

# Superior Fire Stations 2 and 3

Fire Station 2  
723 Hammond Ave  
Superior, WI 54880

Fire Station 3  
2531 E. 5<sup>TH</sup> Street  
Superior, WI 54880

OPN Project #24714001  
September 23, 2024

## Concept Design Narrative

OPN Architects - Architectural  
Adolfson & Peterson – Cost Estimator



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# PROJECT TEAM MEMBERS

## **Superior Fire Department:**

- Cameron Vollbrecht Chief, Superior Fire Dept.
- Howard Huber Assistant Chief, Superior Fire Dept.
- Jane Darwin Contract Analyst, City of Superior
- Jacob Bunt Facilities Superintendent, City of Superior

## **Design Team:**

- Tate Walker Principal-in-Charge, OPN Architects
- Nick Woods Project Architect, OPN Architects



# ARCHITECTURAL NARRATIVE

## **Introduction and Overview**

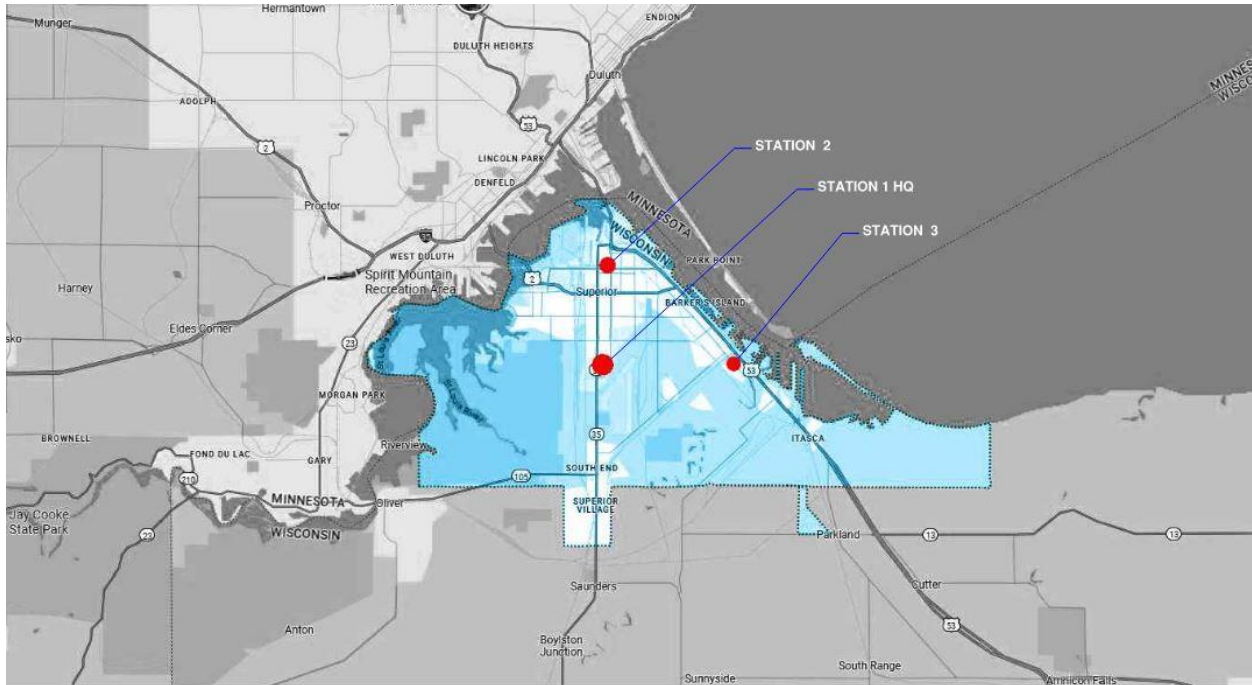
The intent of this narrative is to provide a general description of the exterior and interior assemblies with finishes for two new proposed Fire Stations in Superior, WI. The information presented represents the concept design for the overall project upon which to base further analysis and pricing.

The City of Superior is seeking to develop new modern facilities to replace its current Stations 2 and 3 located in the North End and East End, respectively.

The new Station 2 facility will be located at the intersection of John Avenue and N 8<sup>th</sup> Street, just west of the existing facility. This site is currently paved surface parking within an M1 Light Manufacturing District. The site is known to have previously been populated with residential structures that were removed by the city. It is assumed the city removed all existing foundations. The existing facility at the intersection of Hammond and N 8<sup>th</sup> Street will remain operational while the new facility is being constructed. Following construction, the existing Station 2 will be vacated and repurposed by the City of Superior, and is not within this scope of work

The new Station 3 facility will be located adjacent to the existing facility at the intersection of E 5<sup>th</sup> Street and 26<sup>th</sup> Avenue E. within an R1B Residential District. This site is currently a public park with playground equipment. No prior structures are known to have been located on this site. The existing facility will remain operational while the new facility is being constructed. Following construction, the existing Station 3 will be demolished in its entirety. The area will be returned to public park with an outdoor public fitness area, park pavilion and a reconfigured paved pedestrian path linking to Carl Gullo Park to the southwest.

Stations 2 and 3 were constructed in 1982 and are beyond the financial viability of alteration and addition. These efforts are being made to allow the City of Superior's Fire Department to continue offering the required service and response to the city's residents, promote the health and wellness of the staff, provide firefighting training, and respond to future growth for the next 50-100 years.



City of Superior Fire Department Locations

## Goals and Objectives

OPN led visioning, programming and benchmarking sessions for the pre-design study to determine goals and objectives for the project and determine how the project can better serve those that use it and the community. Aligning leadership, civic, and design goals allows a pathway for decision making and consensus building. Working with the Ownership Team the following goals were established as guiding principles to ensure project success.

- Establish long-term community assets and align budgets to consider lifetime costs
- Promote a sense of pride in the department, the stations and the communities they serve through design informed by place and the health and wellness of the staff and public
- Provide shared resources and promote efficiencies for the Fire and Police Departments

## **Proposed Program Summary**

### **Station 2**

The total proposed program for the new Station 2 Facility is anticipated to be approximately 17,250 gross square feet. The proposed project is a single story non-separated mixed-use Fire Station Facility with supplemental programming space to consolidate the Police Department's tactical team gear and equipment. The station has a first-floor gross building area of 15,350 square feet with an additional 1,900 square feet of mechanical and training mezzanines located in the Apparatus Bay. The building contains a public community room, restrooms, office and meeting rooms, fitness room, kitchen and dayroom, dorm rooms, 3-bay apparatus for Fire Department vehicles, 1-bay apparatus for Police Department vehicles, as well as building and personnel support rooms, storage rooms, and grade-level terraces. Electric vehicle charging will be required; the department has recently purchased an electric engine that will be housed at Station 2. A PV array will occupy the roofs above the apparatus bay, dorms and community room. A portion of the site will be dedicated to future prefabricated training structures. Refer to **Appendix A - Building Program** for more information.

### **Station 3**

The total proposed program for the new Station 3 Facility is anticipated to be approximately 9,700 gross square feet. The proposed project is a single story non-separated mixed-use Fire Station Facility with a first floor gross building area of 8,715 square feet with an additional 985 square feet of mechanical and training mezzanine located in the Apparatus Bay. The building contains office and meeting rooms, restrooms, fitness room, kitchen and dayroom with grade-level terrace, dorm rooms, 2-bay apparatus as well as building and personnel support rooms and storage rooms. Electric vehicle charging will be provided for future electric trucks. A PV array will occupy the Apparatus Bay roof. A portion of the concrete aprons serving the existing apparatus bay will remain in place for the public exercise equipment pad and park pavilion pad. Removal of the existing station should be included within the scope of work. Refer to **Appendix A - Building Program** for more information.

### **Sustainability**

The project integrates the AIA Framework for Design Excellence to promote progress toward a zero-carbon, healthy, just, resilient and equitable built environment. Sustainability has been a central theme throughout the pre-design study, highlighting the importance of providing high quality, energy efficient, and environmentally responsible facilities.

To that effort, Stations 2 and 3 should be representative of their respective neighborhoods, respond to local materials, increase usable open space and improve site conditions. Station 2 is designed to be an economic driver for reinvestment in its industrial neighborhood.

The new facilities and respective sites will provide community spaces and engagement opportunities, both for pleasure and emergencies. Superior is not immune from increasing temperatures or reduced air quality from increasing wildfire episodes. Station 2's community room shall function as a community resilience center for cooling, air quality and shelter in the case of an emergency.

The facilities seek to achieve net zero energy. To support this goal, the designs will prioritize passive building standards and energy efficiency to target a gross energy use intensity of no more than 25 kBtu/sq.ft./yr. The project also seeks to implement onsite renewable energy, electrification to the greatest extent possible, advanced MEP systems, commissioning, and natural gas back up power generation as part of the base cost. The department will be exploring funding sources for a battery based microgrid separate from this scope of work. Formal certification for ILFI Zero Energy, ILFI Zero Carbon, and Phius Passive Building Standard will be explored and further considered for the project.

Of utmost importance will be the facilities' ability to address the health and safety of the first responders that live and work onsite. Fire Department staff have a much higher risk than the general population for PTSD, shift work sleep disorder and cancer. Design considerations include superior indoor air quality, elimination of harmful materials, advanced daylighting, natural ventilation and acoustical controls.

## Visioning and Benchmarking



A previous schematic pricing effort by OPN Architects for an alteration and small addition to Station 3 found that the investment in a retrofit of the existing station with an expected lifespan of 20 years would not provide a favorable return to the department or city. Furthermore, rapid rates of change in modern firefighting science, tactics and staffing models made the old facilities obsolete and expensive to modify. As a result, the project team shifted to planning for new facilities that are focused on a strategic vision for holistic, long-life facilities that can anchor the communities to which they belong.

Through a series of visioning exercises, the design team was able to establish the aesthetic preferences of department personnel and identify city and community identities. The team toured four peer facilities to compare and contrast approaches to station design, layout, and integration of new technologies. Madison Fire Station 14, Burnsville Fire Station 1, Egan Fire Station 1 and Bloomington Fire Station 4 were selected for tours. This process allowed the steering committee to provide real-time feedback on real-world examples direct to the design team.

### Survey / Questionnaire



In addition to working with the steering committee, it was important to engage all staff in the design process to ensure buy-in and confirm the goals and vision for the project. An online and anonymous questionnaire was distributed to all Fire Department staff for feedback on the new stations. A summary of the questions and responses are highlighted in **Appendix C - Department Questionnaire**.

### **Proposed Project Schedule**

The project team is anticipating full architecture and engineering design contracts with the selected firm(s) to be finalized by late November / early December 2024. Design work will immediately follow and groundbreaking is expected to occur in 2026. Refer to notices from the City of Superior for the most up to date schedules.

### **Applicable Building Codes**

- Wisconsin Commercial Building Code, SPS Chapters 361 to 366, incorporating:
  - International Building Code (IBC) 2015
  - International Energy Conservation Code (IECC) 2015
  - International Fuel Gas Code (IFGC) 2015
  - International Mechanical Code (IMC) 2015
  - Adopted portions of the International Fire Code (IFC) 2015
  - ICC/ANSI A117.1 (2009): Standard for Accessibility and Usable Buildings and Facilities
  - SPS Chapters 380-387; Plumbing

A preliminary code analysis has been performed for the new fire stations. The purpose of this review is to identify the major fire and life safety items that could impact the design of the project. Refer to **Appendix B - Initial Code Review** for more information.

## Site Evaluation

Preliminary site investigation was explored for both sites to understand overall neighborhood context, evaluate restraints and to discuss strategies for development of the buildings and sites.

