



HAINES BOROUGH ALASKA  
HAINES PUBLIC SAFETY FACILITY  
PROGRAMMING NARRATIVE

FEBRUARY 17, 2021

BETTISWORTH<sup>NORTH</sup>



architecture • planning

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## **EXECUTIVE SUMMARY**

On the 13<sup>th</sup> and 14<sup>th</sup> of January 2021, Bettisworth North and TCA together with our consultant team, conducted virtual workshop meetings with the Haines Public Safety Committee to discuss the operational and space needs of each department that operate out of the existing Public Safety Building. These operational and space needs provide the starting point for the design of either a new Public Safety Facility or the reuse of an existing building. A detailed list of department spaces and square footages can be found on the Program Space List in the Appendices.

During the virtual workshop meetings, it was determined that the design team would need to identify and investigate several preliminary scenarios for housing the operations of the Public Safety departments, to address concerns and questions from the greater community. These concerns focus on budget and whether purchasing and/or remodeling existing buildings in Haines would achieve an acceptable result. The preliminary scenarios include: remodeling the existing Public Safety Building, purchasing and remodeling the Floreske building, building new on the existing public safety site with alternatives for the existing building, and building new on the Borough-owned site next to the existing Public Safety Building site. The BN/TCA team studied each of these scenarios with our cost estimators and developed preliminary unit costs for each element applicable to each scenario. A comparative cost matrix of the scenarios is included in the Appendices. The remodel scenario descriptions are listed in the following paragraphs. The scenarios involving new construction are described in further detail in the next section. The Site Space Plan Drawings for each scenario can be found in the Appendices.

### **Scenario – Remodel Existing Public Safety Building**

Considerations include the following:

- It will be necessary to find temporary facilities offsite to house Dispatch, VFD, PD and Assembly meetings during any remodel activities of the existing building.
- Major foundation repair to slow continuing settlement and “bounciness” of slab on grade. Currently the floor slab flexes when emergency vehicles exit the bays.
- Major upgrades to structural, mechanical and electrical systems to meet current code for an essential facility. Essential facility codes require the building structure to be designed 33% stronger than standard buildings.
- Complete demolition down to the framing for hazardous materials abatement, and replacement of rotted members of crawlspace foundation.
- The narrow apparatus bays and doors limit the ability to store upgraded/future apparatus.
- The building’s elevation relative to Haines topography currently puts it within the maximum tsunami inundation zone which is not recommended for an Emergency Operations Center.
- The building’s overall square footage limits essential operations if multiple departments and functions continue to be housed under the same roof. Bringing egress routes and restrooms up to current accessibility standards would further decrease space for department functions.

## **Scenario – Purchase and Remodel Existing Floreske Building**

Considerations include the following:

- The building's overall square footage is not adequate to house the operations essential for both the VFD and PD. This would result in splitting up the 2 departments thereby losing efficiencies if co-locating, mainly during emergency responses.
- The 50 feet building depth is too shallow to stack the apparatus, therefore additional bays would need to be constructed on the one end of the building. For instance, two ambulances could not be parked end to end in the bays. The doors to the bays are also narrower than ideal, which may limit housing future apparatus.
- The Holding areas (Building Code group I-3) require the entire building to have an automatic sprinkler system. This would need to be installed.
- The concrete slab in the shop slopes to a central trench drain running the width of the bays. The floor would need to be leveled if the space is to be used as workspace or meeting space.

### **Next Steps**

Bettisworth North and TCA are requesting that the Public Safety Committee provide direction to advance the Schematic Design as outlined in the project scope. The preliminary scenarios have been identified so that either one of them can be selected to move forward with, or a hybrid of more than one can be selected to move forward with.

## **NEW BUILDING SCENARIOS**

### **Scenario 1 – Basic**

This scenario consists of constructing a new building on the existing site that would be sized to support the fundamental operations of a public safety facility as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. It considers the remodeling of the existing public safety building (scenario 1a) or the remodeling of the Floreske Building (scenario 1b) to house non-emergency operations as indicated below.

#### **Scenario 1a – Remodel existing Public Safety Building**

This would involve new flooring and paint, re-roofing, hazardous materials abatement, as well as converting the Holding rooms into two accessible restrooms and a larger Lobby. This scenario would also involve both minor and extensive mechanical and electrical improvements for the 1-story and 2-story portions of the building, respectively.

#### **Scenario 1b – Purchase and remodel existing Floreske Building**

This would involve a remodel to convert the offices on the ground floor to Assembly Chambers and accessible/larger restrooms. Mechanical and electrical improvements would be required, as well as the installation of a sprinkler system and new water line to the City water main.

**New 1-story Building – 22,000 GSF**

- + Volunteer Fire Department
- + Dispatch, Police Department and Detention
- + Emergency Operations Center

**Remodel Existing Building – 12,960 GSF (PSB) or 7,000 GSF (Floreske Building)**

- + Assembly Chambers with new accessible restrooms
- + Public Facilities
- + Records Storage
- + VFD Auxiliary Storage & Fire Extinguisher Refill
- + Morgue

**Scenario 2 – Optimal (Existing site)**

This scenario consists of constructing a new building on the existing site while the existing building is operational. The new building would be sized to support all existing operations and spaces as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. A protected walkway would need to be constructed to allow access to the Assembly Chambers during construction of the new building. Upon completion and move-in to the new building, the existing public safety building would be demolished to allow space for public parking. The existing building demolition would include hazmat abatement of the affected finishes to legally dispose of those materials. Once these are abated, the building demolition would be completed.

**New 1-story Building with Mechanical Mezzanine – 26,000 GSF**

- + Volunteer Fire Department
- + Dispatch, Police Department and Detention
- + Emergency Operations Center
- + Assembly Chambers
- + Public Facilities
- + Records Storage
- + Morgue

**Scenario 3 – Demo-Addition-Remodel**

This scenario consists of demolishing the 2-story portion of the existing building and constructing an addition sized to include most of the current operations as indicated below. The 1-story portion of the existing building would be remodeled to house non-emergency functions as indicated below. The addition would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone, and would include interior stairs/ramp to connect the remodeled 1-story portion of the existing building.

The reason for identifying the 2-story section for removal is because it is the most problematic portion of the existing building with respect to a remodel. The 2-story section does not allow a new HVAC system to be installed due to the low ceiling heights. It also does not currently have code legal stair exits or an elevator, so any remodel would include the addition of these potentially costly elements. The accumulation of water in the crawlspace is also a concern, as well as the impact this water has had on the wood floor structure over time.

The existing foundation piles need to be taken into consideration in order to construct an addition over the demolished 2-story section. Removal of the piles will depend on the foundation type for the addition but will likely be recommended to be removed.

***New 1-story Addition with Mechanical Mezzanine – 25,000 GSF***

- + Volunteer Fire Department
- + Dispatch, Police Department and Detention
- + Emergency Operations Center
- + Public Facilities
- + Morgue

***Remodel 1-story portion of Existing Building – 4,896 GSF***

- + Assembly Chambers
- + Records Storage
- + VFD Auxiliary Storage & Fire Extinguisher Refill

**Scenario 4 – Optimal (South site)**

This scenario consists of constructing a new building, outside of the maximum tsunami inundation zone, on the undeveloped site to the south of the existing site, across Ed Shirley Drive. The existing building would remain operational during construction. The new building would be sized to support all existing operations and spaces as indicated below. In this scenario the existing building is left in its current state to be disposed by the City as they see fit. This could include selling the building or repurposing it for another use. Costs for the building's reuse are not included in the cost matrix.

