provides an additional office for future growth, a mother's room, and record storage.

Apparatus Bays and Support: (Noted in Red and Blue)

The Watch Room provides views into the Battalion Chiefs office, and the interior and exterior portions of the front of the station. A fire pole from the second floor will be in this room, allowing responders to quickly assess the type and location of the incident prior to proceeding to the apparatus bay.

The apparatus area is designed with four drive-through bays on either side of a support bay, for a total of eight drive-through bays, and one smaller back-in only bay. Though all eight large bays are designed to be similar in size to allow the department flexibility on where apparatus are positioned, the concept arranges the space with the primary apparatus in the first four bays, and secondary in the last four.

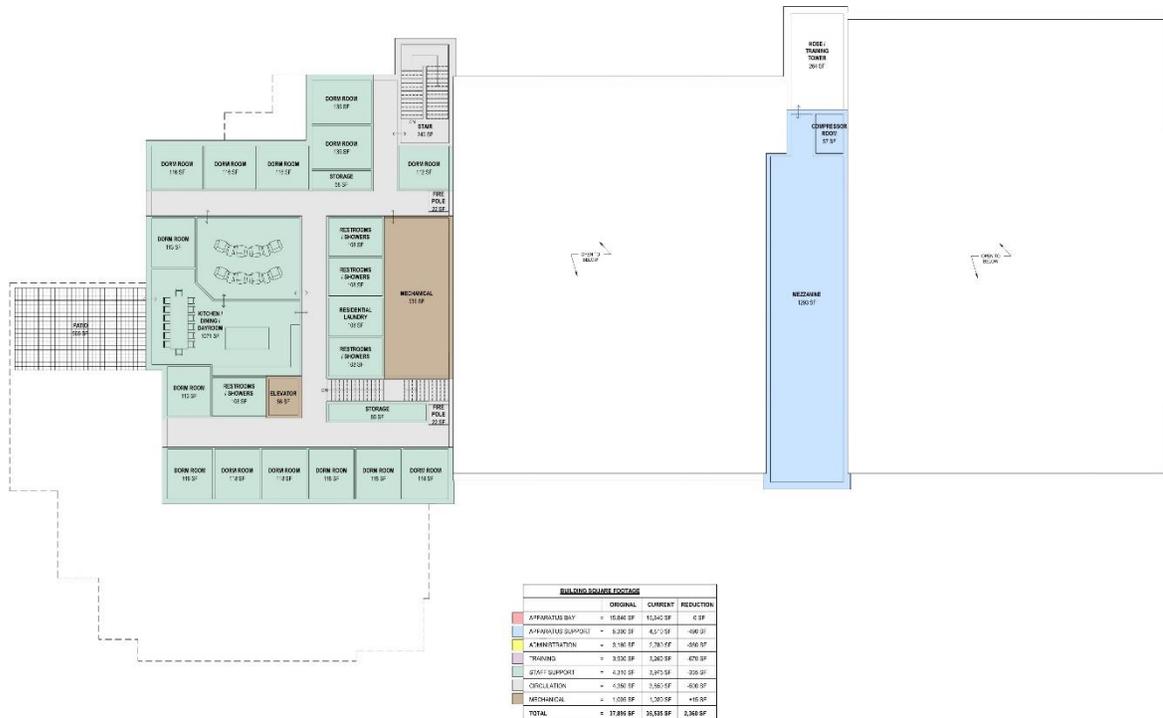
The central support bay will house a training tower, workshop, storage, self-contained breathing apparatus (SCBA) clean and fill stations, hazardous material storage space, and a mezzanine space.

Upon returning to the station after an incident, a series of rooms along the first bay guide staff through the personal decon process. In this process, responder will enter the gear/laundry room where they are able to clean their outer layers of personal protective equipment (PPE). Once the PPE is clean, it can be returned to their turnout locker, located off both the apparatus bay and the gear laundry room. From the gear laundry, responders will enter the decon hallway featuring single occupancy decon showers and toilets. Finally, after showering, staff members will wash their uniforms in a residential laundry machine, located in the decon hallway.

The shared vestibule is located on the plan north side of the station to allow direct access from staff parking to the stairs leading up to the living quarters on the second floor.

Second Floor:

Figure 4 – 6: Concept 2, Second Floor



Living Quarters: (Noted in green)

The second floor of the facility is dedicated to living quarters and mechanical spaces.

A series of fourteen (14) dorm rooms line the exterior perimeter of the second floor, with seven along the plan north wall and seven along the plan south wall. Each group of dorms is provided with two all-gender-single occupancy toilet/shower spaces. The dorms would all be single occupancy with three pass-through lockers allowing each shift member to access their belongings in their lockers without disturbing anyone already inside their room.

An additional residential laundry area for staff members to clean their linen and un-contaminated uniforms is provided.

Two stairwells and fire poles, provide direct access from the second floor to the apparatus bay to minimize response times.

An open concept kitchen and dining room is located in the center of the second level with access to a rooftop patio. The day room is located just off these two rooms.

Lastly, a mechanical space will occupy the remaining second floor space.

701 S. Church Street (Former Shopko) Site:

This concept was also designed to be located on the former Shopko site, utilizing about 2.5 acres of the existing parking lot. A black dashed line indicates the proposed property line for the new station.

Shown in dark gray, a roadway would be created from the traffic light at the corner of Church Street and Bernard Street to wrap around the proposed stations property line. This road would serve the department and all adjacent commercial properties, including the self-storage provider to the plan west.

Safety and minimization of response times drive the layout of the site for the station. Consequently, the public and administrative parking/access (plan southwest), responder parking/access (plan northwest), response apron (plan southeast), and a return apron (plan northeast).

Green space is provided along the training room for the departments use, and additional green space would be created along the properties plan north property line to allow for training, and any future storage needs.

Figure 4 – 7: Concept 2, Overall Former Shopko Site

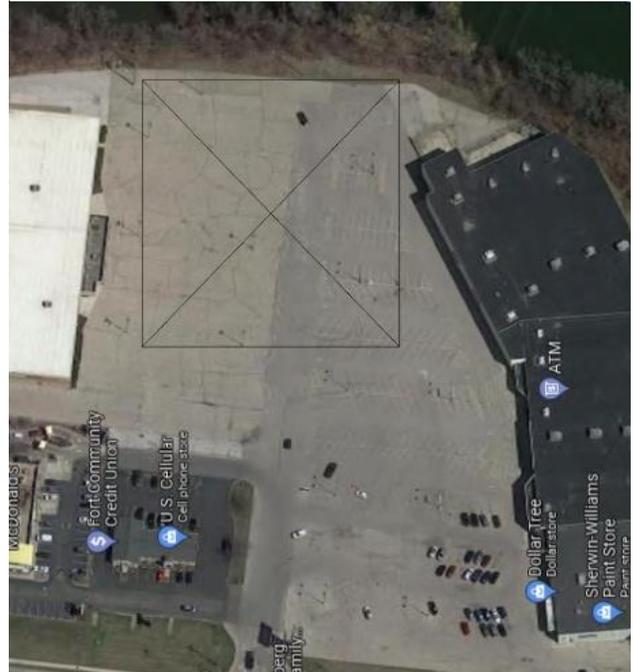


Figure 4 – 8: Concept 2, Site



Concept 3:

Concept 3 (located on the 800 Montgomery Street site) was created by taking Concept 1 and mirroring the apparatus bays in order to make best use of the site.

800 Montgomery (Bethesda) Site:

This concept was designed to be placed on the Bethesda site with the intention of keeping the current Bethesda facility, as well as expanding their parking. Careful consideration was also given to ensure Concept 3 would stay out of the 100-year flood zone and the federal wetlands.

As with the other concepts, safety and minimization of response times drive the layout of the site for the station. This concept joins the Bethesda lot, it's expansion and all of the fire stations parking needs into one larger lot, on the plan west side of the facility.

The fire apparatus would respond onto Montgomery Street, and return along Bernard Street, to allow drive-through bays with more than adequate turning space.

Just as in Concepts 1 and 2, green space is provided along the training room for the departments use, and additional green space remains along the plan east side of the property to allow for training, and any future storage needs.

Figure 4 – 9: Concept 3, Bethesda Site



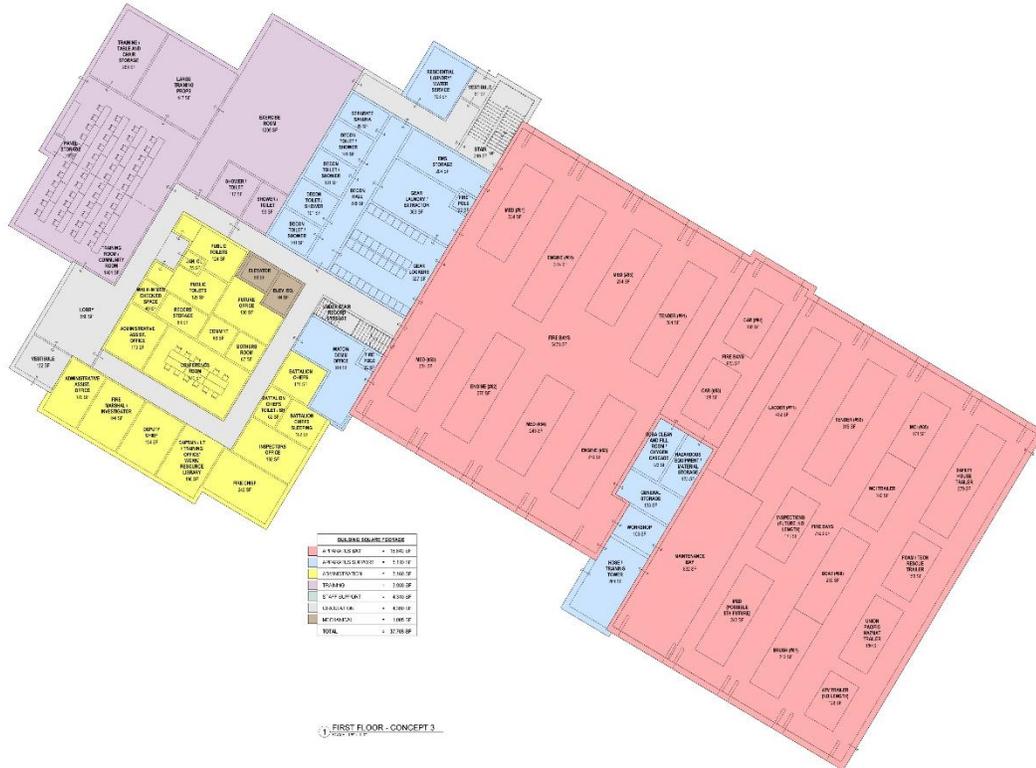
Figure 4 – 10: Concept 3, Bethesda Site with Flood and Wetland Delineation



First Floor:

As in Concept 1, the first floor of this facility contains the administration, community zones, apparatus bay, support spaces, and the personal decontamination (decon) area. However, in order to keep the apparatus bays an appropriate distance to Montgomery Street, this plan mirrors the relationship between the bays and the rest of the station.

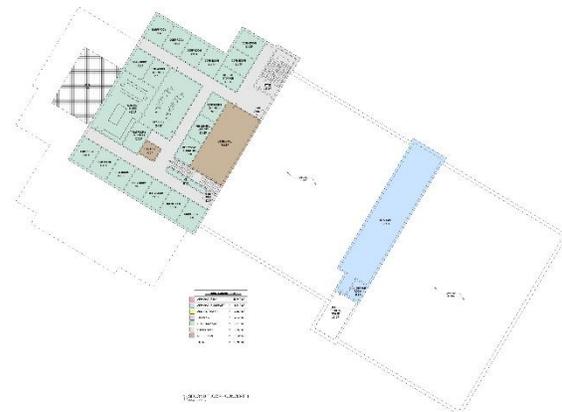
Figure 4 – 11: Concept 3, First Floor



Two notable changes are occurring by mirroring these groups:

- The Watch Room is now at the back of the station, so the responders have a view into the facilities rear apparatus bay and return apron. When responding to a call, they would then enter from the Watch Room in the back of the bay, running to their vehicles from the back.
- The views pulling out of the apparatus bay onto the response apron are increased as the administrative portion of the building is tucked back and out of sight.

Figure 4 – 12: Concept 3, Second Floor



Concept 4:

Concept 4 (located on the 800 Montgomery Street site) utilizes Concept 1.

800 Montgomery (Bethesda) Site:

This concept was designed to be placed on the Bethesda site. In order to achieve this site layout, the Bethesda facility and its associated site development would be razed prior to the construction of the new fire station.

This concept places the administration wing of the facility predominately on the corner of Bernard and Montgomery Streets; ensures the concept stays out of the 100-year flood zone and wetlands; and allows safe pedestrian and vehicular circulation throughout the property.

As with the other concepts, safety and minimization of response times drive the layout of the site for the station.

The fire apparatus would respond onto Montgomery Street, and return along Bernard Street, to allow drive-through bays with more than adequate turning space.

Just as in the other concepts, green space is provided along the training room for the departments use, and additional green space remains along the plan east side of the property to allow for training, and any future storage needs.

Figure 4 – 13: Concept 4, Bethesda Site



Figure 4 – 14: Concept 4, Bethesda Site with Flood and Wetland Delineation



New Facility Probable Costs

Probable cost for this work is developed using square foot costs. The range is established using costs from Engineering New Record (a national construction cost source) and Five Bugles Designs historical cost data base. Once a particular site, floor plan option and building material expectation are established, a final established budget should be incorporated before moving forward. It should be noted that with the various options; base plans, alternate plans, unknown site conditions, material costs, inflation, potential demolition costs, etc., estimates will fluctuate. Full estimates are included in the appendix.

Table 5 -1: Concept 1, 3, & 4

	Estimated Costs
Cost of Construction	\$10,745,925
Other Costs (FF&E, Technology, Contingencies, Fees and Legal)	\$3,048,104
Total	\$13,794,029

Table 5 -2: Concept 2

	Estimated Costs
Cost of Construction	\$10,127,475
Other Costs (FF&E, Technology, Contingencies, Fees and Legal)	\$2,912,045
Total	\$13,039,520

Notes:

1. Does not include site acquisition costs.
2. Due to the plans being on a conceptual level at this point, with many open-ended questions, it is important to note that the estimate includes 10% of contingency for each option. When it is decided to move forward, estimates will be refined at the schematic level and a final budget will be set.
3. Estimates of probable cost are based on a 2022 construction costs. Inflationary costs should be added for each year the project is delayed beyond that.
4. Geotechnical surveys were not taken at this time. Additional costs may be associated with possible soil corrections. It is recommended that geotechnical surveys are completed before moving forward with a specific site.

Conclusions and Recommendations

The following recommendations and conclusions are offered as an organized effort to provide information to decision makers and to help assist them in that process. It is important to note that the study is the first stage and the conceptual plans and ideas in this report shall be defined further as the process continues.

Since 1964, the current fire station has served the Watertown Fire Department well. However, as noted in Section 3, the physical size of apparatuses has grown, the number of necessary apparatuses has grown, the departments services have grown, and the demographics of who the station houses have grown. The department has fully outgrown the existing station and is in need of a new facility.

When constructing a new facility, we recommend finding a balance between site safety, response times, future growth, and monetary concerns into consideration.

