# Mercer Island Public Safety and Maintenance Facility

# Presentation Agenda

I. PSM Facility Initial Planning

II. City Staff & Design Team Work Sessions and Input

II. Input Summary

III. Reorganizing the plan to manage costs, work better, and serve the city longer

IV. Strategic planning question for council response

V. Zoning Change and Boundary Line Adjustment

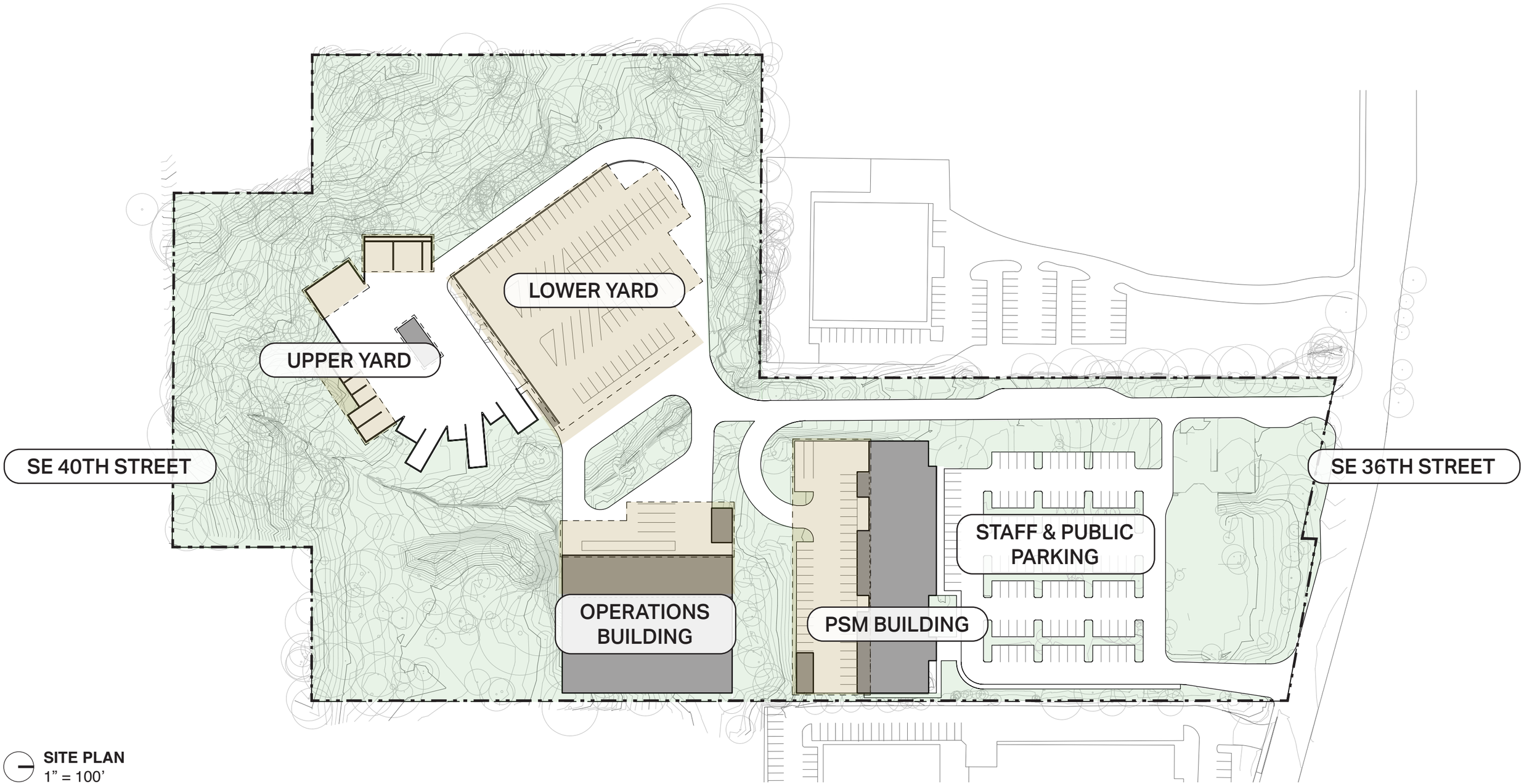
Following this review, and facility revisions based on staff and team input, the design team will assemble comparative building areas for review.

# AERIAL PHOTOGRAPH OF THE EXISTING SITE

This photograph illustrates the existing city-owned site, with the property line indicated in yellow.  This slide is provided for orientation purposes.

# INITIAL FACILITY SITE PLAN

This site plan represents the initial facility layout reviewed in prior council sessions, and with city staff, for facility program and operational organization.

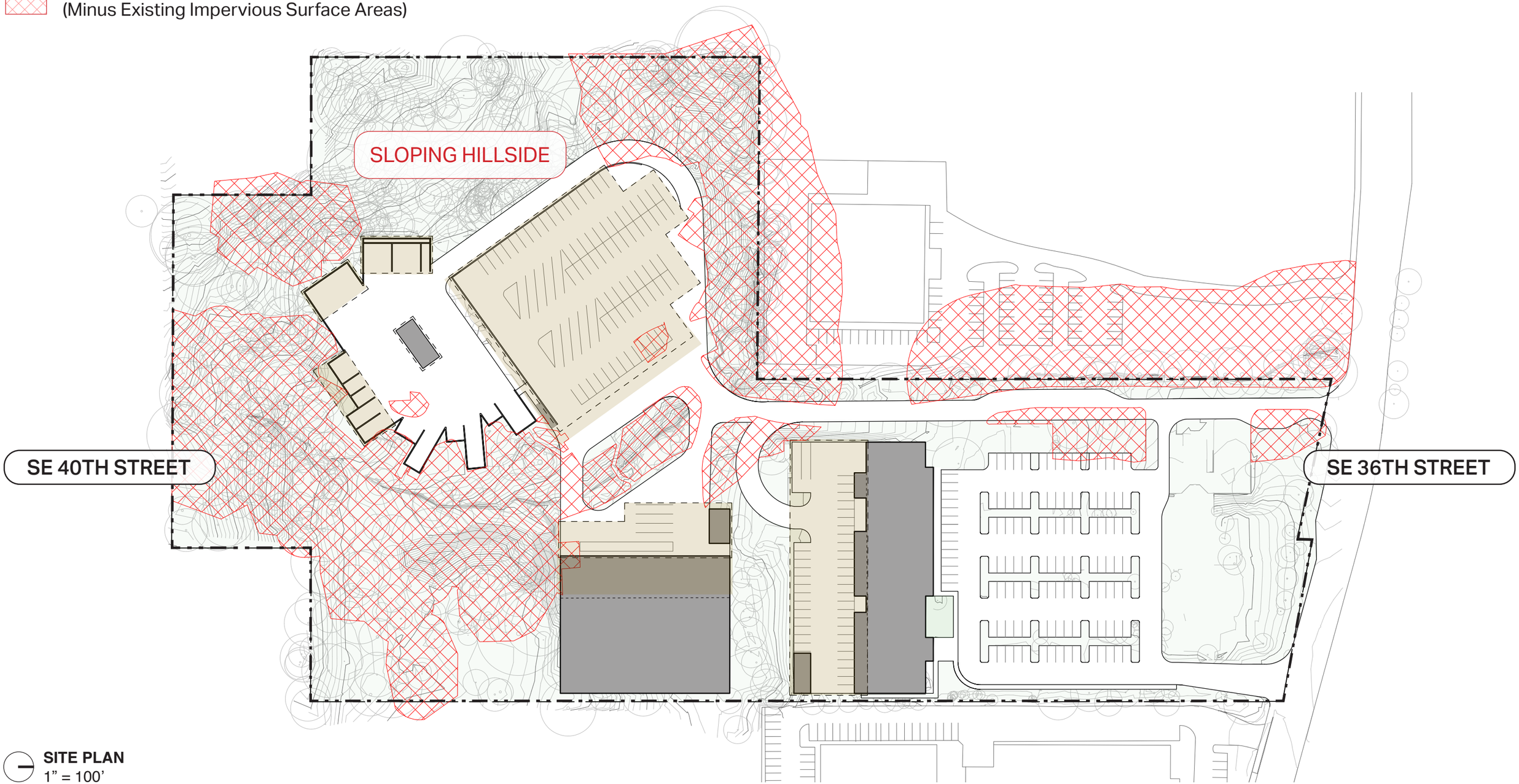



**SITE PLAN**
1” = 100’

# A LAYOUT BOUNDED BY SITE CONSTRAINTS

The initial plan is tightly bounded by surrounding critical areas and sloping topography.

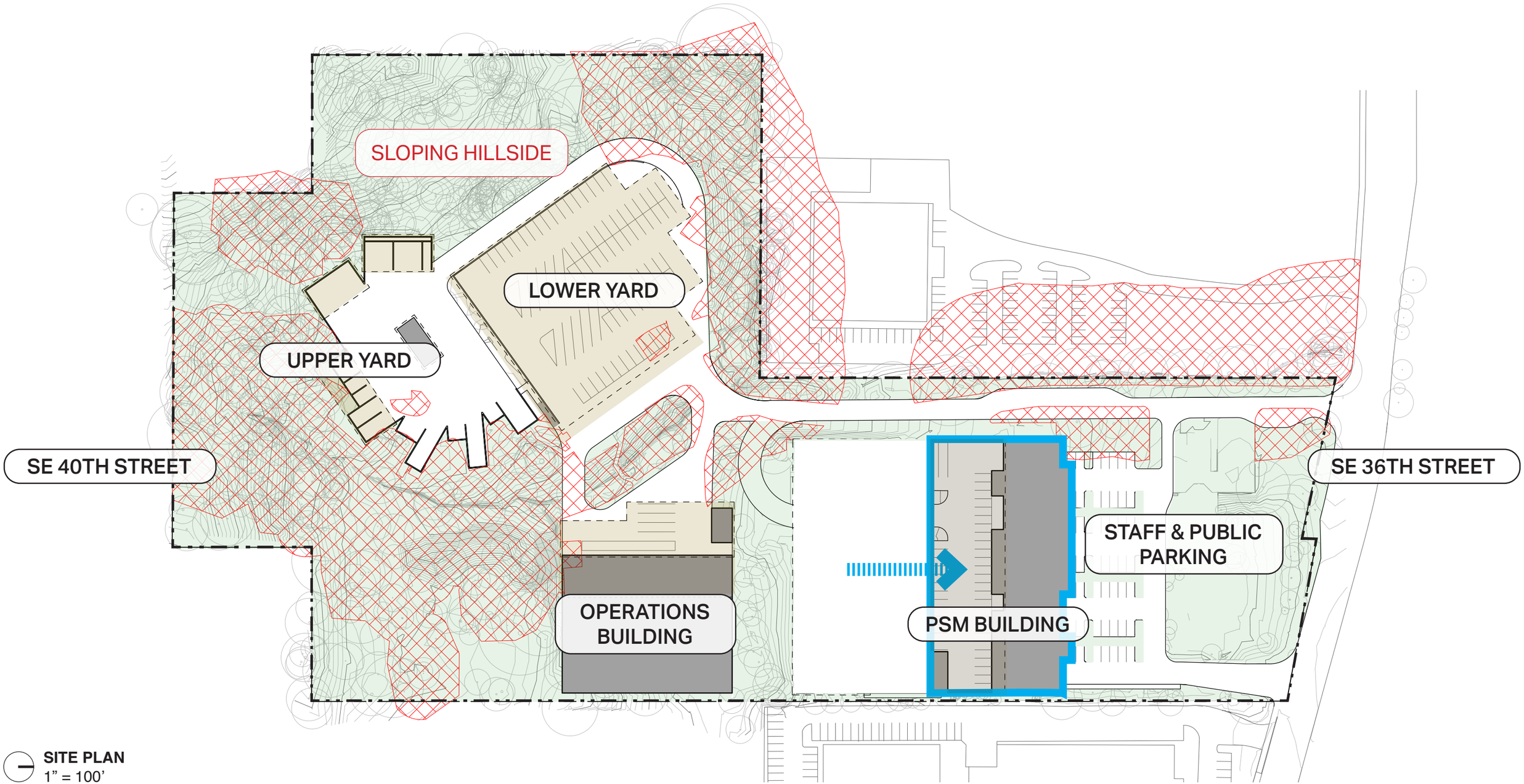
Critical Area Buffers
(Minus Existing Impervious Surface Areas)




**SITE PLAN**
1” = 100’

# PSM BUILDING LOCATION

At the March 4th council meeting, a question was posed about shifting the PSM building to the north as a way to provide capacity on the site for future needs, and longevity in the plan.




**SITE PLAN**
1” = 100’

# Council Direction Needed

This presentation will review a reorganization of the site layout made possible by a change in the location of the PSM Building.

The Design Team and city staff believe that the change in PSM Building siting is worthwhile. This layout change would reduce costs, increase operational effectiveness, and leave room for potential future operational capacity or changing needs to ensure that this facility is positioned for long-term service.

The Design Team and city staff are seeking Council approval of this strategy.

# City Staff Worksessions

To review the conditions that shape reorganization of the plan, it is important to review key input from city staff and design team worksessions.

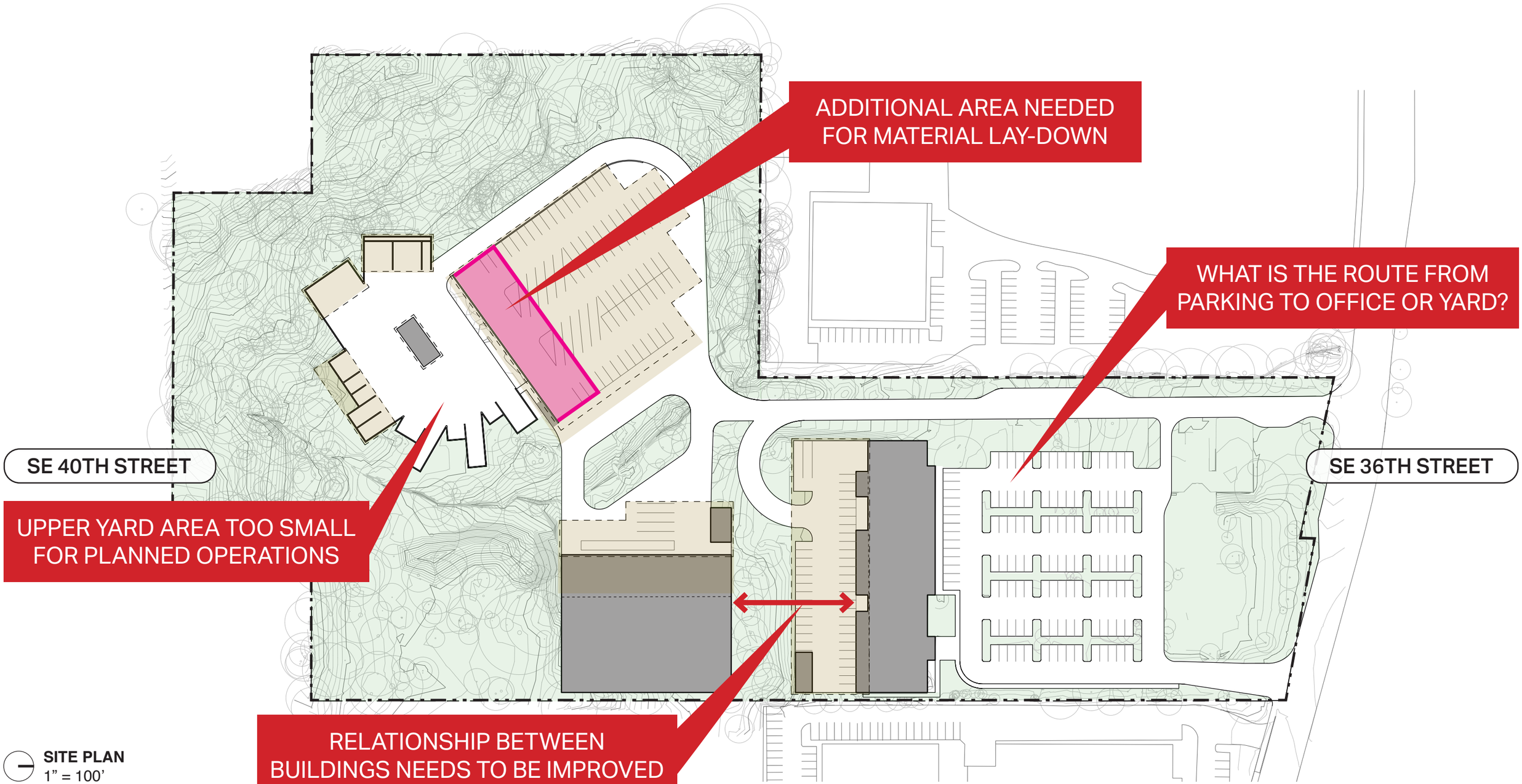
**March 5th**
Public Works Staff Meeting to review PSM Building, Operations Building, Lower Yard and Upper Yard program and operational relationships.