***New 1-story Building – 26,000 GSF***

- + Volunteer Fire Department
- + Dispatch, Police Department and Detention
- + Emergency Operations Center
- + Assembly Chambers
- + Public Facilities
- + Records Storage
- + Morgue



## SITES INVESTIGATION

An initial site investigation was conducted on February 1, 2021. A total of (5) test pits were excavated in the approximate location shown on the Test Pit Map located in the Appendices. Test pits TP-7 and TP-8 were excavated on the undeveloped southern lot. At these locations, the upper 2-3 feet consists of vegetation and a surficial organic mat overlying a thin layer of sand. Below the sand, from about 3-4 feet to the bottom of the excavation (about 13 ft) is a silt or lean clay that is softer towards the surface and increases in stiffness with depth. The water table sits on top of this silt, and water infiltration was significant at TP-7.

Test pits TP-2, TP-4 and TP-6 were excavated around the southern perimeter of the existing public safety site. Subsurface conditions here were consistent at 3-4 feet of sand and gravel fill, over 2-3 feet of waste organics, stumps, wood, brush, etc. (reportedly from when the site was initially developed), over a silt or lean clay to the bottom of the excavations (13-16 feet). Similar to the south site, the silt was softer towards the surface and became stiffer with depth. Groundwater was noted on top of the silt although the volume observed was far less than on the south site. At TP-6 a layer of geotextile was observed between the sand and gravel and the underlying organics.

Collected soil samples are currently undergoing testing. A primary factor of the samples is determining the compressibility of the silt/clay layer over the long-term in order to analyze total and differential settlement. Once compressibility is assessed, the next step is to compare the costs to over-excavate and backfill to the extent required to minimize the risk of settlement, against that of excavation required for a pile-supported foundation with backfill to raise the ground floor level above the tsunami inundation zone. In both cases, the volume of imported fill will be substantial. Dewatering the excavation will also be critical in maintaining integrity of soils at the bottom of any excavation.

If compressibility proves to be a viable concern within the limits of the test pit investigation, we will likely recommend drilling several deeper test holes. This will provide information for both foundation alternatives; the magnitude of settlement is dependent on the thickness of the compressible layer of soil, and a deeper test hole will also provide critical information for pile design.

APPENDIX A  
COST MATRICES

Haines Public Safety Facility  
Cost Matrix - Reuse

Concept Submittal

Cost Element	Remodel Current PSB			Purchase & Remodel Floreske Blg		
	Rate	Quantity	Total Cost	Rate	Quantity	Total Cost
Approximate Purchase Price						\$ 1,500,000
Minor TI w/ minor Mech and Elec.	\$ 120 /sf	0 gsf	\$ -	\$ 120 /sf	0 gsf	\$ -
Minor TI Restrooms and more extensive M&E	\$ 300 /sf	0 gsf	\$ -	\$ 300 /sf	7,000 gsf	\$ 2,100,000
Full remodel w/ struct, mech, elec upgrades	\$ 450 /sf	12,960 gsf	\$ 5,832,000	\$ 450 /sf	0 gsf	\$ -
Re-roof	\$ 25 /sf	8,928 gsf	\$ 223,200	\$ 25 /sf	0 gsf	\$ -
Hazmat Abatement	\$ 10 /sf	12,960 gsf	\$ 129,600	\$ 10 /sf	0 gsf	\$ -
Demolition Work	\$ 10 /sf	12,960 gsf	\$ 129,600	\$ 10 /sf	0 gsf	\$ -
Sprinkler System	\$ 6 /sf	0 gsf	\$ -	\$ 6 /sf	7,000 gsf	\$ 42,000
Remodel including restrooms, exterior door infill, Mech and Elec; no structural	\$ 350 /sf	0 gsf	\$ -	\$ 350 /sf	0 gsf	\$ -
Moving costs	\$ 30,000	2	\$ 60,000	\$ 30,000	1	\$ 30,000
Temporary Facilities/ Rental	\$ 15,600 /mo	14 mos	\$ 218,400	\$ 15,600 /mo	0 mos	\$ -
<b>Subtotal</b>			<b>\$ 6,592,800</b>			<b>\$ 3,672,000</b>
Remodel work Contingency	15.00%	1	\$ 947,160	15.00%	1	\$ 321,300
<b>Subtotal</b>			<b>\$ 7,539,960</b>			<b>\$ 3,993,300</b>
Estimating Contingency	15.00%	1	\$ 1,130,994	15.00%	1	\$ 598,995
Additional Design Investigation/ As-built	\$ 80,000	1	\$ 80,000	\$ 20,000	1	\$ 20,000
<b>Total Comparative Cost*</b>			<b>\$ 8,750,954</b>			<b>\$ 4,612,295</b>

\*These costs do not include soft costs such as permit fees, design fees, furniture & equipment, and construction administration costs.

Cost Element	Scenario 1a Build New (Basic) & Remodel Existing PSB			Scenario 1b Build New (Basic) & Purchase/ Remodel Floreske Blg			Scenario 2 Build New (Optimal) & Demo Existing PSB			Scenario 3 Addition & Demo 2-story & Remodel 1-story PSB			Scenario 4 Build New (Optimal) & Abandon Existing PSB		
	Rate	Quantity	Total Cost	Rate	Quantity	Total Cost	Rate	Quantity	Total Cost	Rate	Quantity	Total Cost	Rate	Quantity	Total Cost
Approximate Purchase Price						\$ 1,500,000									
New Building Steel Construction	\$ 600 /sf	22,000 gsf	\$ 13,200,000	\$ 600 /sf	22,000 gsf	\$ 13,200,000	\$ 600 /sf	26,000 gsf	\$ 15,600,000	\$ 600 /sf	25,000 gsf	\$ 15,000,000	\$ 600 /sf	26,000 gsf	\$ 15,600,000
Minor TI w/ minor Mech and Elec	\$ 120 /sf	4,896 gsf	\$ 587,520	\$ 120 /sf	0 gsf	\$ -	\$ 120 /sf	0 gsf	\$ -	\$ 120 /sf	0 gsf	\$ -	\$ 120 /sf	0 gsf	\$ -
Minor TI Restrooms and more extensive M&E	\$ 300 /sf	8,064 gsf	\$ 2,419,200	\$ 300 /sf	0 gsf	\$ -	\$ 300 /sf	0 gsf	\$ -	\$ 300 /sf	4,896 gsf	\$ 1,468,800	\$ 300 /sf	0 gsf	\$ -
Full remodel w/ struct, mech, elec upgrades	\$ 450 /sf	0 gsf	\$ -	\$ 450 /sf	0 gsf	\$ -	\$ 450 /sf	0 gsf	\$ -	\$ 450 /sf	0 gsf	\$ -	\$ 450 /sf	0 gsf	\$ -
Re-roof	\$ 25 /sf	8,928 gsf	\$ 223,200	\$ 25 /sf	0 gsf	\$ -	\$ 25 /sf	0 gsf	\$ -	\$ 25 /sf	4,896 gsf	\$ 122,400	\$ 25 /sf	0 gsf	\$ -
Hazmat Abatement	\$ 10 /sf	8,064 gsf	\$ 80,640	\$ 10 /sf	0 gsf	\$ -	\$ 10 /sf	12,960 gsf	\$ 129,600	\$ 10 /sf	8,064 gsf	\$ 80,640	\$ 10 /sf	0 gsf	\$ -
Demolition Work	\$ 10 /sf	8,064 gsf	\$ 80,640	\$ 10 /sf	0 gsf	\$ -	\$ 10 /sf	12,960 gsf	\$ 129,600	\$ 10 /sf	8,064 gsf	\$ 80,640	\$ 10 /sf	0 gsf	\$ -
Sprinkler System	\$ 6 /sf	0 gsf	\$ -	\$ 6 /sf	7,000 gsf	\$ 42,000	\$ 6 /sf	0 gsf	\$ -	\$ 6 /sf	0 gsf	\$ -	\$ 6 /sf	0 gsf	\$ -
Remodel including restrooms, exterior door infill, Mech and Elec; no structural	\$ 350 /sf	0 gsf	\$ -	\$ 350 /sf	7,000 gsf	\$ 2,450,000	\$ 350 /sf	0 gsf	\$ -	\$ 350 /sf	0 gsf	\$ -	\$ 350 /sf	0 gsf	\$ -
Moving costs	\$ 30,000	1	\$ 30,000	\$ 30,000	1	\$ 30,000	\$ 30,000	1	\$ 30,000	\$ 30,000	2	\$ 60,000	\$ 30,000	1	\$ 30,000
Temporary Facilities/ Rental	\$ 15,600 /mo	0 mos	\$ -	\$ 15,600 /mo	0 mos	\$ -	\$ 15,600 /mo	0 mos	\$ -	\$ 15,600 /mo	14 mos	\$ 218,400	\$ 15,600 /mo	0 mos	\$ -
<b>Subtotal</b>			<b>\$ 16,621,200</b>			<b>\$ 17,222,000</b>			<b>\$ 15,889,200</b>			<b>\$ 17,030,880</b>			<b>\$ 15,630,000</b>
Remodel work Contingency	15.00%	1	\$ 508,680	15.00%	1	\$ 373,800	15.00%	0		15.00%	1	\$ 262,872	15.00%	0	
New Construction Contingency	8.00%	1	\$ 1,056,000	8.00%	1	\$ 1,056,000	8.00%	1	\$ 1,268,736	8.00%	1	\$ 1,200,000	8.00%	1	\$ 1,248,000
<b>Subtotal</b>			<b>\$ 18,185,880</b>			<b>\$ 18,651,800</b>			<b>\$ 17,157,936</b>			<b>\$ 18,493,752</b>			<b>\$ 16,878,000</b>
Estimating Contingency	15.00%	1	\$ 2,727,882	15.00%	1	\$ 2,797,770	15.00%	1	\$ 2,573,690	15.00%	1	\$ 2,774,063	15.00%	1	\$ 2,531,700
Additional Design Investigation/ As-built	\$ 80,000	1	\$ 80,000	\$ 20,000	1	\$ 20,000	\$ 20,000	1	\$ 20,000	\$ 80,000	1	\$ 80,000	\$ 80,000	0	\$ -
<b>Total Comparative Cost*</b>			<b>\$ 20,993,762</b>			<b>\$ 21,469,570</b>			<b>\$ 19,751,626</b>			<b>\$ 21,347,815</b>			<b>\$ 19,409,700</b>