With response times being excellent at both the Church Street and Montgomery Street locations, site safety and growth became the focus of the design committee. Though the Church Street location initially appeared to be large and to allow for future growth of the department, once site circulation to the surrounding facilities was considered, the site's size dwindled, and its growth potential was very limited. This site circulation and the facilities surrounding the station also raised concerns for safety with response vehicles traveling from the apparatus bay to Church Street.

Looking to the Montgomery Street, both Concept 3 and Concept 4 provide safe response and return paths. However, by maintaining the Bethesda Lutheran Thrift Store, the departments future growth is limited and the site circulation for visitors is compromised. The internal layout for the department is also a challenge since parking for visitors drives where the administration wing is located, and in this case forces the department to decide if they would like to keep the Watch Room and Battalion Chief's office near the administration, or if they would like to have them by the response apron; both of which are desired.

Based on these considerations, it is our recommendation that the department would construct a new facility on the Montgomery Site, vacating the Bethesda Lutheran Thrift Store, and taking over the full site. This allows the safest site circulation, allows for the best station function, and allows for future growth.

Spaces Needs Analysis



Space Needs Analysis

Project: Watertown

Location: Watertown, WI

Date:

7-Sep-21

Apparatus Bays

Spaces	Existing	Length	x	Width	=	Ft ²	Quantity	Total Ft ²	Proposed Bay	Notes
Engines /Pumpers										
Engine(s)		45	x	18	=	810	2	1620		2 existing
Rescue Pumper		45	x	18	=	810	1	810		
Quint		90	x	18	=	1620	0	0		
Aerial Apparatus										
Ladder/Snorkel		90	x	18	=	1620	0	0		
Aerial Platform		90	x	18	=	1620	1	1620		Quint/Aerial Platform
Telesquirt		90	x	18	=	1620	0	0		
Heavy Rescue Units										
Rescue Squad		45	x	18	=	810	0	0		
Tender		45	x	18	=	810	2	1620		
Light Trucks/SUV's/Pickups										
Medium or Light Rescue		45	x	18	=	810	0	0		
Command Vehicle		45	x	18	=	810	2	1620		
Utility/Pickup		45	x	18	=	810	1	810		
Arson Unit		45	x	18	=	810	0	0		
Inspections Vehicle(s)		45	x	18	=	810	1	810		Future
Wildland Unit		45	x	18	=	810	1	810		
RIT Unit		20	x	20	=	400	0	0		
Trailers										
Haz Mat		22	x	18	=	396	0	0		
Special Operations / Haz Mat		22	x	18	=	396	1	396		Union Pacific Boom Trailer
Mass Casualty Unit		22	x	18	=	396	1	396		Jefferson Cty
Boat		22	x	18	=	396	1	396		Dodge Cty
Snowmobile/ATV		22	x	18	=	396	1	396		ATV
Portable Pump		22	x	18	=	396	0	0		
Foam / Tech Rescue Trailer		22	x	18	=	396	1	396		
Firefighter Rehab Unit		22	x	18	=	396	0	0		
SCBA Clean and Fill		22	x	18	=	396	0	0		
Portable lights		22	x	18	=	396	0	0		
Survive Alive Trailer		22	x	18	=	396	1	396		Idealy inside - but could go outside
Other Equipment/Space										
Parade Vehicle/Trailer		45	x	18	=	810	0	0		
Vehicle Maintenance Bay		45	x	18	=	810	1	810		wash/wax/light maintenance bay
Wash Bay		45	x	18	=	810	0	0		
Building Maintenance Equip		20	x	20	=	400	0	0		
EMS										
Ambulance		45	x	18	=	810	4	3240		4 currently. Might want to consider a 5th in the future?
First Responder		45	x	18	=	810	0	0		
EMS Command Vehicle		45	x	18	=	810	0	0		
Mass Casualty Trailer		22	x	18	=	396	0	0		
Staff Support Unit		25	x	18	=	450	0	0		
Other Space Need		0	x	0	=	0	0	0		
TOTAL	0						22	16,146		Subtotal (Ft²)
								807		Efficiency Ratio of 5%
								16,953		Apparatus Floor Total (Ft²)

Existing Equipment
Future Equipment

See also Training for other Apparatus and Large Equipment

		Number of Bays						
		3	4	5	6	7	8	
Depth		Length						
		60	80	100	120	140	160	
		60	3600	4800	6000	7200	8400	9600
		80	4800	6400	8000	9600	11200	12800
90	5400	7200	9000	10800	12600	14400		
100	6000	8000	10000	12000	14000	16000		



Space Needs Analysis

Project: Watertown

Location: Watertown, WI

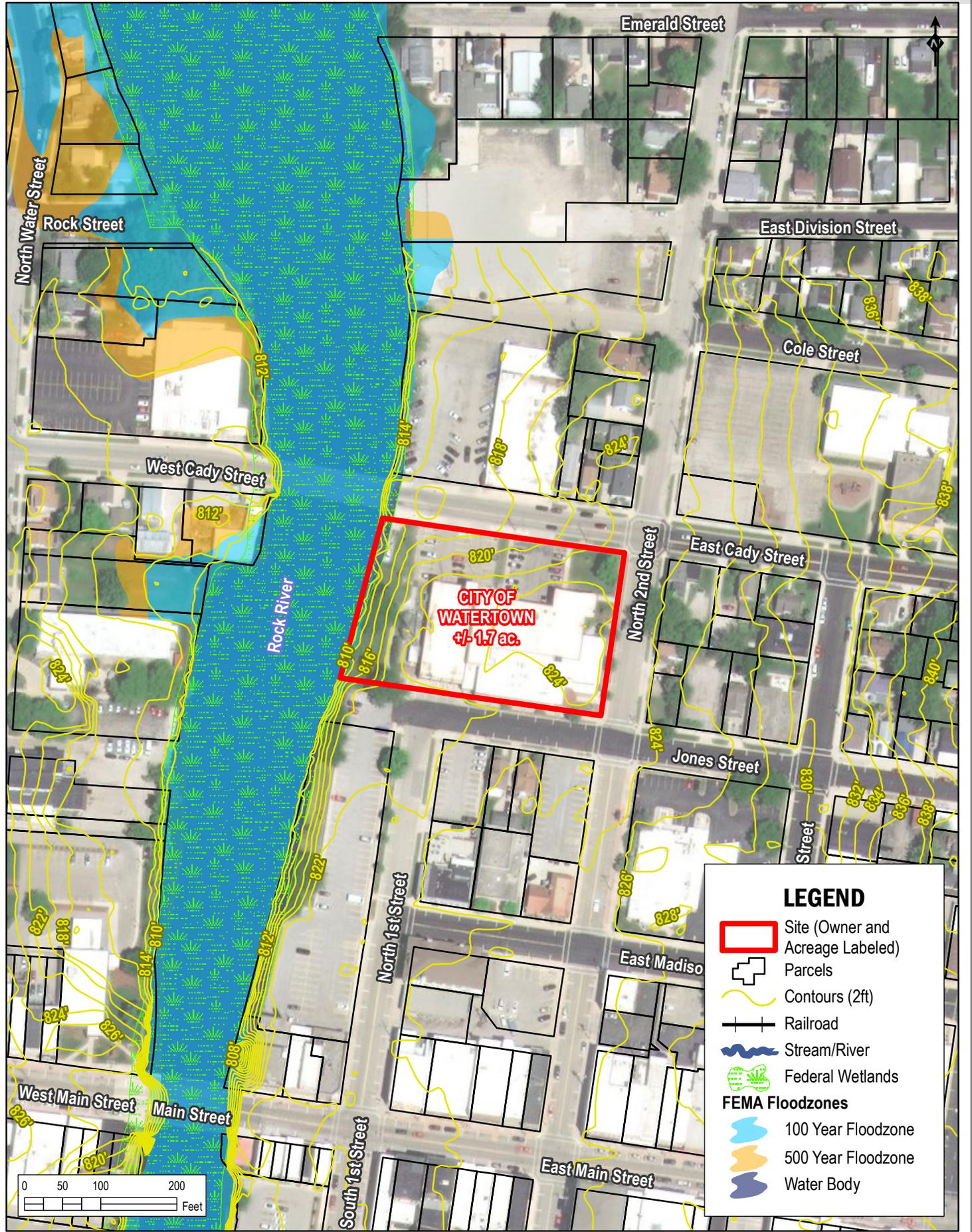
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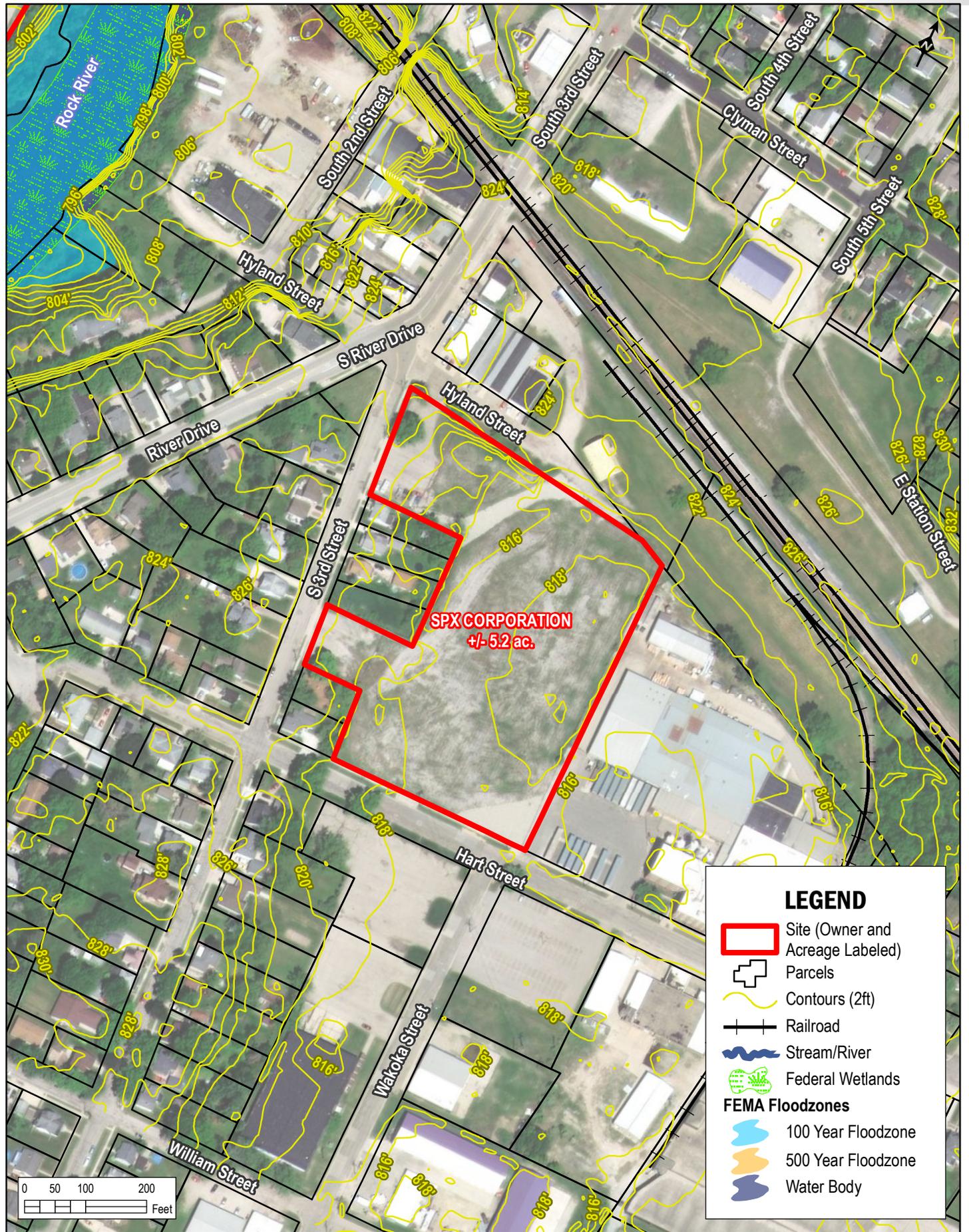
7-Sep-21

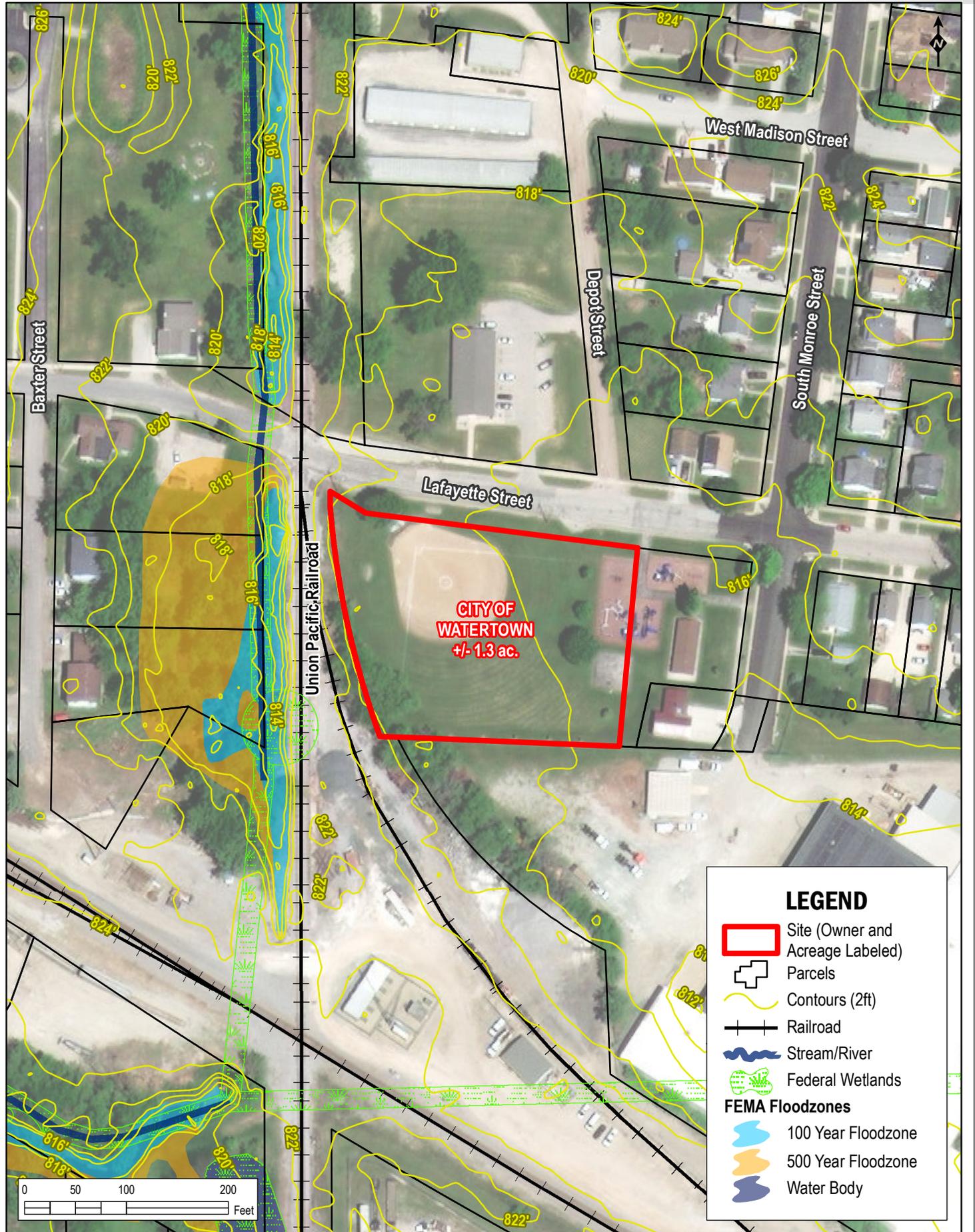
Totals		Existing Areas
Apparatus Bays	16,953	0
Apparatus Support	5,508	0
Training	4,503	0
Administration/Office	3,980	0
Staff Support	4,516	0
Tempered Spaces	0	0
	35,460	Station Footprint (Ft ²) Sub Total
	5,319	Infrastructure (M & E) Space Factor 15%
	40,779	TOTAL PROGRAM SPACE REQUIRMENT