The Fire Department provided the following guidance:

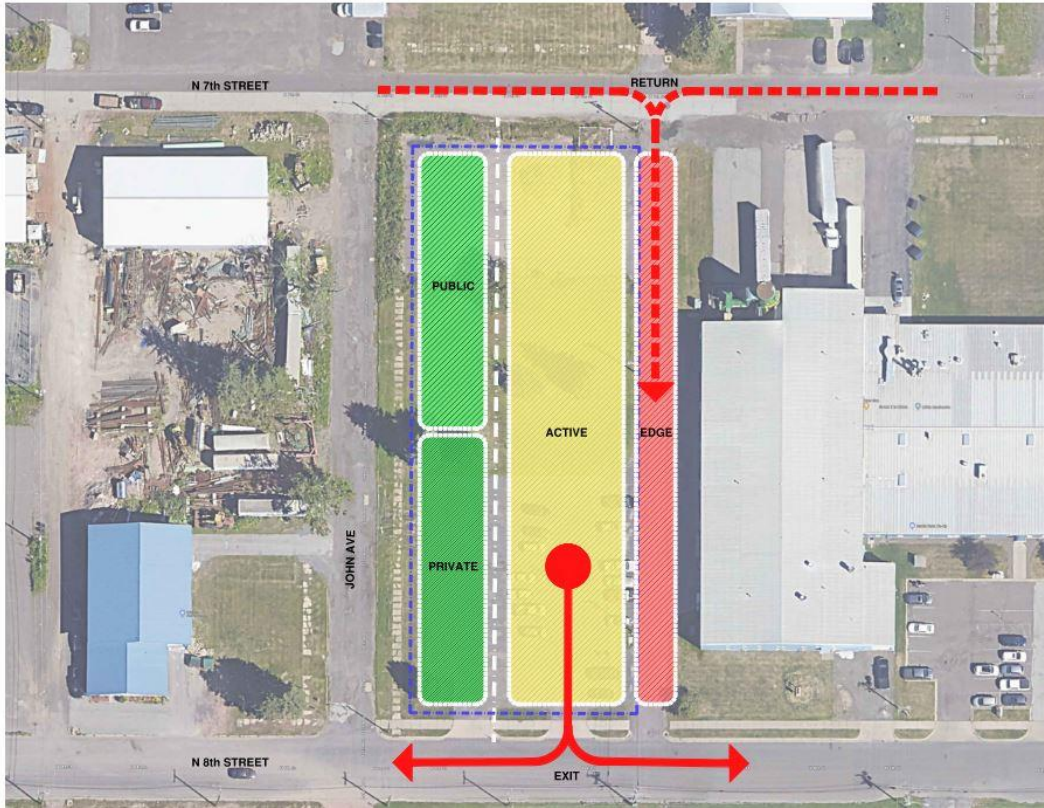
### Station 2

- Fire apparatus will exit onto N. 8<sup>th</sup> Street and return along N. 7<sup>th</sup> Street, with the assumption that the existing alley can be used to access the rear apron; the alley will require reconstruction to handle the loads of the apparatus
- The community room should be along John Avenue
- The future training area should be at the north end of the site

### Station 3

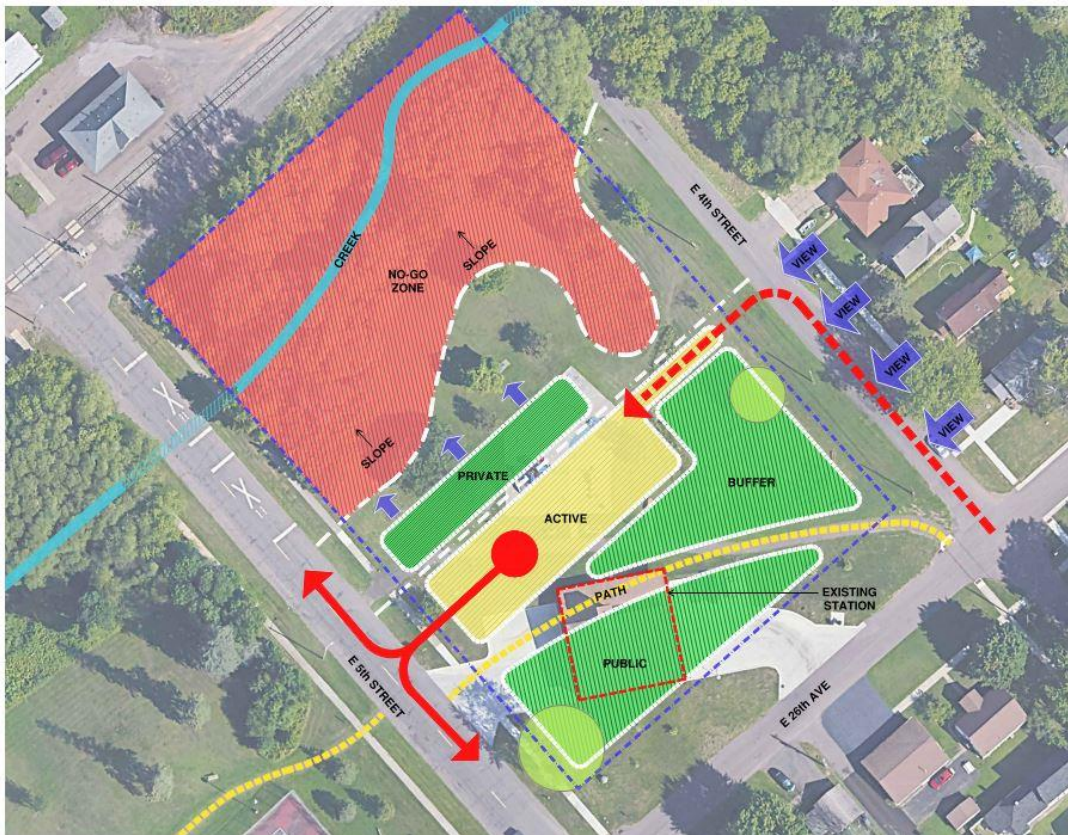
- Fire apparatus will exit onto E. 5<sup>th</sup> Street and return along E. 4<sup>th</sup> Street; the portion of E. 4<sup>th</sup> Street used by the apparatus will need to be reconstructed (work not included in this scope, see Civil Narrative)
- The existing playground equipment will not need to be relocated after removal; a new playground has been completed across the street at Carl Guillo park
- Department staff prefers to keep the living quarters to the north and use the apparatus bay as a buffer between their private space and the public park





Station 2 neighborhood context, top, and site analysis, above



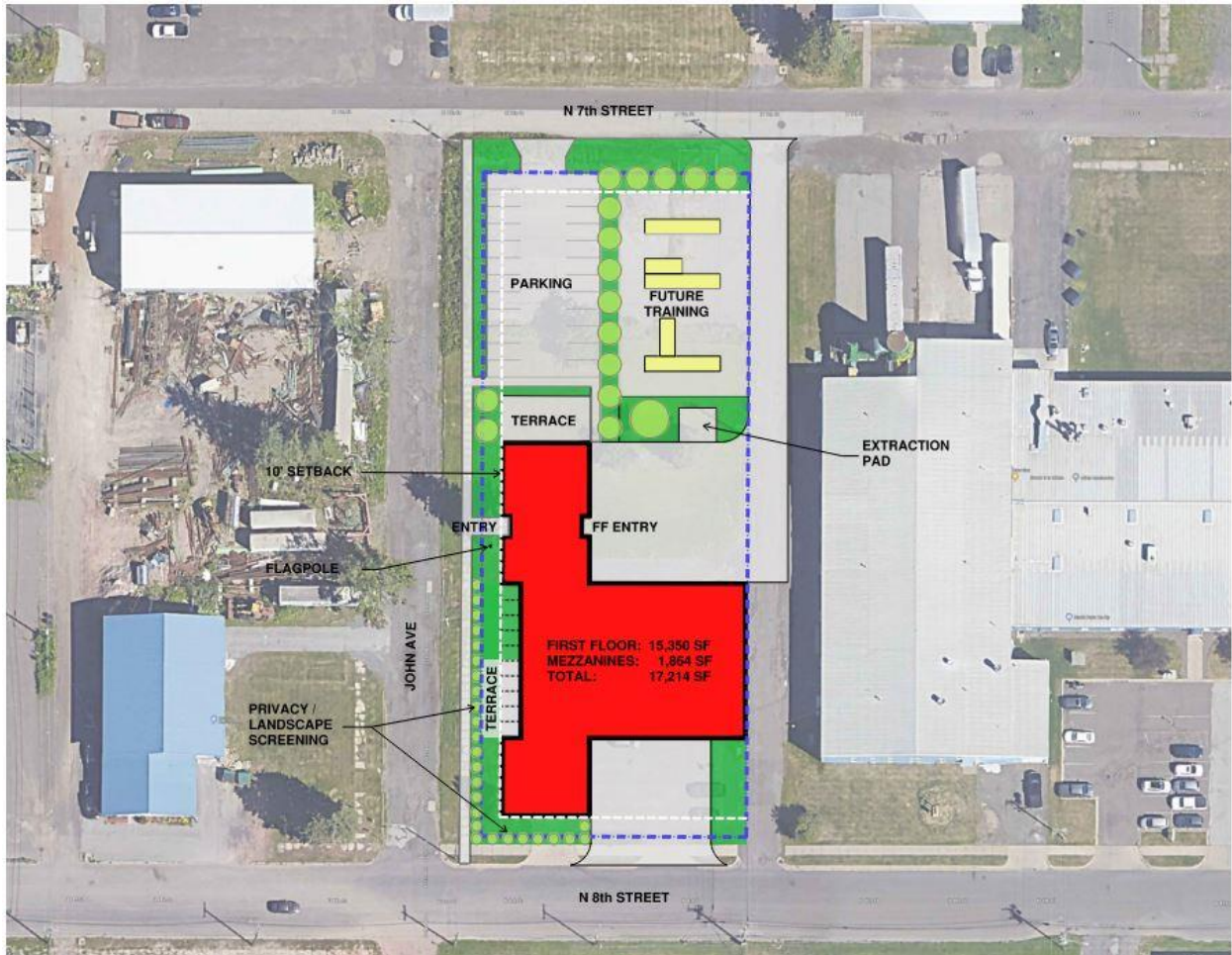


Station 3 neighborhood context, top, and site analysis, above



## Project Images

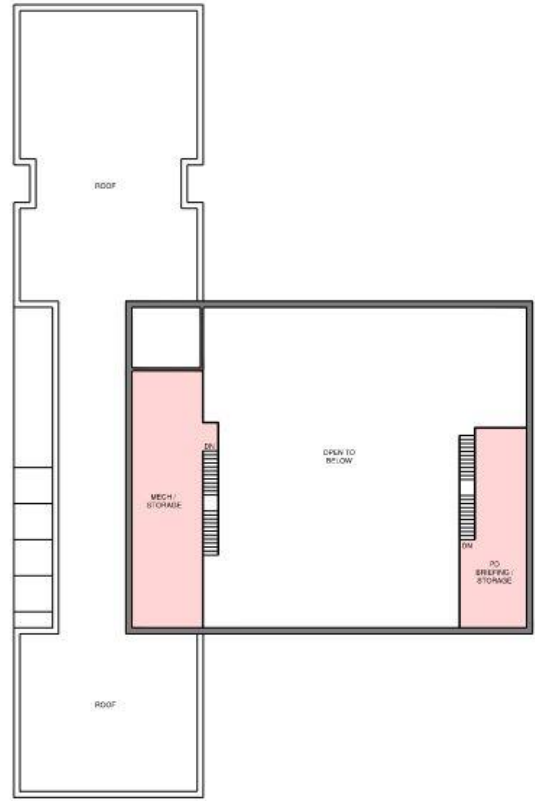
The following diagrams and renderings illustrate the overall project configuration and site massing. For additional project imagery and information, refer to the Concept Drawings and Renderings.