\*These costs do not include soft costs such as permit fees, design fees, furniture & equipment, and construction administration costs.

**APPENDIX B**  
**SITE SPACE PLAN DRAWINGS**

**Scenario 1a – Build New (Basic) & Remodel Existing Public Safety Building**

This scenario consists of constructing a new building on the existing site that would be sized to support the fundamental operations of a public safety facility as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. It considers the remodeling of the existing public safety building (scenario 1a) or the remodeling of the Floreske Building (scenario 1b) to house non-emergency operations as indicated below.

**New 1-story Building – 22,000 GSF**


- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center

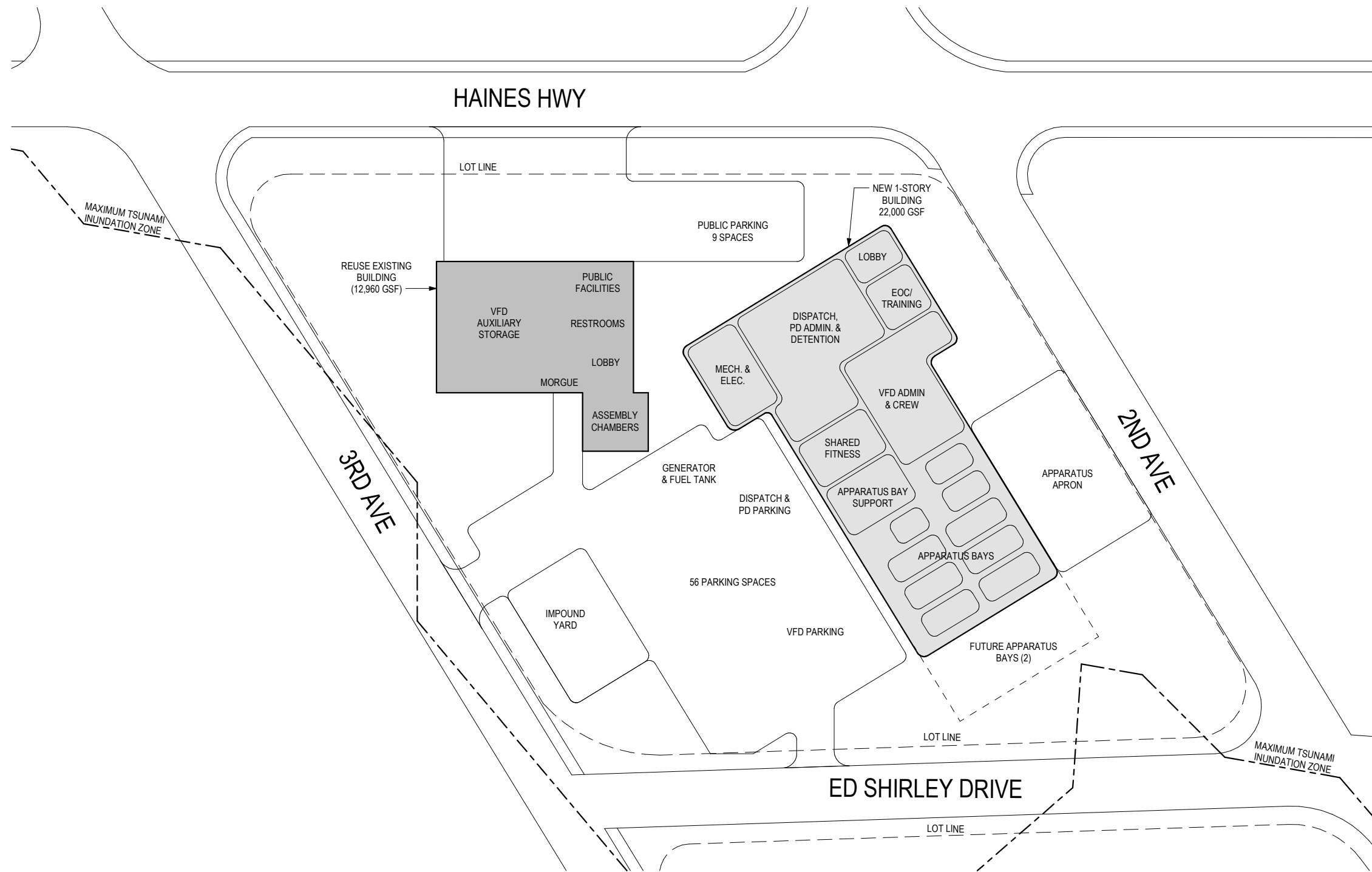
**Remodel Existing Building – 12,960 GSF (PSB) or 7,000 GSF (Floreske Bldg)**

- Assembly Chambers with new accessible restrooms
- Public Facilities
- Records Storage
- VFD Auxiliary Storage & Fire Extinguisher Refill
- Morgue

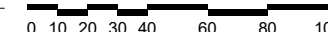
Total Comparative Cost (from matrix): \$ 20,993,762

**PLAN LEGEND**

-  EXISTING
-  NEW



**SCENARIO 1 - SITE PLAN**  
1/32" = 1'-0"



**Scenario 2 – Optimal (Existing site)**



This scenario consists of constructing a new building on the existing site while the existing building is operational. The new building would be sized to support all existing operations and spaces as indicated below. The building would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone. A protected walkway would need to be constructed to allow access to the Assembly Chambers during construction of the new building. Upon completion and move-in to the new building, the existing public safety building would be demolished to allow space for public parking. The existing building demolition would include hazmat abatement of the affected finishes to legally dispose of those materials. Once these are abated, the building demolition would be completed.