**March 11th & 13th**
MIPD Staff Meetings to review PSM Building and site plan program and operational relationships.

**March 13th**
EOC Staff Meeting to review PSM Building and site plan program and operational relationships.

# PUBLIC WORKS DEPARTMENT SITE PLAN INPUT

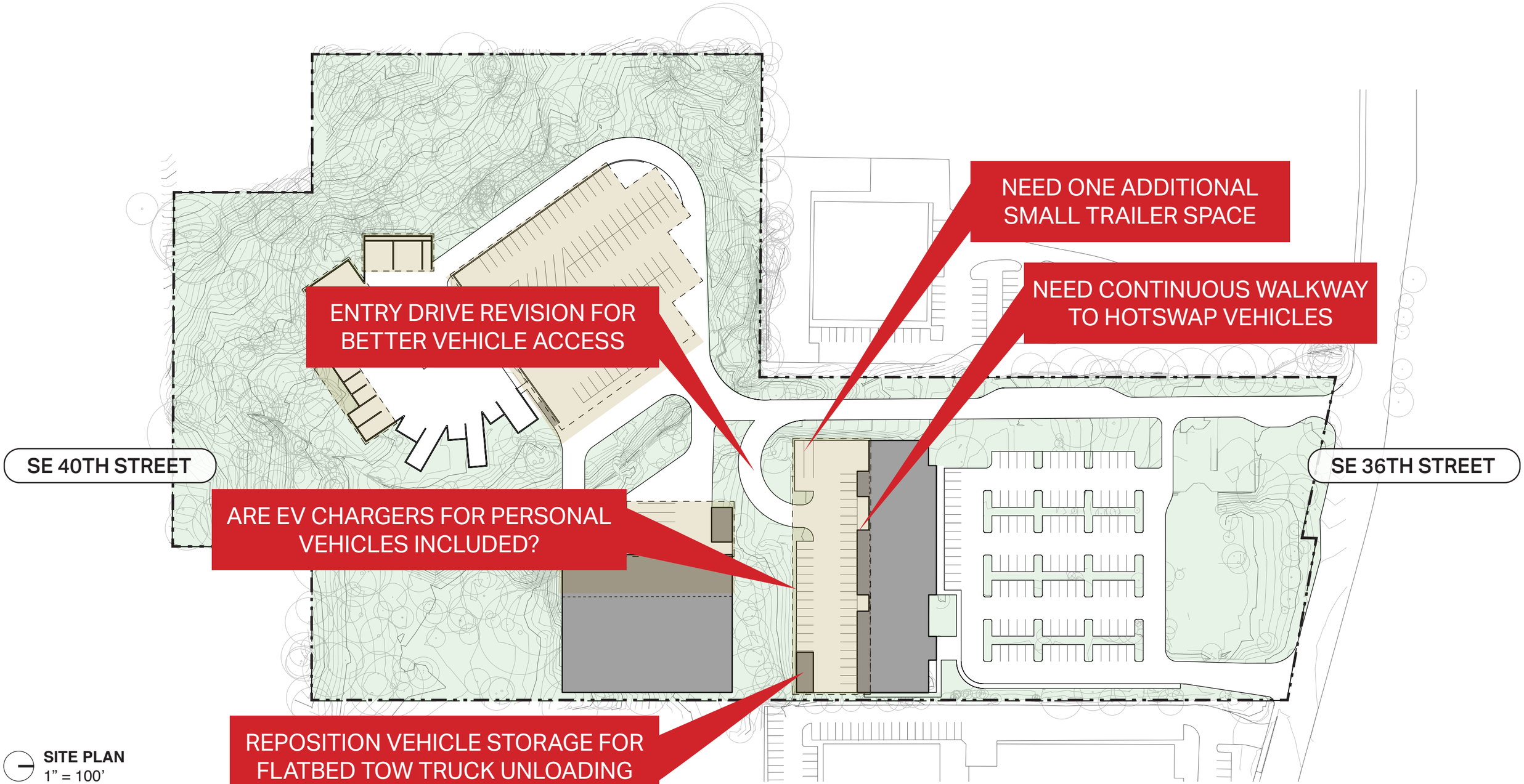
This site plan diagram illustrates input received from Public Works staff that inform layout adjustments to the site plan.




**SITE PLAN**
1” = 100’

# MIPD SITE PLAN INPUT

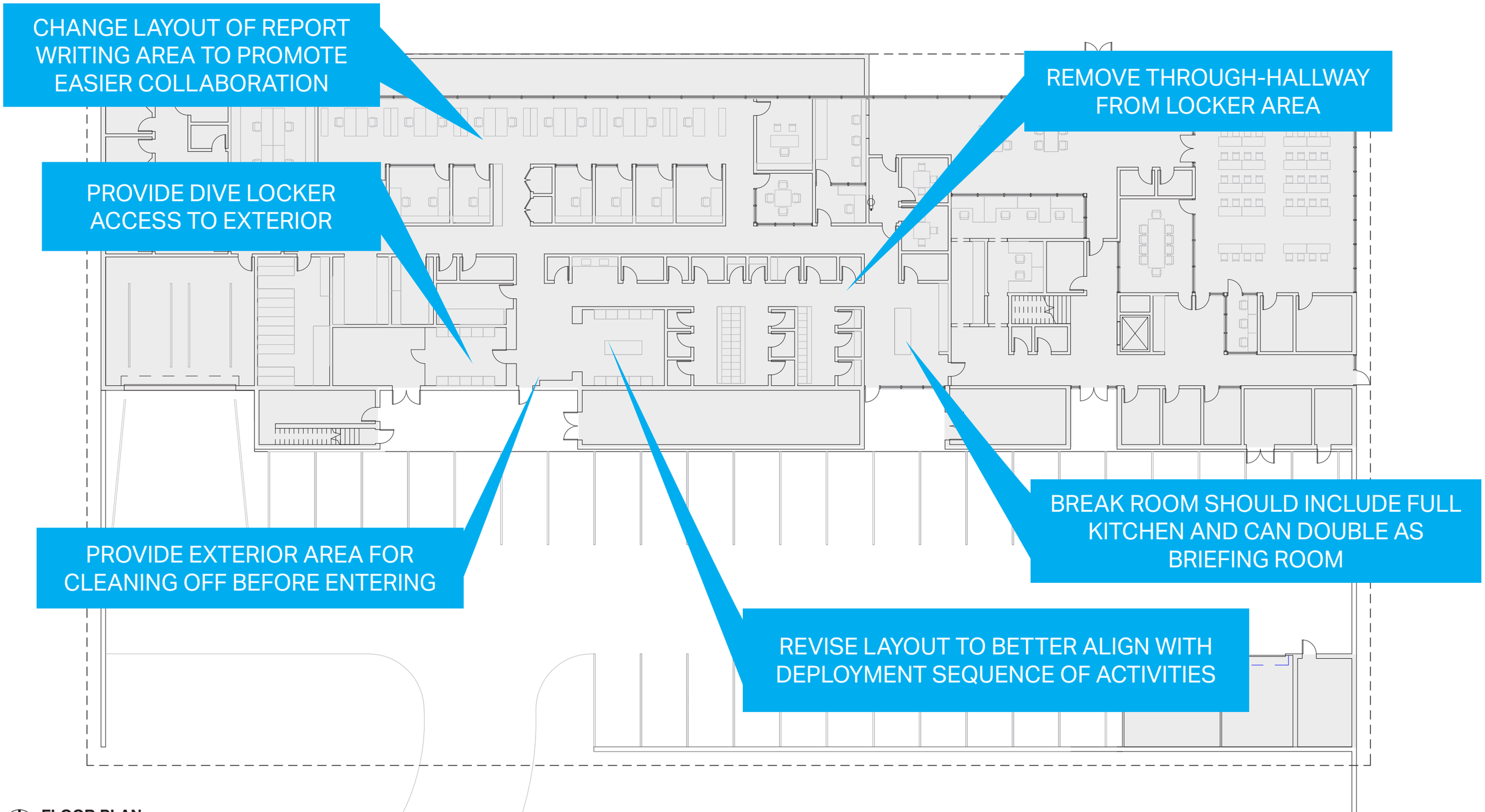
This plan provides an example of the input received from MIPD Chief-of-Police, Commanders, Sergeants, Corporals, and Officers that inform layout adjustments to the site plan.




**SITE PLAN**
1” = 100’

# MIPD PSM BUILDING INPUT

This plan provides an example of the input received from MIPD Chief-of-Police, Commanders, Sergeants, Corporals, and Officers that inform layout adjustments to the building plan.




**FLOOR PLAN**
1" = 20'-0"

# MIPD PSM BUILDING INPUT

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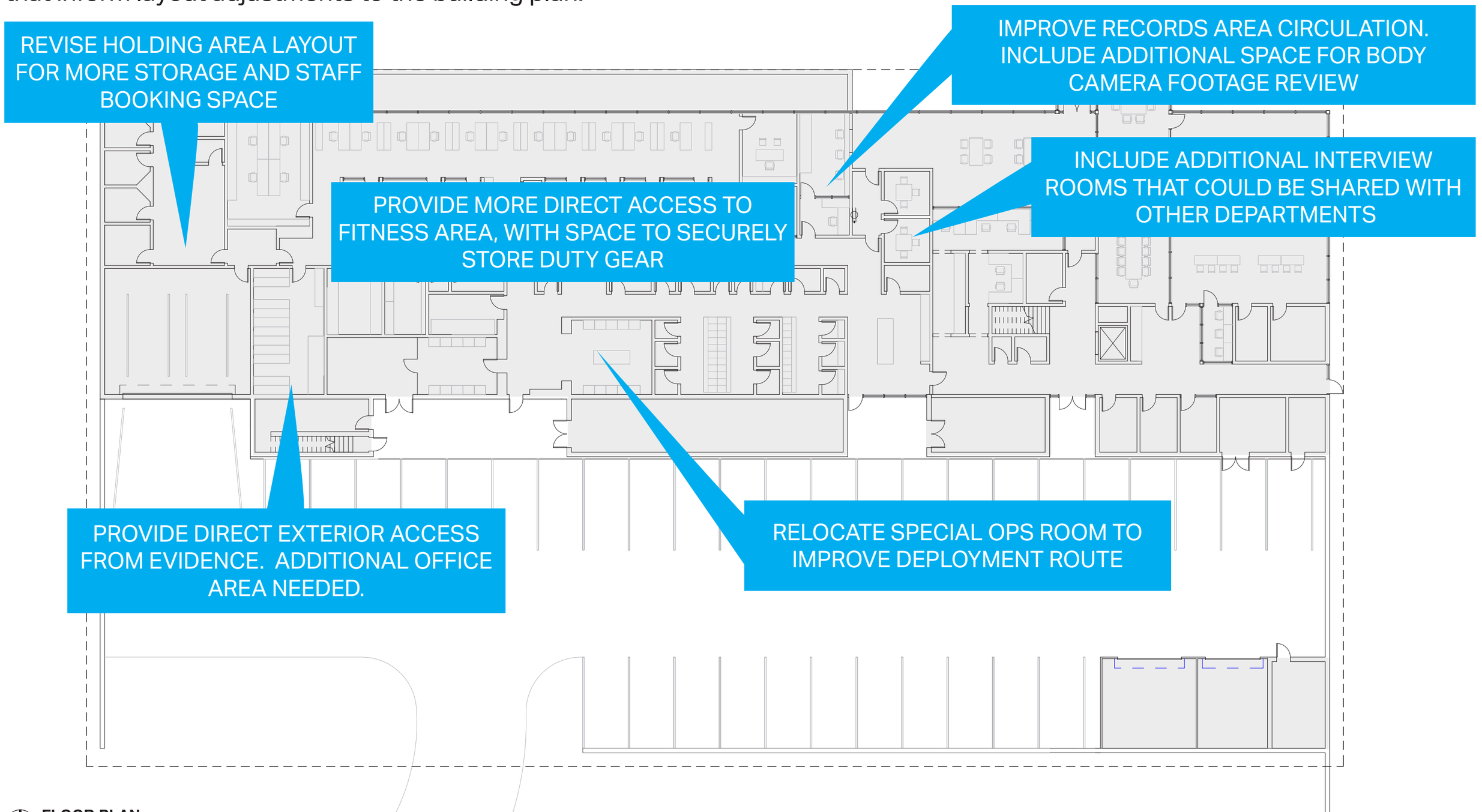
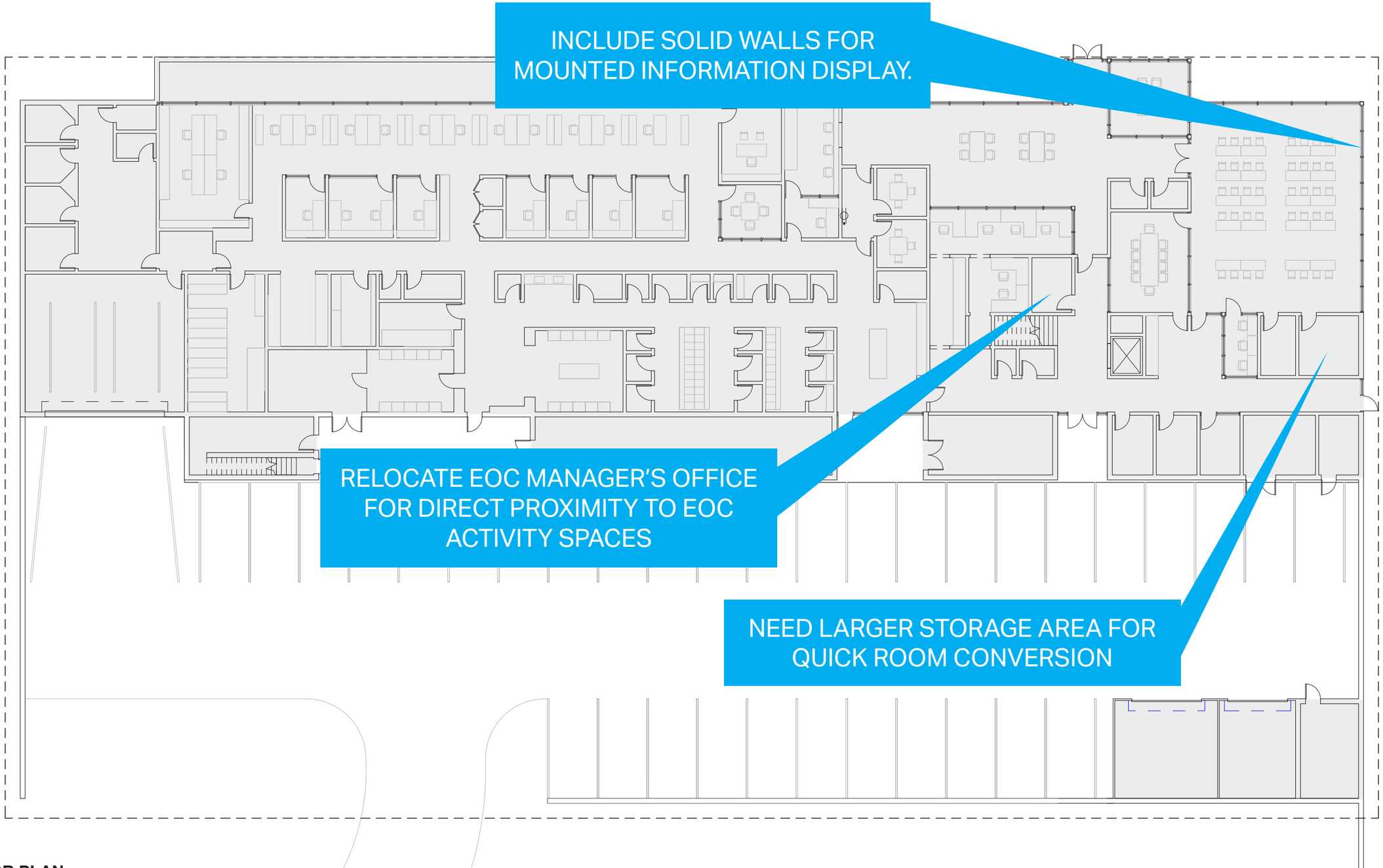



**FLOOR PLAN**
1” = 20’-0”

# EOC PSM BUILDING INPUT

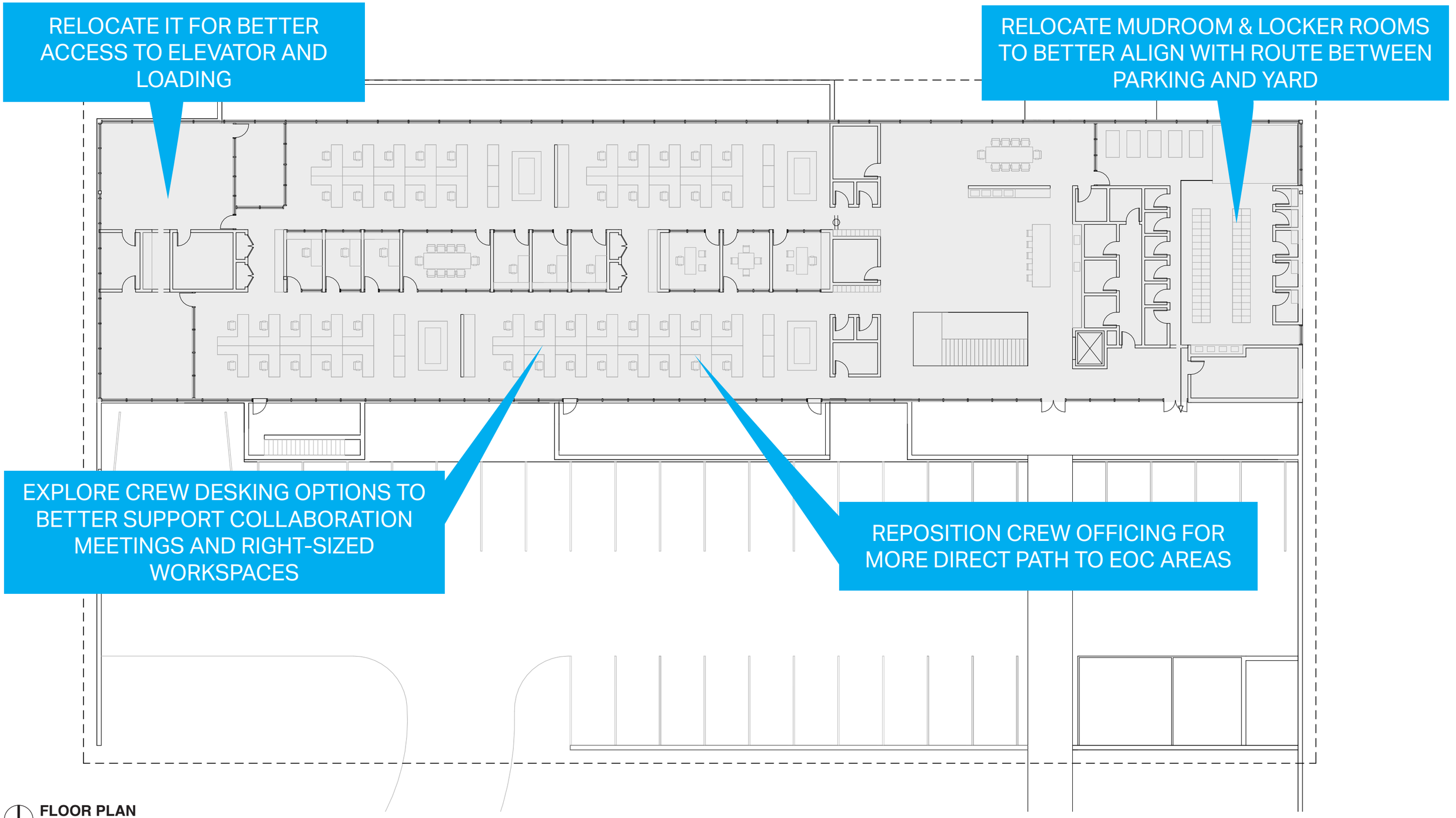
This plan provides an example of the input received from Emergency Operations Center manager that inform layout adjustments to the building plan.