Station 2 Site Plan



FIRST FLOOR  
15,350 SF



MEZZANINE  
1,134 SF  
730 SF

Station 2 Floor Plans



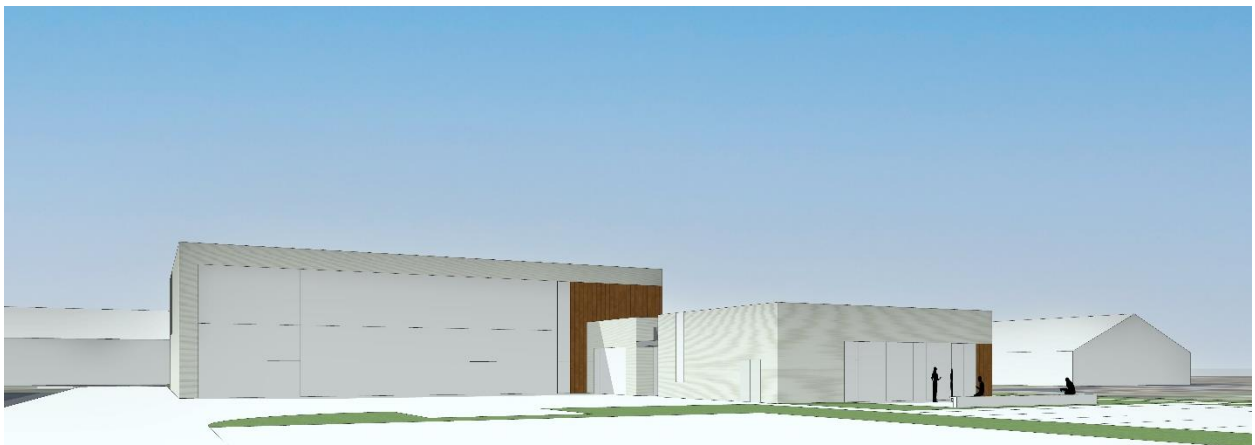
Station 2 Perspective from John Ave and N. 8<sup>th</sup> Street



Station 2 Perspective from John Ave



Station 2 Perspective from John Ave

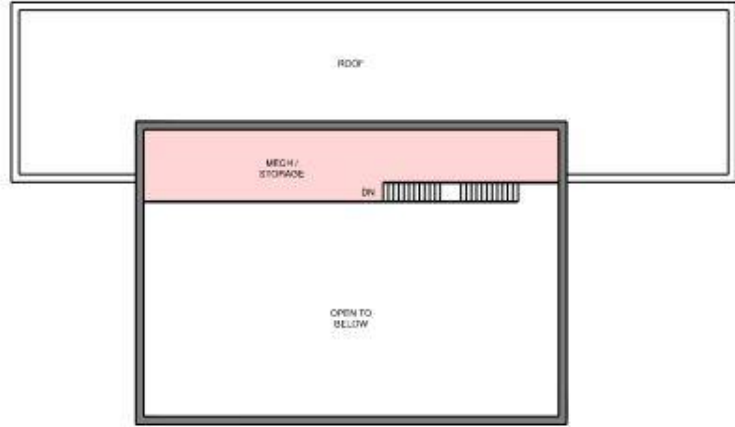


Station 2 Perspective from N. 7<sup>th</sup> Street





Station 3 Site Plan



MEZZANINE  
982 SF



FIRST FLOOR  
8,715 SF

Station 3 Floor Plans



Station 3 Perspective from E. 5<sup>th</sup> Street and E. 26<sup>th</sup> Ave



Station 3 Perspective from E. 4<sup>th</sup> Street

## Envelope Performance

The high performing envelope will align with Phius Passive Building Standards and ASHRAE 90.1-2022 mandatory provisions and prescriptive criteria for Climate Zone 7. Key materials in the envelope will also be targeted Red List materials and for low-embodied carbon emissions.

### Minimum Requirements for Energy Efficiency

- Infiltration rate (apparatus bay):  $\leq 0.35$  cfm/sq.ft. of gross enclosure surface area at 75 Pa
- Infiltration rate (all except apparatus bay):  $\leq 0.08$ /sq.ft. of gross enclosure surface area at 75 Pa or  $\leq 0.06$ /sq.ft. of gross enclosure surface area at 50 Pa
- Opaque mass wall U-value:  $\leq 0.071$  Btu/hr-ft<sup>2</sup>-F
- Opaque metal framed wall U-value:  $\leq 0.049$  Btu/hr-ft<sup>2</sup>-F
- Slab (unheated): R-20 hr-ft<sup>2</sup>-F/Btu for 24 in.
- Slab (heated): R-25 hr-ft<sup>2</sup>-F/Btu continuous
- Roof R-value:  $\geq R-35$  hr-ft<sup>2</sup>-F/Btu c.i.
- Fenestration, fixed U-value:  $\leq 0.25$  Btu/hr-ft<sup>2</sup>-F
- Fenestration, operable U-value:  $\leq 0.30$  Btu/hr-ft<sup>2</sup>-F
- Fenestration SHGC:  $\leq 0.36$
- Window to wall ratio:  $\leq 30\%$

### Priority Materials for Low-Embodied Carbon

Environmental Product Declarations will be required for the following materials to demonstrate that their global warming potential does not exceed industry averages or baselines.

- Cladding
- Insulation
- Concrete masonry unit
- Metal studs
- Gypsum board

### Priority Materials for Red List

Health Product Declarations or other manufacturer disclosures will be required for the following materials to demonstrate that they eliminate or minimize the following targeted red list chemicals to no more than 100 ppm.

- Insulation – no halogenated flame retardants



## Exterior Wall Assemblies

### Exterior Wall Type EW-1A

- CeraClad High Performance Fiber Cement rainscreen system, horizontal and vertical panels (see elevations), caulkless T-joints, coordinating corners, manufacturer concealed fastening system
- Integrated Airspace
- 6" Cascadia Fiberglass Clips with Subgirts
- 6" Mineral wool insulation, continuous
- Fluid applied air and water resistive barrier
- Densglass sheathing
- 6" metal stud framing
- Interior 5/8" gypsum board, painted
- Pre-finished metal coping at roof edge, color to match wall finish

### Exterior Wall Type EW-1B

- CeraClad High Performance Fiber Cement rainscreen system, horizontal and vertical panels (see elevations), caulkless T-joints, coordinating corners, manufacturer concealed fastening system
- Integrated Airspace
- 6" Cascadia Fiberglass Clips with Subgirts
- 6" Mineral wool insulation, continuous
- Fluid applied air and water resistive barrier
- 8" CMU (burnished at exposed side)
- Pre-finished metal coping at roof edge, color to match wall finish

### Exterior Wall Type EW-1C

- CeraClad High Performance Fiber Cement rainscreen system, horizontal and vertical panels (see elevations), caulkless T-joints, coordinating corners, manufacturer concealed fastening system
- Integrated Airspace
- 8" Cascadia Fiberglass Clips with Subgirts
- 6" Mineral wool insulation, continuous
- Fluid applied air and water resistive barrier
- 8" CMU (burnished at exposed side)
- Pre-finished metal coping at roof edge, color to match wall finish

### Exterior Wall Type EW-2A

- Weathering Steel flush wall panels with concealed fasteners, 1" reveal, 1" deep, 22 ga, 12" face, vertical orientation (BOD: Western States Metal Roofing Rust Wall)
- 6" Cascadia Fiberglass Clips with Subgirts

- 6" Mineral wool insulation, continuous
- Fluid applied air and water resistive barrier
- Densglass sheathing
- 6" metal stud framing
- Interior 5/8" gypsum board, painted

#### Exterior Wall Type EW-2B

- Weathering Steel flush wall panels with concealed fasteners, 1" reveal, 1" deep, 22 ga, 12" face, vertical orientation (BOD: Western States Metal Roofing Rust Wall)
- 6" Cascadia Fiberglass Clips with Subgirts
- 6" Mineral wool insulation, continuous
- Fluid applied air and water resistive barrier
- Densglass sheathing
- 8" CMU (burnished at exposed side)

### **Exterior Glazing Assemblies**

#### Exterior Glazing Type CW-1

- BOD: Cascadia High-Performance Universal Series Storefront, 3-pane Low-E 366 IGU with Argon, standard interior and exterior finish
- ALTERNATE: H-Window Timber Curtain Wall, 3-pane Low-E 366 IGU with Argon, foam insulator bar, ash interior, standard powder coat exterior

#### Exterior Glazing Type CW-2

- BOD: Kawneer 1600UT Ultra Thermal Curtain Wall, 2" x 7-1/2", 2-pane Low-E 366 IGU with Argon, standard frame finish selection

#### Exterior Glazing Type CW-3

- BOD: Kawneer 1600UT Ultra Thermal Curtain Wall, 2" x 7-1/2", 25mm multi-wall opal polycarbonate

#### Exterior Glazing Type W-1

- BOD: Cascadia High-Performance Universal Series Fixed and Casement Window Units (see elevations for casement locations), 3-pane Low-E 366 IGU with Argon, standard interior and exterior finish
- ALTERNATE: H-Window Fixed and Casement Window Units (see elevations for casement locations), 3-pane Low-E 366 IGU with Argon, foam insulator bar, ash interior, standard powder coat exterior

## Exterior Doors

### Main Lobby Entrance Doors (Station 2 only)

- Power Operated thermally broken aluminum frame glass door, BOD Kawneer 350T
- 2-pane Low-E 366 IGU with Argon
- Frame color to match exterior glazing assemblies
- Controlled access capability

### Secondary Exit/Entrance Doors (includes Station 3 Entry)

- Thermally broken aluminum frame glass door, BOD Kawneer 350T
- 2-pane Low-E 366 IGU with Argon
- Frame color to match exterior glazing assemblies
- Electronic card access

### Service Doors

- Insulated, painted, galvanized hollow metal doors and frames
- Color to match adjacent construction

### Operable Overhead Doors at Apparatus Ingress

- Thermally broken aluminum sectional door with full view insulated glazing
- Station 2
  - (3) at 14'x14', (1) at 12'x14' (Police bay)
- Station 3
  - (2) at 14'x14'
- BOD: Clopay Commercial model 902/3

### Operable Overhead Doors at Apparatus Egress

- High speed four-fold doors - heavy duty insulated steel panel construction with glazing
- Station 2
  - (3) at 14'x14'
- Station 3
  - (2) at 14'x14'
- BOD: Door Engineering FF300 Glazed Door System

### Operable Overhead Door at Fitness

- Thermally broken aluminum sectional door with full view insulated glazing
- (1) at 10'x10' at each Station
- BOD: Clopay Commercial model 902/3

## **Exterior Roofing Assemblies**

### Roofing System R-1 Membrane Roofing (Typical)

- 60-mil EPDM fully adhered membrane
- ¼" Fiber coverboard
- R-35 min. polyiso roofing insulation, tapered as required (ASHRAE 90.1-2022 standard)
- Composite Metal Roof Deck
- Support PV ballasted system

### Roofing System R-2 Membrane Roofing (Apparatus Bay)

- 60-mil EPDM fully adhered membrane
- ¼" fiber coverboard
- R-35 min. polyiso roofing insulation, tapered as required (ASHRAE 90.1-2022 Standard)
- Mass timber wood deck, FSC certified
- Support PV ballasted system

### Roofing System R-3 Low Slope Membrane Roofing

- 60-mil EPDM fully adhered membrane
- ¼" fiber coverboard
- R-35 min. polyiso roofing insulation
- Mass timber wood deck, FSC certified
- Roof mount PV system

## **Exterior Elements**

### Signage

- Exterior Building Signs
- Provide allowance for internally illuminated building sign and installation
- Refer to elevations for locations
- Final sign type, size, location and details to be determined
- Other code required exterior signs

### Flagpole

- Provide (1) flagpole at each site with US and State flags

### Community Room Terrace

- Permeable terrace pavers
- Building up-lighting
- Greenspace and plantings / trees

#### Kitchen / Dayroom Terrace

- Permeable terrace pavers
- Building up-lighting
- Greenspace and privacy plantings / screen wall
- Aluminum trellis, powdercoat, final design and profiles to be determined

Provide allowance for site trees, plantings, trap rock edging

#### Sidewalk Paving

- 5" depth
- ¾" road stone base (4" depth)
- 4,000 PSI at 28 days
- Provide allowance for sidewalk / pedestrian path lighting

#### Parking Lot

- 6" depth
- Pervious paving at parking stalls
- ¾" road stone base (4" depth)
- 4,000 PSI at 28 days
- Provide allowance for parking lot lighting

#### Apparatus Aprons and Drive Lanes

- 8" depth, radiant heating will extend 8 feet into aprons from apparatus bay
- ¾" road stone base (4" depth)
- 4,000 PSI at 28 days
- Assume existing alley at Station 2 will need to be replaced

#### Exterior Training at Station 2

- Crushed stone base, prep for future concrete pad / training structures

#### Trash Enclosure at Station 2

- 18' w X 10' d X 7' h overall
- (9) CIP foundations (sonotubes), 60" deep minimum
- (9) HSS 6x6x3/8 columns with welded cap, galvanized
- Horizontal HSS 4x2x1/4 at top, bottom and middle, galvanized
- (2) sets of hinged gates fabricated from 4x4x1/4 steel, galvanized
- Enclosure cladding to be weathering steel flush wall panels, same as those used at Station 2 building

### Public Exercise at Station 3

- Utilize portion of existing concrete apron, 30'x28'
- Exterior commercial rubber tile or matt
- Equipment material and installation allowance: \$25,000

### Park Pavilion at Station 3

- Utilize existing portion of concrete apron
- Provide allowance for (1) 20'x20' steel pavilion, clerestory roof style
- Fixed exterior park grill
- (2) picnic tables

### Exterior Sled Push at Station 3

- Exterior artificial grass turf
- 5" depth paving
- ¾" road stone base (4" depth)