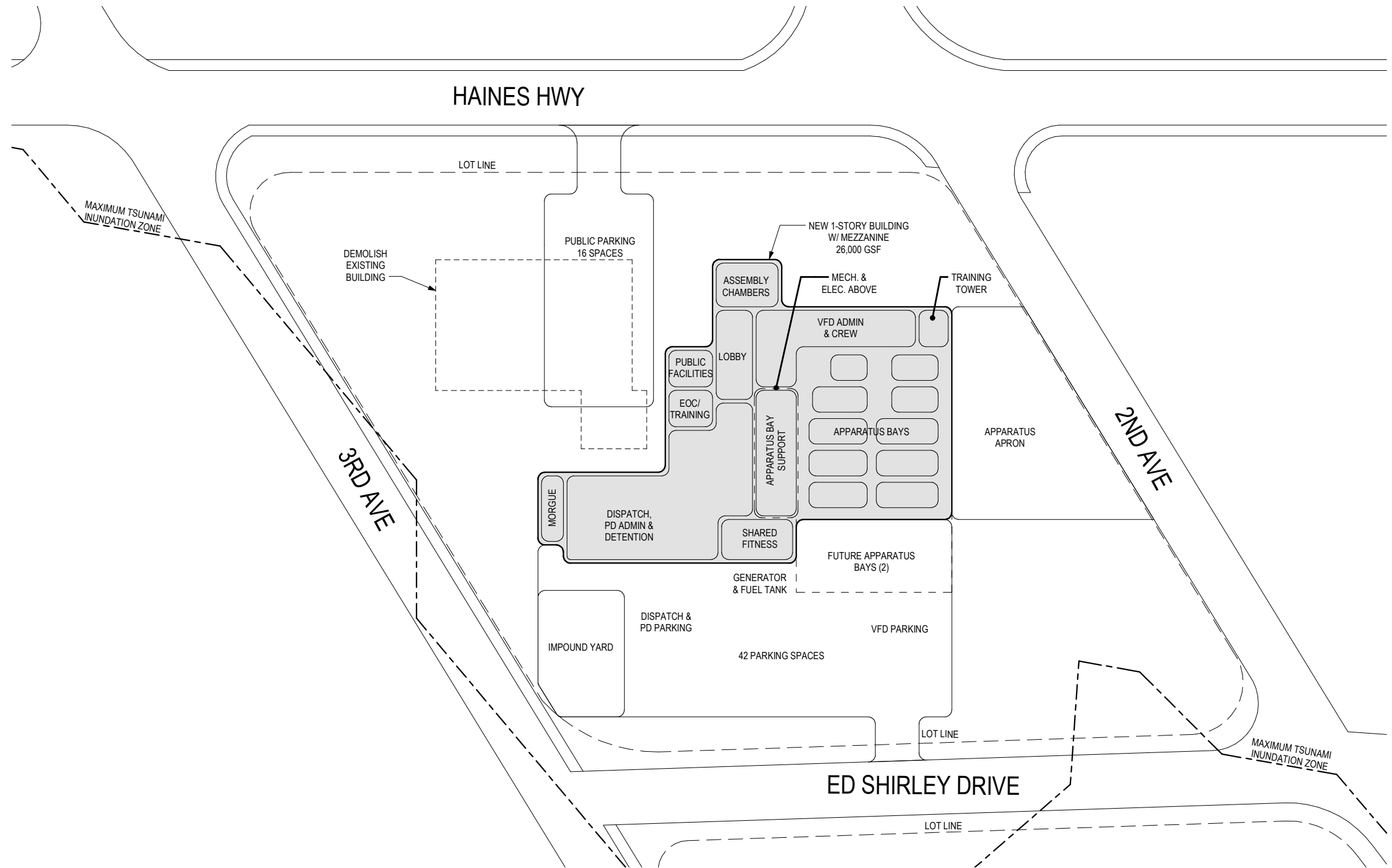
**New 1-story Building with Mechanical Mezzanine – 26,000 GSF**

- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Assembly Chambers
- Public Facilities
- Record Storage
- Morgue

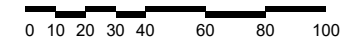
Total Comparative Cost (from matrix): \$19,751,626

**PLAN LEGEND**

-  DEMOLITION
-  NEW



**SCENARIO 2 - SITE PLAN**  
1/32" = 1'-0"



### Scenario 3 – Demo- Addition- Remodel

This scenario consists of demolishing the 2-story portion of the existing building and constructing an addition sized to include most of the current operations as indicated below. The 1-story portion of the existing building would be remodeled to house non-emergency functions as indicated below. The addition would be constructed over a layer of fill to bring its floor level above the maximum tsunami inundation zone, and would include interior stairs/ramp to connect the remodeled 1-story portion of the existing building.

The reason for identifying the 2-story section for removal is because it is the most problematic portion of the existing building with respect to a remodel. The 2-story section does not allow a new HVAC system to be installed due to the low ceiling heights. It also does not currently have code legal stair exits or an elevator, so any remodel would include the addition of these potentially costly elements. The accumulation of water in the crawlspace is also a concern, as well as the impact this water has had on the wood floor structure over time.

The existing foundation piles need to be taken into consideration in order to construct an addition over the demolished 2-story section. Removal of the piles will depend on the foundation type for the addition but will likely be recommended to be removed.

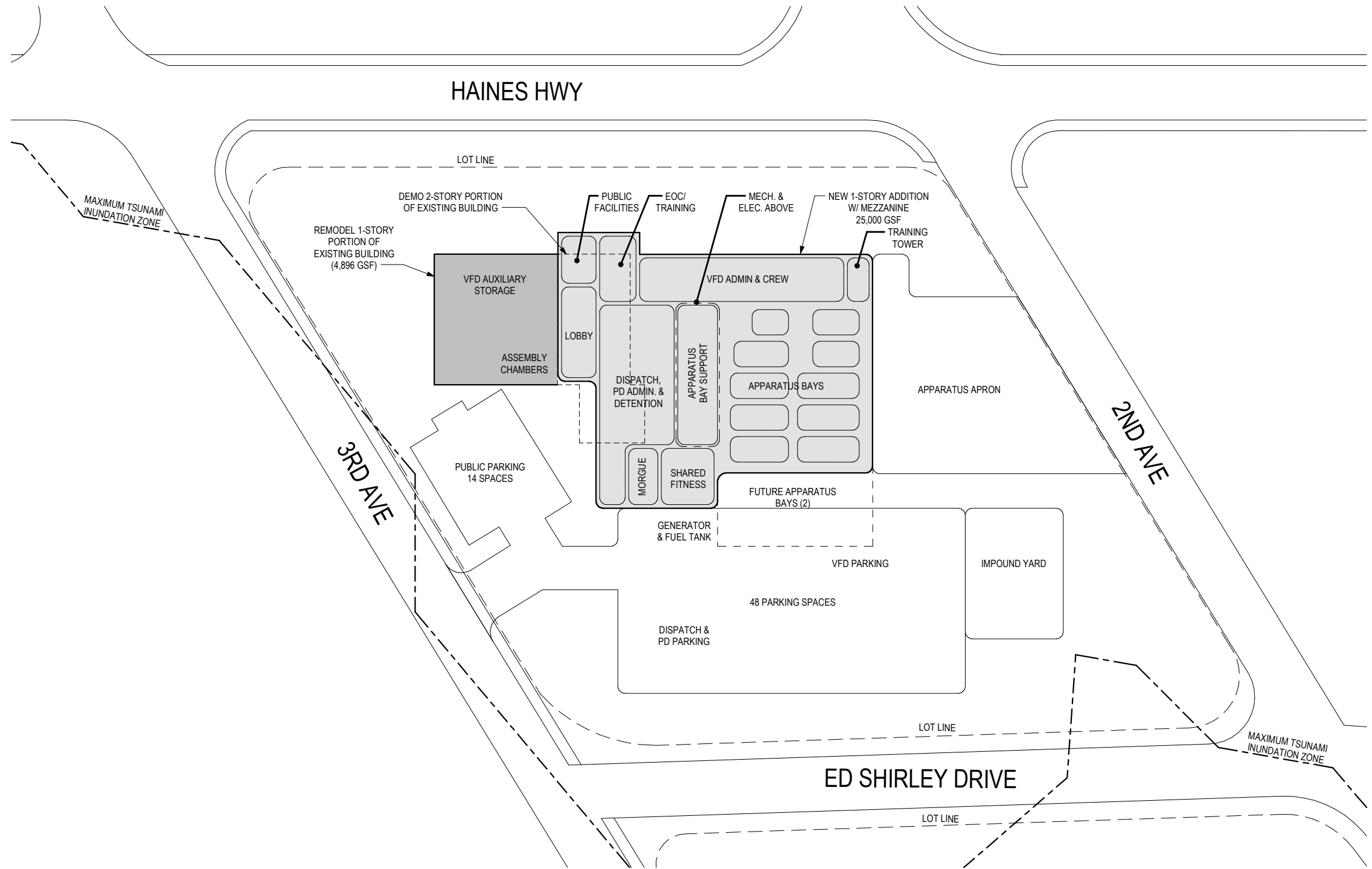
#### New 1-story Addition with Mechanical Mezzanine – 25,000 GSF

- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Public Facilities
- Morgue

#### Remodel portion of Existing Building – 4,896 GSF

- Assembly Chambers
- Records Storage
- VFD Auxiliary Storage & Fire Extinguisher Refill

Total Comparative Cost (from matrix): \$ 21,347,815



#### PLAN LEGEND

- EXISTING
- DEMOLITION
- NEW

#### SCENARIO 3 - SITE PLAN

1/32" = 1'-0"



TRUE NORTH



PLAN NORTH



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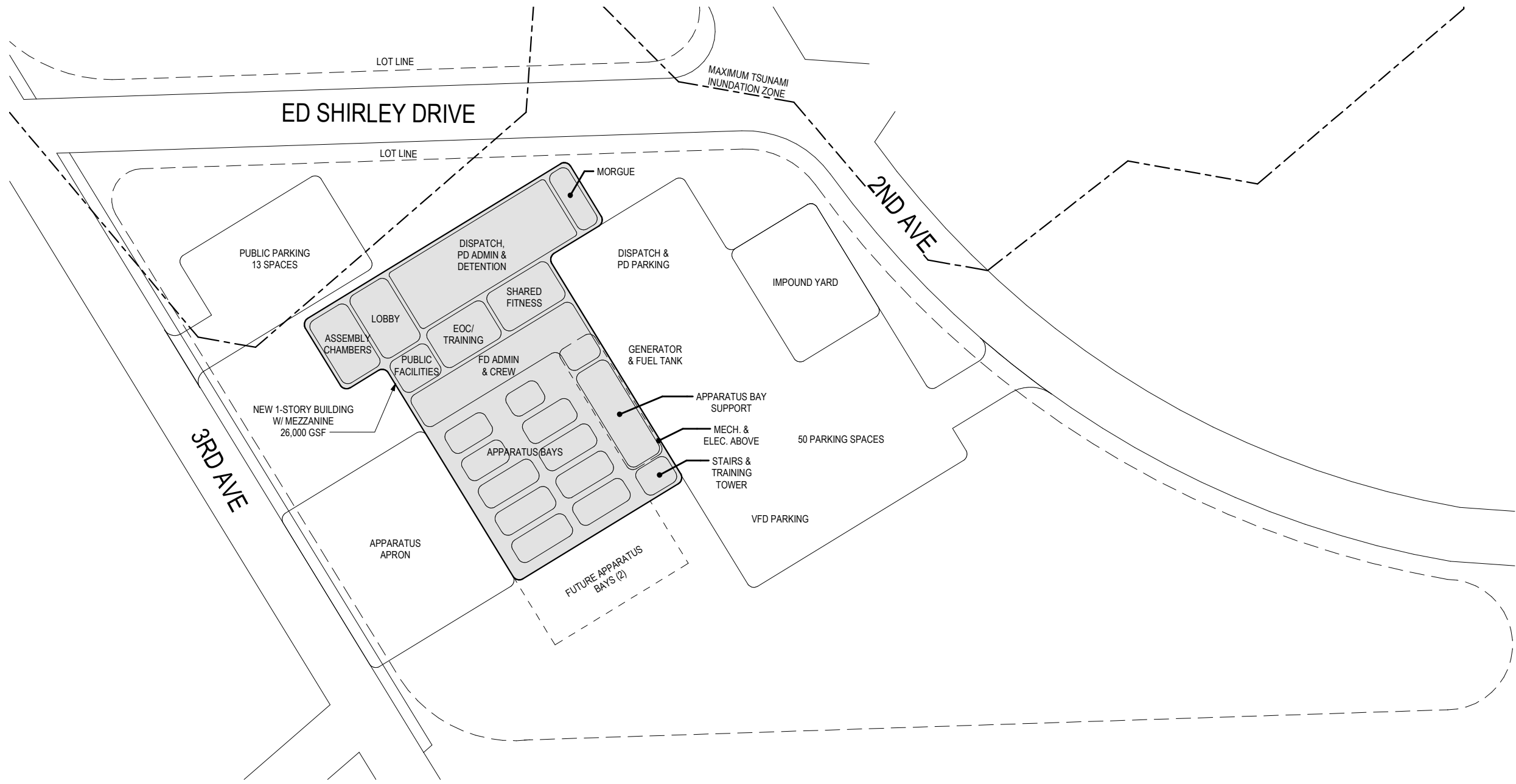
**Scenario 4 – Optimal (South Site)**

This scenario consists of constructing a new building, outside of the maximum tsunami inundation zone, on the undeveloped site to the south of the existing site, across Ed Shirley Drive. The existing building would remain operational during construction. The new building would be sized to support all existing operations and spaces as indicated below. In this scenario the existing building is left in its current state to be disposed by the City as they see fit. This could include selling the building or repurposing it for another use. Costs for the building's reuse are not included in the cost matrix.