**FLOOR PLAN**
1" = 20'-0"

# PUBLIC WORKS STAFF INPUT

This plan provides an example of the input received from Public Works staff that inform layout adjustments to the building plan.



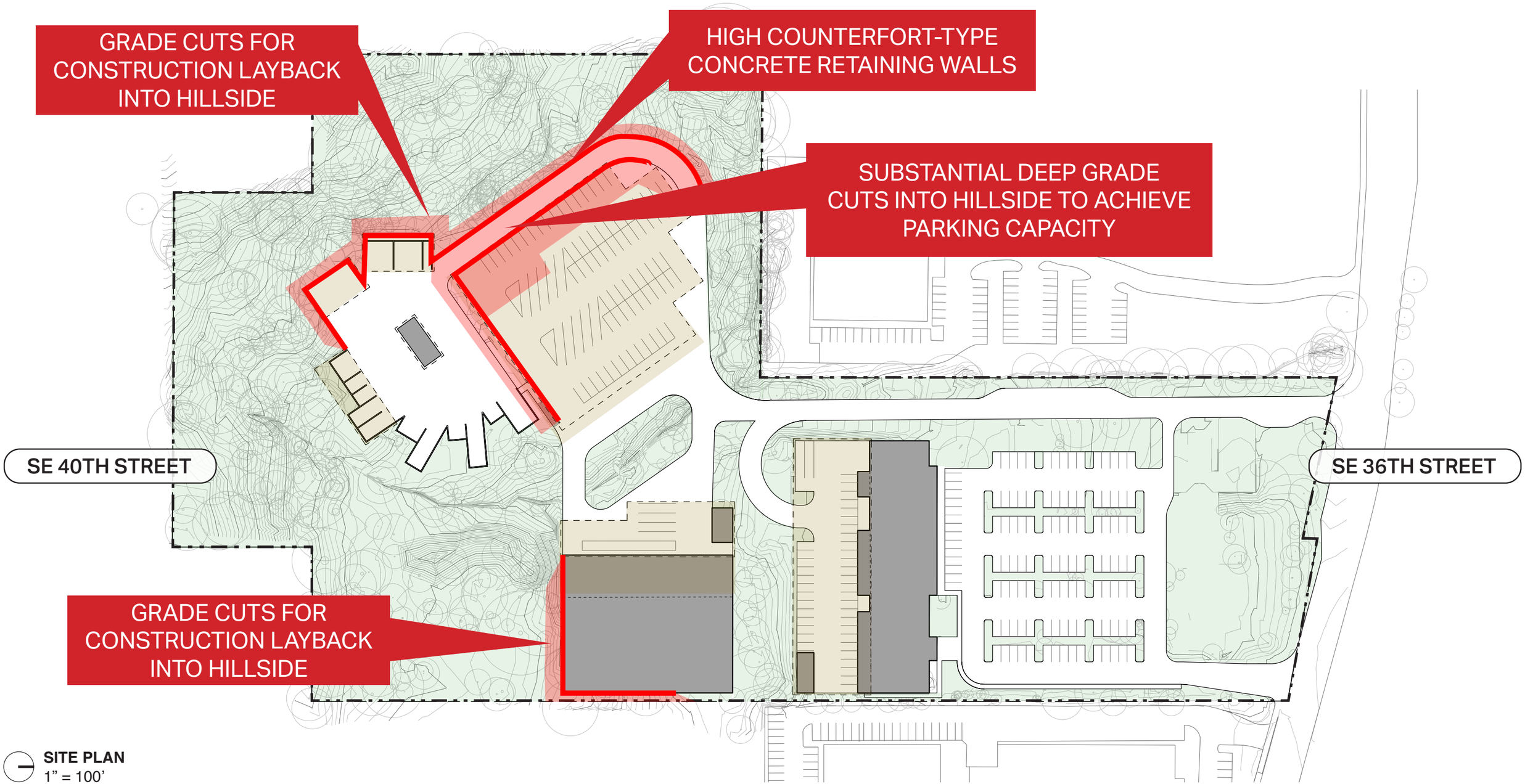

**FLOOR PLAN**
1" = 20'-0"

# Design Team Worksessions

**March 5th - March 21st**
Design team session reviews with Civil Engineering, Structural Engineering, Building Systems (Mechanical, Plumbing, Electrical, and IT), and Landscape Architecture, were focused on value engineering synergies with plan revisions that address staff input.

# DESIGN TEAM WORK SESSION INPUT

This plan provides an example of the input received from Design Team work sessions focused on value engineering and addressing staff input.




**SITE PLAN**
1” = 100’

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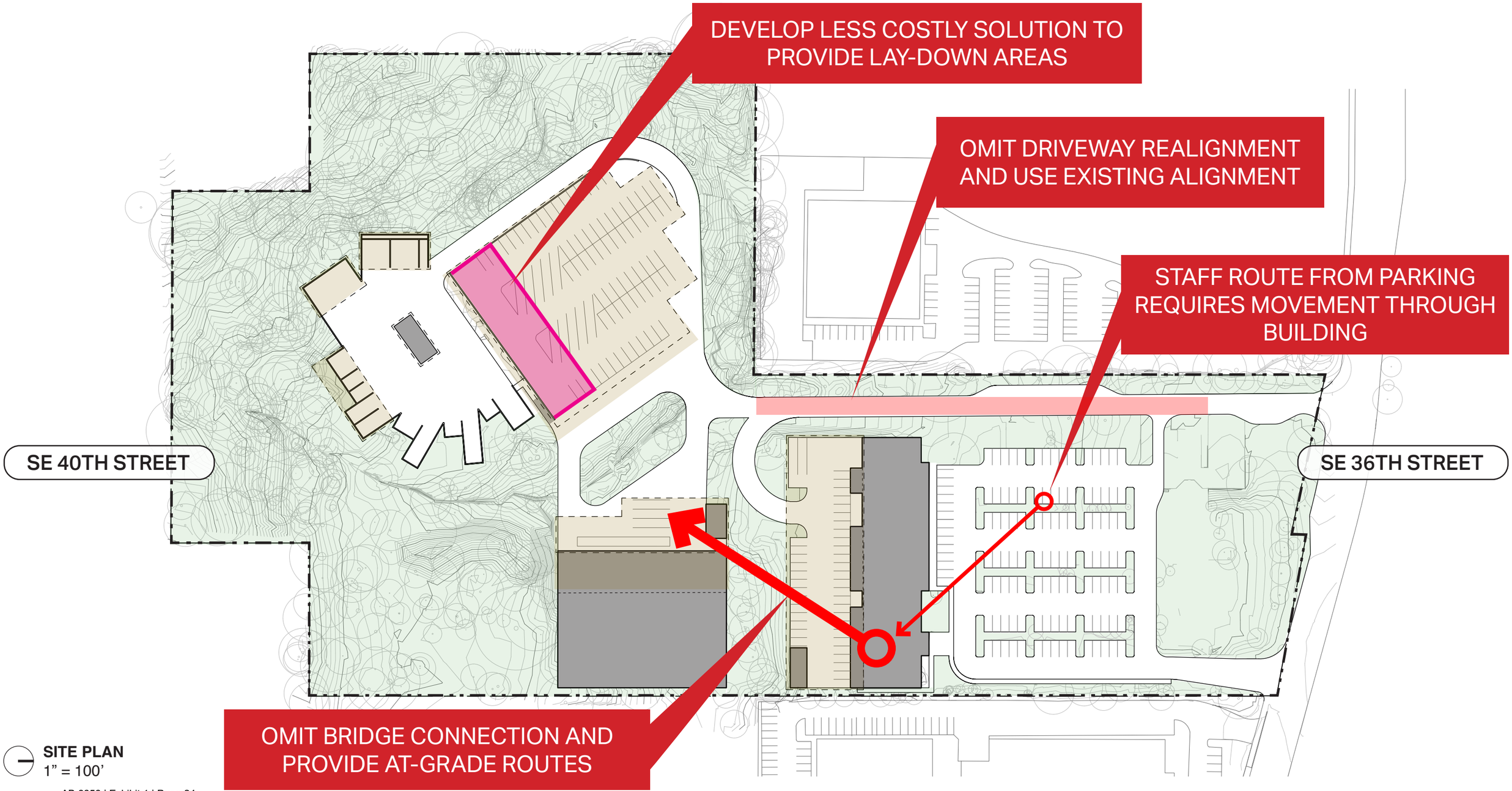


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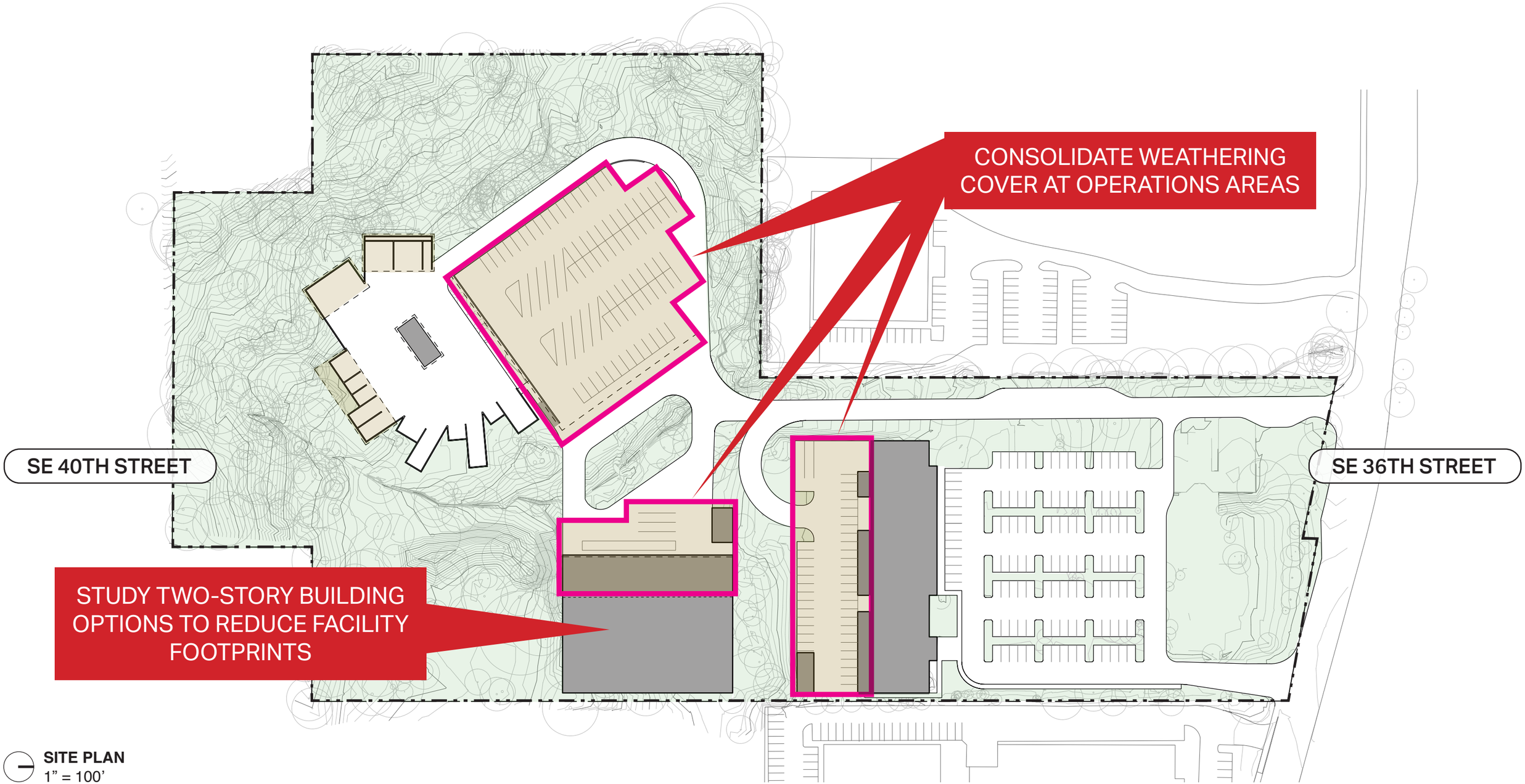



**SITE PLAN**
1” = 100’

# Input Summary and the location of the PSM Building

## WORK SESSION SUMMARY AND VALUE ENGINEERING STRATEGIES

1. Consolidate buildings, operational areas, and weathering cover to realize cost savings and increase operational efficiency.

2. Reconfigure yard areas to reduce or eliminate high concrete retaining structures and associated substantial grade cuts to realize cost savings.

3. Improve site circulation and lower related costs by retaining the existing entry drive alignment and designing at-grade staff circulation between parking areas and site facilities.

4. Increase yard areas to accommodate planned operations and lay-down capacities without constructing costly a elevated concrete podium.

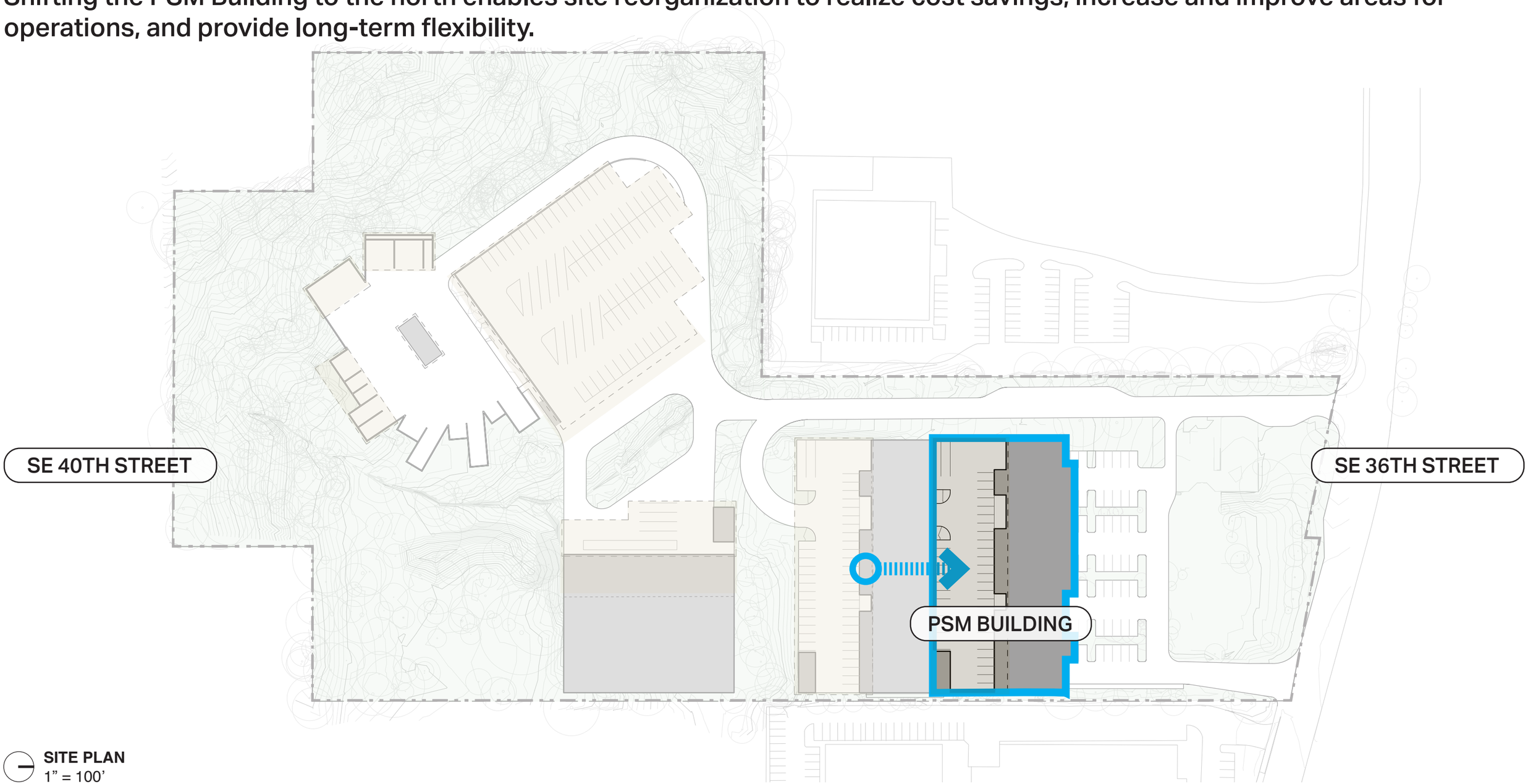
5. Revise MIPD parking area to accommodate additional equipment, maneuverability, and operational area changes.