## Interior Design Summary

### Assumptions

- Interior walls to be 3-5/8" 20 gauge metal studs with mineral wool sound batt floor to deck, unless noted otherwise
- Standard Level 4 finish everywhere unless noted otherwise
- 2" HM Frames, painted, unless noted otherwise
- 8' full light glass SC wood doors at all meeting / office spaces, Grade A Rift White Oak, shop finish, 10' frame height, sidelite and transom
- 8' SC wood doors, Grade A Rift White Oak, shop finish, unless noted otherwise
- Doors leading to the Apparatus Bay shall have seals at the head, jambs and sill to prevent air and contaminant intrusion to the station interior
- The demising wall between Apparatus Bay and station interior shall be constructed as an air barrier to prevent spread of contaminants
- Polished Concrete: liquid densifier, fine aggregate (salt and pepper) finish, Level C polish (1500 grit) with enhancing sealer
- Burnished Block: County Materials Premier Ultra with TK Bright Kure and Seal; Alternate: Amcon Amstone Burnished Architectural with IWR+
- 2x2 Acoustic Ceiling: Armstrong Optima PB Tegular, unless noted otherwise
- Coordinate A/V Allowance
- Finish Allowances (material cost)
  - Carpet: \$35/SY
  - Porcelain Tile: \$15/SF

- Health Product Declarations or other manufacturer disclosures will be required for the following materials to demonstrate that they eliminate or minimize the following targeted red list chemicals to no more than 100 ppm.
  - Carpet tile – no PVC, phthalates, halogenated flame retardants, antimicrobials, perfluorinated and polyfluorinated alkyl substances (PFAS)
  - Rubber base and rubber floor – no phthalates, halogenated flame retardants, antimicrobials, PFAS, or recycled rubber tires
  - Gypboard – no asbestos, halogenated flame retardants, or antimicrobials
  - Acoustic ceiling tile – no PVC, phthalates, asbestos, halogenated flame retardants, antimicrobials
  - Plastic laminate – no PVC, phthalates, antimicrobials, bisphenols, PFAS
  - Composite wood – no formaldehyde, PFAS
  - Porcelain tile – no antimicrobials, arsenic, cadmium, chromium, lead
  - Restroom accessories – no antimicrobials, arsenic, cadmium, chromium, lead
  - Walk-off mat - no PVC, phthalates, halogenated flame retardants, antimicrobials, PFAS
  - Wall covering – no PVC, phthalates, halogenated flame retardants, antimicrobials, PFAS, arsenic, cadmium, chromium, lead
  - Textile - no PVC, phthalates, halogenated flame retardants, antimicrobials, PFAS
  - Baby box – no PVC, phthalates, halogenated flame retardants, antimicrobials, PFAS, arsenic, cadmium, chromium, lead

#### Community Room and supporting Storage (Station 2 only)

- Carpet Tile
- Rubber Base, 4"
- Gypboard walls, painted
- 2x2 acoustic ceiling tiles
- Linear recessed lighting
- (1) Deko marker board, 4'x8'
- 8 LF quartz counter over plam base cabinets with single bowl undermount stainless steel sink and manual faucet
- Motorized solar roller shades, 3% open, recessed metal housing with closure panel

#### Public Unisex Restrooms (Station 2 only)

- Porcelain Tile Floor, 12x24, flush with adjacent floor
- Porcelain Tile Walls, floor to ceiling (9')
- 2x2 acoustic ceiling tiles
- 6" square recessed down lighting
- Vanity wall sconce

- Restroom Accessories:
  - Stainless steel grab bars
  - Frameless mirrors at vanity
  - Soap dispenser
  - Sanitary napkin receptacle
  - Touchless faucet
  - Touchless electric hand dryer

#### Quiet Room (Station 2 only)

- Carpet tile
- Rubber Base, 4"
- Gypboard walls, painted
- 2x2 acoustic ceiling tiles
- square recessed down lighting
- 3'-6" LF Quartz countertop / plam cabinetry with undermount stainless steel sink

#### Vestibules and Lobby

- Recessed walk off matts in vestibules
- Polished concrete
- Gypboard walls, painted
- Gypboard Ceiling, painted (+10')
- Recessed linear lighting
- Custom digital printed wall covering floor to ceiling, Dreamscapes Terralon PVC Free, 24 LF at Station 2, 12 LF at Station 3
- Ballistic glazing at control access door and sidelites between Lobby and Main Corridor
- Safe Haven Baby Box (Station 2), location to be determined

#### Conference Room

- Carpet Tile
- Rubber base, 4"
- 2x2 acoustic ceiling tiles
- Gypboard walls
- Linear Pendant direct/indirect with supplemental square recessed downlights
- 10 LF quartz countertop over plam base cabinets with single bowl undermount stainless sink and manual faucet, 4" quartz backsplash
- (1) Deko markerboard, 4'x6'
- Motorized solar roller shades, 3% open, recessed metal housing with closure panel



## Offices (Fire and Police)

- Carpet Tile
- Rubber base, 4"
- 2x2 acoustic ceiling tiles
- Gypboard walls, painted
- (1) Deko markerboard, 4'x4'
- Manual solar roller shades, 3% open, recessed metal housing with closure panel

## Main Corridor

- Polished Concrete
- Gypboard Ceiling (+10')
- Recessed Linear Lighting

## Kitchen / Dining / Dayroom

- Polished concrete floor
- Rubber Base, 4"
- Gypboard Walls, painted
- Armstrong Woodworks Grille Tegular, 2x2, with 5823 Bioacoustic infill (black)
- Linear lighting integrated into ceiling
- Decorative Pendants at Dining
- Manual solar roller shades, 3% open, recessed metal housing with closure panel
- Station 2 Kitchen:
  - 20 LF quartz counter with plam base and upper cabinets, full height quartz backsplash at kitchen
  - 4'x8' kitchen island, quartz counter with plam base cabinets
  - 12 LF built-in plam cabinetry at TV wall
  - (3) 36" refrigerator / freezer, ENERGY STAR
  - (2) dishwashers, ENERGY STAR
  - (1) 48" slide in induction range, ENERGY STAR
  - Type 1 Grease Hood
  - Double bowl stainless steel undermount sink
- Station 3 Kitchen
  - 28 LF quartz counter with plam base and upper cabinets, full height quartz backsplash
  - 3'-6" x 6'-6" kitchen island, quartz counter with plam base cabinets
  - 3'-6" x 12'-0" integrated dining counter, butcher block, vertical supports to be determined

- (2) 36" refrigerator / freezer, ENERGY STAR
- (1) dishwasher, ENERGY STAR
- (1) 48" slide in induction range, ENERGY STAR
- Type 1 Grease Hood
- Double bowl stainless steel undermount sink

#### Fitness

- Rubber athletic flooring tile, Encore Performance UltraTile 1" , flush with adjacent flooring
- Burnished CMU walls, 8"
- Open to Structure (no ceiling), paint
- Linear Pendant lighting, direct/indirect
- 12 LF wall mirrors at 8' height
- Equipment allowances
  - Station 2: to be provided by the Fire Department
  - Station 3: to be provided by the Fire Department

#### Dorm Corridor (Station 2 only)

- Polished concrete floor
- Rubber Base, 4"
- Gypboard walls
- Gypboard Ceiling (+10')
- Recessed linear lights

#### Dorms

- Carpet Tile
- Rubber Base, 4"
- Gypboard walls
- 2x2 acoustic ceiling
- Surface mount ceiling fixture
- (3) 24"x24"x96" plam wardrobe cabinets in each dorm
- 4 LF plam desk
- 3 LF plam bench (Station 3)
- 4 LF plam built-in shelving (Station 3, (3) 16" lengths in wall niche)
- Manual dual roller shades, recessed metal housing with closure panel
  - black-out roller shades with accessory tracks
  - solar shade, 3% open

#### Dorm Restrooms

- Porcelain Tile (flush with adjacent floor)
- Porcelain wall tile with Schluter base cove, floor to ceiling (9')

- Solid surface shower panels
- Shower Curtain Rod
- Quartz vanity counter with undermount bowl
- Gypboard ceiling
- square recessed downlights
- Vanity wall sconce
- Restroom Accessories:
  - Frameless mirrors at vanity
  - Soap dispenser
  - Toilet paper holder
  - Sanitary napkin receptacle
  - Touchless faucets
  - Touchless electric hand dryers
  - In-wall blocking for future grab bars and shower seats

#### Laundry

- Polished concrete floor
- Gypboard walls
- Rubber base, 4"
- 2x2 acoustic ceiling tiles
- Quartz counter with plam base and upper cabinets, single bowl undermount laundry sink with manual faucet, 13 LF at Station 2, 10 LF at Station 3
- (2) sets W/D at Station 2, (1) set W/D at Station 3

#### Janitor

- Polished concrete floor
- Gypboard walls, paint
- FRP panels at mop sink
- Rubber base, 4"
- 24" mop sink
- Bobrick stainless steel shelf with mop and broom holders

#### Shop / EMS Storage

- Polished concrete floor
- Burnished CMU block, 8"
- Open to Structure (no ceiling), paint
- Linear pendant lighting, direct/indirect
- Lockable EMS cabinet
- Free standing shelving units / workbench

### Turn Out Gear

- Polished Concrete Floor
- Burnished CMU block walls, 8"
- Open to Structure (no ceiling), paint
- Linear Pendant Lighting, direct/indirect
- (18) 36" wide gear lockers, wall mounted

### Decon / Dirty Restroom

- Polished Concrete Floor
- Burnished CMU block walls
- 10 LF stainless counter with utility sink and spray faucet
- 2x2 acoustic ceiling tiles
- 2x2 lighting
- Quartz vanity countertop with undermount sink
- Vanity Wall sconce
- Restroom Accessories:
  - Frameless mirror at vanity
  - Soap dispenser
  - Toilet paper holder
  - Touchless faucet
  - Touchless electric hand dryer
  - In-wall blocking for future grab bars and shower seats
- Equipment:
  - Gear Washer / Extractor (Ready Rack)
  - Combination Gear / Hose Dryer (Ready Rack / Circul-Air 6 gear set capacity)

### Apparatus Bay

- Polished concrete floor
- Full length trench drains centered at each bay
- Burnished CMU block walls
- Open to Structure, painted joists and MEP
- Exposed mass timber wood decking, clear finish
- High bay pendant lighting
- Hotsy wash system, equipment location to be determined
- BAF Powerfoil X4 HVLS Industrial Fans, 1 per bay
- Retractable electrical cord drops, (2) per bay
- Retractable air hose reels, (2) per bay

#### PD Lockers (Station 2 only)

- Polished concrete floor
- Burnished CMU block walls, 8"
- Open to Structure (no ceiling), painted
- Linear Pendant Lighting
- (18) 36"x24" tactical gear lockers with integrated bench and drawer

#### PD Storage (Station 2 only)

- Polished concrete floor
- Burnished CMU block walls, 8"
- Open to Structure (no ceiling), painted
- Linear Pendant Lighting
- Free standing shelving units

#### Mezzanines

- Concrete over metal decking, densified, hard troweled and sealed
- Galvanized steel railing and stair / bar grating treads

#### Miscellaneous Interior Elements

- ADA compliant signage identifying all permanent rooms or spaces

## STRUCTURAL NARRATIVE

Early conceptual structural elements outside of architectural scope are assumption that will likely change with full design services. This information provides base design criteria to cover scope and cost estimate.