**New 1-story Building – 26,000 GSF**

- Volunteer Fire Department
- Dispatch, Police Department and Detention
- Emergency Operations Center
- Assembly Chambers
- Public Facilities
- Records Storage
- Morgue

Total Comparative Cost (from matrix): \$ 19,409,700



**SCENARIO 4 - SITE PLAN**

1/32" = 1'-0"



**PLAN LEGEND**

- EXISTING
- NEW



TRUE NORTH



PLAN NORTH



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APPENDIX C  
PROGRAM SPACE LIST

Number	Room Designation	Qty	Size	Basic Net SF	Optimal Net SF	All-Inclusive Net SF	Operational Requirements
<b>I Shared Public Areas</b>							
1.01	Public Entrance Lobby	1	200	200 sf	500 sf	500 sf	Supports visitors (5-6 or more if including Assembly Chambers). Ballistic barrier between dispatcher/clerk and public.
1.02	Entry Vestibule	1	60	60 sf	60 sf	60 sf	Accessible Entrance; secure for afterhours interface with dispatch.
1.03	Public Restrooms	2	60	120 sf	340 sf	340 sf	Accessible, single-occ or multi-occ with 3 WC, 2 Lav, 1 UR in mens, screened entrance
1.04	Custodial Area/ Custodial Storage	1	50	50 sf	50 sf	80 sf	Main custodial room with supply storage
1.05	EOC / Training Room	1	400	400 sf	400 sf	740 sf	Shared FD/PPD briefing room, virtual training, space to spread out for large cases, drug task force work area, heavy on power and data. Small size - 12 people. Large size - 49 people. Training for EMS with onsite instructor. Copier nearby. Generous wall space. Could have high window- no direct exterior sightlines.
1.06	Training Room Storage	1	100	100 sf	100 sf	150 sf	Space allocated to store chairs and tables to allow for room flexibility. AV storage. EMS props.
1.07	Personal Fitness Room	1	450	450 sf	450 sf	500 sf	Shared FD/PPD/PF. Open CrossFit style plus smaller area for cardiovascular equipment. Functions: mat space, defensive training, CPR training, durable flooring for FD to drag dummies. Secure access for PD and FD. Ability for PD and FD to respond to a call while in this space. Away from public area. Bottle filler. Access to exterior.
1.08	Fitness Locker Rooms	1	450	450 sf	450 sf	850 sf	3 unisex toilet/shower rooms with locker alcove and shared sink areas - basic. Separate locker rooms for M&W - optimal.
1.09	Assembly Chambers	0	800	0 sf	800 sf	1,200 sf	Existing size is 20ft x 40ft but could be larger. Include coffee bar, storage for furniture and accessible restrooms nearby. Could be located in a separate building.
1.10	Records Storage and Archive	0	100	0 sf	100 sf	150 sf	Borough's administrative and financial permanent records, election equipment and records, accessed 1-2 times per year. Could be located in a separate building. Size to be confirmed.
1.11	Telecomm rooms	1	40	40 sf	40 sf	80 sf	1 for radio; 1 for Assembly Chambers server
<b>Subtotal Public Area</b>				<b>1,870 sf</b>	<b>3,290 sf</b>	<b>4,650 sf</b>	
<b>II Police Department Areas</b>							
<i>ADMINISTRATION</i>							
2.01	Police Chief's Office	1	150	150 sf	150 sf	180 sf	Desk and small conf table
2.02	Sergeant's Office	1	110	110 sf	110 sf	120 sf	Desk
2.03	Dispatch Supervisor Office	1	100	100 sf	100 sf	110 sf	Private workspace and personnel issues
2.04	Investigator's Office	0	100	0 sf	0 sf	110 sf	Hoteling concept: use interview rooms/other offices as needed for workspace.
2.05	Officer Work Stations/ Squad Room	4	80	320 sf	320 sf	384 sf	3 workstations plus collaboration table; officers keep a lot of gear at workstations. Optimal includes AWT and Parks for future growth.
2.06	Files & copy	1	65	65 sf	65 sf	65 sf	Associated with Officer Work Stations
2.07	Kitchenette	0	50	0 sf	0 sf	50 sf	Can be shared with other departments
2.08	TWIC ID	0	60	0 sf	0 sf	60 sf	Assess from Public Lobby
2.09	DMV / Testing	0	20	0 sf	0 sf	60 sf	Work station / counter for 3 (Accessible)
2.10	DMV Clerk/ Work area	0	100	0 sf	0 sf	140 sf	Assess from Public Lobby
<i>SUPPORT</i>							
2.11	Heated Sally Port & Evidence	2	340	680 sf	680 sf	1,020 sf	Space for 2 vehicles (to defrost) plus a separate space for evidence vehicle and processing (workbench), 14' x 24' size
2.12	Secure Storage and Maintenance	1	80	80 sf	80 sf	80 sf	Firearm storage w/ lockable cabinets; ammunition storage
2.13	Equipment Storage	1	200	200 sf	200 sf	200 sf	Tactical Equipment, uniforms, office supplies
2.14	Communications / Electronics	1	80	80 sf	80 sf	100 sf	Data/Lan room for police
2.15	Evidence Storage	1	100	100 sf	100 sf	130 sf	Lockable storage, dry/ventilated closet
2.16	Evidence Processing/ Weapons Clean	1	90	90 sf	90 sf	100 sf	Sink, ventilation hood, cleaning table
2.17	Evidence Lockers	1	20	20 sf	20 sf	20 sf	Lockable pass thru lockers
2.18	Staff Restroom/ Shower	2	90	180 sf	180 sf	200 sf	One for male and one for female, shower in each
2.19	Staff Lockers	0	8	0 sf	0 sf	80 sf	Full height lockers for staff equipment
2.20	Shooting Range	0	1125	0 sf	0 sf	1,125 sf	25 yard, 3-lane to provide officer training in winter and shared by appointment with hunter safety and education programs. Located in a separate building.
<i>INTAKE</i>							
2.21	Interview Room	1	75	75 sf	75 sf	75 sf	Soft/Hard; Private access (not through lobby)
2.22	Intake Processing	1	150	150 sf	150 sf	300 sf	Fingerprint, photo, breath test
2.23	Search/ Change/ Shower	1	75	75 sf	75 sf	75 sf	Adjacent to Interview / Search
2.24	Property Storage	1	60	60 sf	60 sf	60 sf	Lockable cabinets
2.25	Janitor closet	1	40	40 sf	40 sf	50 sf	
2.26	Washer/dryer	1	40	40 sf	40 sf	50 sf	
<i>HOLDING</i>							
2.27	Detention Holding Cell	4	80	320 sf	320 sf	320 sf	Bed, desk, toilet, stool, light, CCTV (Monitored by Dispatch); 2 persons per cell, each designated as M, F
2.28	Soft Room Holding Cell	1	80	80 sf	80 sf	80 sf	Mental health and juvenile; 1 person
2.29	Dayroom 1	1	70	70 sf	70 sf	70 sf	Seating for two, TV, Phone
2.30	Dayroom 2	1	70	70 sf	70 sf	70 sf	Seating for one, TV, Phone
2.31	Non Contact Visit	1	80	80 sf	80 sf	80 sf	Secure separation, security glazing, communications
<b>Subtotal Police Area</b>				<b>3,235 sf</b>	<b>3,235 sf</b>	<b>5,564 sf</b>	
<b>III Dispatch</b>							
3.01	Comm Center/ Dispatch	2	120	240 sf	240 sf	360 sf	2 work stations plus watch desk, Watson or sim consoles (8x7)
3.02	Dispatch Restroom	1	60	60 sf	60 sf	60 sf	For dispatch staff during shift
3.03	Dispatch Kitchenette	1	20	20 sf	20 sf	50 sf	For dispatch staff during shift, alcove
3.04	Admin/ Clerical	1	64	64 sf	64 sf	100 sf	Copy machine, Information records requests
<b>Subtotal Dispatch</b>				<b>384 sf</b>	<b>384 sf</b>	<b>570 sf</b>	