6. Incorporate areas for facility expansion for long-term viability and service to the City of Mercer Island.

# THE LOCATION OF THE PSM BUILDING

Locating the PSM Building at the southernmost end of the city hall parking lot constrains site redevelopment, with operational and programmatic challenges identified by staff and design and engineering challenges identified by the design team.

**Shifting the PSM Building to the north enables site reorganization to realize cost savings, increase and improve areas for operations, and provide long-term flexibility.**




**SITE PLAN**
1” = 100’

AB 6656 | Exhibit 1 | Page 28

# Reorganizing the plan

# PSM FACILITY SITE PLAN

This site plan illustrates the reconfigured layout for facilities and operational areas.  Buildings and covered operations areas are relocated and consolidated on the eastern portion of the site, opening the western portions of the site for Yard functions.


**SITE PLAN**
1” = 100’


SE 40TH STREET
UPPER YARD
LOWER YARD
OPERATIONS BUILDING
COVERED VEHICLES & EQUIPMENT
PSM BUILDING
PUBLIC & STAFF PARKING
SE 36TH STREET

# Improved Capacities

# BUILDING AREAS ON SITE MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

The layout maintains initial program square footages while providing adjacent areas for future needs.

## OPERATIONS BUILDING

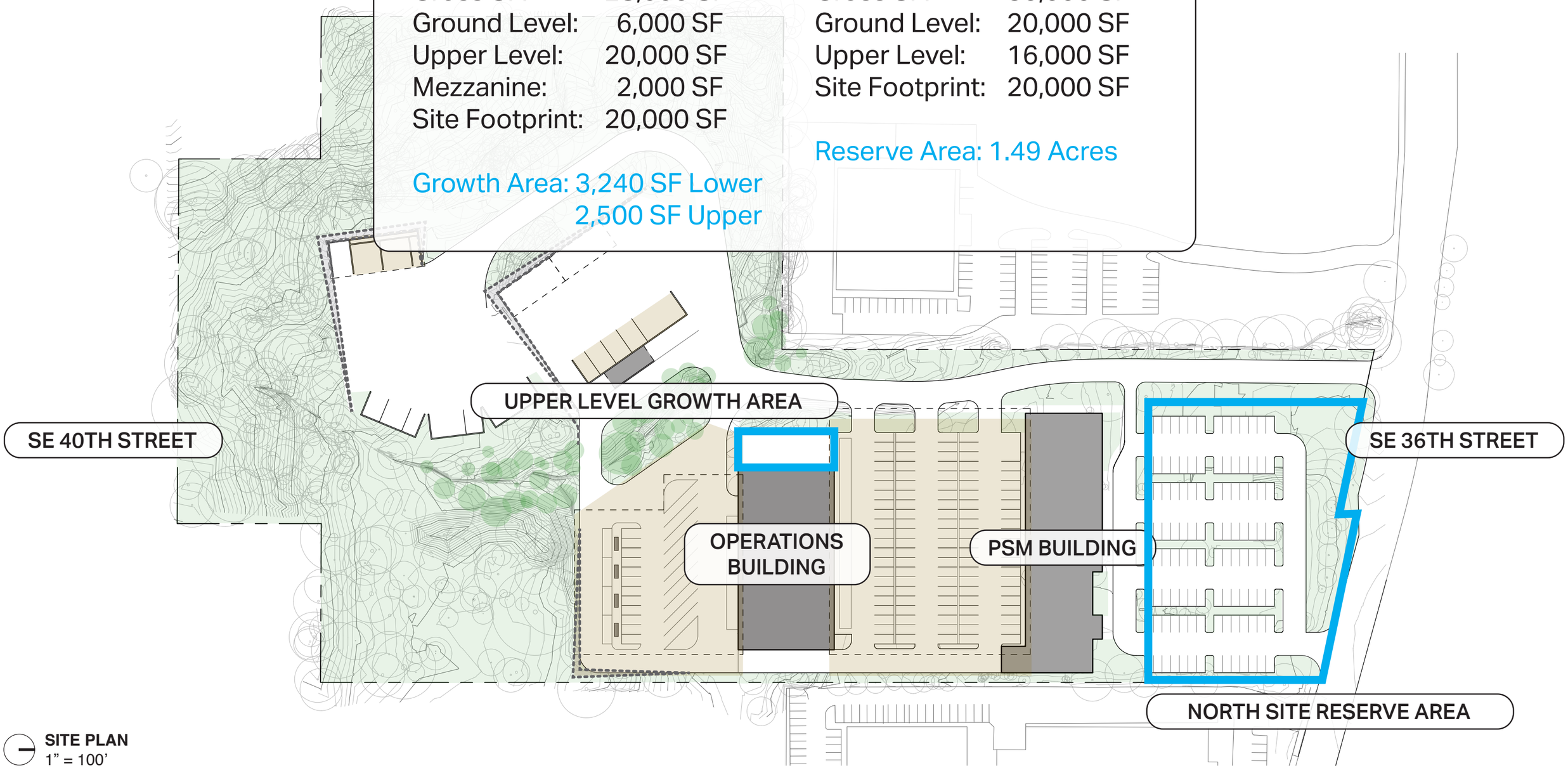
| | |
|---|---|
| Gross SF: | 28,000 SF |
| Ground Level: | 6,000 SF |
| Upper Level: | 20,000 SF |
| Mezzanine: | 2,000 SF |
| Site Footprint: | 20,000 SF |

Growth Area: 3,240 SF Lower
2,500 SF Upper

## PSM BUILDING

| | |
|---|---|
| Gross SF: | 36,000 SF |
| Ground Level: | 20,000 SF |
| Upper Level: | 16,000 SF |
| Site Footprint: | 20,000 SF |

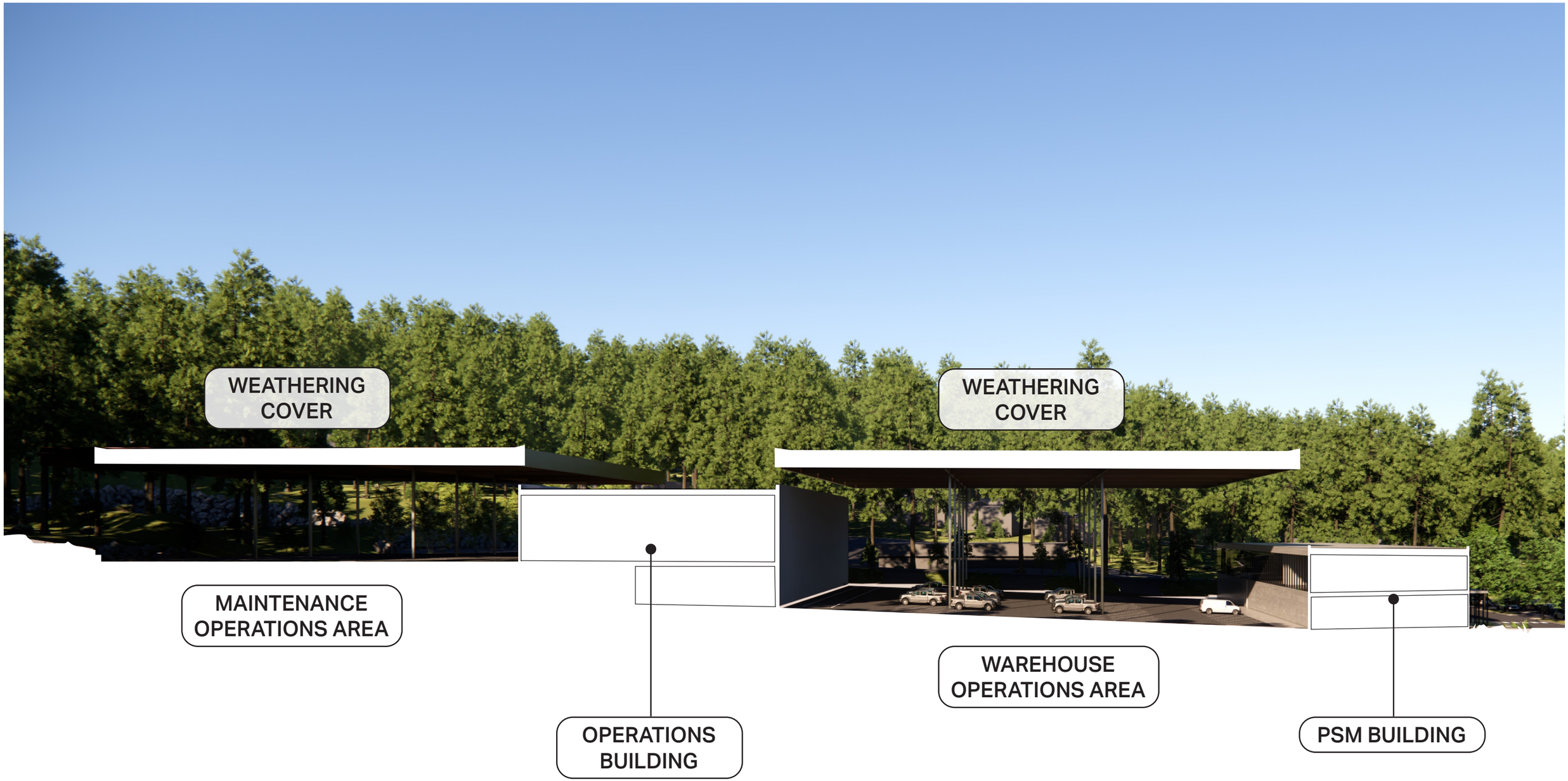
Reserve Area: 1.49 Acres




**SITE PLAN**
1” = 100’

## WORKING WITH THE SLOPE OF THE SITE

The layout takes advantage of the site's grade change to reorganize the Operations Building into two stories, rather than a single story, consolidating the building's footprint and providing more site area for vehicles and equipment.