NOTES:

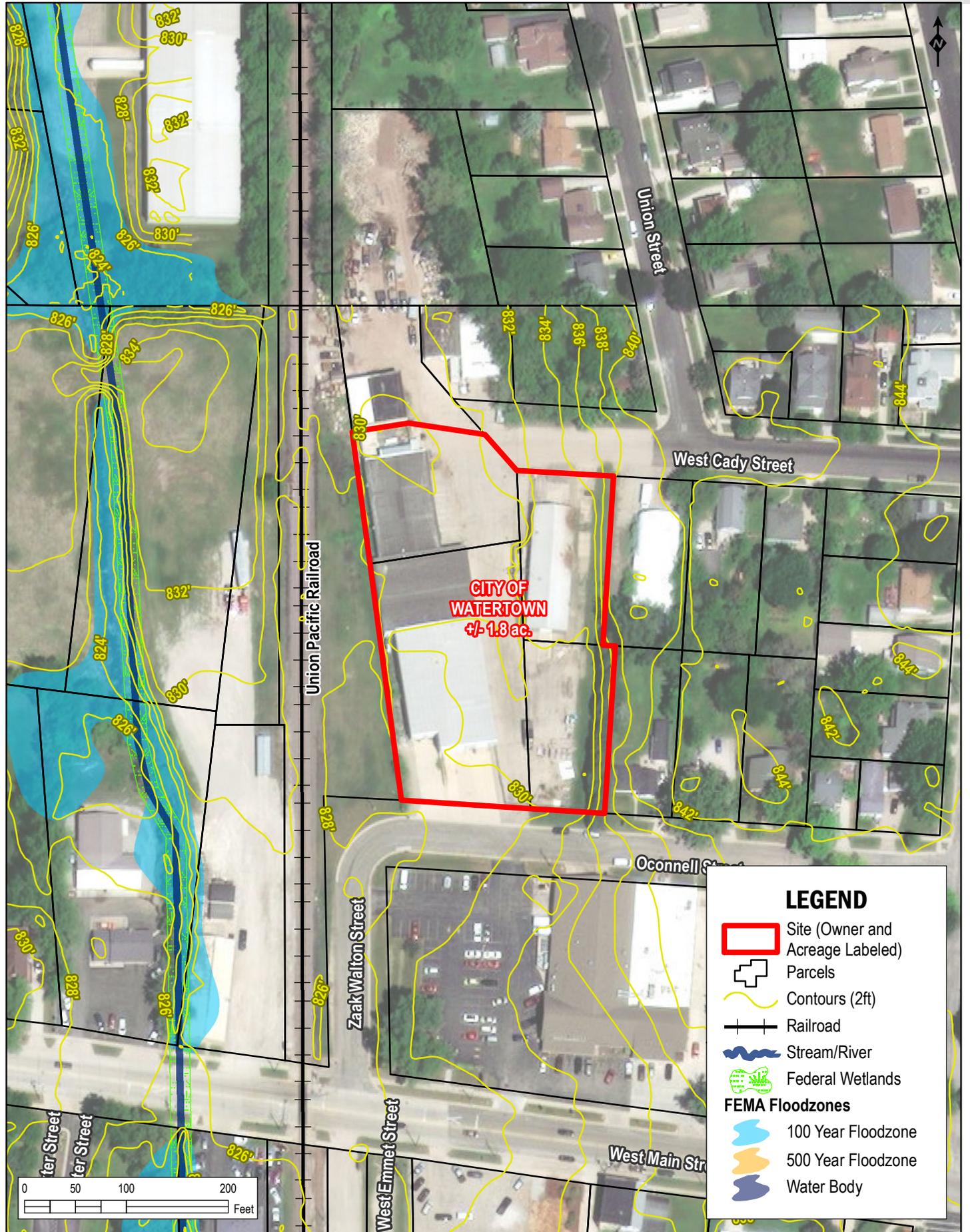
Sites



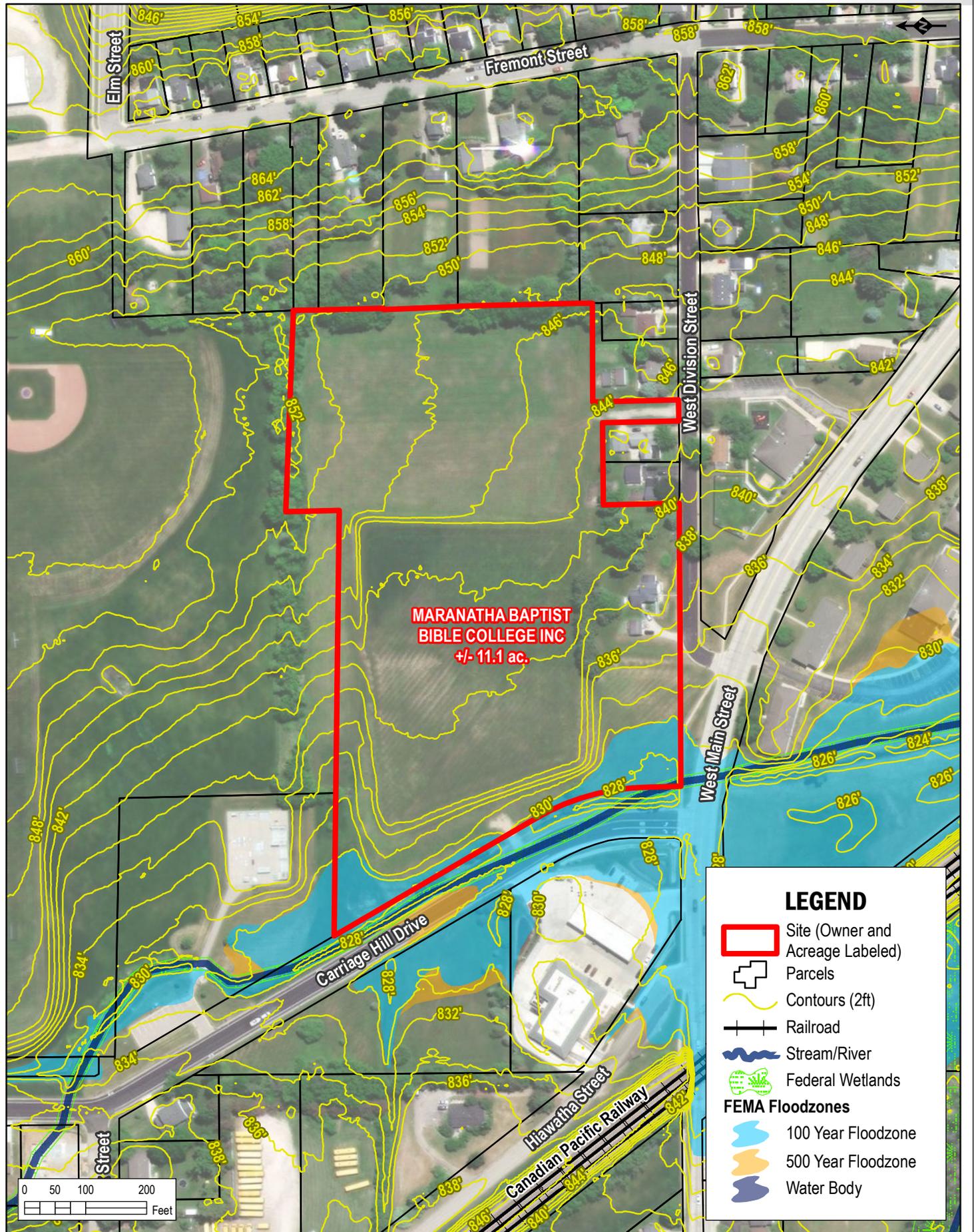




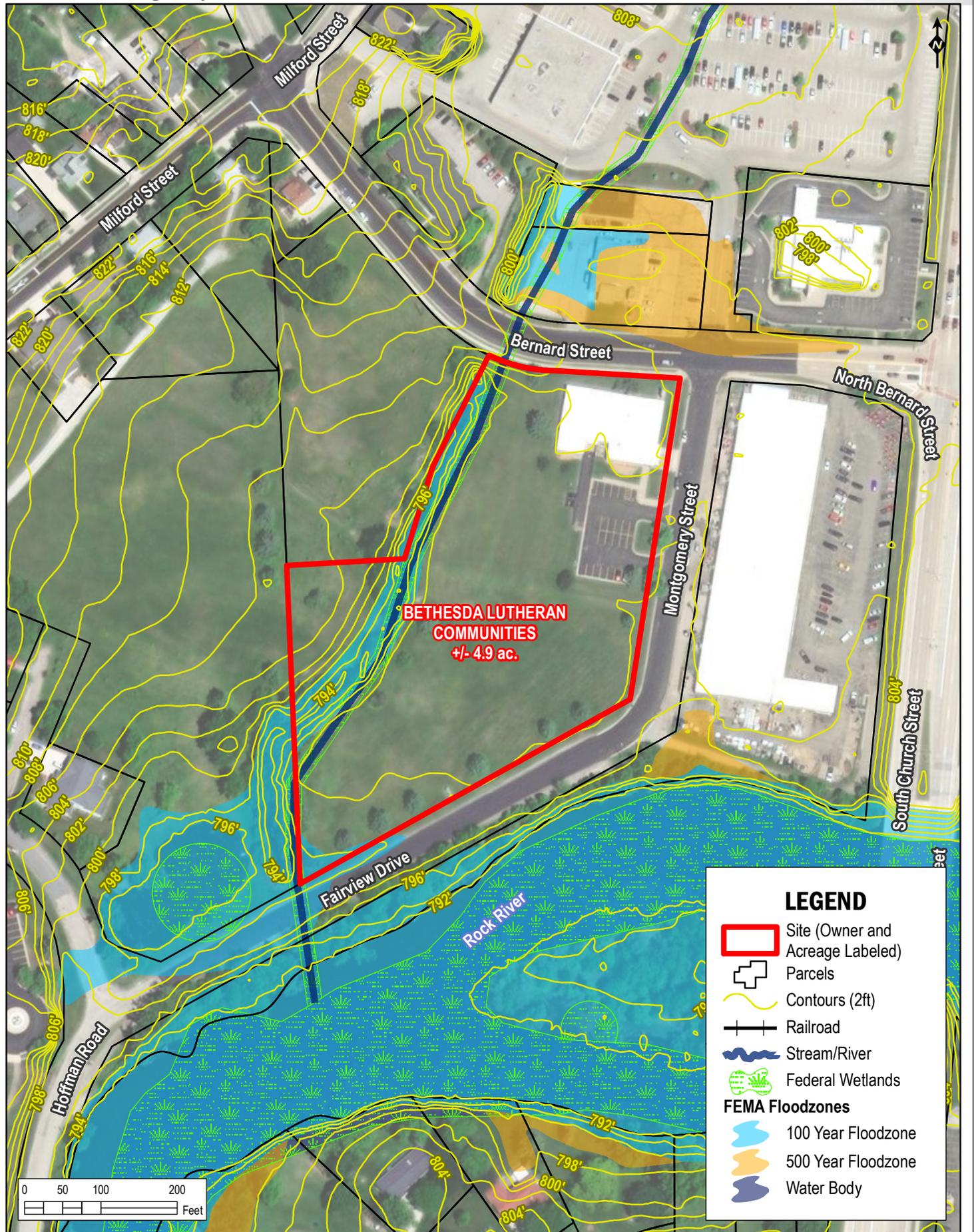
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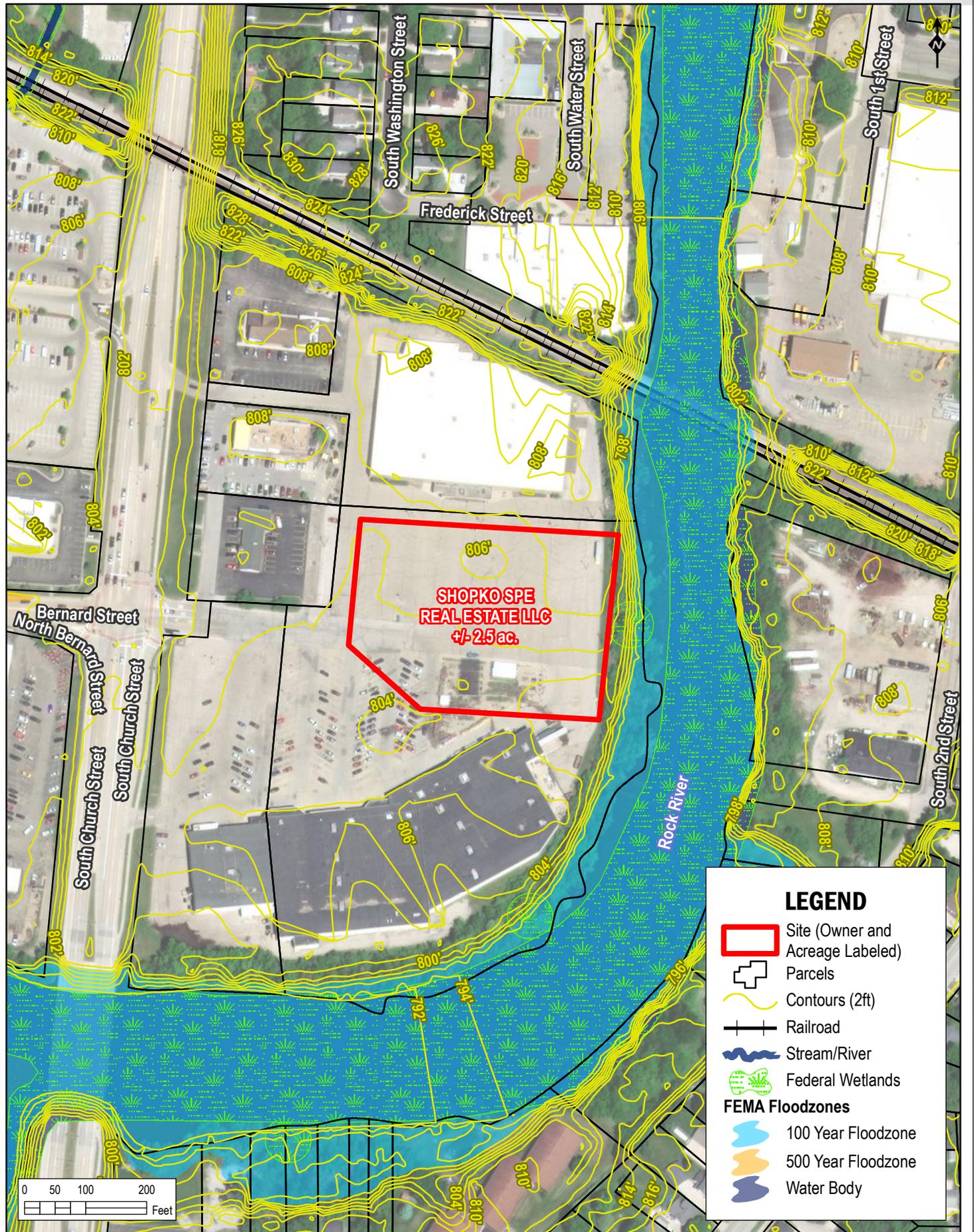
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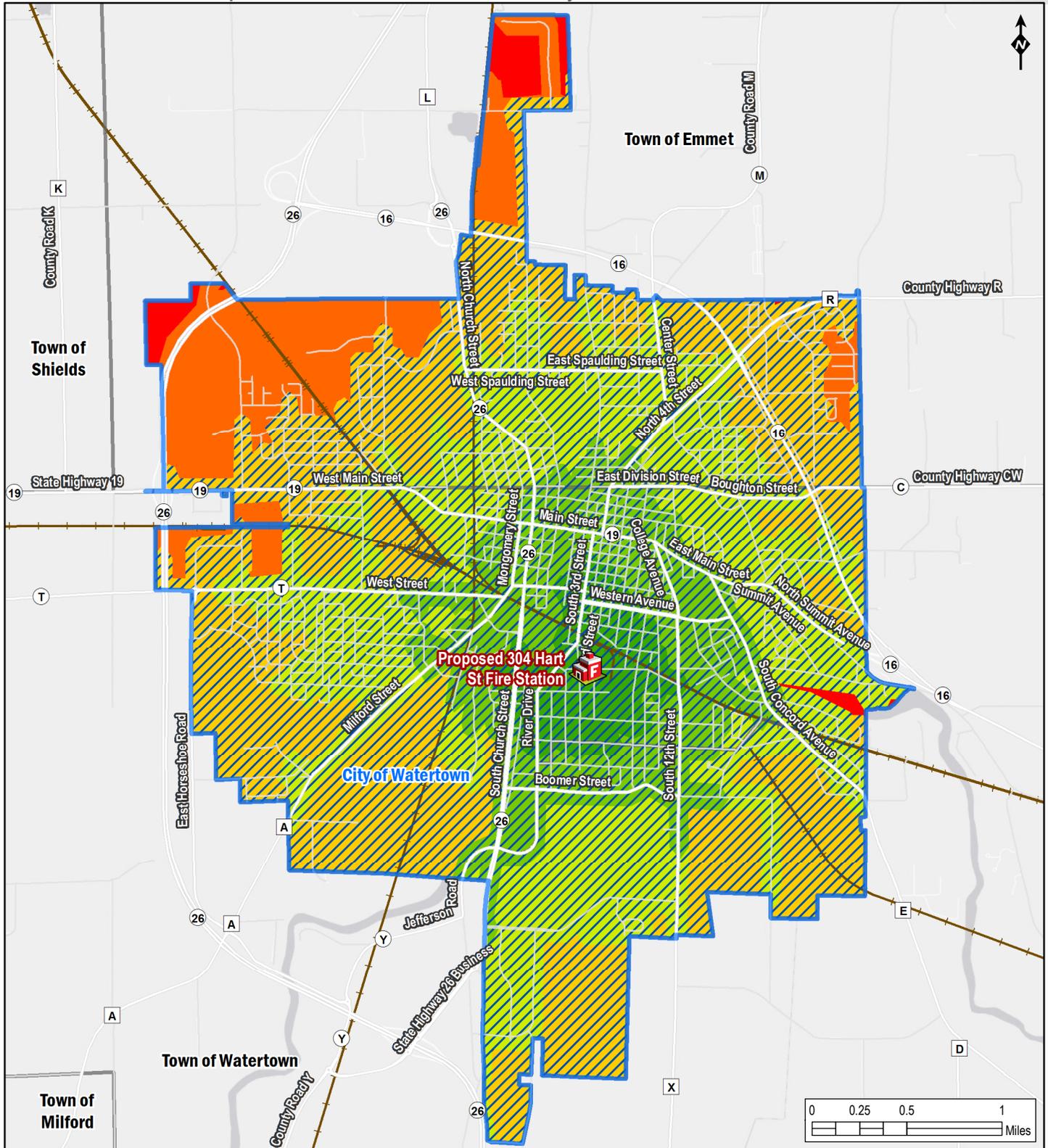
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Site Response Times

WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis

Figure B1

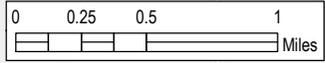
Site 1: Drive Time from Proposed 304 Hart St Fire Station out to City of Watertown



LEGEND

- City of Watertown
- Proposed Fire Station
- 8 Minute Drive Time Area (88.7% of City of Watertown)

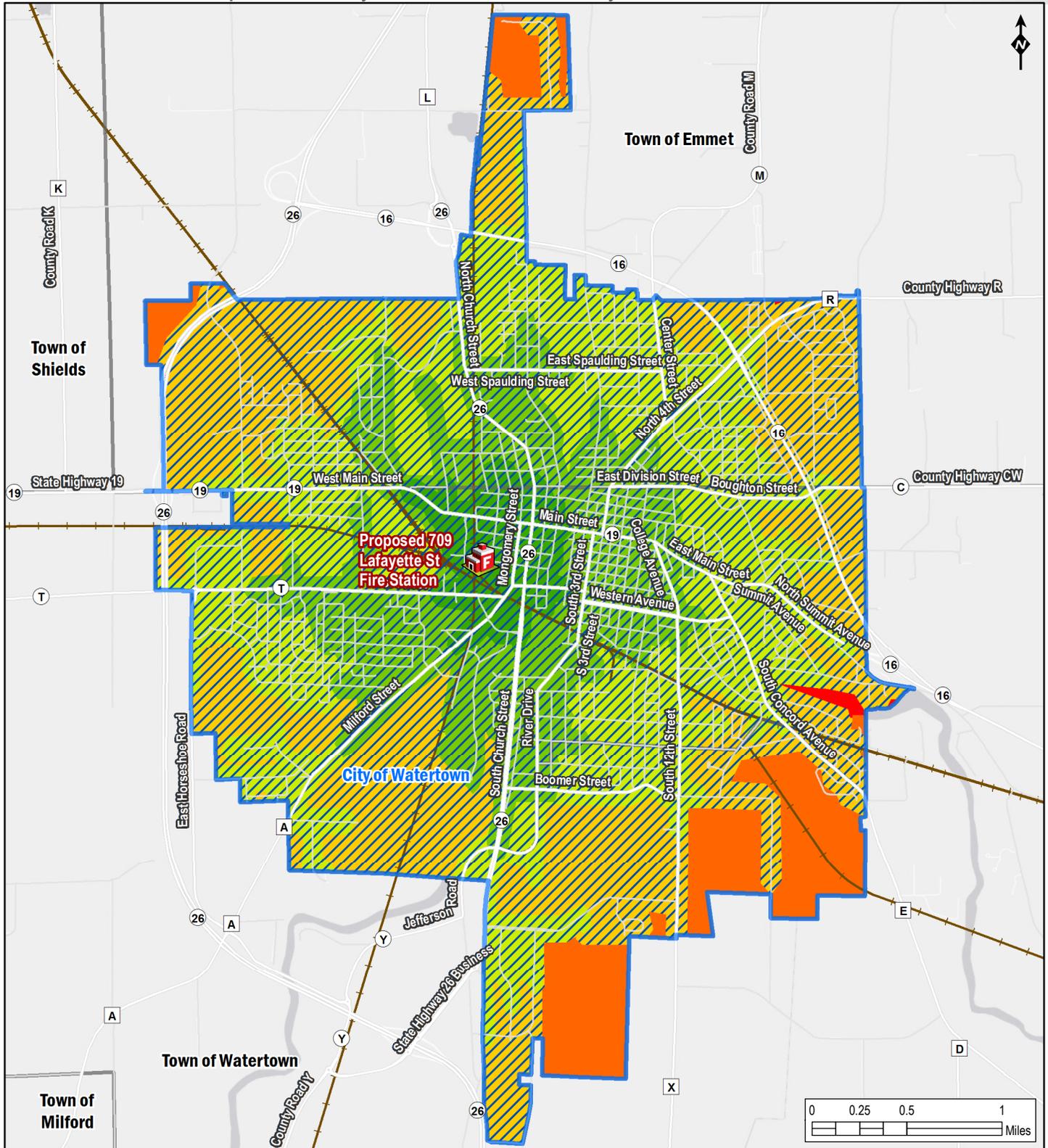
Drive Time Areas [minutes (% of City of Watertown)]	
	0 - 2 (5.2%)
	2 - 4 (15.5%)
	4 - 6 (32.7%)
	6 - 8 (35.3%)
	8 - 10 (9.8%)
	10 - 12 (1.5%)



WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis

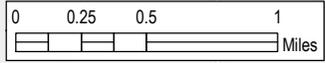
Figure B2

Site 2: Drive Time from Proposed 709 Lafayette St Fire Station out to City of Watertown



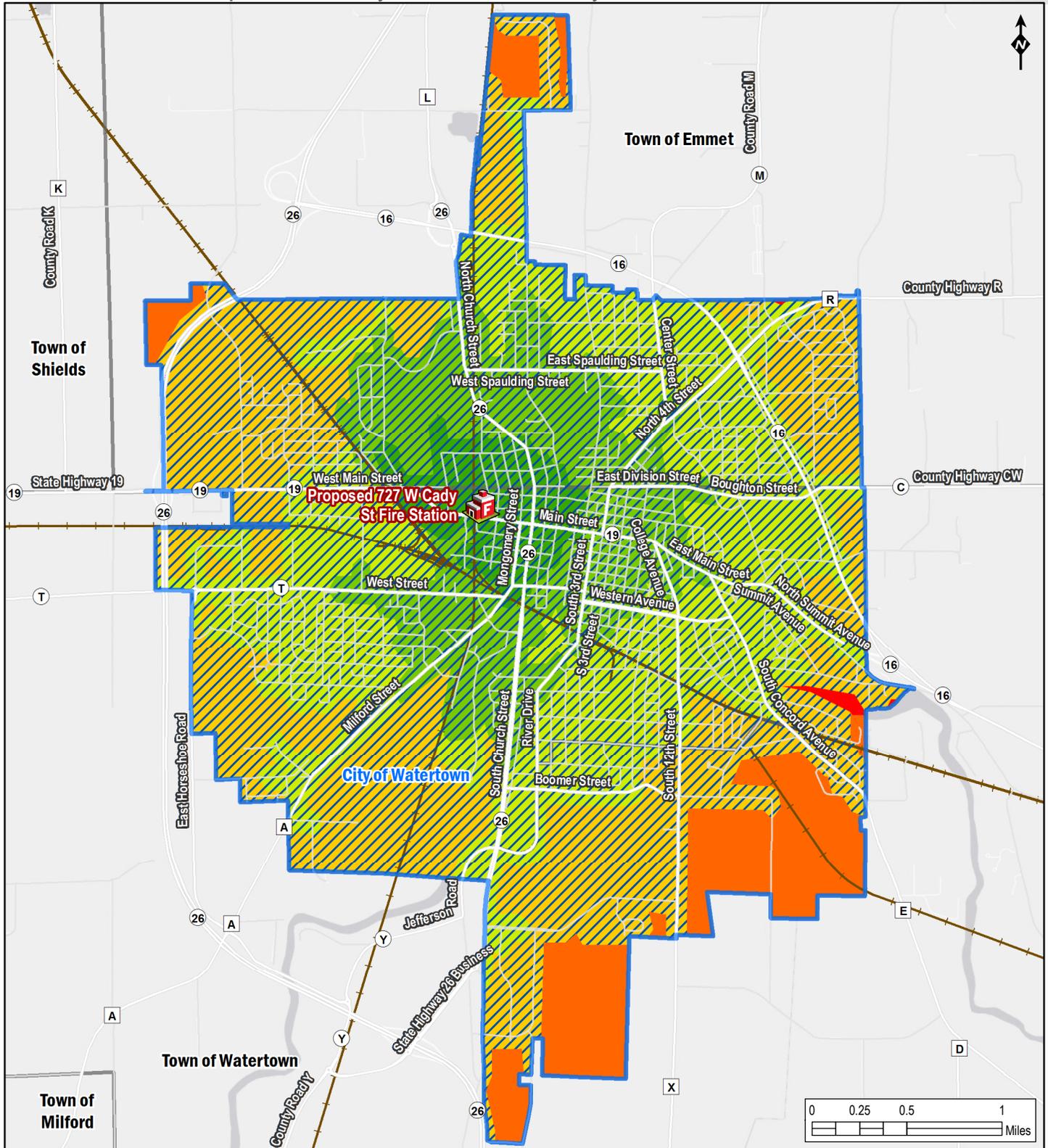
LEGEND

- City of Watertown
 - Proposed Fire Station
 - 8 Minute Drive Time Area (91.5% of City of Watertown)
- | Drive Time Areas [minutes (% of City of Watertown)] | |
|---|----------------|
| 0 - 2 (4.6%) | 4 - 6 (33.8%) |
| 2 - 4 (20.3%) | 6 - 8 (32.8%) |
| | 8 - 10 (8.3%) |
| | 10 - 12 (0.2%) |



WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis
 Site 3: Drive Time from Proposed 727 W Cady St Fire Station out to City of Watertown

Figure B3



LEGEND

City of Watertown

Proposed Fire Station

8 Minute Drive Time Area (90.4% of City of Watertown)

Drive Time Areas [minutes (% of City of Watertown)]

0 - 2 (4.7%)

2 - 4 (17.7%)

4 - 6 (34.1%)

6 - 8 (33.9%)