### **Structural Design Requirements**

Building Code and Occupancy Category

- The project will follow ASCE7-10 Table 1-1, as referenced in IBC

Performance Requirements

- Live Load
  - building will be designed for applicable live load requirements
- Snow, Wind and Seismic Loads
  - Snow load is based on applicable code requirements for project sites
  - Wind load is based on applicable code requirements for project sites
- Floor Flatness / Floor Levelness Criteria
  - Based on the intended use of the slab on grade and/or elevated slab and the locations of access floor, the slab on grade is to be designed per industry standards with no special requirements
- Vibration Requirements
  - Areas shall be designed per industry standards with no special requirements
- Future Expansion
  - No future expansion is anticipated at either site
- Embodied Carbon
  - Provide Environmental Product Declarations for each unique concrete mix design to demonstrate embodied carbon reductions from a baseline
  - Provide Environmental Product Declarations for rebar to demonstrate embodied carbon reductions from a baseline
  - Provide FSC certified wood for structural wood elements

Sub-Structure System

- Foundation System
  - No geotechnical report has been provided yet, but shallow foundations are anticipated for Station 3; Station 2 will be constructed on a site with known fill, foundation design recommendations will be provided after publication of the geotechnical report
  - Column foundations are anticipated to be shallow spread footings. Soil conditions are currently being investigated for recommended foundation design, allowable bearing values and bottom of footing elevations

- Foundation frost walls will be cast in place concrete walls supported on continuous footings.
- 3,000 psi concrete will be used for footings. 4,000 psi concrete will be used for grade beams and piers
- Polystyrene insulation will be provided at the building perimeter per the Architectural Narrative
- Slab-on-grade Construction
  - The typical slab-on-grade will be 4" minimum, 4,000 psi concrete reinforced with welded wire fabric or fibers (typically). Thickened reinforced concrete slabs will be provided at highly loaded areas (Apparatus Bay), below CMU interior partitions, and at locations with depressed slab locations. The apparatus bay slab will have embedded radiant heat tubes. The radiant heating will extend 8 feet into the ingress and egress aprons to prevent snow and ice build-up at apparatus bay doors.
  - Slab depressions will be provided, as required, for flooring, equipment, etc.
  - A 10-mil polyethylene vapor retarder will be provided below the slab. A 15-mil polyethylene vapor retarder will be provided below thickened slabs
- Superstructure System
  - Floor construction (Mezzanines) will be composite steel and concrete supported by wide flange steel beams
    - Floor is assumed to be 3" concrete slab on 3" metal deck for a 6" total slab thickness
  - Roof Construction will be bar joist and wide flange steel girder construction
    - K-series or LH-series bar joists spaced at 5'-0" to 10'-0" on center and 1-1/2" - 3" metal roof decking
  - Columns and/or Bearing Wall Construction:
    - Mass Timber, Wide flange and/or HSS will be used depending on architectural desire
  - Lateral Load Resisting System
    - Steel tubes and/or steel bars will be used for the lateral support of the structure
  - Exterior Enclosure
    - Exterior walls
      - Rainscreen exterior cladding on insulated enhanced metal panel on Steel Stud Backup or CMU backup (Apparatus Bay)
      - Steel stud depth and gauge will be finalized during the Design Development phase. The final gauges and details will be selected by the stud supplier using a performance specification.
  - Additional Structural Components

- Station 2 Trellis - structural aluminum sections and tubes, powder coat finish



## M/E/P/T NARRATIVE

Early conceptual MEPT elements outside of architectural scope are assumptions that will likely change with full design services. This information provides base design criteria to cover scope and cost estimate.

### **Fire Protection**

Fire protection water service will be brought into the main level Janitor room. Backflow preventer and appropriate equipment (such as fire pump, jockey pump, pump controller) will be provided if there is not adequate water pressure. A double interlock pre-action fire protection system will be installed to serve storage spaces and heavily occupied spaces. The double interlock pre-action system requires the detection of smoke, as well as, a flame to melt the fusible link on a sprinkler head for the sprinkler system to activate. A traditional combination wet system will be installed to serve all other areas of the building. The building will be considered light hazard except for the following areas: Mechanical Rooms, Janitor rooms, utility and Storage rooms.

### **Plumbing**

Domestic water service will enter the building in a location to be determined. The system will be protected with an RPZ backflow preventer and will be piped to plumbing fixtures as needed. The domestic hot water system will utilize a heat pump water heater with an electric coil. The domestic hot water will be distributed at 115 degrees F to various fixtures and will be circulated back to the water heater to be stored at 140 degrees F.

Commercial water fixtures will be installed with the floor plans call for them. All plumbing fixtures will be low flow fixtures to reduce water consumption.

All sanitary piping from water closets and urinals will be piped to the sanitary system. All sanitary piping above ground will be cast iron and piping below ground will be PVC.

Primary and secondary roof drains will be installed as required by code. All storm piping above ground will be cast iron and piping below ground will be PVC.

### **Add Alternate: Water Reuse System**

The apparatus bay at Station 2 and Station 3 will include a reclamation system to capture and reuse graywater from vehicle washing in a closed loop system. The water reclamation system will be Aquabio Bio Complete or similar. The fire training area at Station 2 will also include a reclamation system to capture and reuse graywater from training activities in a closed loop system.

## **Mechanical**

The mechanical systems will be a combination of distributed water-to-air heat pumps, water-to-water heat pumps and radiant floor heat. All systems will be connected to a closed-loop vertical bore field. Preliminary estimates for the geothermal bore field include:

- Station 2: 1 Darcy Well, approx. 52 tons
- Station 3: (10) 300' wells, and a 300,000 Btu/hr backup boiler to meet peak heating requirements

All water source heat pumps will be high efficiency units with electronically commutated motors and variable frequency drives. A direct digital control system will be provided for control of the ground loop pumps, heating loop pumps, water-to-water heat pumps and the radiant floor heating systems.

A dedicated outdoor air system (DOAS) will provide ventilation air to the building to meet ASHRAE 62.1-2022. A desiccant wheel energy recovery unit will be provided to transfer energy from the exhaust air to the ventilation air. Outdoor air systems will be equipped with a minimum of MERV 13 filters.

An outdoor air quality sensor will track PM2.5 at a minimum.

## **Living Quarters**

The office, living, and training areas will be served by water-to-air distributed heat pumps connected to the hydronic geothermal system. Each multi-occupant space, individual office, and individual dormitory will be equipped with a thermostat.

A commercial kitchen exhaust hood and associated exhaust fan will be provided for the kitchen area. An indoor air quality sensor in the community room will track CO2 and PM2.5 at a minimum.

## **Apparatus Bay**

The apparatus bay will be heated only with a hot water radiant floor system connected to the hydronic geothermal system. An electric boiler will provide supplemental heat to the apparatus bay during extreme conditions and for quicker recovery. High Volume Low Speed (HVLS) ceiling fans will also be provided to circulate airflow during the summer months.

A Plymovent vehicle exhaust system will be installed to exhaust fumes from the emergency vehicles when they are operating inside the apparatus bay. A fume detection system will be installed to control a 'purge' exhaust fan in the apparatus bay if exhaust fumes build up in the space. A Makeup Air Unit will also be required.

## Electrical Lighting Systems

The building interior and exterior lighting levels will be designed to meet the current IES recommended lighting levels. Light fixtures will utilize LED technology. All fixtures will utilize energy saving drivers with dimming capabilities, will have a CRI of at least 80, and will have a minimum rated life of 50,000 hours (LED board and driver). Emergency egress lighting will be accomplished using the building lighting fixtures connected to local batteries. Exit luminaires will be self-powered LED type. The lighting design will comply with the ASHRAE 90.1 standards for allowable watts per foot, and will target a 10% lighting power density reduction from the ASHRAE 90.1-2019 baseline for improved performance. Exterior luminaires will use low temperature drivers.

A complete networked distributed lighting control system will be provided, which will include local controls, vacancy and occupancy sensors, daylight sensors, and time scheduling. Additional mandatory controls for lighting and receptacles will be installed as required and include manual switching, automatic controls to reduce lighting levels based on daylight or occupancy, and automatic controls to de-energize receptacles in offices based on occupancy.

Required fixture types and illumination levels will be as follows:

Area Description	Luminaires	Controls	Light Levels
<b>Typical Room Spaces</b>			
<b>Task Light</b>	Under cabinet light luminaires will be provided on all upper cabinets.	Luminaires will have integral rocker switches when a single luminaire is used, and a wall switch when multiple luminaires are grouped together.	
<b>Multi-Stall Toilet Rooms</b>	Down lights and recessed perimeter cove light on wet wall.	Key switch with ceiling-mounted vacancy sensor	15 to 25 foot-candles
<b>Single Stall Bathrooms</b>	Down lights and recessed perimeter cove light on wet wall. Down lights and vanity luminaire.	Wall switch type vacancy sensor	15 to 25 foot-candles
<b>Small and Medium Conference Rooms</b>	2'x4 dimmable volumetric type luminaires and dimmable down lights.	Centralized lighting control system	30 to 50 foot-candles
<b>Large Conference Rooms</b>	Linear suspended with 40% up and 60% down distribution. LED downlights at perimeter.	Centralized lighting control system	30 to 50 foot-candles

Area Description	Luminaires	Controls	Light Levels
<b>Indoor Parking</b>	4' suspended industrial luminaires.	Centralized lighting control system	30 to 50 foot-candles
<b>Training Room</b>	Multiple light fixture types for general lighting including narrow recessed linear, down lighting, and accent lighting.	Centralized lighting control system	
<b>Storage Rooms</b>	Recessed acrylic lens luminaires in rooms with ceilings, suspended industrial luminaires in rooms without ceilings.	Wall switch type vacancy sensor	10 foot-candles
<b>Janitors Closets</b>	Recessed acrylic lens luminaires in rooms with ceilings, suspended industrial luminaires in rooms without ceilings.	Wall switch type vacancy sensor	15 foot-candles
<b>Mechanical / Electrical / IT Rooms</b>	4' suspended industrial luminaires.	Timer type wall switch	25 to 30 foot-candles
<b>Open Office</b>	2'x4' or 2'x2' dimmable volumetric type luminaires.	Centralized lighting control system	30 to 50 foot-candles
<b>Private Office</b>	2'x4' or 2'x2' dimmable volumetric type luminaires.	Multi-level switching will ceiling-mounted vacancy sensors	30 to 50 foot-candles
<b>Stairs</b>	Linear wall-mounted luminaires at each landing.	Integral occupancy sensor	20 foot-candles
<b>Exterior Lighting</b>			
<b>Sidewalk</b>	Pole-mounted LED pedestrian scale luminaires or LED bollards.	Centralized lighting control system	0.5 to 1 foot-candles
<b>Parking Lot</b>	Pole-mounted LED area luminaires.	Centralized lighting control system	0.5 to 1 foot-candles
<b>Exterior Exits</b>	Wall pack luminaires.	Centralized lighting control system	As required by code.

## Renewable Energy Systems

Station 2 will incorporate a 124-kW photovoltaic array with microinverters. Solar modules will be located on ballasted south-facing racks over the roofs of the apparatus bay, community room, and dormitory areas. Photovoltaic panels will have an efficiency of at least 22%.

Station 3 will incorporate a 49-kW photovoltaic array with microinverters. Solar modules will be located over the sloped roof of the apparatus bay, oriented 140 degrees from true north. Photovoltaic panels will have an efficiency of at least 22%.

## Power Systems

The primary electrical service for the Stations will be served by a new pad mounted utility transformer with underground primary conduits routed to overhead poles in the project vicinity. The incoming secondary service will be 480Y/277V. The secondary service conduits will be routed underground from the transformer into the building and will terminate at the main distribution switchboard. Secondary service metering will be provided in accordance with the local utility company requirements. Station 3 will require 3-phase service brought to the site.

Power will be distributed throughout the building at 480V, with step down transformers provided for 208Y/120 volt loads. Lighting will be circuited at 277V from 480V branch panels located throughout the building. 208Y/120 volt general power panels will be provided on each floor in each area to serve general power needs. Distribution equipment will be provided with dead front construction, and copper bussing, and sized with a minimum of 20% spare circuits. Transformers will meet the 2016 Department of Energy efficiency standards. Transformers will have aluminum windings, and will be rated for 150 degree C temperature rise over ambient. Transformers will be installed on concrete housekeeping pads. Transient voltage surge suppression (TVSS) will be provided on the main switchboard and all distribution panels. 480V panels will be provided as required to serve mechanical equipment. Motors of 1.0 horsepower and larger will be served at 480 volt, 3 phase, 3 wire. Motors at  $\frac{3}{4}$  horsepower or less will be served at 120 volt, 1 phase, 2 wire. Fans, pumps, and primary cooling equipment will be controlled by variable frequency drives.

There will be a generator or emergency power system installed to maintain continuous service for the Fire Department. UPS systems will be provided in a closet or room, location to be determined.

## Electric Vehicle Charging

Station 2 and 3 will be fitted with (1) Level 3 EV charger each.

## Grounding Systems

The building grounding system and equipment grounding will be provided per NEC for all distribution panels, panelboards, transformers, motor starters, light fixtures, and wiring systems. A green insulated equipment ground copper conductor, sized according to NEC 250, will be run with all feeders and branch circuit conductors.

## Fire Alarm Systems

The stations will be protected by an addressable fire alarm system with voice evacuation capabilities. System initiation will consist of individually addressable smoke and heat detectors, addressable pull stations, and sprinkler flow switches. A remote LCD annunciator will be located

near the main entrance. System notification will consist of ADA and NFPA compliant visual only and combination audio/visual devices using speakers and voice alarms.