# VEHICLE AND EQUIPMENT AREAS MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

## OPERATIONS PARKING

**Equipment & Vehicles**

70 Needed 88 Provided

11 Needed 20 Provided

Indoor/ Conditioned

**Trailers**

7 Needed 7 Provided

**Oversize Vehicles**

6 Needed 8 Provided

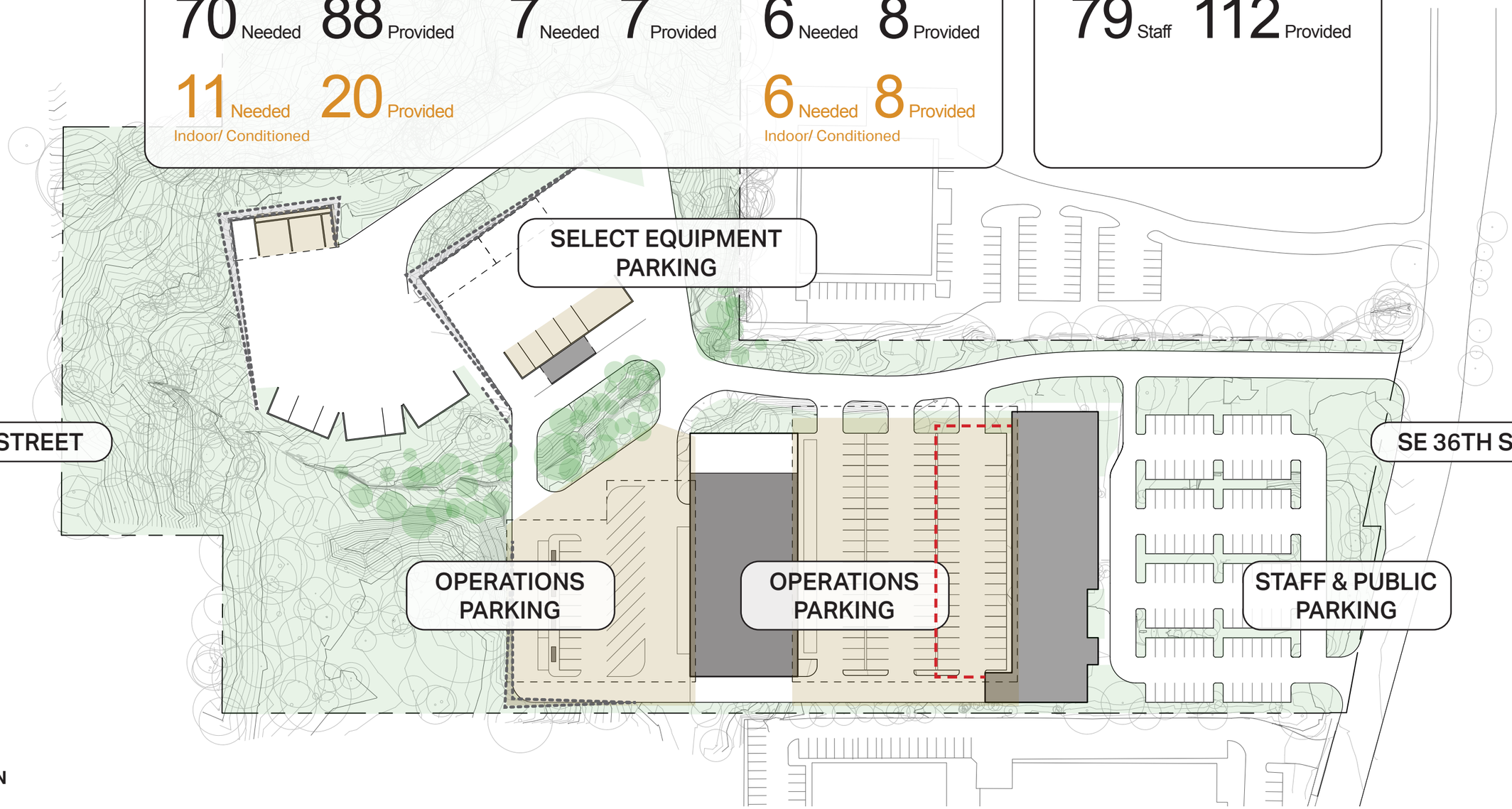
6 Needed 8 Provided

Indoor/ Conditioned

## STAFF & PUBLIC

**Vehicles**

79 Staff 112 Provided




**SITE PLAN**
1” = 100’

# VEHICLE AND EQUIPMENT AREAS MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

## MIPD PARKING

**Vehicles**
21 Needed 37 Provided

**Boat Trailers**
3 Needed 3 Provided

**Cargo Trailers**
3 Needed 3 Provided

SE 40TH STREET

SE 36TH STREET

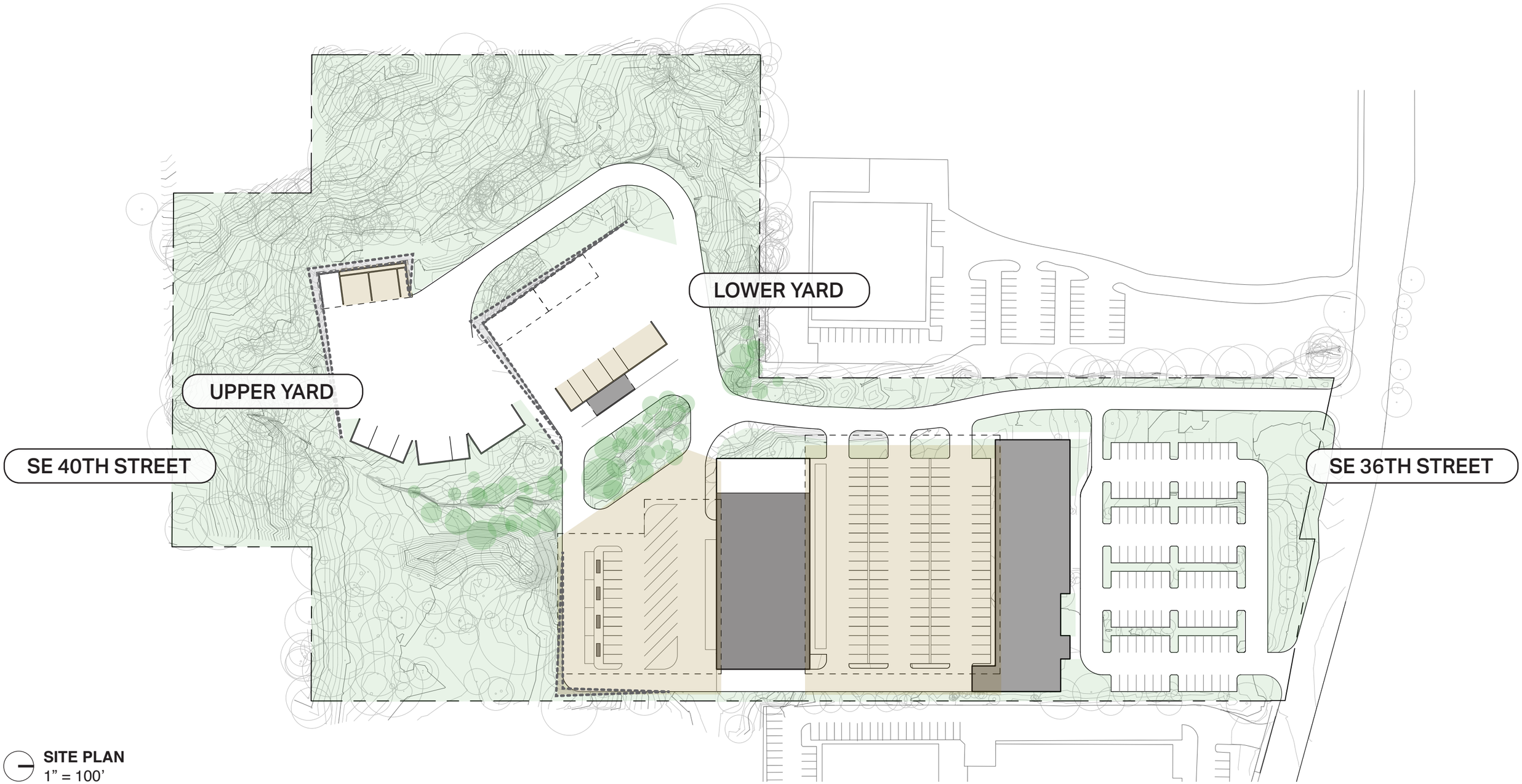
MIPD BOAT PARKING

MIPD PARKING

**SITE PLAN**
1” = 100’

# LOWER AND UPPER YARD AREAS

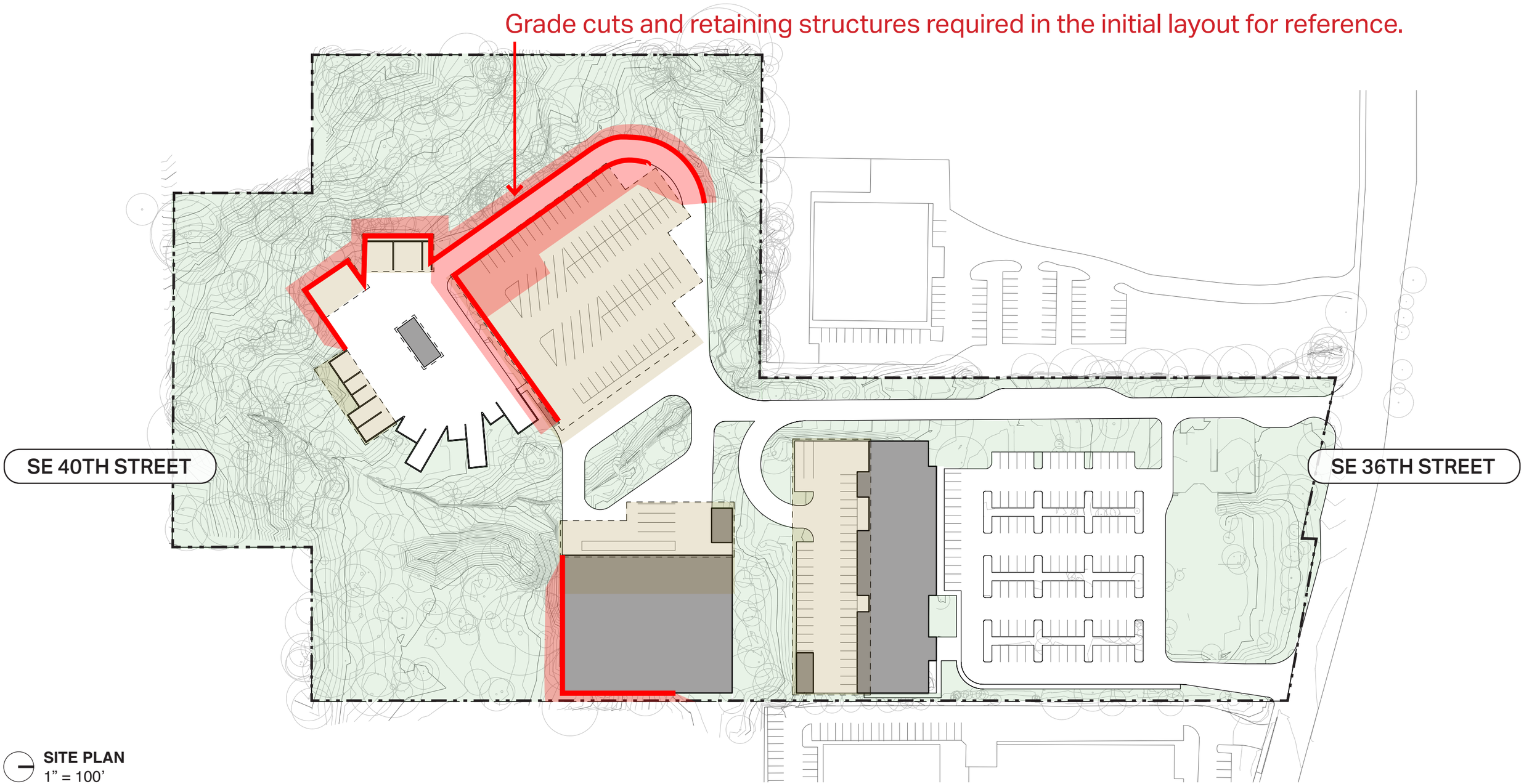
This diagram illustrates the proposed Upper and Lower Yard areas located on the western, and southwestern, portions of the site.




**SITE PLAN**
1” = 100’

# INITIAL YARD SITEWORK

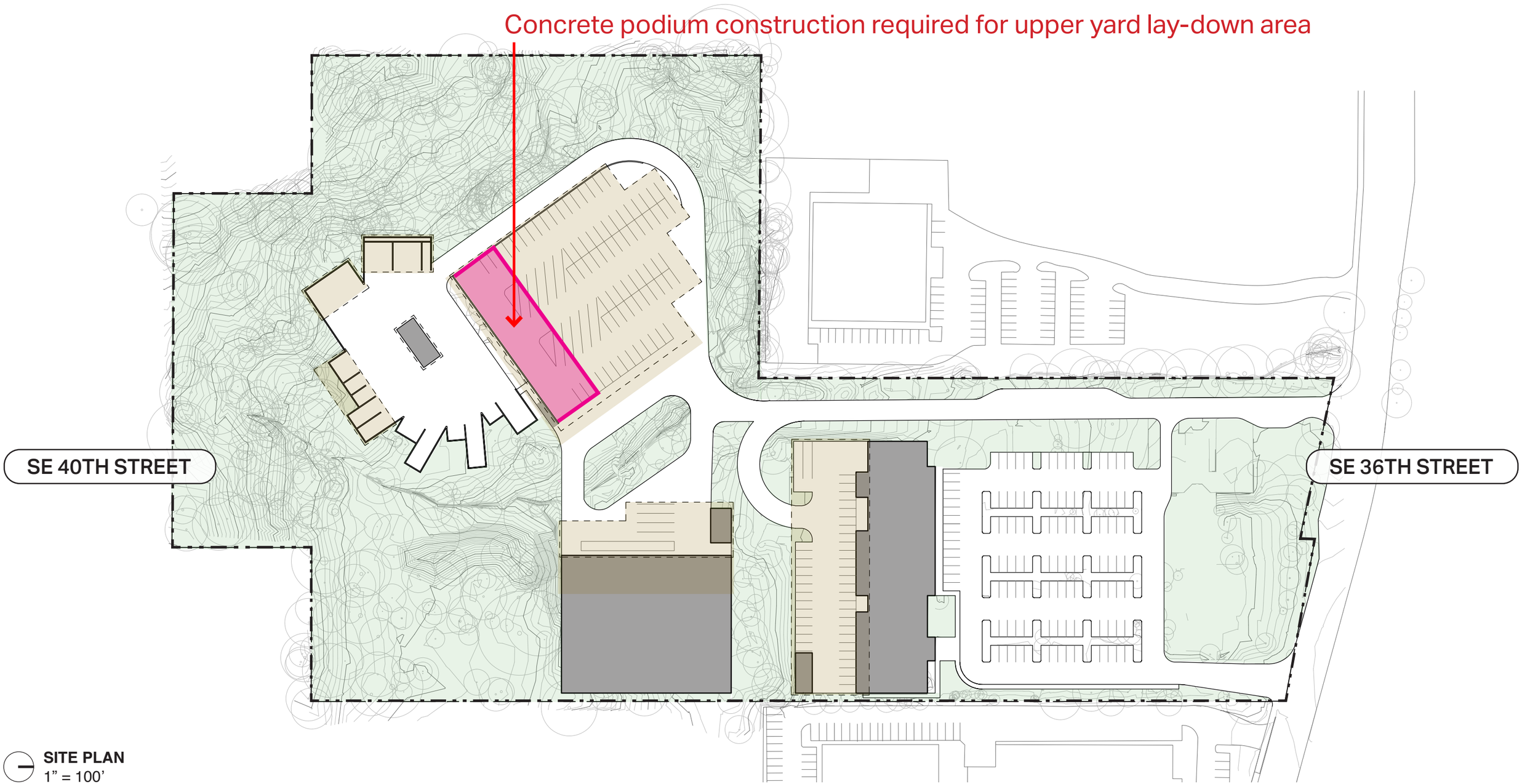
This diagram illustrates the grade cuts required in the initial site plan layout.  Initial plan grade cuts and retaining structures achieved an additional +/- 14,000 SF in required usable area at a cost of +/- $2,500,000.




**SITE PLAN**
1” = 100’

# ADDITIONAL LAY-DOWN

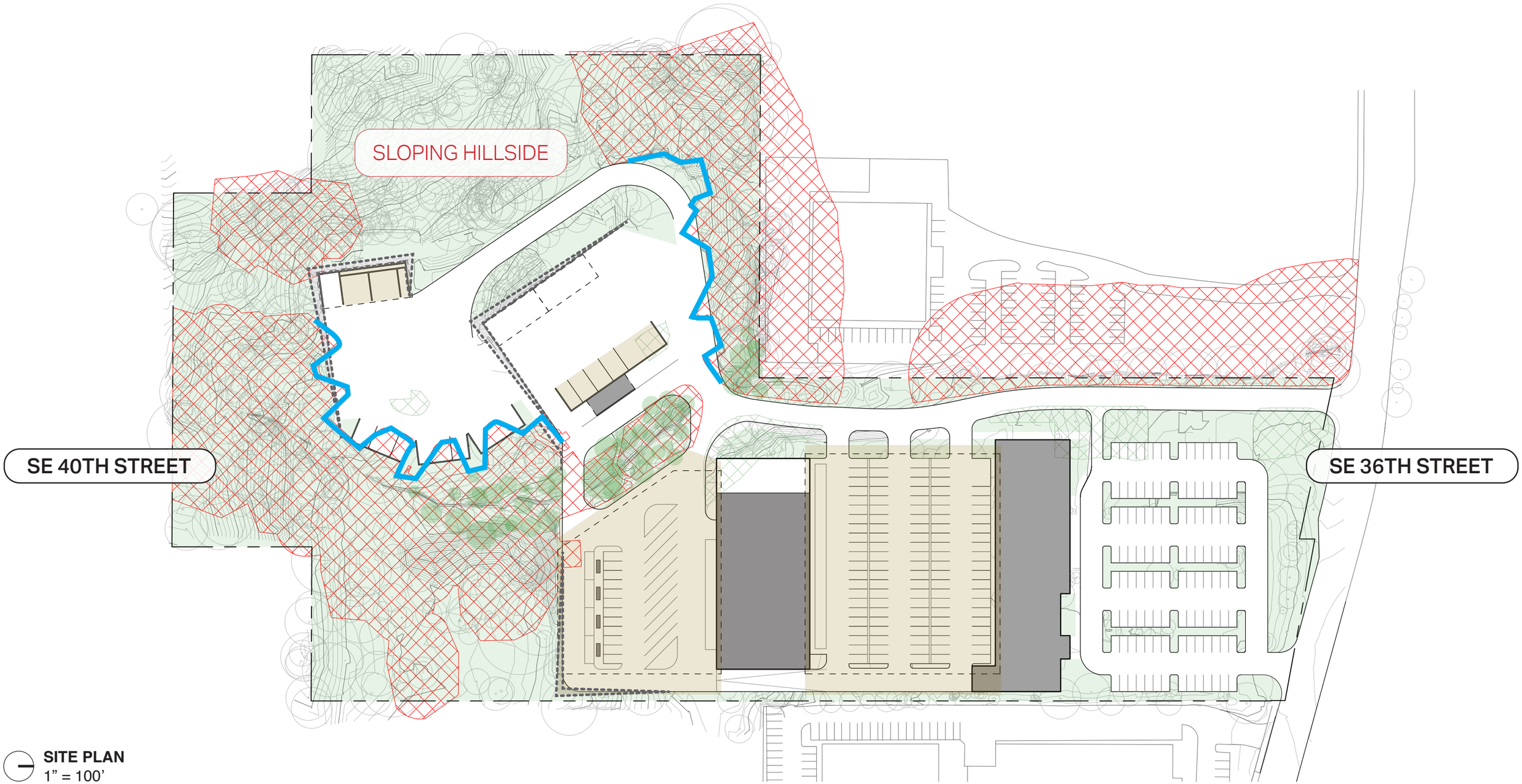
This site plan illustrates a load bearing structure designed to provide approximately 8,000 Square Feet to site storage capacity for Upper Yard lay-down needs.  The cost of this concrete structure may range between+/- $1,000,000 to $2,000,000.




**SITE PLAN**
1” = 100’

# CRITICAL AREAS AND SLOPING HILLSIDES

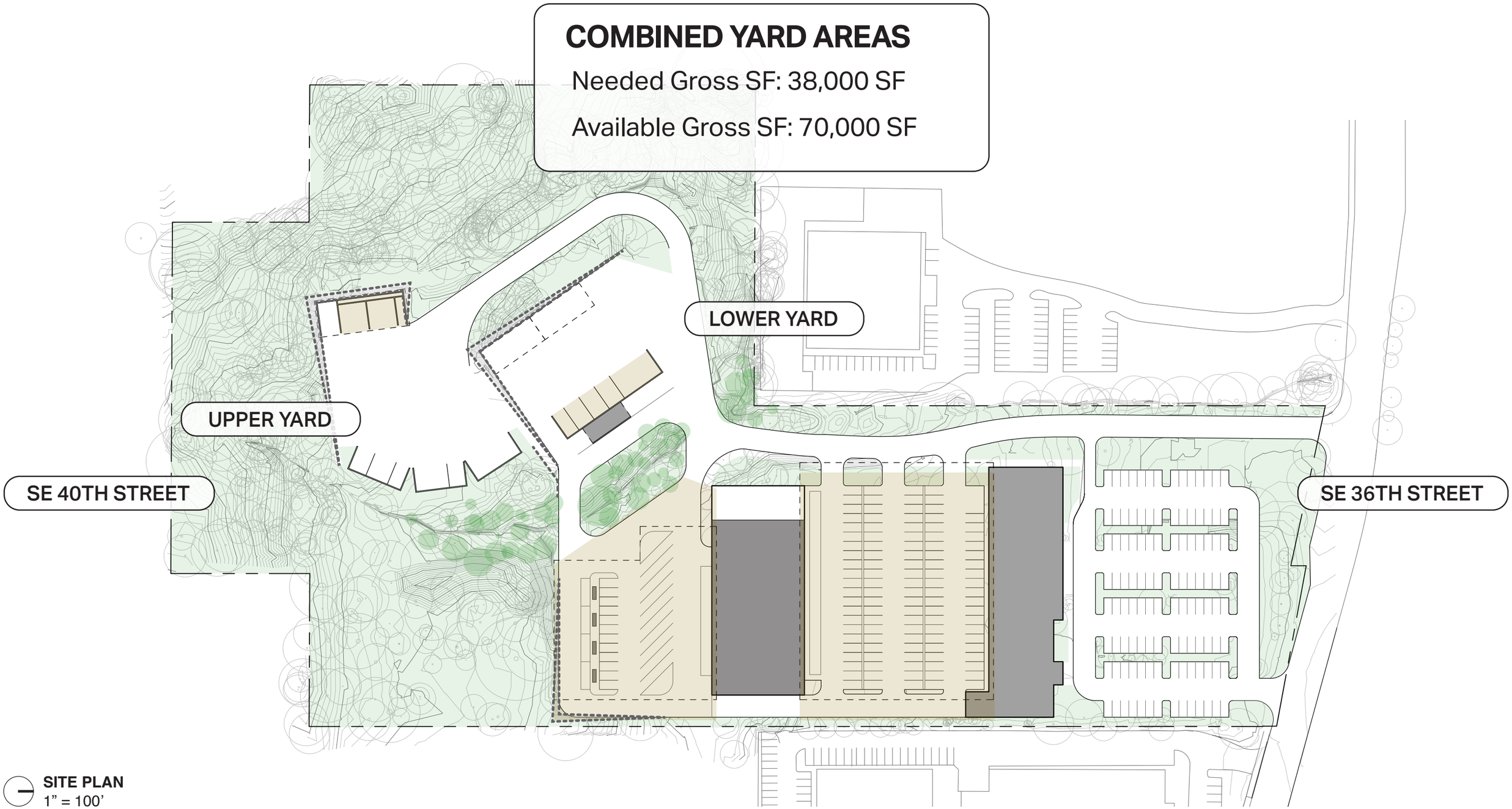
The proposed Lower and Upper Yards will review buffer averaging in select areas, working towards whole-site improvement and mitigation strategies, and work to refrain from making deep grade cuts into adjacent hillsides.