Number	Room Designation	Qty	Size	Basic Net SF	Optimal Net SF	All-Inclusive Net SF	Operational Requirements
<b>IV Volunteer Fire Department Areas</b>							
<i>ADMINISTRATION</i>							
4.01	Fire Chief Office	1	200	200 sf	200 sf	250 sf	Workspace for 2 (chief and assistant chief). Seating for (4) guests at small table.
4.02	Shared Office	1	180	180 sf	180 sf	200 sf	Workspace for 2 paid staff (firefighter/EMT) plus floating workstation for association. Interact with volunteers but not public.
4.03	Volunteer Workspace	3	64	222 sf	222 sf	350 sf	Area to complete EMS reports at laptops, study space with bookshelves for resources. 40 hours of online video training required.
4.04	Quartermaster Storage	1	30	30 sf	30 sf	50 sf	Space for radios, pagers and batteries. Combine with Equipment Issue?
4.05	Records Storage	1	70	70 sf	70 sf	70 sf	Supply storage is needed plus long-term medical records storage (required 7 years), vertical files, moving towards digital records. Could be located in an Auxiliary building.
4.06	Copy/Work Area	1	25	25 sf	25 sf	25 sf	Administrative work alcove to support offices. Copier, fax, office supplies. Notice/mail distribution cubbies for staff and volunteers.
<i>CREW AREA</i>							
4.07	Volunteer Sleeping Rooms	3	100	300 sf	300 sf	400 sf	Single occupant (similar layout to Skagway's), 3 rooms minimum to staff ambulances afterhours and for better mentality versus only 2 staff. 4 rooms would be preferred.
4.08	Toilet/ Shower Rooms	2	80	160 sf	160 sf	160 sf	Individual unisex toilet/shower rooms.
4.09	Kitchen/ Dining	1	350	350 sf	350 sf	650 sf	Commercial grade appliances (high-end residential). Access to dayroom. (2) large refrigerators, range/cooktop, dishwasher, (2) microwaves, two prep areas. Table and chairs for dining. Accommodate meal for 20 people.
4.10	Dayroom	1	350	350 sf	350 sf	500 sf	Required for responders to decompress. Would like a larger dayroom than Skagway's. Aircraft chairs take up a lot of space and may not be necessary.
4.11	Laundry Room	1	80	80 sf	80 sf	100 sf	Front load washer, dryer, ability to clean linens, sink, folding counter, hanging rod. (linen and bedding provided by individual) Include custodial supplies storage.
<i>APPARATUS SUPPORT</i>							
4.12	Apparatus Bays	4.5	1600	7,200 sf	8,000 sf	8,000 sf	Bay 1: Engine 1 (30'-6") followed by Tanker 3 (29ft) Bay 2: Rescue 1 (31ft) followed by Tanker 5 (31ft) Bay 3: Engine 2 (28ft) followed by Type 6 Brush Rig (24ft) Bay 4: Ambulance - Medic 1 (25'-6") followed by Fire Pickup (20ft) Bay 5: Ambulance - Medic 2 (25'-6") half deep - basic Other: Snow machine trailer (14ft) Ability to wash indoors, radiant heat, trench drains under apparatus, source capture exhaust system, handwash stations at bay entries. Side action doors? Air and electrical drops. 120' W x 84' D bay (Width- 4.5' at ends, 14' doors, 3.5' between doors). Depth based on stacking engines and future flexibility (7.5' at front, 32' Eng, 5' btwn, 34' Eng, 5' at back).
4.13	EMS/ Medical Aid Supplies	1	100	100 sf	100 sf	200 sf	Lockable. Secure drug dispenser storage. Small refrigerator needed on occasion.
4.14	Bunker Storage	30	12	360 sf	360 sf	480 sf	Gear drying area for wild land and fire gear. 24" wide turnout storage for (30) sets.
4.15	Search and Rescue Gear Storage	1	200	200 sf	200 sf	300 sf	20 members. Shelving, work table and racks to hang gear (24x24 lockers).
4.16	Equipment Issue/ Quarter Master	1	90	90 sf	90 sf	90 sf	New/spare gear storage - 30 sets, PPE, Helmets, Boots, Gloves. Shelf and rack storage. Ice Machine.
4.17	Extractor Room/ Decon	1	150	150 sf	150 sf	200 sf	Area for extractor for cleaning structural firefighting gear, soap dispenser. Temp hanging rod. Stacked W/D.
4.18	Hand/ Boot Wash Alcove	1	24	24 sf	24 sf	24 sf	
4.19	O2 Generation/ Bottle Storage	1	100	100 sf	100 sf	120 sf	O2 Generation system, bottle storage (12)
4.20	SCBA Compressor/ House Air	1	120	120 sf	120 sf	120 sf	SCBA compressor and fill station combination. Currently using hybrid cascade system; consider replacing existing compressor. Make-up air.
4.21	SCBA Work Area/ Air room	1	100	100 sf	100 sf	100 sf	25 SCBA bottles, 10 SCBA units for training. Clean workbench area to check and repair masks, test bench, access to compressor room but isolated from compressor noise.
4.22	Fire Extinguisher Refill	1	0	0 sf	72 sf	100 sf	Currently sell and provide fire extinguisher refill service on drop-off/ pick-up schedule; need a separate room (6ft x 12ft min) with downdraft system at 800 CFM total. Could have service door or be located in an Auxiliary building.
4.23	Shop	1	150	150 sf	150 sf	200 sf	Workbench and parts storage system, flammable liquids cabinet, storage shelving, vice, tools for fixing/maintaining chainsaws.
4.24	Apparatus Wash Supply Alcove	1	25	25 sf	25 sf	32 sf	Apparatus washing equipment, detergents, mops, brooms, grated floor with drain.
4.25	Hose Storage Alcove	1	80	80 sf	80 sf	80 sf	Minimum 3 racks
4.26	Tire Storage	0	170	0 sf	0 sf	190 sf	Tires and chains currently stored at private maintenance shop.
4.27	General FF Equipment Storage	0	350	0 sf	0 sf	500 sf	General apparatus and equipment storage. Sized at 75 sf/ primary apparatus. Junior Fire Cadet Program equipment. Could be located in an Auxiliary building.
4.28	Rehab/ Disaster Relief Storage	0	150	0 sf	0 sf	150 sf	Water storage, first responder disaster supplies. Could be located in an Auxiliary building.
4.29	Hose Drying/ Training Tower	1	24	24 sf	100 sf	300 sf	Ability to dry hose - 24sf, ladder training, repelling and rope rescue work, interior stair to allow for training, beam trolley and tackle, integrated training props. Steel stairs and platforms. Visible to community to draw in recruits. Prefer 3-stories in height.
4.30	Apparatus Bay Toilet	0	60	0 sf	0 sf	60 sf	
<b>Subtotal Fire Area</b>				<b>10,690 sf</b>	<b>11,638 sf</b>	<b>14,001 sf</b>	