Smoke detectors will be located in electrical rooms, storage rooms, and equipment rooms. Duct-type smoke detectors to close smoke dampers and shut down air distribution systems will be provided. Heat detectors will be provided in Janitor's Closets, kitchens, and mechanical rooms. Pull stations will be located with a travel distance of 200 feet and at all exterior exits. Door unlocking and hold-open devices will be provided for corridor doors per the life safety plans and applicable codes. All fire alarm system wiring will be installed in red-colored conduit.

## **Technology**

### **Telecommunications Pathways and Spaces**

Two (2) 4" conduits will be installed from a new Telecommunications Room located on Level 1 to the property line. A communications manhole will be located at the property line to act as a meet me point for Service Providers. One conduit will be reserved for primary Service Provider, and one conduit will be reserved for future Service Provider.

A new Main Telecommunications Room will be located on Level 1. The purpose of this room is to support Inter and Intra Building Cabling, voice and data equipment, and service provider cabling and equipment. Walls will receive ¾" fire treated plywood installed 6" to 8'-6" AFF. The rating stamp will be exposed. The room will have dedicated power, cooling and standard lighting. Cooling will be 24/7/365, maintaining 68 degrees F to 72 degrees F. The EF will be humidified to maintain a humidity level between 30% and 60%. Dedicated 120 volt and/or 208 volt power receptacles will also be required. Doors will be equipped with proximity readers, door status switches, exit devices, and surveillance cameras for entry access. New 19" wide X 7' high equipment racks with vertical and horizontal wire management will be installed as required. Grounding of all equipment to a ground bar located in the room will be required.

Telecommunication Rooms: The Telecommunications will be located within a room on the Mezzanine. The purpose of the TR Room is to support horizontal and backbone building cabling, and voice and data equipment. Walls will receive ¾" fire treated plywood installed 6" to 8'-6" AFF. The rating stamp will be exposed. The room will have dedicated power, cooling and standard lighting. Cooling will be 24/7/365, maintaining 68 degrees F to 72 degrees F. The room will be humidified to maintain a humidity level between 30% and 60%. Dedicated 120 volt and/or 208 volt power receptacles will also be required. Doors will be equipped with rough-ins for proximity readers, door status switches, exit devices and camera locations for entry access. New 19" wide X 7' high equipment racks with vertical and horizontal wire management will be installed as required. Grounding of all equipment to a ground bar located in the room will be required. UPS power will be provided for owner-provided network switches.

Server Room: The server room will be located at the mezzanine level, size to be determined. The purpose of the Server Room is to support voice and data server applications. New 24" wide X 42"

deep X 84" high equipment cabinets will be installed. Quantities and locations have not been reviewed by the Owner and will be identified and finalized during the Design Development phase. For the purpose of this phase, assume four (4 cabinets) at Station 2 and two (2) cabinets at Station 3, and assume 12 category 6a cables to each cabinet. Utilize the same manufacturer as the horizontal structured cabling. The room will have dedicated power, cooling and standard lighting. Cooling will be 24/7/365, maintaining 68 degrees F to 72 degrees F. The room will be humidified to maintain a humidity level between 30% and 60%. Dedicated 120 volt and/or 208 volt power receptacles will also be required. Doors will be equipped with rough-ins for proximity readers, door status switches, exit devices and camera locations for entry access. Grounding of all equipment to a ground bar located in the room will be required.

### **Structured Cabling System**

The telecommunications infrastructure will be a "structured cabling system" designed and installed to EIA/TIA requirements. A manufacturer's System Assurance Warranty of at least 20 years will be required for the system. The system will be required to be fully tested to CAT 6 performance requirements and will be tested at 250 MHz. All horizontal cabling will be Category 6, 4-pair unshielded twisted pair cable for both voice and data. Cabling will be identical for all applications.

All Category 6 cabling will terminate on modular patch panels on equipment racks in the TRs. All horizontal cabling installed in plenum spaces will be plenum rated. Quantities and locations have not been reviewed by the Owner and will be identified and finalized during the Design Development phase. Utilize CommScope "Systimax" as the preferred manufacturer for materials pricing.

Patch Cords and Cross-connects: All patch cords and cross-connects for voice, data, and other technology systems will be provided and installed by the Owner. Horizontal cabling will be installed to feed ceiling-mounted 802.11 wireless requirements throughout the entire floor plan of each facility. The 802.11 wireless access points will be furnished and installed by the Owner.

Intra-Building Backbone Cabling System Description – Pairs of copper riser cable will be installed from the Mechanical Room to the Telecommunications Room. Cables will terminate on rack mounted modular patch panels. Utilize General Cable or Superior Essex for materials pricing. Quantity of cable pairs will be confirmed during the Design Development phase.

Strands of 50 micron laser optimized multi-mode fiber optic cable will be installed from the Mechanical Room to Telecommunications Room. Fibers will terminate in rack-mounted fiber panels and will terminate with SC connectors. Utilize Corning and CommScope for materials pricing. Quantity of fiber optic strands will be confirmed during the Design Development phase.

Strands of 50 micron laser optimized multi-mode fiber optic cable will be installed from the Mechanical Room to Server Room. Fibers will terminate in rack-mounted fiber panels and will terminate with SC connectors. Utilize Corning and CommScope for materials pricing. Quantity of fiber optic strands will be confirmed during the Design Development phase.

## Security Systems

A Networked-based access control system will be provided. New card readers (bio-metric), door contacts, electrified hardware, request to exit devices, and control panels will be installed. Control modules will be located in the Telecommunications Room. Quantities and locations have not been reviewed by owner and will be identified and finalized during the Design Development phase. For the purpose of this phase assume 20 card readers at Station 2 and 10 card readers at Station 3.

Each door that requires a card reader shall have the following: Card reader – biometric, request to exit device, door contact and electrified hardware. Note, electrified hardware and door contact shall be provided and installed by door hardware contractor.

The access control system will be integrated with the City's existing access control system.

Cameras will be provided and connected to a new video surveillance system. Cameras will be IP based, with Category 6 cable drops to each camera. New video management server (VMS) and external storage, if applicable, will be required and video will be distributed through a dedicated or VLAN Ethernet network.

The VMS will be capable of recording a minimum of 30-frames-per-second simultaneously across all cameras. Storage will be sized such that 30-days storage retention is possible with 50% motion detection at 15 fps at H.264 compression. Monitoring of the cameras will be via a workstation.

Interior cameras will be fixed cameras with varifocal lenses. Cameras will be mounted in a micro dome enclosure (less than 6" diameter) with a smoked lens.

Quantities and locations have not been reviewed by the Owner and will be identified and finalized during the Design Development phase. For the purpose of this phase assume 20 cameras at Station 2, 10 cameras at Station 3. Vicon is the preferred manufacturer. Other manufacturers will be considered.

## Audio Video Systems

A/V Presentation System: Conference Rooms, Community Room and Police Department Briefing Mezzanine, Audio/video presentation system which supports projectors and/or LCD displays, source equipment, audio amplification and control system. A wall plate with HDMI, VGA, and 3.5mm audio will also be required. For the purpose of this phase utilize Extron for the control system. Quantities and locations have not been reviewed by the Owner and will be identified and finalized during the Design Development phase.

Overhead Paging System: A 70 volt overhead paging system will be provided. The system will be a single zoned system. Recessed ceiling speakers will be provided throughout the facility, with horns provided in utility spaces. Quantities and locations have not been reviewed by the Owner and will



be identified and finalized during the Design Development phase. The paging system will be integrated into the telephone system. Telephone system by others.

Fire Department alarm and notification system: Audible and visual (lighting) throughout each station, tunable red light system and slow to build sound volume.

Digital dispatch Monitors: Assume (6) monitor locations distributed through Station 2, and (3) distributed through Station 3.

### **Specialty Systems**

Cable Television (CATV) System: A coaxial cabling infrastructure will be provided to distribute CATV programming. The coaxial system will be RG-6 quad-shield in the horizontal, distributed from the Telecom Closets. RG-11 or 0.5" aluminum cabling will be provided from the source signal's service to each TR. RG-6 quad shielded cable will be installed from each television location to the closest TR. The TR will contain the required amplification and splitting required for each individual drop. The Contractor will provide amplifiers, taps, and splitters, as required based on the design, to maintain a 6 dB +/- 3 dB signal level at each jack. Quantities and locations have not been reviewed by the Owner and will be identified and finalized during the Design Development phase.

In-Building Distributed Antenna System: Provide DAS system with repeaters as required

Master Clock System: No requirement for this system has been identified at this time.

Telephone and Network: All telephones and network equipment shall be provided and installed by the owner.

### **Commissioning**

Coordinate with Owner's third-party commissioning agent to ensure the project's construction and installation meets the owner's project requirements for performance. Support the commissioning process for building systems (mechanical, electrical, plumbing, and renewable energy systems), controls, and the building envelope, in accordance with ASHRAE 90.1-2022 and ANSI/ASHRAE/IES Standard 202-2018. In addition, for envelope commissioning, support compliance with ASTM E2947-21a Standard Guide for Building Enclosure Commissioning. Field testing for the building envelope will include building air leakage testing, infrared imaging, and water penetration testing.

## CIVIL NARRATIVE

Early conceptual Civil elements will likely change with full design services. This information provides base design criteria to cover scope and cost estimate.

Civil site work for the proposed Superior Fire Department Station 2 and Station 3 will include earthwork, site grading, sanitary sewer service to the building, potable water service to the building, water main relocation and fire protection, storm sewer installation, storm water management, pavement installation for parking areas and drives, bicycle and pedestrian ways and plazas. The existing sites will need to be regraded to allow for the new building footprint.

### **Grading and Earthwork**

The existing Station 2 site is presently used as surface parking for the adjacent city owned business center. The existing paving and adjacent alley will be demolished in preparation for the new facility.

The proposed Station 2 first floor will be at grade elevation. This will be the high point on the site and the building will extend South-North requiring some cut and fill at the building footprint. The cut and fill will need to be determined at a future phase.

The existing Station 3 site is presently used as a city park. The existing playground equipment and ground cover will be demolished in preparation for the new facility.

The proposed Station 3 first floor will be at grade elevation and expected to be the high point on the site. The building will extend East-West requiring some cut and fill at the building footprint. Additional fill will be needed east of the building for the east apparatus apron and drive.

Sitework, including fill and grading will also be required at the south end of the property where the existing station, concrete drives and aprons will be removed.

### **Sanitary Sewer Service**

A new sanitary sewer is to be located for the new stations, locations to be determined. A new sanitary service will be installed from the existing sewer to the mechanical rooms.

### **Water Main Relocation and Water Service:**

New water mains are proposed for each site. New watermain taps will be required for this project. New hydrants will need to be reviewed during design to determine spacing around building and adequate coverage. New hydrants are likely to provide coverage around the proposed building and adjacent to proposed parking areas.

### **Storm Sewer and Storm Water Management**

Station 2 and Station 3 will be designed to detain the 95<sup>th</sup> percentile rain event (1.19 inches) and will meet applicable city code requirements for stormwater runoff.

Storm water from Station 2 will collect in a 36,500 gallon underground detention tank and then drain to the north of the site. The detention tank will be StormTrap DoubleTrap detention system or similar. Where possible, infiltration strategies such as rain gardens and permeable pavement will be incorporated. The proposed building will have an internal roof drain system.

Storm water from Station 3 will be designed to infiltrate on site to the greatest extent possible. Infiltration strategies such as rain gardens and permeable pavement will be incorporated. Water that cannot be infiltrated on site will drain to the north and south of the site. The proposed building will have internal and external drain systems.

Additional review of Civil work will be required to adequately size storm water and runoff requirements.

### **Pavements & Sidewalks**

Pavements, sidewalks and pedestrian areas are conceptually shown on the architectural drawings. Pavements and sidewalks are proposed to be concrete, as that material is more cost effective (long term) and avoids excessive heat buildup. Low-embodied carbon concrete, with Environmental Product Declarations for each mix design, will be targeted. It is anticipated that pavers will be installed where possible in pedestrian plazas to allow storm water infiltration and provide improved aesthetics. In locations of low traffic and collection points of storm water, pervious pavement will be installed for storm water quality management.

Wherever possible, connectivity to promote bicycle and pedestrian travel will be provided including connection to the local sidewalk system. ADA compliance will be absolutely maintained.

All new vehicular access roads to onsite parking and Apparatus Bays will be required. Station 2 has a parking area north of the proposed building, as well as pavement for pre-fabricated training structures.