**SITE PLAN**
1” = 100’

# VALUE ENGINEERING TO MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

Consolidating facilities relieves capacity pressures that drove grade cuts and retaining structures.  For the Upper and Lower Yards, reconfiguring the site to spend +/- $3,500,000 less, realizes 2.4-times the required yard area for current use and future needs.




**SITE PLAN**
1” = 100’

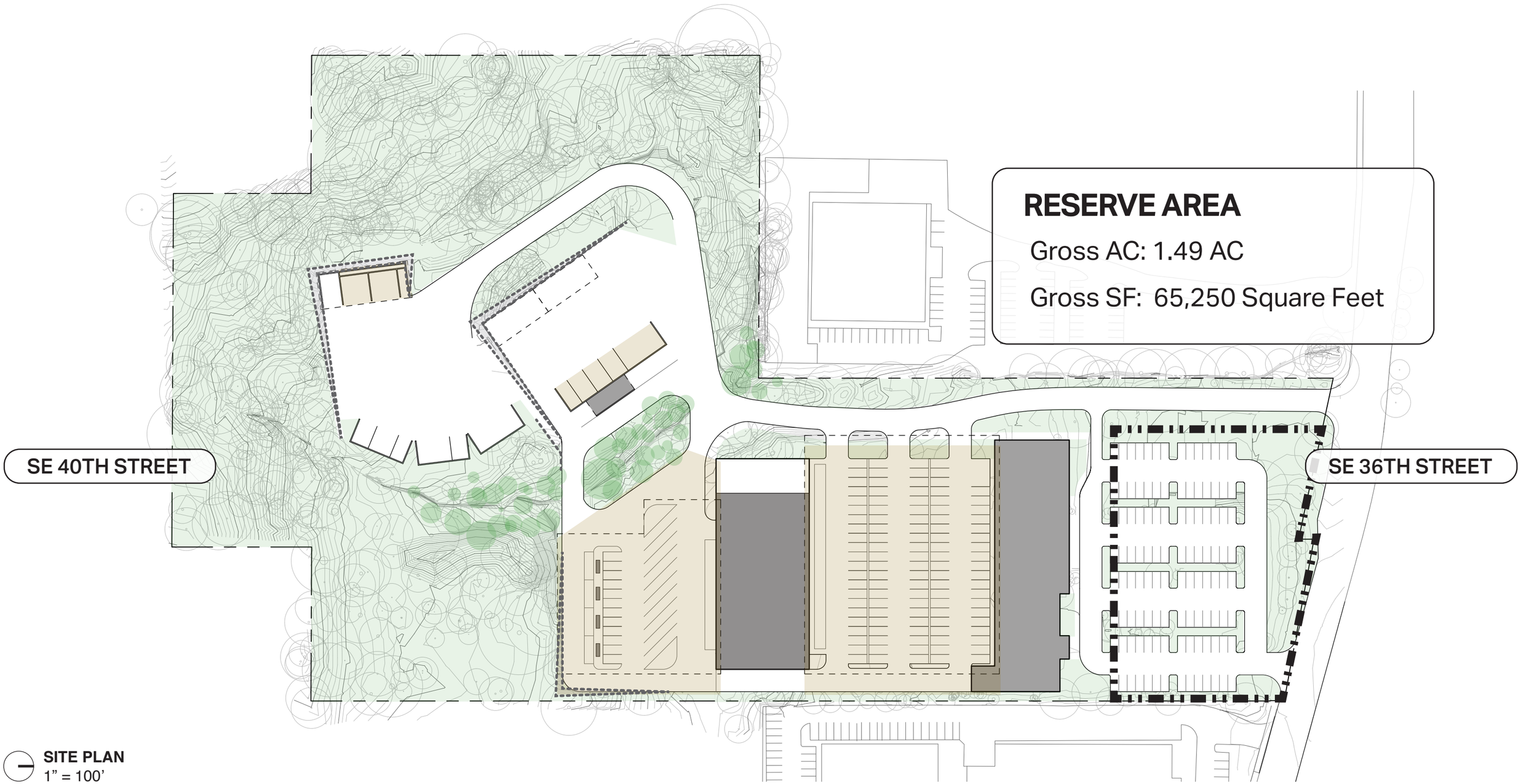
# SE 36th St Reserve Area

# PARCELS IN TOWN CENTER

This aerial photograph depicts buildings and parcel lines located in Mercer Island's Town Center.  Many parcels in Town Center range between 36,000 SF and 42,000 SF, with several larger parcels exceeding that range.

# RESERVE AREA ALONG SE 36TH STREET

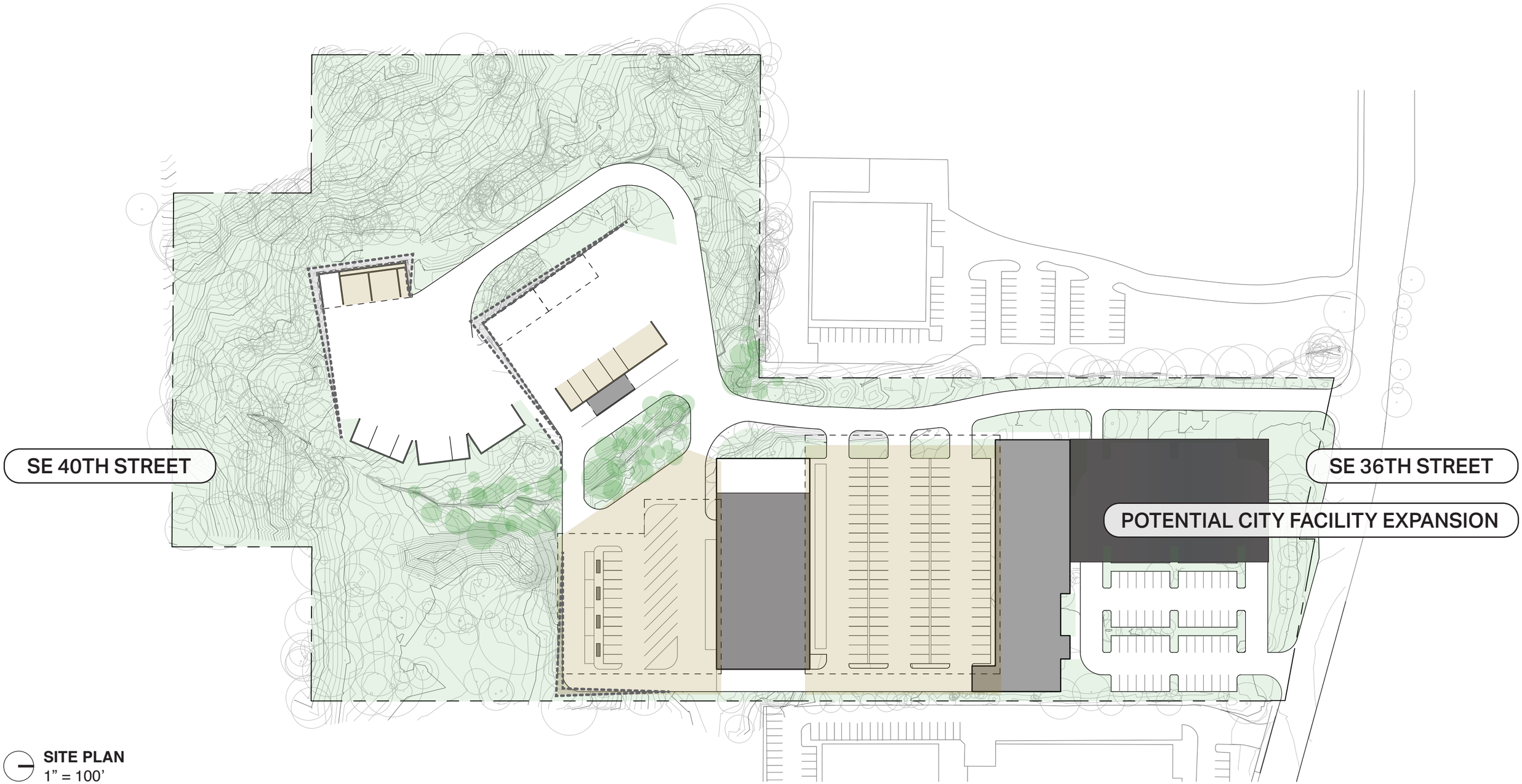
The facility site layout maintains a large develop-able area on the northern end of the site, along SE 36th Street, for future needs. This reserve area is comparable in size to many larger parcels in Town Center.




**SITE PLAN**
1” = 100’

# POTENTIAL FACILITY EXPANSION AREA

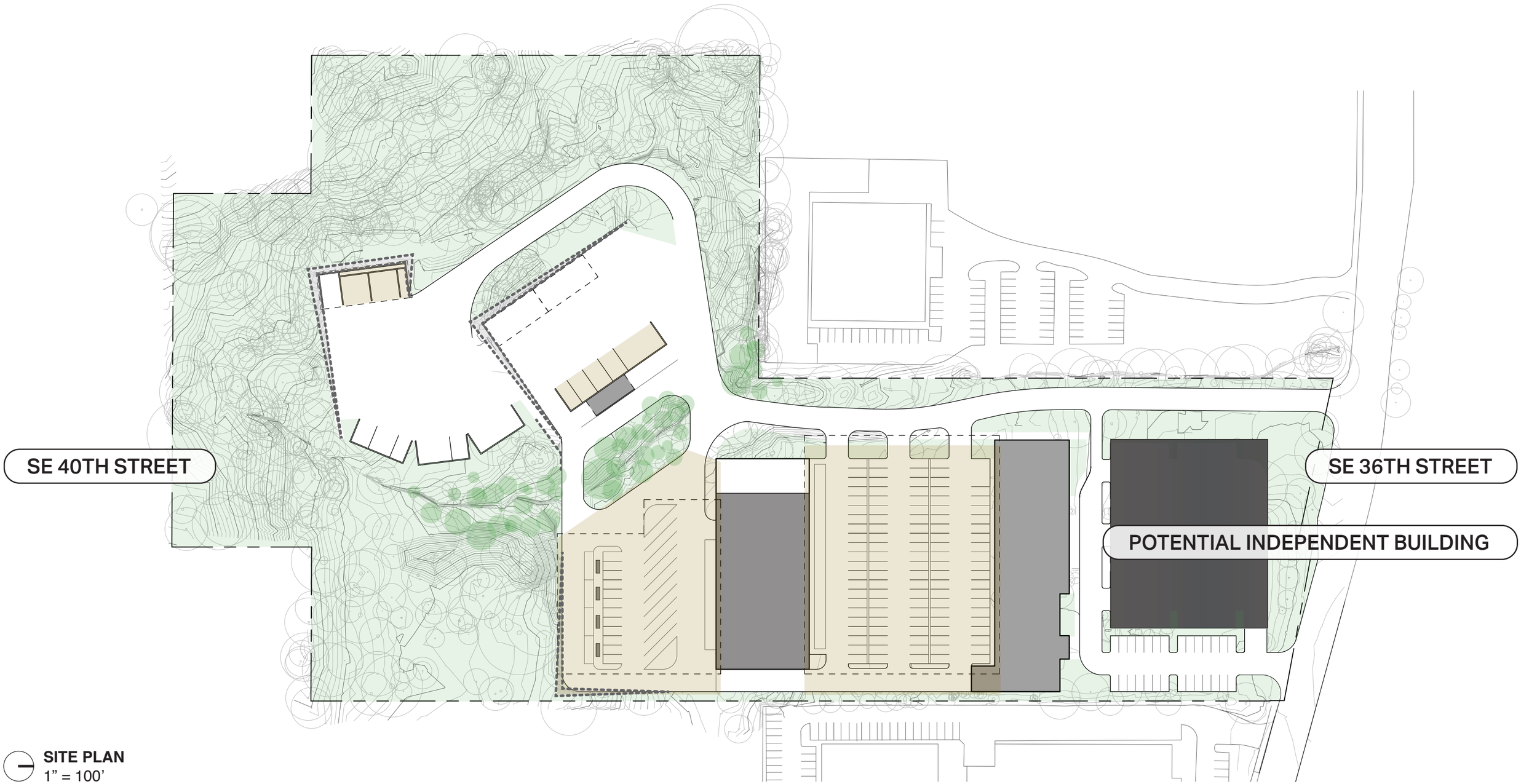
The northern reserve area is well positioned for expansion of the proposed PSM Building or for the development of an independent structure.  A potential City of Mercer Island facility expansion is depicted on this slide.




**SITE PLAN**
1” = 100’

# POTENTIAL AREA FOR AN INDEPENDENT BUILDING

The northern reserve area is well positioned for expansion of the proposed PSM Building or for the development of an independent structure.  A potential independent building is depicted on this slide.