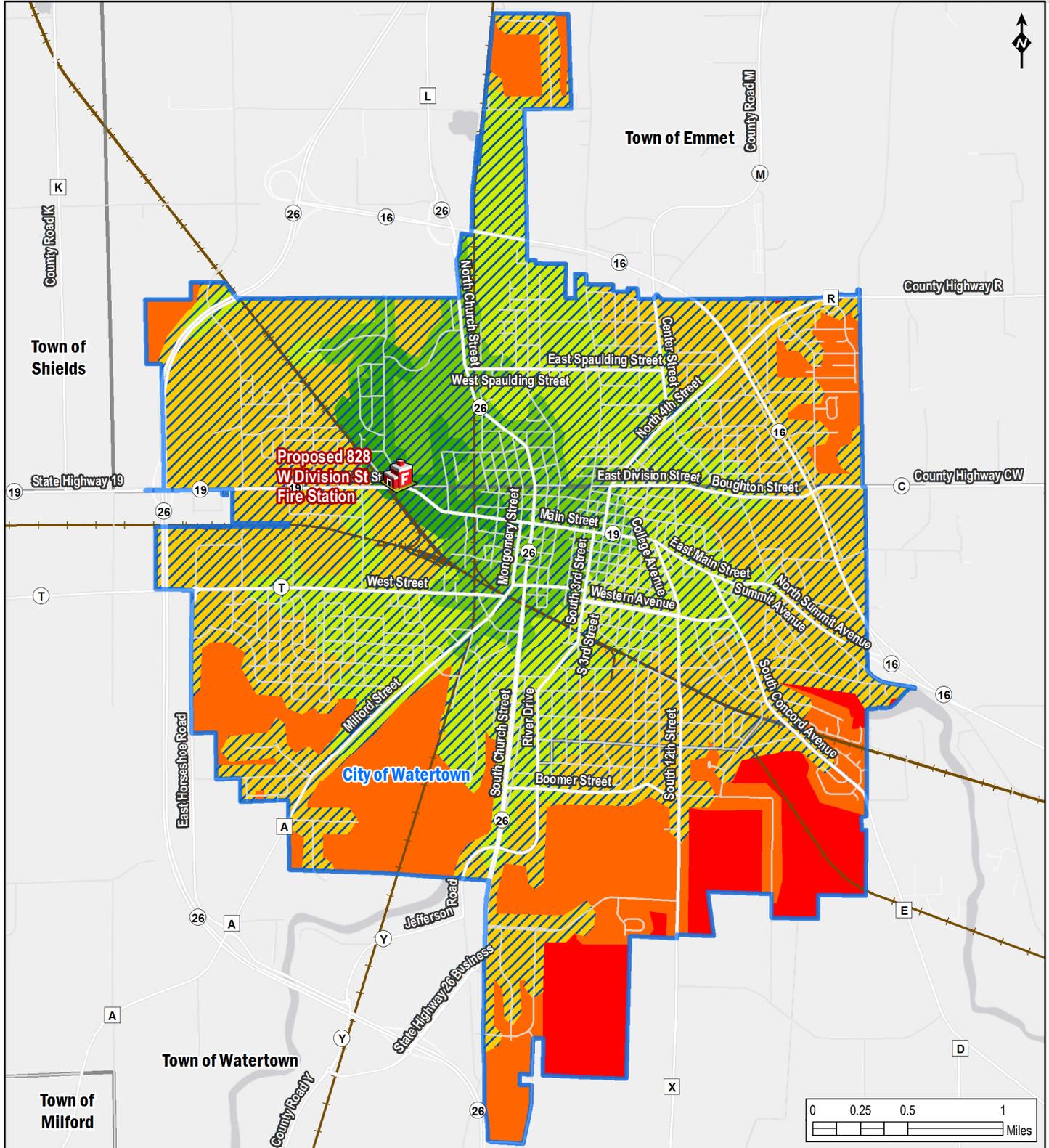
8 - 10 (9.4%)

10 - 12 (0.2%)

WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis

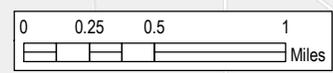
Figure B4

Site 4: Drive Time from Proposed 828 W Division St Fire Station out to City of Watertown



LEGEND

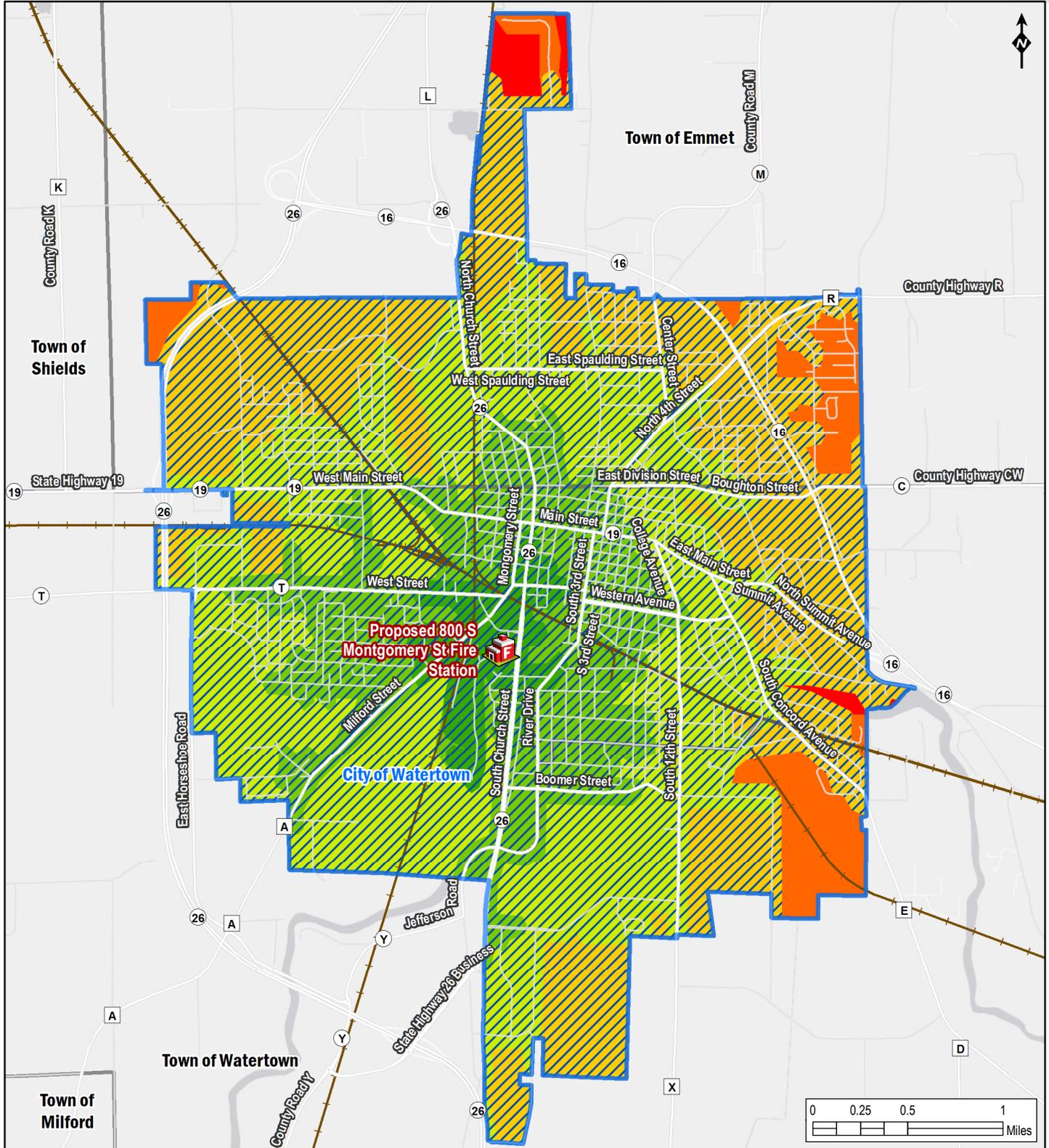
- City of Watertown
 - Proposed Fire Station
 - 8 Minute Drive Time Area (75.7% of City of Watertown)
- | Drive Time Areas [minutes (% of City of Watertown)] | |
|---|----------------|
| | 0 - 2 (3.1%) |
| | 2 - 4 (9.8%) |
| | 4 - 6 (24.7%) |
| | 6 - 8 (38.1%) |
| | 8 - 10 (17.4%) |
| | 10 - 12 (6.9%) |



WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis

Figure B5

Site 5: Drive Time from Proposed 800 S Montgomery St Fire Station out to City of Watertown



LEGEND

City of Watertown

Proposed Fire Station

8 Minute Drive Time Area (93.4% of City of Watertown)

Drive Time Areas [minutes (% of City of Watertown)]

0 - 2 (4.8%)

2 - 4 (18.8%)

4 - 6 (39%)

6 - 8 (30.8%)

8 - 10 (5.5%)

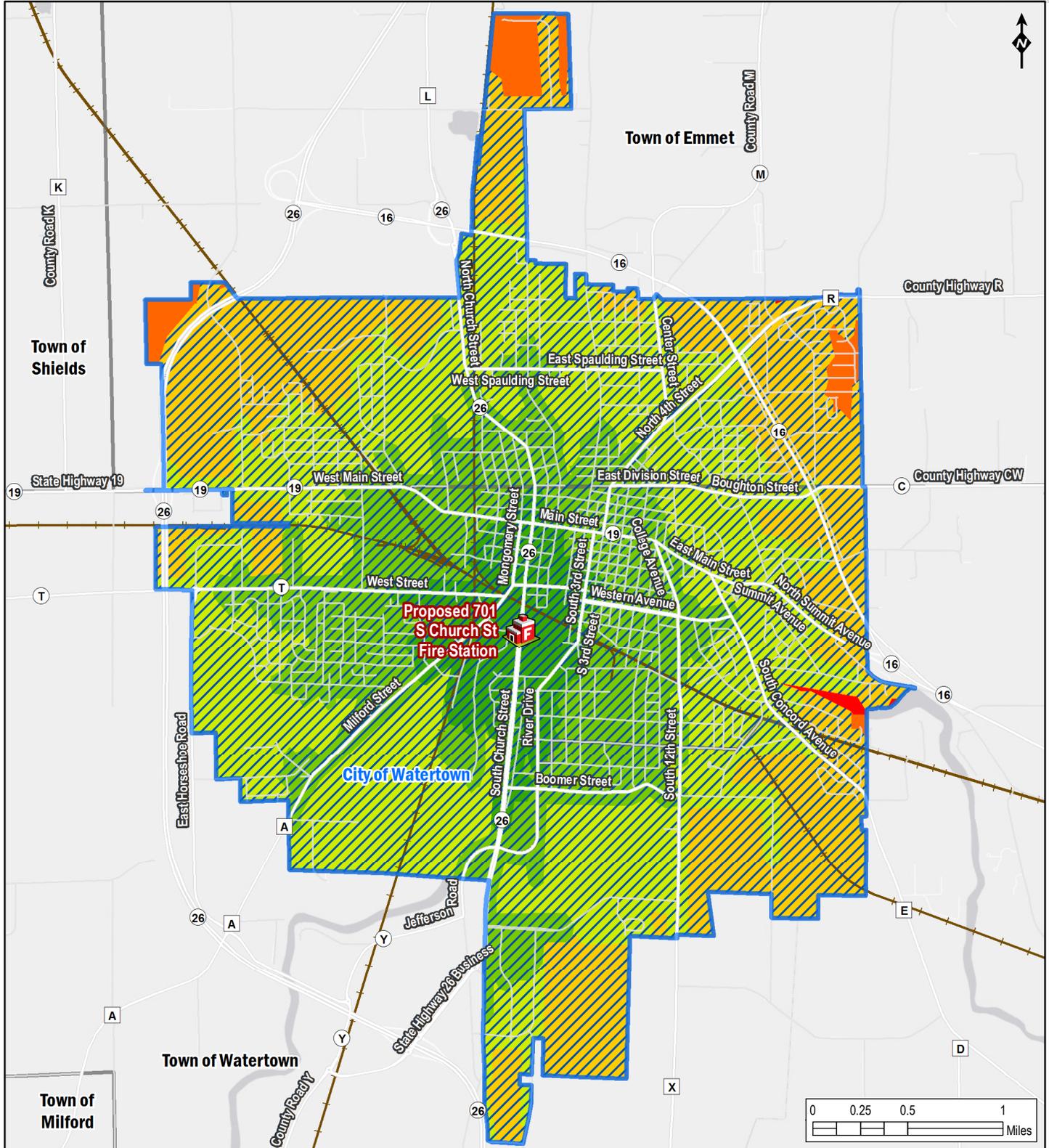
10 - 12 (1%)



WATERTOWN, WI FIRE DEPARTMENT | Fire Station Location Analysis

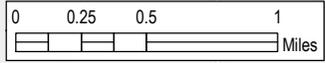
Figure B6

Site 6: Drive Time from Proposed 701 S Church St Fire Station out to City of Watertown



LEGEND

- City of Watertown
 - Proposed Fire Station
 - 8 Minute Drive Time Area (97.8% of City of Watertown)
- | Drive Time Areas [minutes (% of City of Watertown)] | |
|---|----------------|
| | 0 - 2 (7.7%) |
| | 2 - 4 (23.9%) |
| | 4 - 6 (40.1%) |
| | 6 - 8 (26.1%) |
| | 8 - 10 (2%) |
| | 10 - 12 (0.2%) |



GIS Response Time Summary

Drive Time Summary (% of City of Watertown Fire District Boundary)

Location	Rank by Drive Time	0-2 Minutes (%)	2-4 Minutes (%)	4-6 Minutes (%)	6-8 Minutes (%)	8 Minute Total (%)	8-10 Minutes (%)	10-12 Minutes (%)	12-14 Minutes (%)	14-16 Minutes (%)	16-18 Minutes (%)	18-20 Minutes (%)	20-22 Minutes (%)	22-24 Minutes (%)	Total %
701 S Church St	1	1.1	3.7	8.8	16	29.6	17.5	21.2	20.3	1.5	0	1.3	8.5	0	100
800 S Montgomery St	2	0.7	2.8	8	15	26.5	14.3	23.9	21.5	4.1	0	1.3	8.5	0	100
Existing Fire Station	3	0.8	3.4	7.2	12.8	24.2	19.9	19.5	16.8	9.5	0.3	0	9.8	0	100
709 Lafayette St	4	0.6	2.9	6.3	13.5	23.3	22.4	21.6	20.8	1.9	0	1.3	8.6	0	100
727 W Cady St	5	0.7	2.5	6.3	12.4	21.9	22.2	20.5	20.3	5.2	0	1.4	8.5	0	100
304 Hart St	6	0.7	2.2	6	12.8	21.7	12.9	15.5	22.5	17.2	0.1	1.4	0	8.6	100
828 W Division St	7	0.4	1.5	4.9	11	17.8	20.1	23.1	20.9	8	0.1	0	10.1	0	100

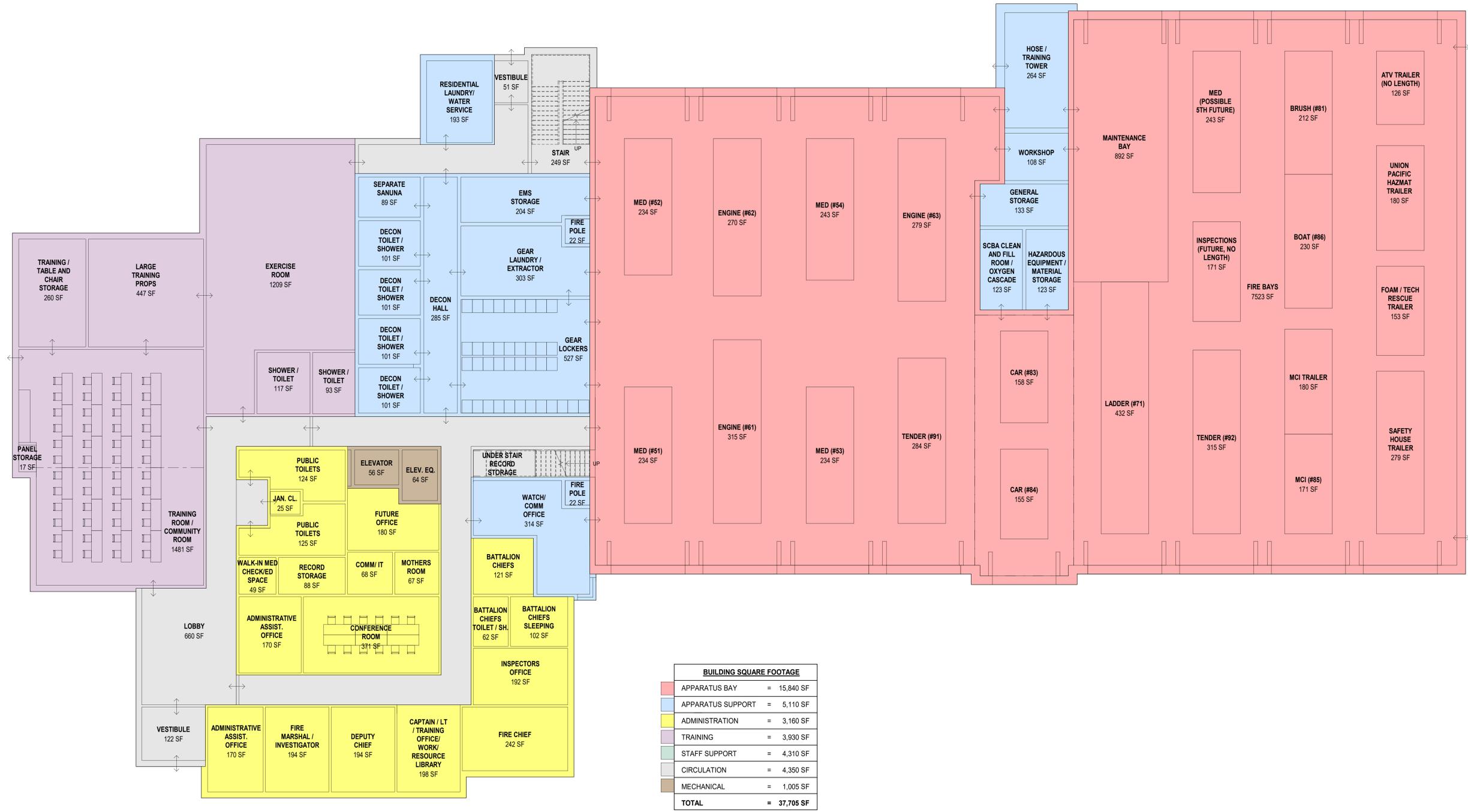
Drive Time Summary (% of City of Watertown Municipal Boundary)