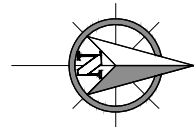
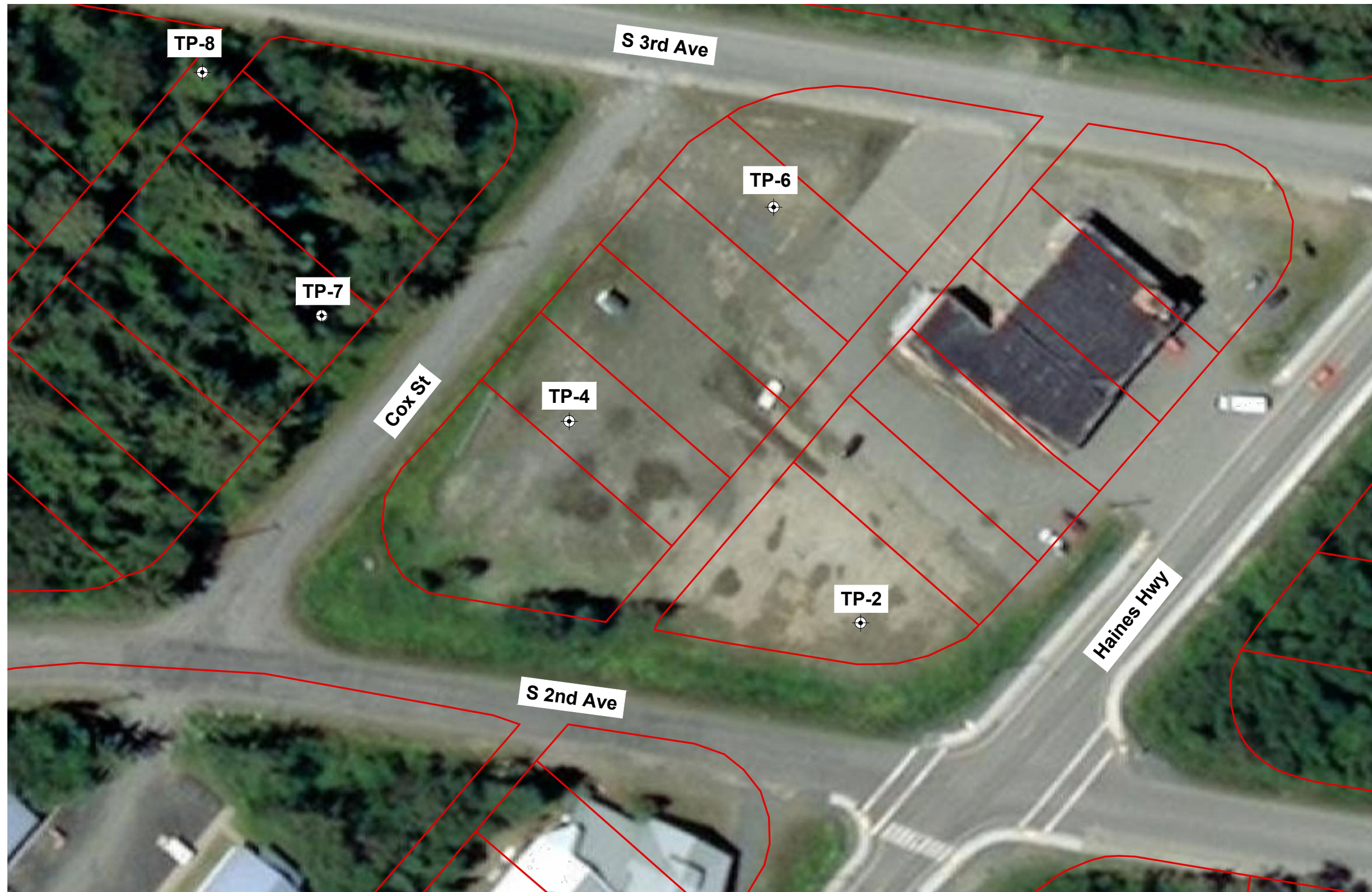
Number	Room Designation	Qty	Size	Basic Net SF	Optimal Net SF	All-Inclusive Net SF	Operational Requirements
<b>V Public Facilities Department Areas</b>							
4.01	Public Facilities Director Office	0	180	0 sf	180 sf	200 sf	Private office to support day to day departmental activities. Meeting for 5-6 people, bookshelves for engineering books. Daily meetings. Could be located in a separate building.
4.02	Grant/Contracts Admin Office	0	150	0 sf	150 sf	180 sf	Meeting for 2-3 people, record storage (contracts, binders), bookshelves for emergency manuals. Daily meetings. Possible visual connection to public lobby. Could be located in a separate building.
4.03	Kitchenette	0	20	0 sf	0 sf	20 sf	Could use EOC kitchenette.
4.04	Copy/Work Area	0	25	0 sf	25 sf	80 sf	Administrative work alcove to support offices. Copier, fax, office supplies. Could be shared with other departments.
<b>Subtotal Public Facilities Area</b>				<b>0 sf</b>	<b>355 sf</b>	<b>480 sf</b>	

<b>VI Morgue</b>							
5.01	Morgue	0	300	0 sf	300 sf	400 sf	Currently have a 400-pound embalming table. Space to accommodate 2 bodies and viewing area. Bodies are sent to Juneau for cremation or buried within 72 hours. Could be located in a separate building.
5.02	Restroom	0	48	0 sf	0 sf	48 sf	
<b>Subtotal Morgue Area</b>				<b>0 sf</b>	<b>300 sf</b>	<b>448 sf</b>	

<b>Summary</b>							
I	Shared Public Areas			1,870 sf	3,290 sf	4,650 sf	
II	Police Department Areas			3,235 sf	3,235 sf	5,564 sf	
III	Dispatch Area			384 sf	384 sf	570 sf	
IV	Fire Department Areas			10,690 sf	11,638 sf	14,001 sf	
V	Public Facilities Department Areas			0 sf	355 sf	480 sf	
VI	Morgue Area			0 sf	300 sf	448 sf	
<b>Subtotal</b>				<b>16,179 sf</b>	<b>19,202 sf</b>	<b>25,713 sf</b>	
Building services and allowances							
	Mechanical Systems Allowance	8%		1,294 sf	1,536 sf	2,057 sf	Includes boiler and fan rooms. Is riser room here?
	Building Electrical Allowance	1	120	120 sf	120 sf	120 sf	Includes main electrical room
	Lan/Data Allowance	1	100	100 sf	100 sf	100 sf	Include main data termination room
	Generator Room or Module	0	150	0 sf	0 sf	150 sf	Assume exterior enclosure
	Elevator and Elev Equip Room	0	120	0 sf	0 sf	120 sf	SF counted on one floor only
	Stairs	0	200	0 sf	0 sf	200 sf	SF counted on one floor only
	Net/Gross Allowance	25%		4,045 sf	4,801 sf	6,428 sf	Walls and circulation space
<b>Facility Total</b>				<b>21,738 GSF</b>	<b>25,759 GSF</b>	<b>34,888 GSF</b>	

<b>Exterior Site Elements</b>							
	Fire Parking	20	300	6,000 sf	6,000 sf	6,000 sf	10-15 vehicles for volunteers, 3-4 vehicles for ambulance crew.
	Police Parking	5	300	1,500 sf	1,500 sf	1,500 sf	Current patrol vehicles
	Dispatch Parking	2	300	600 sf	600 sf	600 sf	
	Public Facilities Parking	3	300	900 sf	900 sf	900 sf	2 spaces plus 1 borough vehicle.
	Public Parking	25	300	7,500 sf	7,500 sf	12,000 sf	
	Accessible Parking Stalls	2	360	720 sf	720 sf	720 sf	
	<b>Total</b>	<b>57</b>		<b>17,220 sf</b>	<b>17,220 sf</b>	<b>21,720 sf</b>	
	Access Drives	2	600	1,200 sf	1,200 sf	1,200 sf	
	Apparatus Ramp	5	900	4,500 sf	4,500 sf	4,500 sf	Sized at 18'x50' per bay
	Above Ground Fuel Tanks	1	20	20 sf	20 sf	20 sf	300 or 500 gallon?
	Fenced Impound Yard	1	4100	4,100 sf	4,100 sf	4,100 sf	4 cars deep and 6 cars wide; 64ftx64ft
	Dog Kennel	1	15	15 sf	15 sf	30 sf	
	Fire storage Containers						Currently have 2 40ft containers; 1 has 50 emergency cots the other has search and rescue gear, and wildland gear/signs. Could be located in an Auxiliary building.
	Dumpster with truck access	1					Rolling garage bin to keep bears away

APPENDIX D  
TEST PIT MAP



**A** SITE PLAN

REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

**P | N | D**  
ENGINEERS, INC.

9360 Glacier Highway Ste 100  
Juneau, Alaska 99801  
Phone: 907-586-2093  
Fax: 907-586-2099  
www.pndengineers.com

DESIGN: SCS    CHECKED: CRS  
DRAWN: KLL    APPROVED: \_\_\_\_\_

SCALE: SCALE IN FEET  
0    30    60 FT.

DATE: 01/20/2021

**HAINES BOROUGH, ALASKA  
HAINES PUBLIC SAFETY BUILDING**

SHEET TITLE:  
**GEOTECHNICAL EXPLORATION  
MAP**

PND PROJECT NO.: 202103    C.A.N. AECC250

**1**