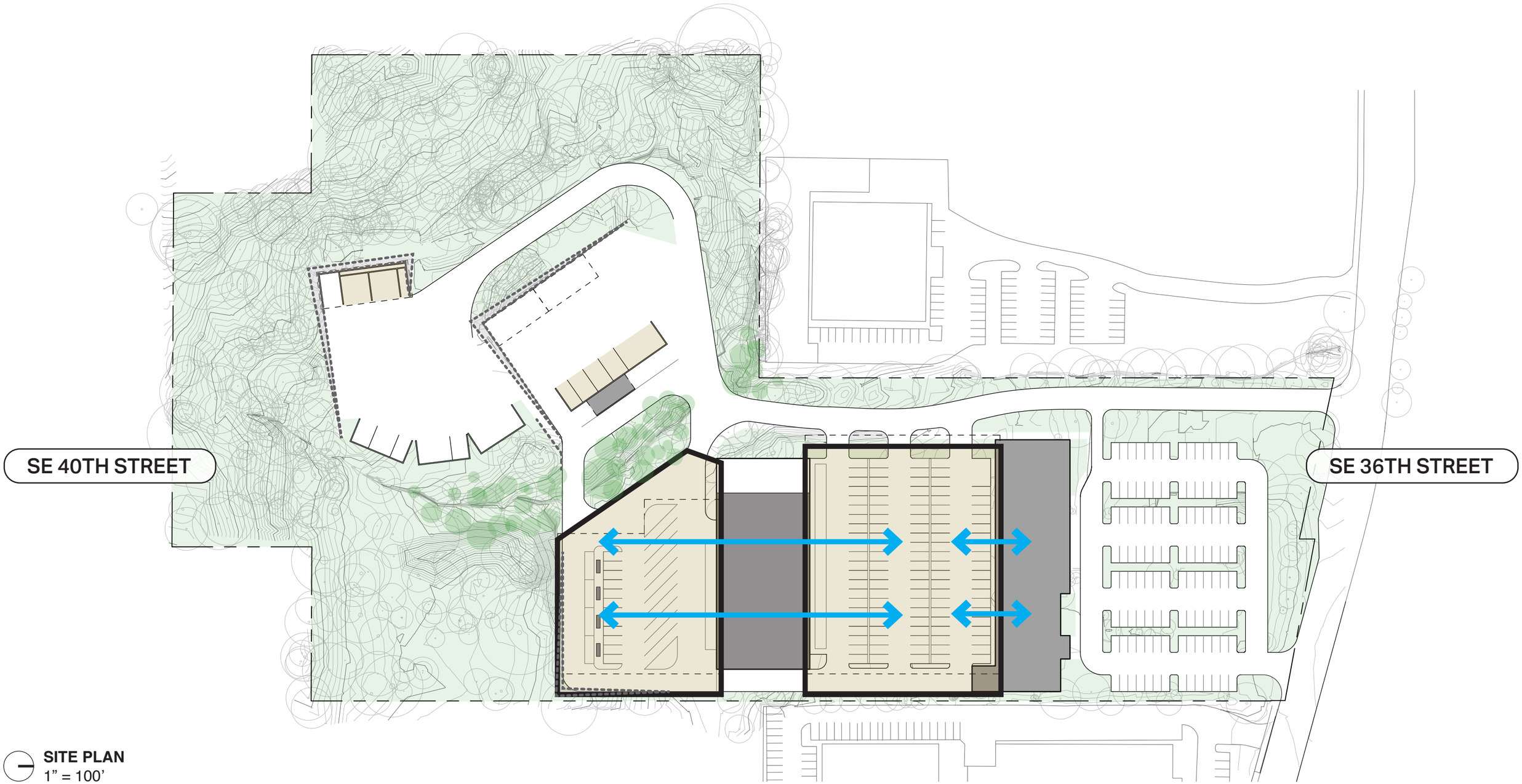



**SITE PLAN**
1” = 100’

# Weathering Cover

# CONSOLIDATING WEATHERING COVER

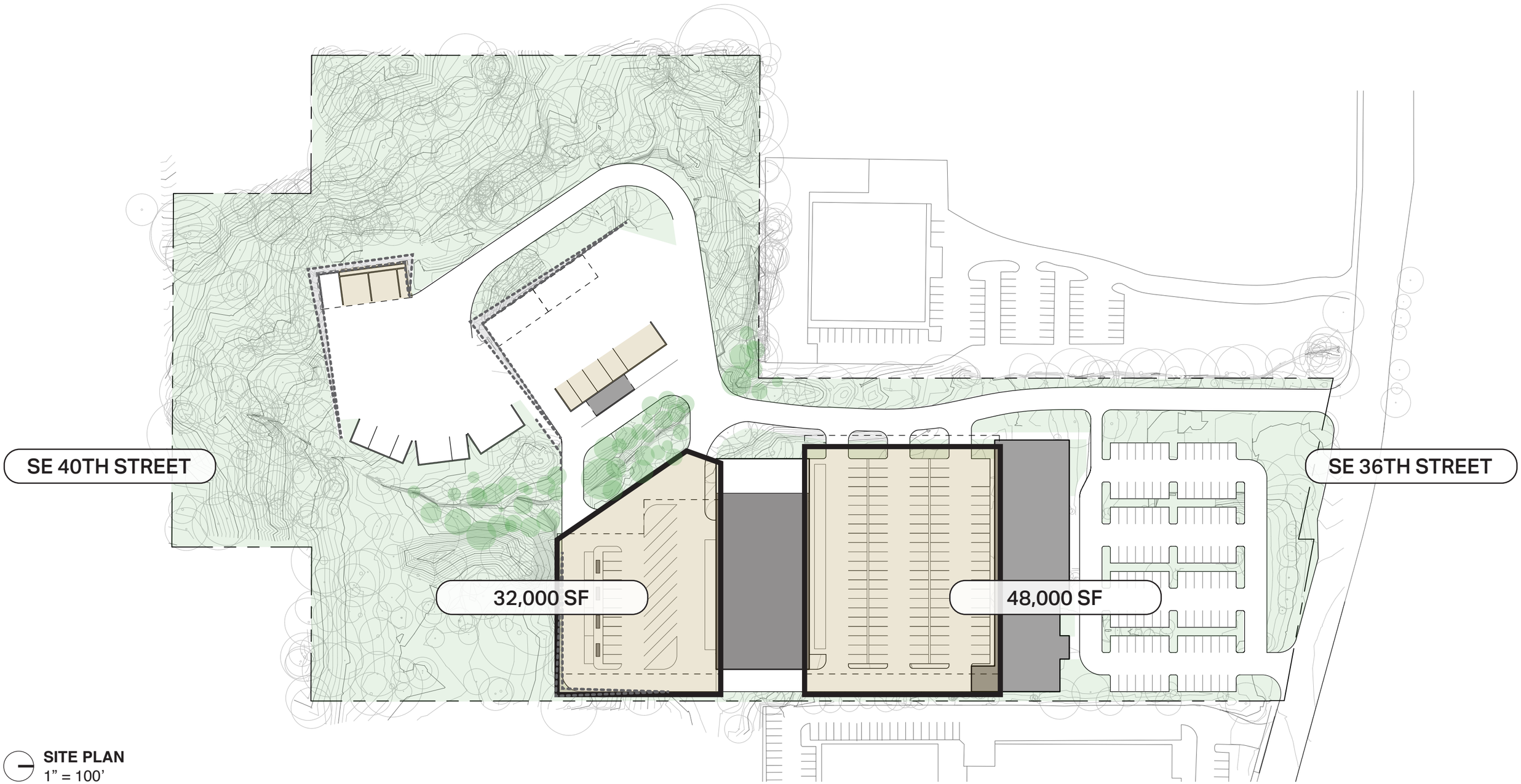
This diagram illustrates the location of proposed weathering cover.  Consolidating vehicle parking, equipment storage, and operations areas alongside facilities on the eastern portion of the site streamlines daily workflow underneath covered areas.




**SITE PLAN**
1” = 100’

# REDUCING THE SQUARE FOOTAGE OF PRIMARY COVERED AREAS

Initial planning included +/- 84,000 SF of primary weathering cover.  Consolidating facilities on the eastern portion of the site results in a proposed +/- 80,000 SF, reducing primary covered areas by +/- 4,000 SF with a cost savings of +/- $500,000.

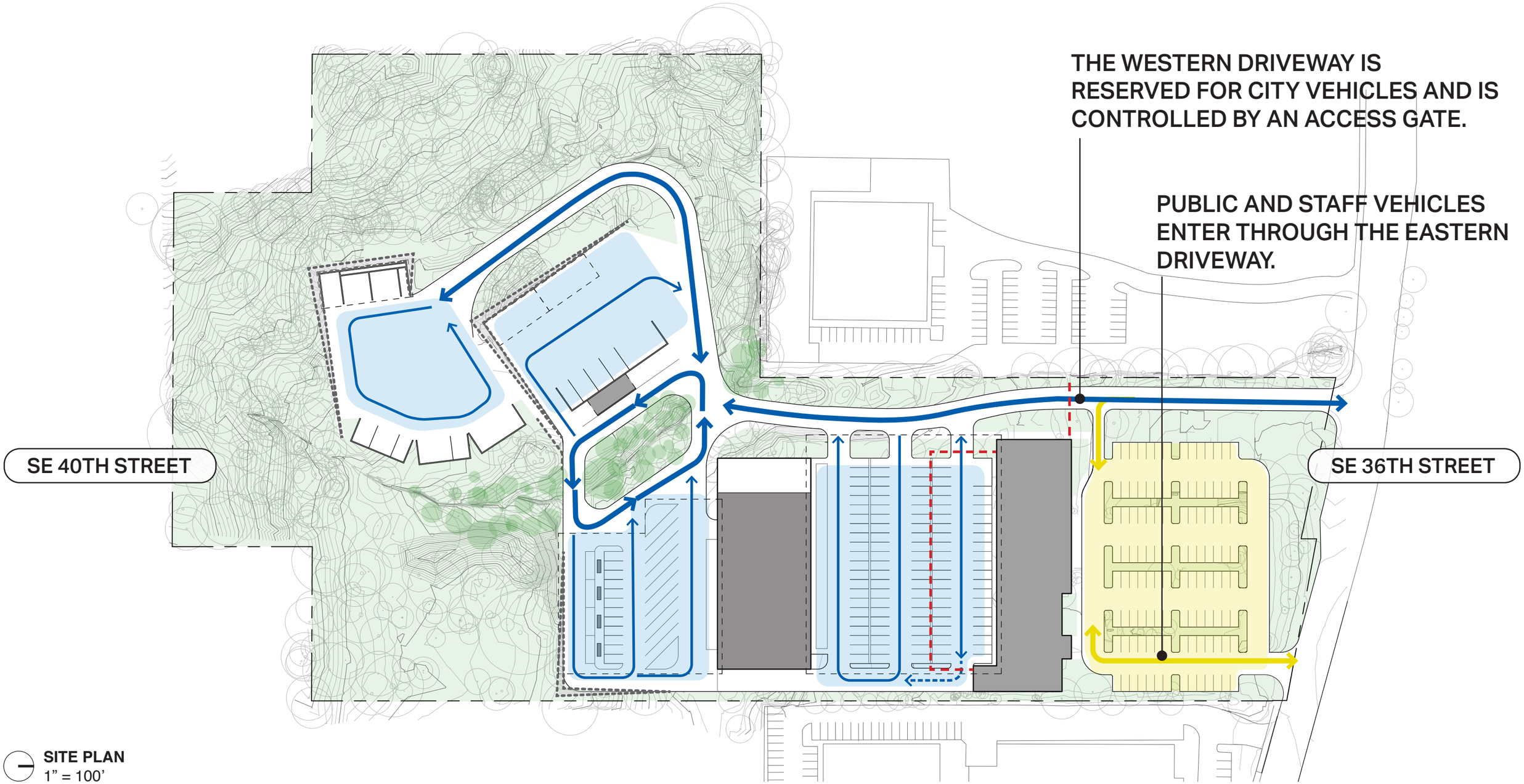



**SITE PLAN**
1” = 100’

# Site Circulation

# VEHICULAR CIRCULATION OVERVIEW

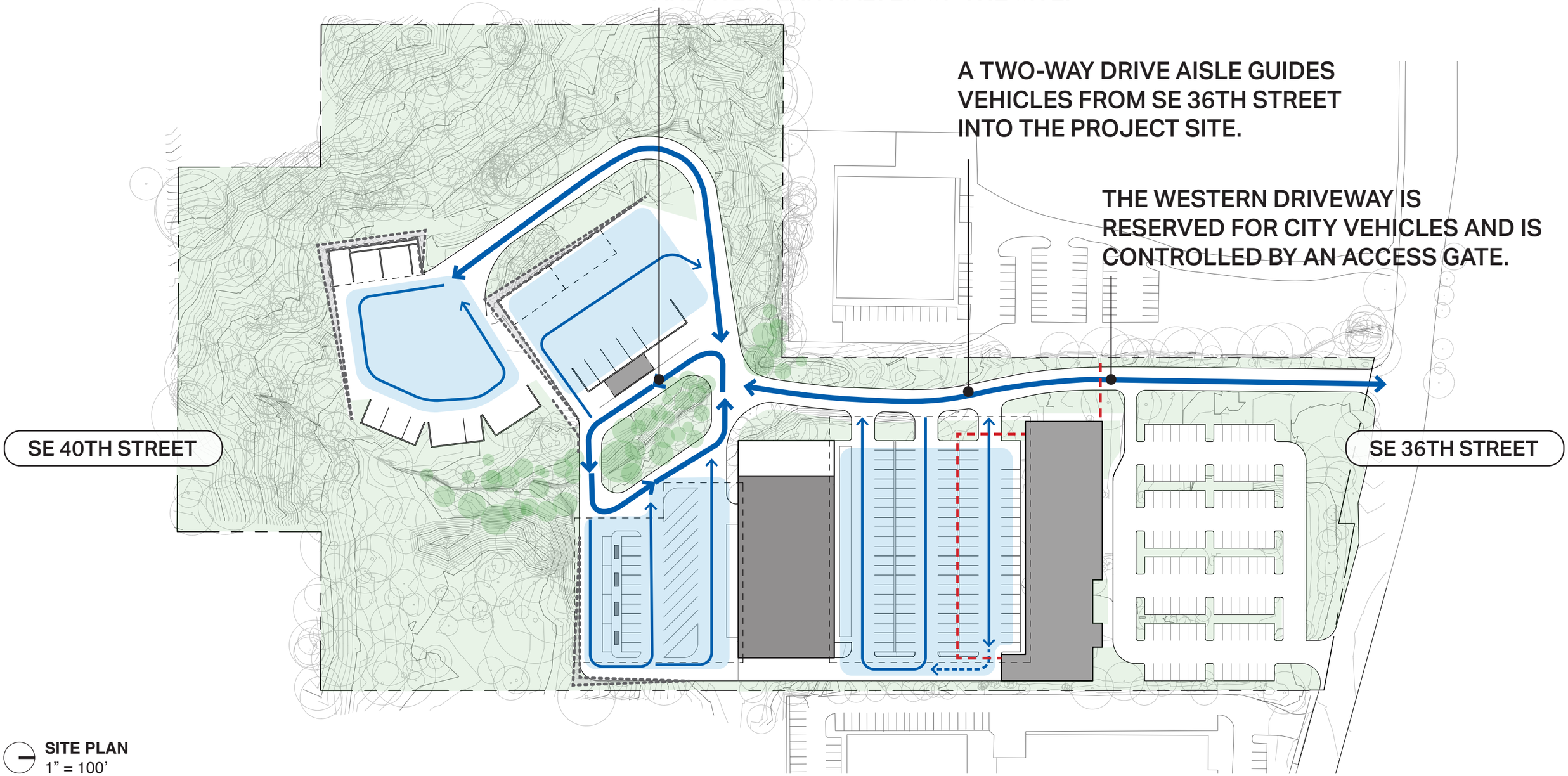
This site plan illustrates vehicular circulation for City of Mercer Island vehicles, and staff and public personal vehicles.




**SITE PLAN**
1” = 100’

# MAP OF CITY VEHICLE CIRCULATION

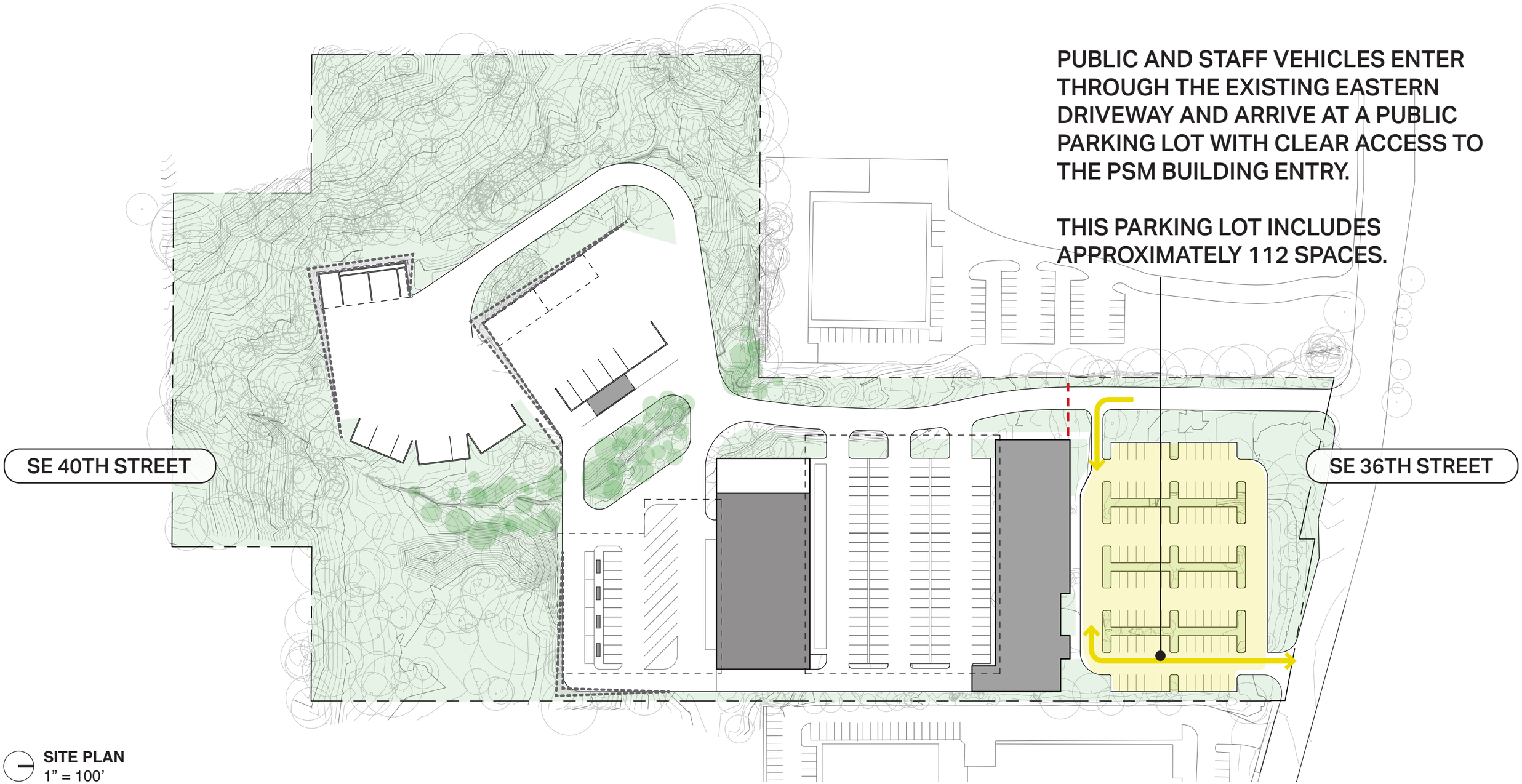
This site plan illustrates vehicular circulation for City of Mercer Island vehicles.




**SITE PLAN**
1” = 100’

# MAP OF PUBLIC AND STAFF CIRCULATION

This site plan illustrates vehicular circulation for staff and public personal vehicles.