Location	Rank by Drive Time	0-2 Minutes (%)	2-4 Minutes (%)	4-6 Minutes (%)	6-8 Minutes (%)	8 Minute Total (%)	8-10 Minutes (%)	10-12 Minutes (%)	Total %
701 S Church St	1	7.7	23.9	40.1	26.1	97.8	2	0.2	100
GIS Generated Site (107 E Main St)	2	7.3	26.3	31.1	30.6	95.3	4.8	0	100
800 S Montgomery St	3	4.8	18.8	39	30.8	93.4	5.5	1	100
709 Lafayette St	4	4.6	20.3	33.8	32.8	91.5	8.3	0.2	100
727 W Cady St	5	4.7	17.7	34.1	33.9	90.4	9.4	0.2	100
Existing Fire Station	6	5.9	22.7	32.2	29.2	90	10	0	100
304 Hart St	7	5.2	15.5	32.7	35.3	88.7	9.8	1.5	100
828 W Division St	8	3.1	9.8	24.7	38.1	75.7	17.4	6.9	100

Proposed Site Overview

Location (link to Assessor Info)	Figure	Owner	Tax Key Number	Zoning District	Acres (approx.)	Federal Wetland Intersecting Site?	Water Feature Intersecting Site?	FEMA Floodzone Intersecting Site?	Close to Railroad?
304 Hart St	E1	SPX Corporation	291-0815-0443-013	GI	5.2	No	No	No	Yes
709 Lafayette St	E2	City of Watertown	291-0815-0514-003	TR-6	1.3	No	No	No	Yes
727 W Cady St	E3	City of Watertown	291-0815-0511-003	GI	1.8	No	No	No	Yes
722 O'Connell St			291-0815-0511-004						
720 O'Connell St			291-0815-0422-036						
721 W Cady St			291-0815-0422-023						
828 W Division St	E4	Maranatha Baptist Bible College	291-0815-0512-005	PO	11.1	No	No	Partial	Yes
800 S Montgomery St	E6	Bethesda Lutheran Communities	291-0815-0432-020	GB	4.9	Partial	Yes	Partial	Yes
701 S Church St	E7	SMTA SHOPKO PORTFOLIO I LLC	291-0815-0431-052	GB	3.8	No	No	No	Yes

Conceptual Plans



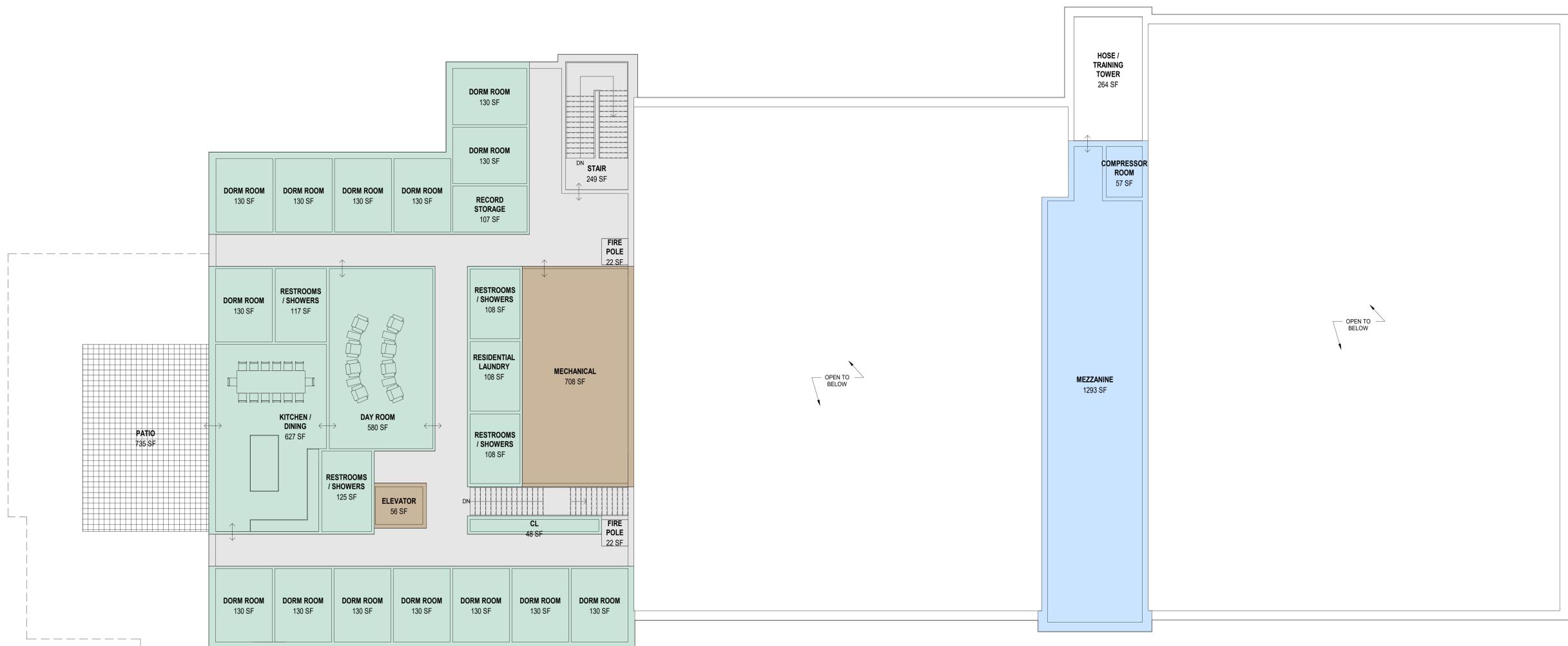
BUILDING SQUARE FOOTAGE	
APPARATUS BAY	= 15,840 SF
APPARATUS SUPPORT	= 5,110 SF
ADMINISTRATION	= 3,160 SF
TRAINING	= 3,930 SF
STAFF SUPPORT	= 4,310 SF
CIRCULATION	= 4,350 SF
MECHANICAL	= 1,005 SF
TOTAL	= 37,705 SF

1 FIRST FLOOR - CONCEPT 1
SCALE: 1/8" = 1'-0"

WATERTOWN FIRE STATION

CONCEPT - 04-20-2022
Watertown WI, 53094
PROJECT NUMBER: 612901





BUILDING SQUARE FOOTAGE	
APPARATUS BAY	= 15,840 SF
APPARATUS SUPPORT	= 5,110 SF
ADMINISTRATION	= 3,160 SF
TRAINING	= 3,930 SF
STAFF SUPPORT	= 4,310 SF
CIRCULATION	= 4,350 SF
MECHANICAL	= 1,005 SF
TOTAL	= 37,705 SF

1 SECOND FLOOR - CONCEPT 1
SCALE: 1/8" = 1'-0"

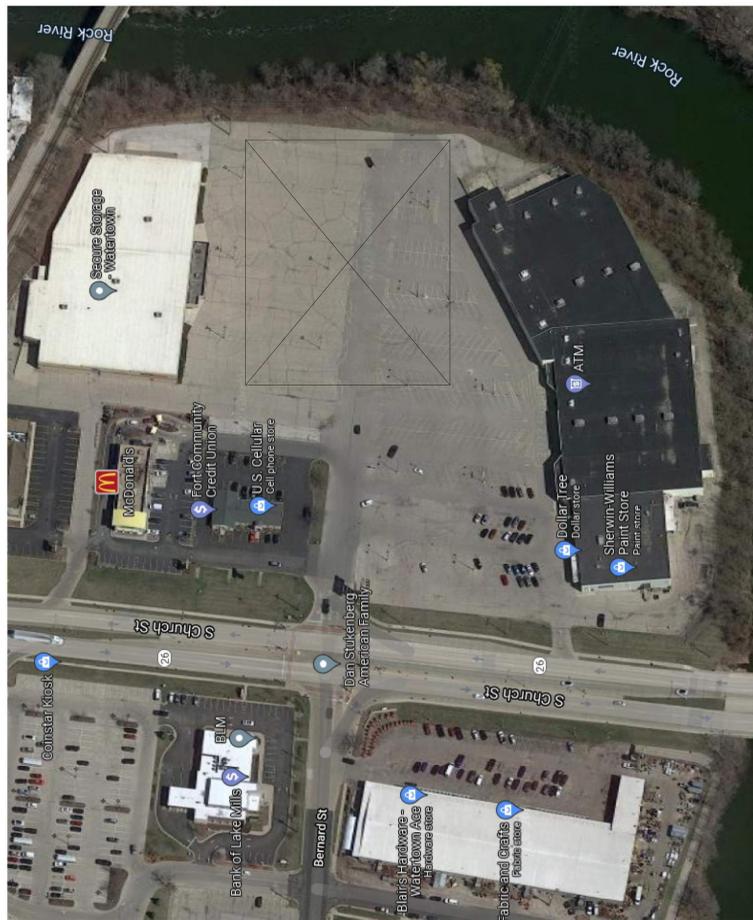
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