Station 3 has parking areas to the east of the proposed building. A portion of E 4<sup>th</sup> Street, from the proposed access drive south to 26<sup>th</sup> Avenue E will need to be reconstructed to handle the weight of returning Fire Department vehicles. This work is assumed to be a city improvement project and not included in this scope of work.

# APPENDIX A – BUILDING PROGRAM

Station 2 Space Requirements Worksheet					
	# of Spaces	NSF per Space	NSF Subtotal	NSF Total	% of Total NSF
<b>First Floor</b>					
<b>Public Areas</b>				<b>2,090</b>	
Vestibule	1	85	85		
Lobby	1	385	385		
Community Room / Training / EOC / ICC 500	1	1,200	1,200		
Training room storage	1	180	180		
Public Toilets	2	60	120		
Public Toilet with shower	1	60	60		
Wellness / Mother's room	1	60	60		
<b>Living Areas</b>				<b>2,565</b>	<b>19.96%</b>
Vestibule	1	85	85		
Kitchen/Dining	1	450	450		
Day Room	1	275	275		
Fitness Room	1	650	650		
Sleeping Room	7	115	805		
Unisex Shw/Restroom	3	100	300		
<b>Administration</b>				<b>785</b>	<b>6.11%</b>
Watch Commander	1	135	135		
Conference Room	1	300	300		
Office 1	1	125	125		
Office 2	1	125	125		
Police Office	1	100	100		
<b>Operations Support</b>				<b>1,600</b>	<b>12.45%</b>
Trash	1	40	40		
Janitor	1	40	40		
Workshop / EMS storage	1	100	100		
Turnout Gear Storage	1	275	275		
Dirty Restroom	1	90	90		
Dirty Room	1	120	120		
Domestic Laundry	1	100	100		
Exterior Supply Storage	1	75	75		
IT	1	70	70		
PD robotics, drones, bunker	1	350	350		
PD Lockers	1	340	340		
<b>Apparatus Bays</b>				<b>6,000</b>	<b>46.69%</b>
Apparatus Room	1	6,000	6,000		
<b>Unassigned</b>				<b>1,900</b>	
Mechanical / Storage Mezzanine	1	1,150	1,150		
Briefing Mezzanine	1	750	750		
<b>Site</b>				<b>-</b>	
Site Accessibility					
Parking	Yes				
Signage					
Stormwater	Yes				
Landscape	Yes				
Irrigation					
Outdoor Space - green space / mental health space	Yes				
Special Features - Training	Yes				
<b>Total Net Assignable Area</b>				<b>12,850</b>	<b>NSF</b>
<b>Total Net Assignable Area x Building Grossing (1.35) = Net Occupiable Area</b>				<b>17,348</b>	<b>GSF</b>

Station 3 Space Requirements Worksheet					
	# of Spaces	NSF per Space	NSF Subtotal	NSF Total	% of Total NSF
<b>First Floor</b>					
<b>Living Areas</b>				<b>2,090</b>	<b>24.91%</b>
Vestibule	1	90	90		
Kitchen/Dining	1	400	400		
Day Room	1	400	400		
Fitness Room	1	460	460		
Sleeping Room	4	135	540		
Unisex Shw/Restroom	2	100	200		
<b>Administration</b>				<b>490</b>	<b>5.84%</b>
Watch Commander	1	180	180		
Staff Workroom	1	180	180		
Police office	1	130	130		
<b>Operations Support</b>				<b>1,031</b>	<b>12.29%</b>
Trash	1	40	40		
Janitor	1	106	106		
Workshop/Storage/EMS	1	150	150		
Turnout Gear Storage	1	180	180		
Decon Restroom	1	100	100		
Dirty Room	1	200	200		
Domestic Laundry	1	110	110		
Exterior Supply Storage	1	65	65		
Hose Storage / MISC	1	80	80		
<b>Apparatus Bays (Secured)</b>				<b>4,780</b>	<b>56.97%</b>
Apparatus Room	1	3,800	3,800		
Mechanical / Storage Mezzanine	1	980	980		
<b>Site</b>					
Site Accessibility					
Parking					
Signage					
Stormwater					
Landscape					
Irrigation					
Outdoor Space(s)					
Special Features					
<b>Total Net Assignable Area</b>				<b>8,391</b>	<b>NSF</b>
<b>Total Net Assignable Area x Building Grossing (1.35) = Net Occupiable Area</b>				<b>9,655</b>	<b>GSF</b>

## APPENDIX B – INITIAL CODE REVIEW

This preliminary code review is based on the 2015 International Building Code and applicable Wisconsin Amendments as currently adopted by the State of Wisconsin. Code review shall be updated to reflect current I-Code adoptions and Wisconsin amendments at the time of future design and construction.

### Building Description

#### Station 2

- Single Story with Mezzanines
- 30' building height
- 17,250 GSF
- Construction Type VB
- Fully sprinklered
- Fire alarm

#### Station 3

- Single Story with Mezzanine
- 30' building height
- 9,700 GSF
- Construction Type VB
- Fully sprinklered
- Fire alarm

### Occupancies

- Small Assembly Areas: Dayroom, Conference Room, Kitchen
- Assembly A-3: Community Room (Station 2)
- Business Group B: offices, meeting rooms, restrooms, storage rooms, kitchen, dayroom, building support rooms
- Residential R-2: Dorm rooms (1/2 hour rated fire partitions with 20 min door and frames)
- Low Hazard Storage S-2: Apparatus Bay
- Non-separated Occupancies
  - A-3 Occupancy most restrictive area = 24,000 SF with Type VB Construction

## APPENDIX C – DEPARTMENT QUESTIONNAIRE

### Superior is unique because.....

1. We are surrounded by water and have a very large response area with many different types of challenges we could face on any shift.
2. It is filled with history. The twin ports helped build up the Midwest coming off of the ocean. The fire department alone was founded in 1883.
3. We have a minimum of 9 and a maximum of 12 on duty firefighters to protect the entire city. Our physical and mental health is extremely important to get the job done safely.
4. We service a wide variety of hazards
5. We serve right on the shore of lake superior
6. Superior Fire is unique due to the number of disciplines we are involved in because of the wide variety of hazards in our city. This requires a lot of equipment and training facilities.
7. The city is unique in its geography. Short of adding more stations, I think our current station locations are well placed.
8. Of our water/land interface areas. We have a huge amount of shoreline in this city.
9. We have a lot of industrial and water in our response area.
10. Industry, heroin, people failing to thrive
11. diverse industry and residential mix
12. It is a small city but has so many unique features (and hazards) that other cities its size do not. The lake, the beaches, the old historic buildings, the shipping industry, and our natural setting.
13. I've never seen a city have so many good opportunities and drop the ball on every single one of them (shakes head).
14. I've never seen a city have so many opportunities and drop the ball on all of them.
15. Waterfront/Specialized Industry. The feel of small town community.
16. Variety of industry, socioeconomic backgrounds, and geography.
17. "Industry, Lake Superior, Our parks"
18. We have water front mixed with industry. Small city/smaller department with big hazards in the city.
19. The amount of shoreline with the industry that is here at the tip of Lake Superior
20. Superior has all four seasons and a welcoming small town feel.
21. We have Lake Superior surrounding us. We also have big industrial companies in the city. Also we have lots of older buildings throughout the city.
22. It is a safe place for families. It has a good industrial base with good petroleum partners in the community.

23. Being surrounded by water, fire station should be built to serve in the expending response areas to the water. It's also a growing city and should have the growth designed into the new buildings
24. Our industry and our people. We have big city industry along with big city problems in a small town setting
25. We have a high industrial/residential interface while also having one of the largest municipal forests in the country.
26. Its location, diverse population and diverse city components. It also seems like the city is committed to making it an even more livable city.
27. Of all the different industries and walks of life
28. Because of its ports and terminals
29. Superior is a small city with a lot going on. There is oil and gas, municipal forest, railways, Lake Superior with large cargo ships, and other large industry. The people work hard and take pride.
30. It's a small city with a lot going on.
31. Superior's heavy industrial presence and miles of shoreline require Superior Fire to plan for a large array of hazards. These additional hazards require specialized equipment that has to be stored.

## The highest priority for a new Fire Station is...

1. I believe the highest priority for a new fire station especially station 2 is more space and a new building. station 2 feels like its falling apart every shift there is something new.
2. More space is crucial. we are always getting more and more equipment and hopefully more staffing and we need room for it all.
3. A station that will last over time
4. A station that accommodates firefighter health and wellness
5. Having the ability to grow and house more firefighters and equipment. Space for firefighter training, workout/mental health wellness areas.
6. Room for our varied equipment is always a challenge. Most important to me is quality training options. This should include ladders, hose movement, search and high rise at the least
7. Planning for the future is important. Expansion possibilities and the inevitable technology changes should be factored into the design.
8. Ability to respond quickly to emergencies. The station should give the impression of a fit and ready response force for any situation.
9. This is a stressful job, it's helpful to come back to a station you enjoy spending time in. A nice kitchen, day room, wellness area, and fenced in patio area would be nice
10. Space to put our stuff and all the new stuff they're going to get us



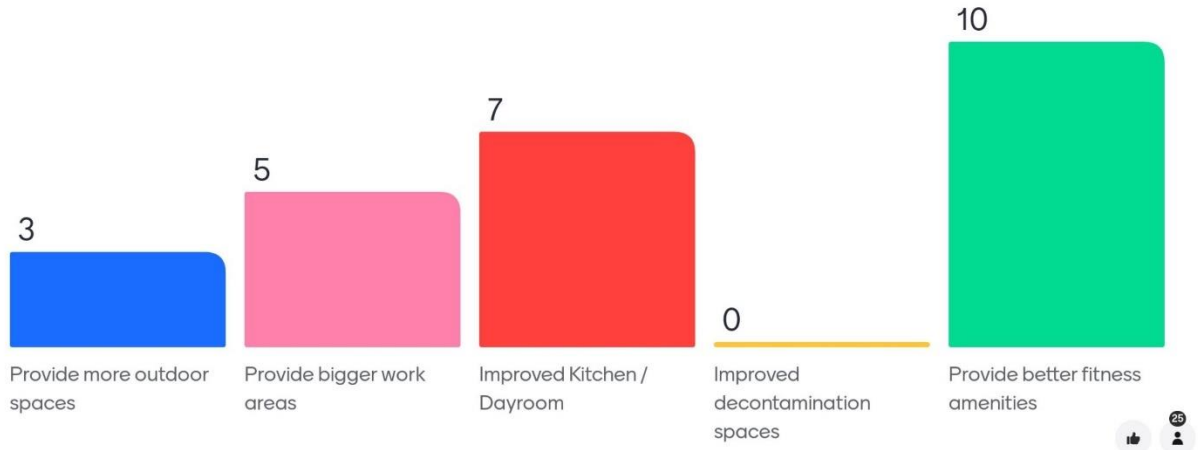
11. Better living space for our crews. We NEED more bathrooms and bigger bedrooms in safer buildings. We have outgrown our space. Our department has changed so much over the years, from the amount of calls we go on, to the type of calls we go to. The amount of specialty skills and equipment we use have expanded and our stations can no longer support all of that. And we need to take into account our crews mental health and the need for a place to recharge between the hard calls. Right now our bedrooms are too small and cramped to do that.
12. to make it feel like a home. We spend a 1/3 of our working lives here and want it to feel like a home so we can attempt to relax after normal hours. That means no white walls, lights that can dim/off
13. To make it feel like a home. We spend a 1/3 of our working lives there and would like to be able to attempt to relax. that means no white walls and lights that dim or shut off.
14. To meet the needs of the Dept's operations as well as the living quarters. We spend approx 1/3 of our working lives here and consider this as an extension of our personal homes.
15. Cleanliness, functionality, comfort
16. Comfort and job efficiency
17. Firefighters health and wellbeing. I think it's important that the living area has a homey feel to it. The HQ has more of a business/institutional feeling in the crews living area.
18. As the department grows our need for space increases. I think a bigger station 2 with more room for equipment, bigger kitchen, etc will help
19. To be able to serve the people better out of a clean and functional station.
20. Functionality.
21. Bigger space for the firefighters to store more response equipment in the station. As well as updated station living space.
22. Placement in an area that helps with response time as well as the ability to grow in that space as the need for Firefighters and services increase
23. Workout areas, Private Outdoor living space, Icebath! And room to grow. For the outside stations to have extra room for Rescue/Boats/UTV/HazMat and extra vehicles.
24. Upgrading the facility to make it a more functional work space for crews and equipment. We could use to outgrow our current facilities which can cause inefficiency in our response times
25. Safety and public wellbeing. FFs should be able to respond quickly and efficiently to emergencies while giving citizens a feeling of safety and security
26. Functionality - does it help improve the efficiency of the work and does it make the members more effective?
27. AC, gym, an outdoor patio for the crews, and comfortable living quarters
28. Training, safety, future staffing
29. I'd like to see us look to the future. Make sure we have the ability to expand with the growing call volume and diverse responses.
30. I'd like to see a fire station that has ample space for physical and mental wellness.