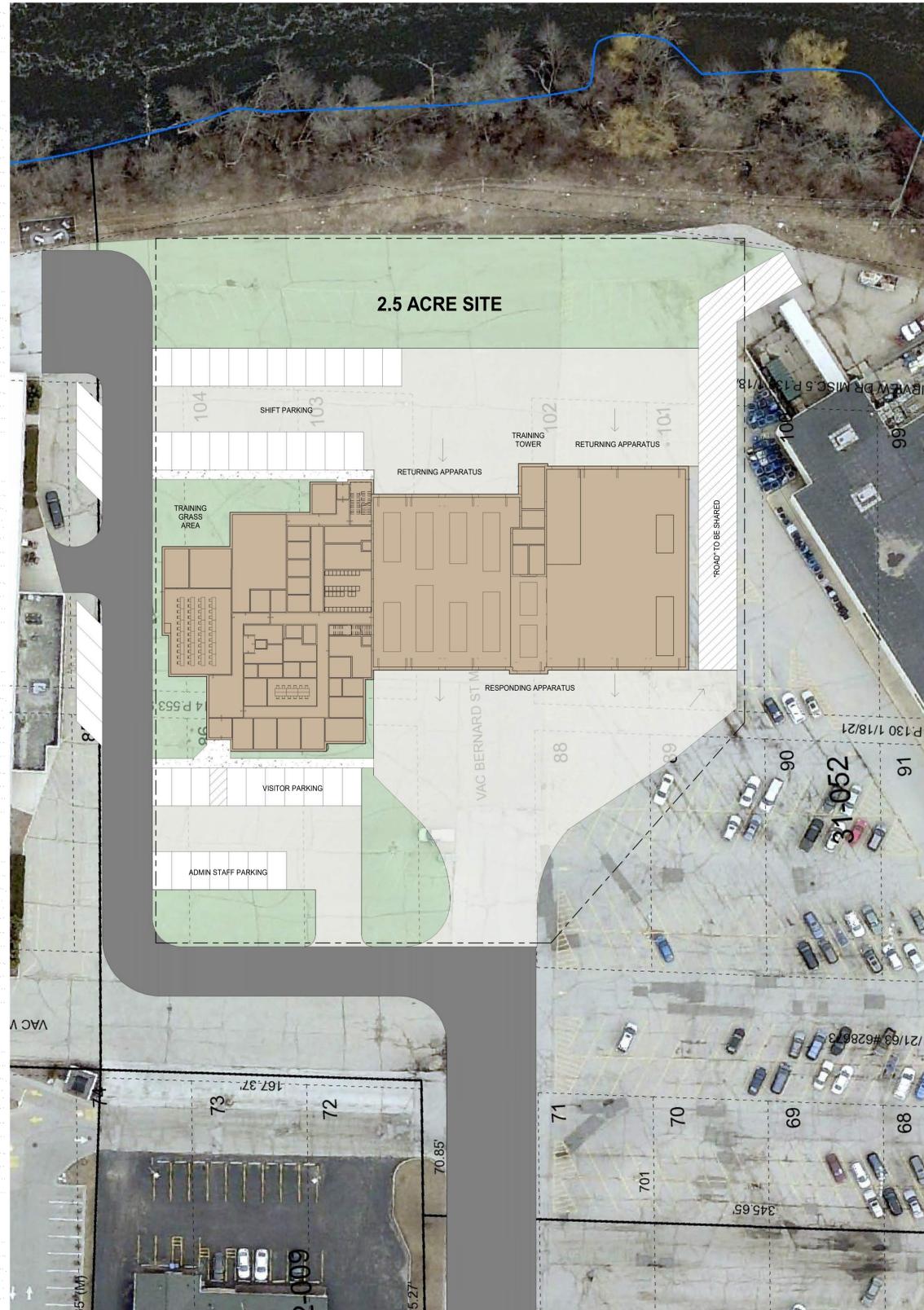
Watertown WI, 53094

PROJECT NUMBER: 612901





FULL AREA SITE MAP 



1 SITE PLAN - SHOPKO SITE - CONCEPT 1 
SCALE: 1" = 30'-0"

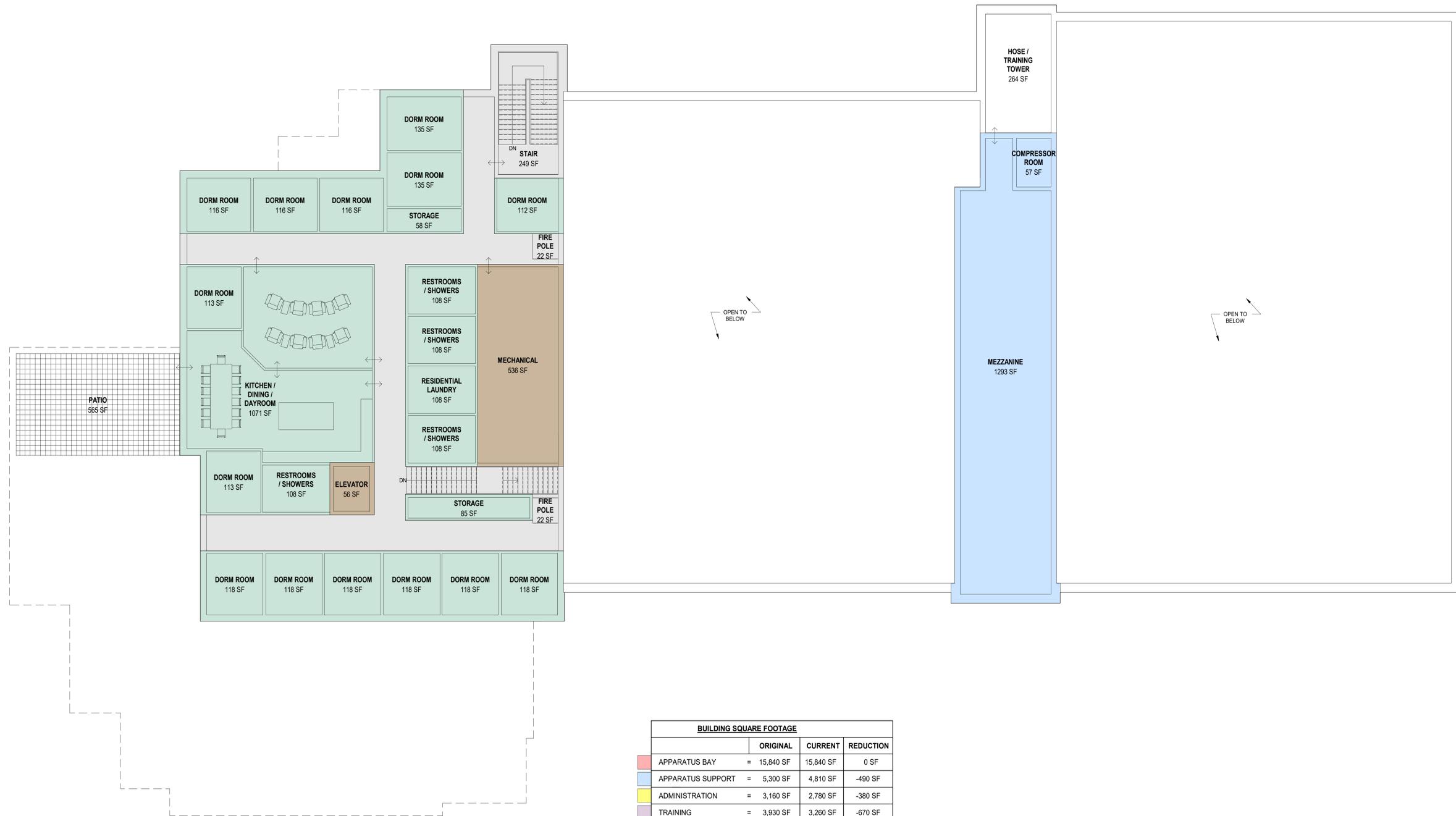
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





BUILDING SQUARE FOOTAGE			
	ORIGINAL	CURRENT	REDUCTION
APPARATUS BAY	= 15,840 SF	15,840 SF	0 SF
APPARATUS SUPPORT	= 5,300 SF	4,810 SF	-490 SF
ADMINISTRATION	= 3,160 SF	2,780 SF	-380 SF
TRAINING	= 3,930 SF	3,260 SF	-670 SF
STAFF SUPPORT	= 4,310 SF	3,975 SF	-335 SF
CIRCULATION	= 4,350 SF	3,850 SF	-500 SF
MECHANICAL	= 1,005 SF	1,020 SF	+15 SF
TOTAL	= 37,895 SF	35,535 SF	2,360 SF

1 SECOND FLOOR - CONCEPT 2
SCALE: 1/8" = 1'-0"

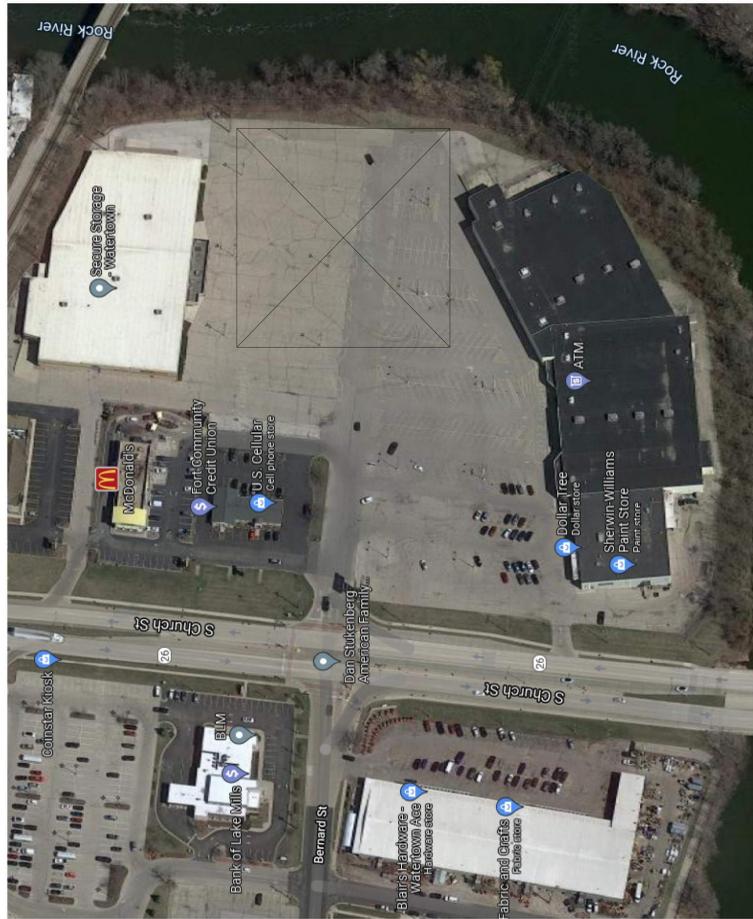
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





FULL AREA SITE MAP 



1 SITE PLAN - SHOPKO SITE - CONCEPT 2 
SCALE: 1" = 30'-0"

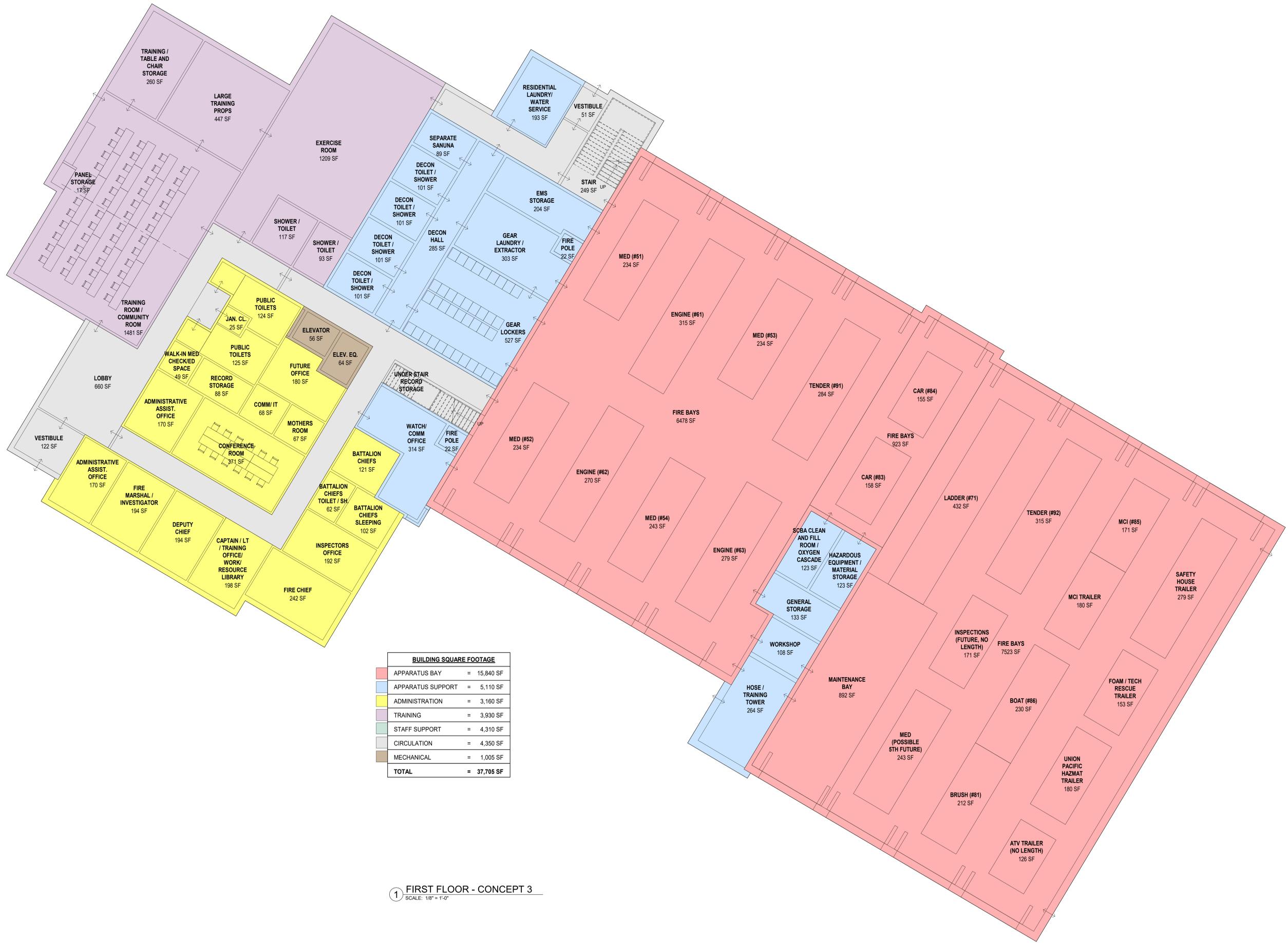
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





1 FIRST FLOOR - CONCEPT 3
SCALE: 1/8" = 1'-0"

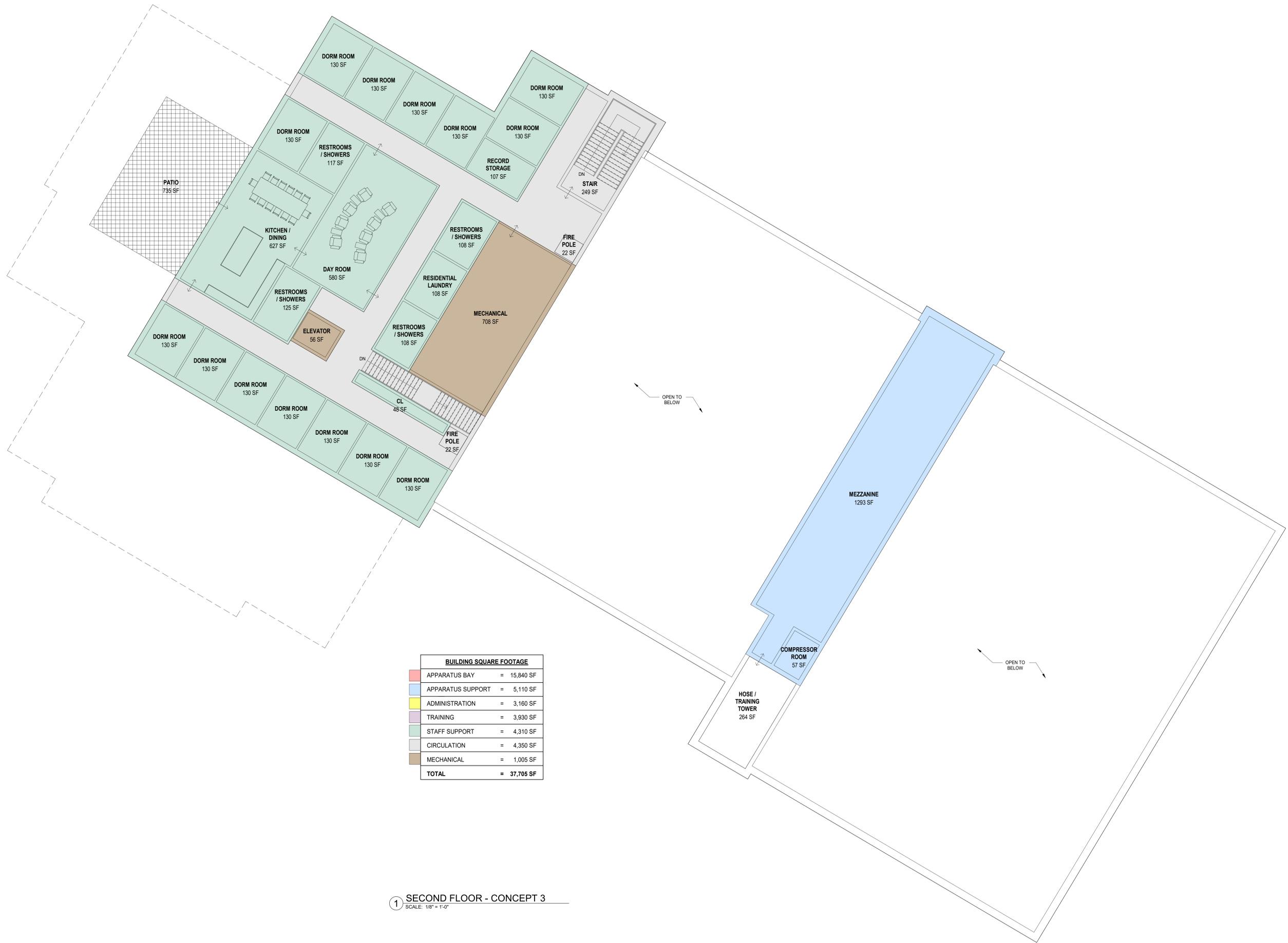
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





BUILDING SQUARE FOOTAGE	
APPARATUS BAY	= 15,840 SF
APPARATUS SUPPORT	= 5,110 SF
ADMINISTRATION	= 3,160 SF
TRAINING	= 3,930 SF
STAFF SUPPORT	= 4,310 SF
CIRCULATION	= 4,350 SF
MECHANICAL	= 1,005 SF
TOTAL	= 37,705 SF

1 SECOND FLOOR - CONCEPT 3
SCALE: 1/8" = 1'-0"

WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





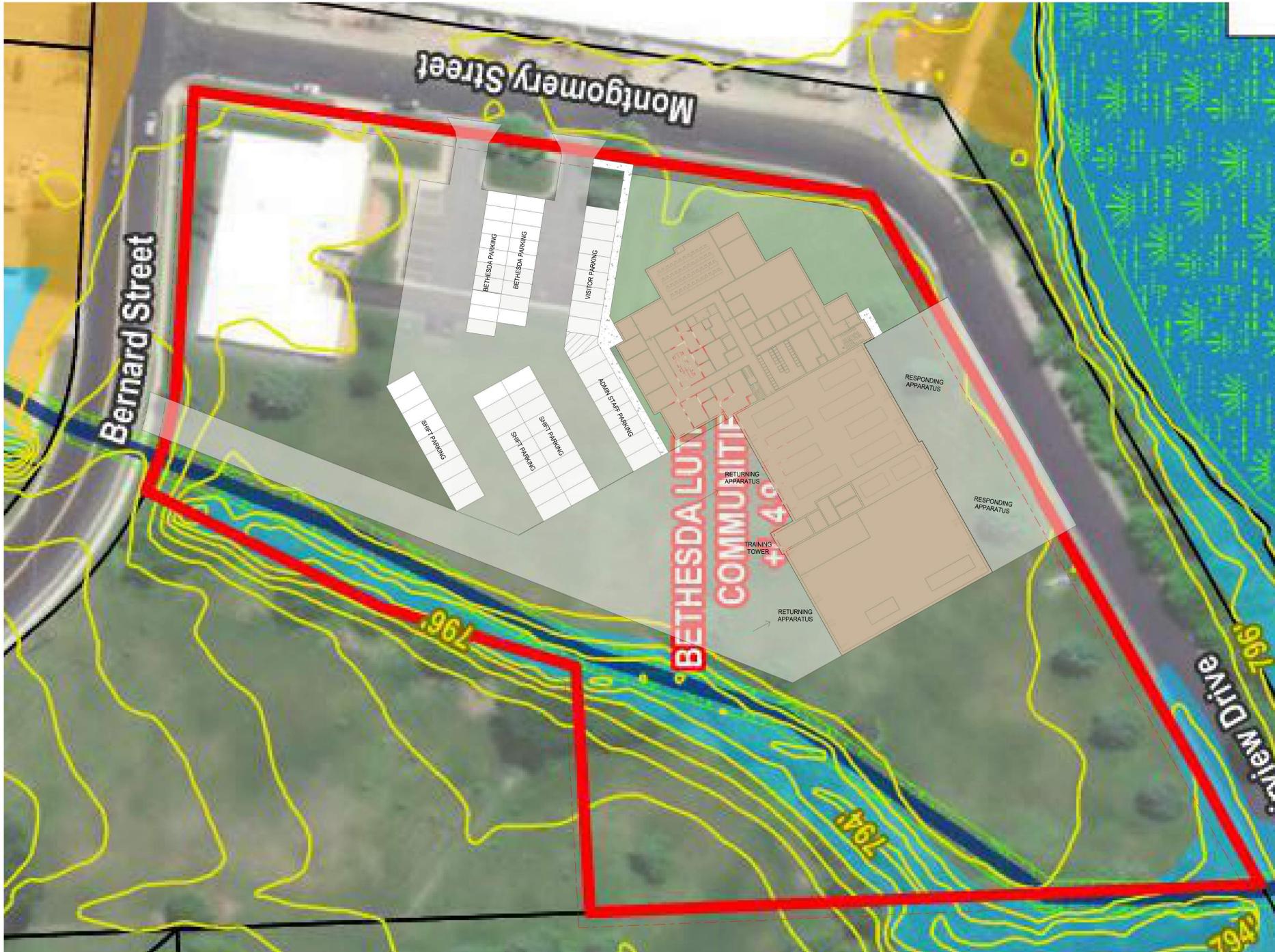
1 SITE PLAN - BETHESDA SITE - CONCEPT 3
 SCALE: 1" = 30'-0"

WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901



1 SITE PLAN - BETHESDA SITE - CONCEPT 3
 SCALE: 1" = 30'-0" 

WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901



1 SITE PLAN - BETHESDA SITE - CONCEPT 4
 SCALE: 1" = 30'-0"

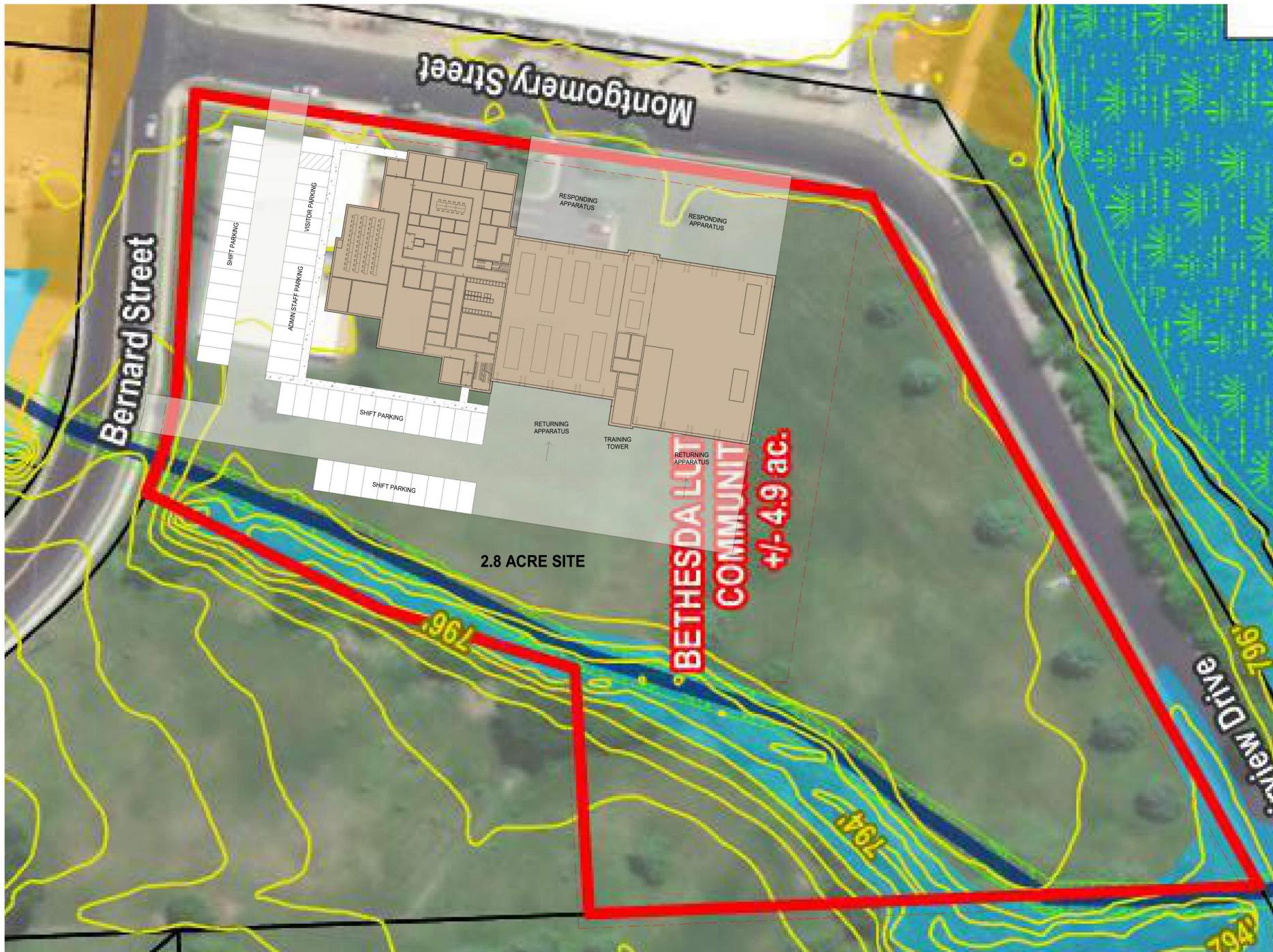
WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901





1 SITE PLAN - BETHESDA SITE - CONCEPT 4
 SCALE: 1" = 30'-0" 

WATERTOWN FIRE STATION

CONCEPT - 04-20-2022

Watertown WI, 53094

PROJECT NUMBER: 612901

Probable Cost Analysis



ESTIMATE OF PROBABLE COSTS

Project: Watertown Fire Station

Location: Watertown, WI

Date:

22-04-22

Potential Costs

CONCEPT 1

				PROBABLE COST	ALTERNATE	Remarks
I. Site Acquisition						
Preferred Site				\$0	\$0	
Sub Total				\$0	\$0	
II. Building Construction Costs						
	Size (sf)		Cost/SF			
New Construction	37,705		\$285	\$10,745,925		
Sub Total				\$10,745,925	\$0	
III. Furniture Fixtures and Equipment						
FF&E (estimated)				\$450,000	\$0	Furniture, Fixtures, Equipment, etc.
Specific Equipment by Owner				\$0	\$0	
Others				\$0	\$0	
Sub Total				\$450,000	\$0	
IV. Communications and Technology						
Communications				\$80,000	\$0	
Audio Visual Equipment	Allowance			\$15,000	\$0	
Sub Total				\$95,000	\$0	
V. Contingencies, Inflation and Other Costs						
Inflation Contingency	5% total construction cost			\$537,296	\$0	Inflation, Etc.
Design / Construction Contingency	10% of total construction costs			\$1,074,593	\$0	Design Changes, Unforeseen Conditions, Owner
Sub Total				\$1,611,889	\$0	
VI. Professional Fees and Legal						
Architectural/Engineering	7.0% of Construction Costs			\$752,215	\$0	
Geotechnical Studies				\$7,000	\$0	
Site Survey				\$7,000	\$0	
Unsuitable Soils Contingency				\$25,000	\$0	
Power to Site				\$25,000	\$0	
Fiber to Site				\$25,000	\$0	
Gas to Site				\$25,000	\$0	
LEED/Sustainability				\$0	\$0	
Hazardous Materials /Asbestos				\$0	\$0	
Testing and Inspections				\$25,000	\$0	
Sub-Total				\$891,215	\$0	
SUBTOTAL					\$0	
TOTAL BASE BID				\$13,794,029		



ESTIMATE OF PROBABLE COSTS

Project: Watertown Fire Station

Location: Watertown, WI

Date:

22-04-22

Potential Costs

CONCEPT 2

				PROBABLE COST	ALTERNATE	Remarks
I. Site Acquisition						
Preferred Site				\$0	\$0	
Sub Total				\$0	\$0	
II. Building Construction Costs						
	Size (sf)		Cost/SF			
New Construction	35,535		\$285	\$10,127,475		
Sub Total				\$10,127,475	\$0	
III. Furniture Fixtures and Equipment						
FF&E (estimated)				\$450,000	\$0	Furniture, Fixtures, Equipment, etc.
Specific Equipment by Owner				\$0	\$0	
Others				\$0	\$0	
Sub Total				\$450,000	\$0	
IV. Communications and Technology						
Communications				\$80,000	\$0	
Audio Visual Equipment	Allowance			\$15,000	\$0	
Sub Total				\$95,000	\$0	
V. Contingencies, Inflation and Other Costs						
Inflation Contingency	5% total construction cost			\$506,374	\$0	Inflation, Etc.
Design / Construction Contingency	10% of total construction costs			\$1,012,748	\$0	Design Changes, Unforeseen Conditions, Owner
Sub Total				\$1,519,121	\$0	
VI. Professional Fees and Legal						
Architectural/Engineering	7.0% of Construction Costs			\$708,923	\$0	
Geotechnical Studies				\$7,000	\$0	
Site Survey				\$7,000	\$0	
Unsuitable Soils Contingency				\$25,000	\$0	
Power to Site				\$25,000	\$0	
Fiber to Site				\$25,000	\$0	
Gas to Site				\$25,000	\$0	
LEED/Sustainability				\$0	\$0	
Hazardous Materials /Asbestos				\$0	\$0	
Testing and Inspections				\$25,000	\$0	
Sub-Total				\$847,923	\$0	
SUBTOTAL					\$0	
TOTAL BASE BID				\$13,039,520		



ESTIMATE OF PROBABLE COSTS

Project: Watertown Fire Station

Location: Watertown, WI

Date:

22-04-22

Potential Costs

CONCEPT 3

				PROBABLE COST	ALTERNATE	Remarks
I. Site Acquisition						
Preferred Site				\$0	\$0	
Sub Total				\$0	\$0	
II. Building Construction Costs						
	Size (sf)		Cost/SF			
New Construction - Main Facility	37,705		\$285	\$10,745,925		
Sub Total				\$10,745,925	\$0	
III. Furniture Fixtures and Equipment						
FF&E (estimated)				\$450,000	\$0	Furniture, Fixtures, Equipment, etc.
Specific Equipment by Owner				\$0	\$0	
Others				\$0	\$0	
Sub Total				\$450,000	\$0	
IV. Communications and Technology						
Communications				\$80,000	\$0	
Audio Visual Equipment	Allowance			\$15,000	\$0	
Sub Total				\$95,000	\$0	
V. Contingencies, Inflation and Other Costs						
Inflation Contingency	5% total construction cost			\$537,296	\$0	Inflation, Etc.
Design / Construction Contingency	10% of total construction costs			\$1,074,593	\$0	Design Changes, Unforeseen Conditions, Owner
Sub Total				\$1,611,889	\$0	
VI. Professional Fees and Legal						
Architectural/Engineering	7.0% of Construction Costs			\$752,215	\$0	
Geotechnical Studies				\$7,000	\$0	
Site Survey				\$7,000	\$0	
Unsuitable Soils Contingency				\$25,000	\$0	
Power to Site				\$25,000	\$0	
Fiber to Site				\$25,000	\$0	
Gas to Site				\$25,000	\$0	
LEED/Sustainability				\$0	\$0	
Hazardous Materials /Asbestos				\$0	\$0	
Testing and Inspections				\$25,000	\$0	
Sub-Total				\$891,215	\$0	
SUBTOTAL				\$0		
TOTAL BASE BID				\$13,794,029		



ESTIMATE OF PROBABLE COSTS

Project: Watertown Fire Station

Location: Watertown, WI

Date:

22-04-22

Potential Costs

CONCEPT 3

				PROBABLE COST	ALTERNATE	Remarks
I. Site Acquisition						
Preferred Site				\$0	\$0	
Sub Total				\$0	\$0	
II. Building Construction Costs						
	Size (sf)		Cost/SF			
New Construction - Main Facility	37,705		\$285	\$10,745,925		
Sub Total				\$10,745,925	\$0	
III. Furniture Fixtures and Equipment						
FF&E (estimated)				\$450,000	\$0	Furniture, Fixtures, Equipment, etc.
Specific Equipment by Owner				\$0	\$0	
Others				\$0	\$0	
Sub Total				\$450,000	\$0	
IV. Communications and Technology						
Communications				\$80,000	\$0	
Audio Visual Equipment	Allowance			\$15,000	\$0	
Sub Total				\$95,000	\$0	
V. Contingencies, Inflation and Other Costs						
Inflation Contingency	5% total construction cost			\$537,296	\$0	Inflation, Etc.
Design / Construction Contingency	10% of total construction costs			\$1,074,593	\$0	Design Changes, Unforeseen Conditions, Owner
Sub Total				\$1,611,889	\$0	
VI. Professional Fees and Legal						
Architectural/Engineering	7.0% of Construction Costs			\$752,215	\$0	
Geotechnical Studies				\$7,000	\$0	
Site Survey				\$7,000	\$0	
Unsuitable Soils Contingency				\$25,000	\$0	
Power to Site				\$25,000	\$0	
Fiber to Site				\$25,000	\$0	
Gas to Site				\$25,000	\$0	
LEED/Sustainability				\$0	\$0	
Hazardous Materials /Asbestos				\$0	\$0	
Testing and Inspections				\$25,000	\$0	
Sub-Total				\$891,215	\$0	
SUBTOTAL				\$0		
TOTAL BASE BID				\$13,794,029		