31. Expansion.
32. Additional equipment storage for specialized response and an emphasis on firefighter fitness/well-being. FF's need to maintain a high level of fitness the old stations do not provide for.

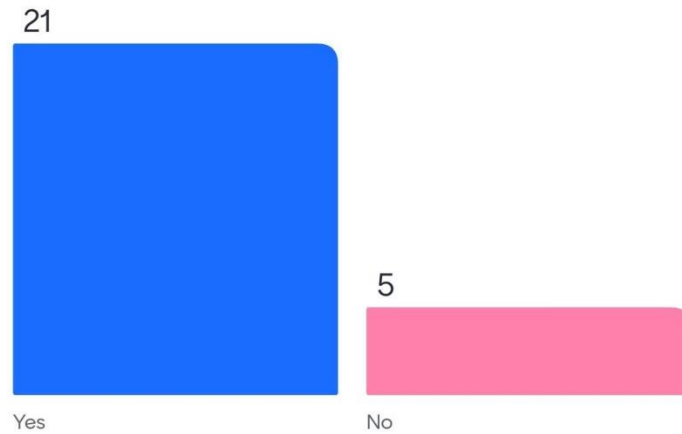
## What three words define success for a new station?



## What is the #1 thing that could be improved about your current station?



## Do you feel safe in your current station?



# What, if anything, would increase the level of safety you feel?

1. working at station 2 one of our exterior doors doesn't open from the outside so that would be cool if it worked. I like the use of key fobs on the exterior of the building.
2. Better PPE and room-air decontamination measures.
3. Separated public parking from employee parking
4. Having employee entrances clearly defined and separate from public entrances.
5. Proper workout area
6. Separation from the public. People get too close to our windows and walk in our stations if the doors are open. I understand we work for the "taxpayers" but they need to respect this is my home.
7. [prevent the general public from] walking right along the outside of the building.
8. [prevent the general public from] walking along the outside wall of the station.
9. Automatic doors that close
10. Windows that open in dorm rooms
11. Cameras on employee parking area, or enclosed employee parking.
12. more privacy for the crews
13. The lighting around the building. Create a buffer of some sort so people aren't likely to walk up to the building. A good security to enter the building. And a way that our vehicles is safe.
14. Having windows that open.
15. With our current fire stations I feel safe.
16. A fobbing system that controls access to the building
17. Healthier living conditions. Functional drop lights and radio speakers. Safer workout out room. Private outdoor wellness area.
18. Better security doors/space between public spaces and living/working quarters.
19. Badged entry versus codes and more spaces for Devon.
20. I feel safe at the stations
21. Either fob or change the code to the doors. Doors that close. Access into the stations are too easy.
22. The return of signs with lighting to alert traffic when a response vehicle is about to enter traffic during an emergency.
23. Lighted signs for when we drive into the road.
24. Controlled parking lots. Multiple times I have heard people attempting to rummage through FF vehicles parked at station 2.

# What new and innovative ideas would you include in the new Stations?

1. It isn't new but if we have a 2 story fire station i would love a fire pole. An open concept dayroom and kitchen. Individual bunks is still a must.
2. positive pressure hvac system close to turnout lockers. Sauna, ice bath.
3. Not new but all members of the crew need access to computer stations due to an increase of online based trainings etc... Better work bench and tool availability for equipment maintenance as well
4. "An ice bath for wellness.
5. No Automatically activated sinks in the members bathrooms - they are difficult to use when brushing teeth/shaving."
6. Extra office/bedroom space that can be finished at a later date for the potential of future growth
7. Saunas
8. Nothing fancy
9. I'd like the bedrooms to have windows that open and better zones for heating and cooling that we can control. I do not want an HVAC that is so advanced it has to be controlled by a computer that only one person has access to. I would like selective dispatch and lighting options in all areas to change the tone/temp of lighting for easier working and less headaches.
10. a dishwasher and a fire pole or slide
11. a dishwasher and living quarters on the second floor so we can install a fire poll or slide.  
Otherwise we do not need to re create the wheel. Just keep it simple.
12. steam showers (post fire decon)
13. Easy to use technology, individual work spaces, sauna, yoga/mindfulness dedicated space
14. Unique dispatch tones
15. Speakers in every single room with adjustable volumes
16. Soft alerting for calls
17. CAD screens in all major areas
18. Dorms having individual climate control
19. Sauna and ice baths
20. Dedicated head drying space
21. Dedicated gear drying space
22. Lights on bay doors to show when they are completely open
23. not new but better HVAC control for the crews, multiple bathrooms
24. The dispatch communications are clear no matter where you are in or out of the building.  
Multiple zones in the HVAC system to control the climate.
25. Bathroom faucets that you turn on and off manually. And windows that open.

26. Solar power, sauna,
27. Ice bath for recovery and selective dispatch only paging out the units that are necessary for the call
28. To build a station specifically designed to help in response to water emergencies. To also build a station that has the ability to be job specific, "Rescue" or "Hazmat" specialized stations.
29. Indoor/outdoor workout transition. A place that allows for larger groups of people to exercise together (platoons or giving public wellness classes)
30. Selective paging, areas for community engagement, multi use areas.
31. Sauna, ice baths, fire poles, ceiling fans in dorms
32. Workout room away from the dorms for night pumps. A place where a firefighters family can stop by and have a little privacy when/ if needed. Rope rescue/ tech rescue training areas.
33. Area for meditation and mental wellness.
34. Modern gym, low maintenance flooring, training tower

## We didn't ask, but I envisioned...

1. a roof top patio area to escape the chaos of the day at the end of the day. we are at work for 48 hours straight and some days suck. decompression is needed.
2. I envision a large custom kitchen table yapping in the morning and being able to smoothly get up from said table and not have a long walk/run to the fire truck. HQ feels like a mile from the truck
3. I envision a nice dedicated workout room and more than 1 bathroom
4. "Less wasted space. Crew areas closer to rigs. HQ has such a long distance crew's have to go to get to their rigs.
5. Things planned to work together. Example- HQ has ceiling fans blocked by plymo rails"
6. A space that is easy to clean and holds up well to frequent foot traffic. - no light colored floors, minimize surfaces that will need cleaning.
7. A beautiful modern building with a comfortable space inside
8. Larger bays
9. I'm not sure what you're looking for with this question. Confusing.
10. We maintain this building ourselves. We don't need all the fancy crap and glass garage doors to make more work for us than we already have just maintaining the building.
11. "A building that doesn't require a Phd on how to operate it!
12. Also, windows that can be opened in App bay ceiling height for cross ventilation"
13. Minimalistic design, use money for functionality: good HVAC, safety and health measures, comfortable beds, easy to clean and use bathrooms and kitchens, dishwashers.

14. Fire pole
15. Wood stove
16. Out door work out area
17. Dedicated work/tool bench
18. I would like the dorms and the kitchen be as close to the bay as possible. HQ feels to far away from the trucks. The app bay should be the anchor of the whole station
19. Maybe irrigation for the lawn
20. Easy to clean and replace
21. Dedicated lockers in kitchen and dorms for all personnel assigned
22. A bigger, more practical station 2
23. That the building will have a good flow so not everything is at the other end of the building when you need it. Easy access in and out of the building.
24. Functional windows.
25. I have no questions
26. Nothing in particular. I am very thankful for the support to replace the 2 out side stations to improve the visibility in the community as well as the living and working conditions for the ff's
27. I envisioned station 3 to be designed to be a rescue specific station. Design to have Water, UTV and light rescue. Station would have high points around the station for rope rescue training.
28. Station 2 would be a HazMat/Drone specific station. Giving room for all that goes with that.
29. Highly efficient utility systems, pushing us ahead in green energy use
30. A welcoming and comfortable fire station equipped with top of the line technology and room to expand the department in the future
31. Tech rescue training areas. Sauna for after fires to get carcinogens out of our pours. A spot for our workout room where we can slam weights even when the crew is "sleeping".
32. A station equipped for the future with room for expansion of the fire department for both staffing and equipment. The ability to run multiple crews out of one station.
33. A modern fire station with a large enough gym for both weightlifting and high intensity workouts. I also would like to see a training facility to hone FF skills while on duty.

# The one thing that makes me excited about this project is...

1. The opportunity to get a new station. and hopefully love it.
2. Being able to give my input.
3. Better quality facilities will help us to be better prepared and better serve our residents
4. clean living areas and adequate workout facilities.
5. Having modern stations with well working heat and AC
6. More space, and gyms
7. Safer station to live 1/3 of my life in that is bright and open. More space for our equipment.
8. to see if the city drops the ball yet again.
9. How it will impact the future for those who will use these spaces for years.
10. It seems the admin and planners are taking our input seriously
11. There is/was so much wrong with the current HQ after it was built is exciting to get all those things right in the next building
12. The city is investing in the dept and the future of the dept
13. More space, a new station that is functional
14. To have a building that is new. And built like a up to date firehall. A nicer place to live when I'm not home.
15. Having a safe, updated station.
16. Updated station life. As well as more work space
17. The new station designs are better for operations and living conditions
18. Growth and Expansion
19. The ability for future generations and possible growth
20. Larger workout space and extra space for future department expansion
21. Improved effectiveness.
22. New training possibilities
23. Having a spot for PD at our stations. Unity.
24. Stations that support the mission of the department. Stations that allow for physical and mental wellness. Stations with room for growth as run diversity increases.
25. A new station 2 that has room to train firefighting and rescue skills.



## APPENDIX D – EARLY COST SUMMARY

### Station 2

<b>A Building Construction Costs</b>		<b>Notes</b>	<b>Cost</b>
1	Direct Cost	Building Systems	10,040,150
2	Permit Fees	1%	98,770
3	Builder's Risk Insurance	0.09%	10,403
4	CCIP Insurance	1.7%	196,507
5	Design Contingency	5%	577,962
6	Construction Contingency	3%	346,777
7	Construction Fee	3%	346,777
<b>8</b>	<b>Total Construction Cost</b>		<b>11,617,346</b>
<b>B Soft Costs</b>		<b>Notes</b>	<b>Cost</b>
1	Off-site utility Improvements	Fiber costs not included	
2	Furnishings, equipment	\$100/SF	1,725,000
3	Design Fees	Architect, Structural, MEPT/FP Civil Engineering Landscape Architect Kitchen consultant - commercial	880,000
4	Surveys and Geotech	Completed, not included	
5	Radio / Communication system	Not included	
6	Inspection / Commissioning	\$2/SF	34,500
7	Financing Costs	Not included	
<b>8</b>	<b>Total Soft Costs</b>		<b>2,639,500</b>
<b>Total Probable Project Cost</b>			<b>14,256,846</b>

### Station 3

<b>A</b>	<b>Building Construction Costs</b>	<b>Notes</b>	<b>Cost</b>
1	Direct Cost	Building Systems	6,417,032
2	Permit Fees	1%	63,219
3	Builder's Risk Insurance	0.09%	6,657
4	CCIP Insurance	1.7%	125,744
5	Design Contingency	5%	369,834
6	Construction Contingency	3%	221,901
7	Construction Fee	3%	221,901
<b>8</b>	<b>Total Construction Cost</b>		<b>7,426,288</b>

<b>B</b>	<b>Soft Costs</b>	<b>Notes</b>	<b>Cost</b>
1	Off-site utility Improvements	Extend 3 phase power to Station 3, Fiber costs not included	30,000
2	Furnishings, equipment	\$100/SF	970,000
3	Design Fees	Architect, Structural, MEPT/FP Civil Engineering Landscape Architect Kitchen consultant - commercial	563,000
4	Surveys and Geotech	Completed, not included	
5	Radio / Communication system	Not included	
6	Inspection / Commissioning	\$2/SF	19,400
7	Financing Costs	Not included	
<b>8</b>	<b>Total Soft Costs</b>		<b>1,582,400</b>

<b>Total Probable Project Cost</b>		<b>9,008,688</b>
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