**PUBLIC AND STAFF VEHICLES ENTER THROUGH THE EXISTING EASTERN DRIVEWAY AND ARRIVE AT A PUBLIC PARKING LOT WITH CLEAR ACCESS TO THE PSM BUILDING ENTRY.**

**THIS PARKING LOT INCLUDES APPROXIMATELY 112 SPACES.**

**SITE PLAN**
1” = 100’

# MAP OF PUBLIC AND STAFF CIRCULATION

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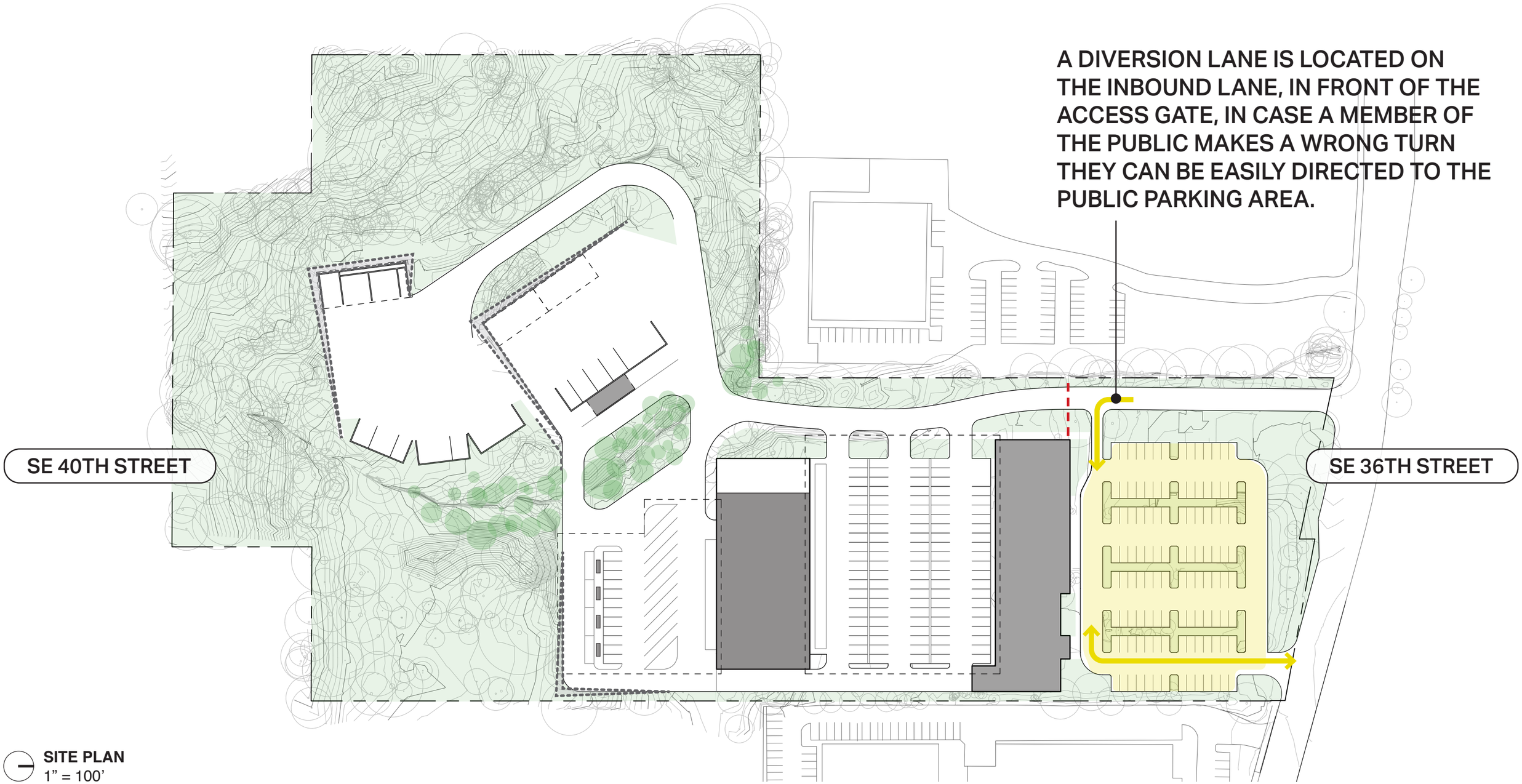
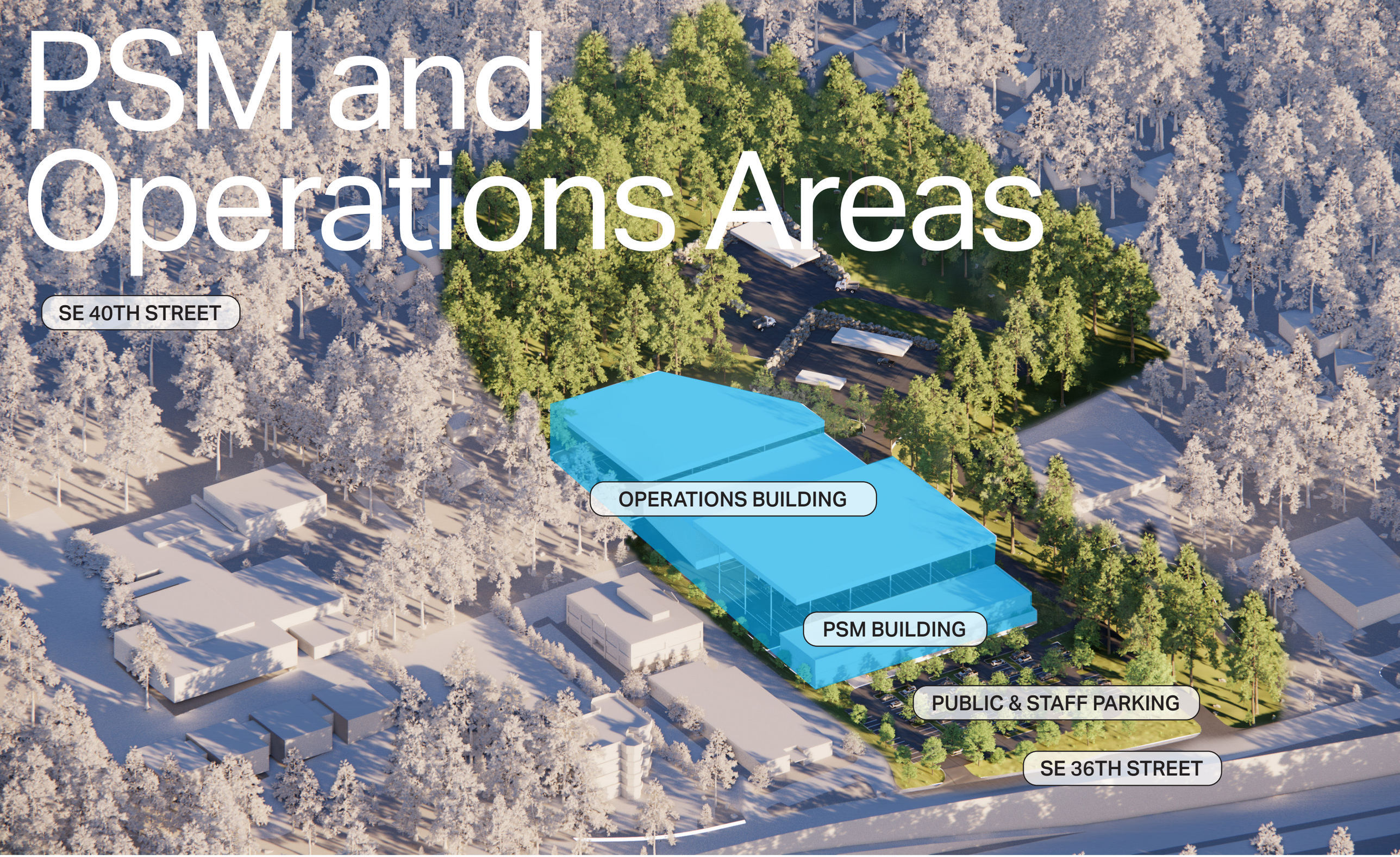


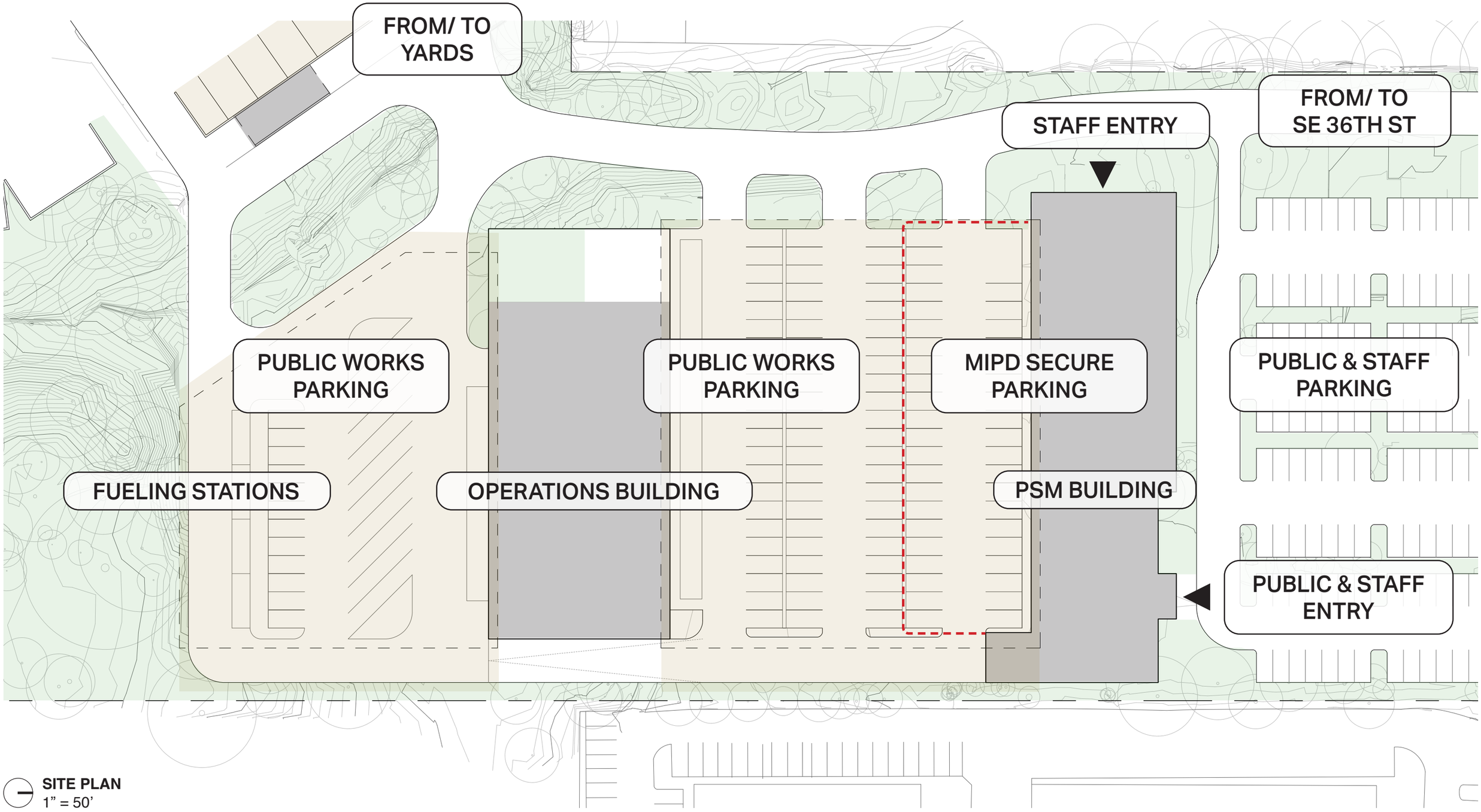

**SITE PLAN**
1” = 100’

# PSM and Operations Areas



# PSM AND OPERATIONS AREA

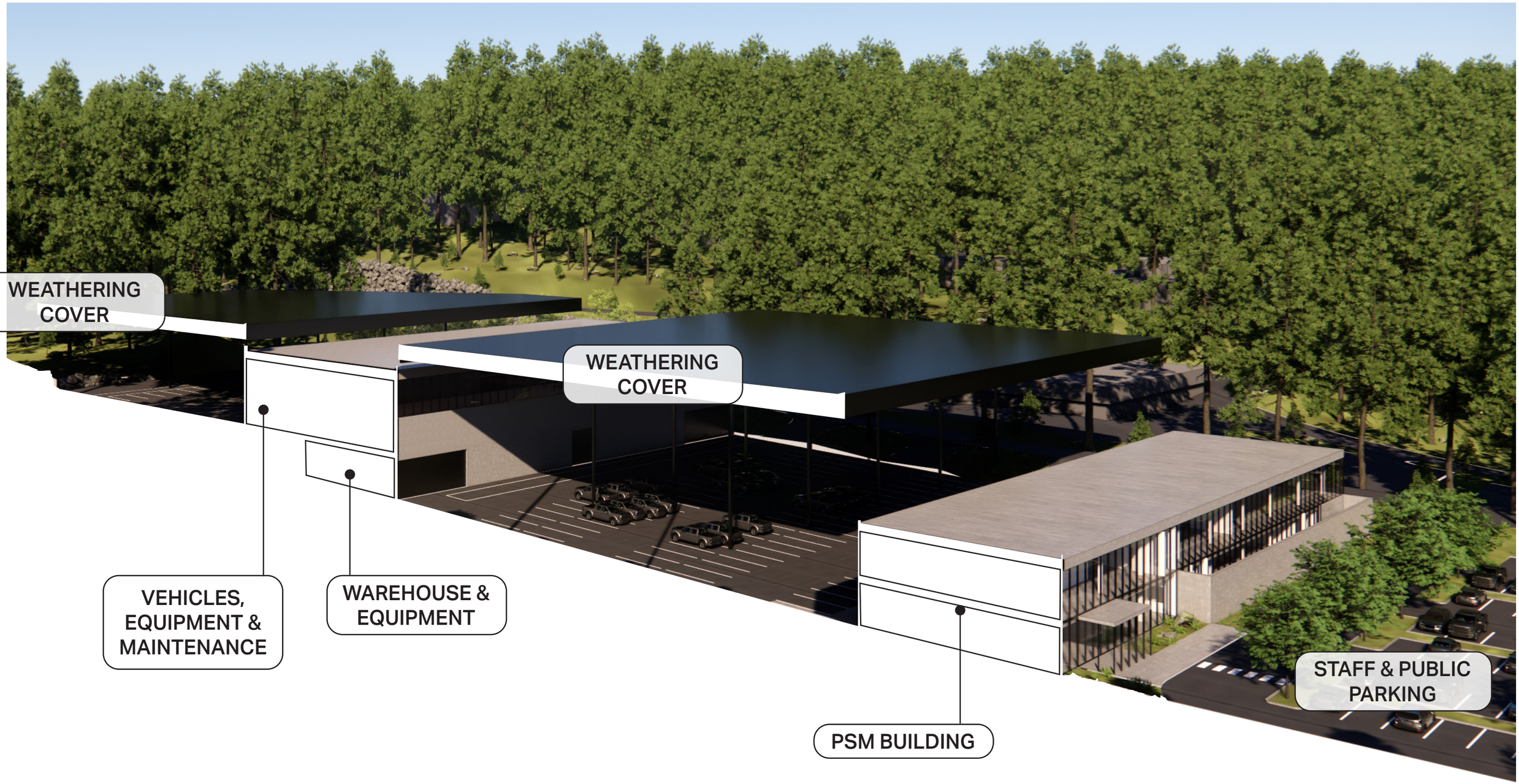
This plan illustrates the layout of the PSM and Operations area.




**SITE PLAN**
1” = 50’

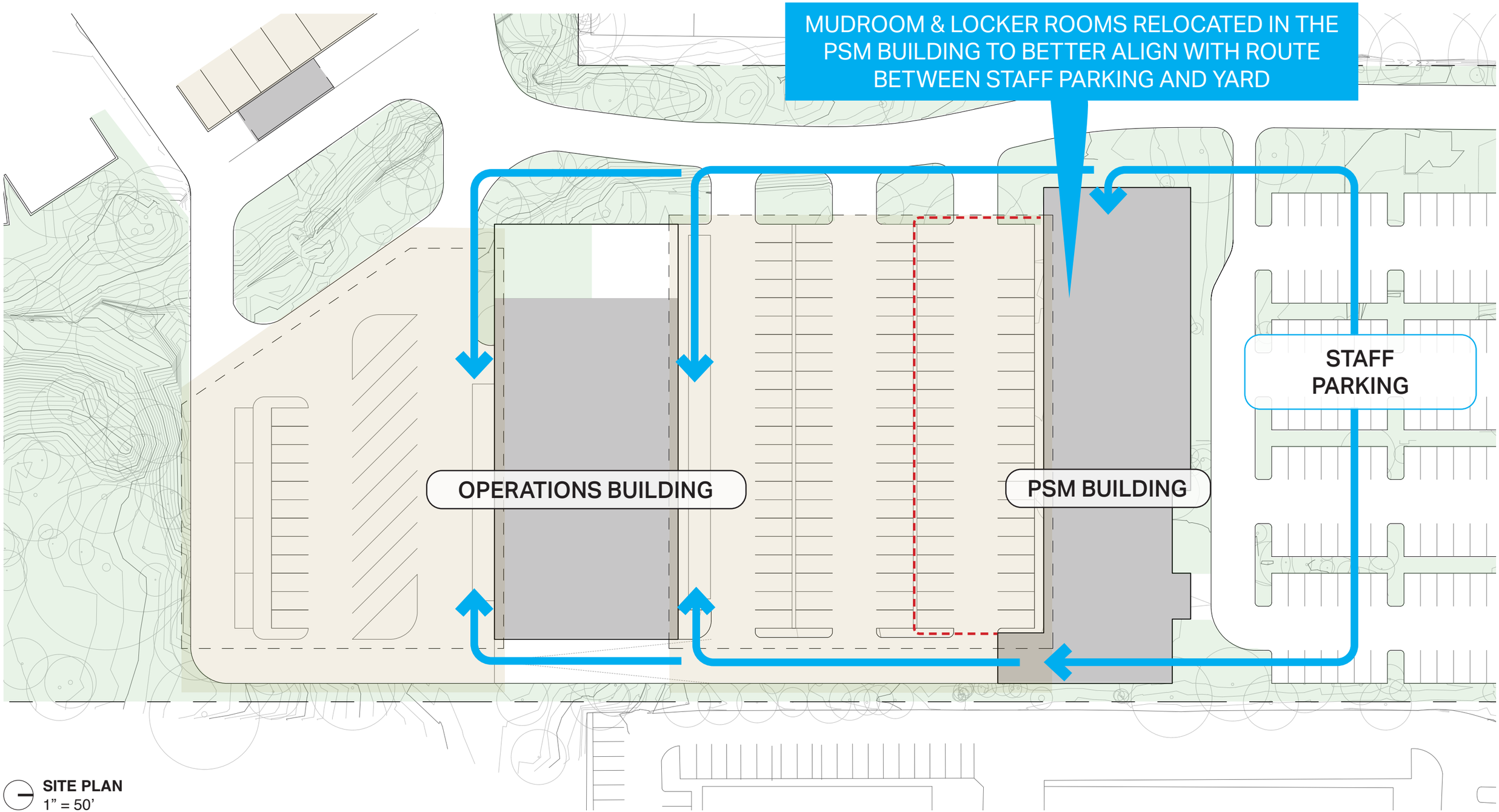
# MINIMIZING BUILDING FOOTPRINTS

The proposed layout leverages the sloping site to reorganize the Operations Building on  two levels, rather than one.  This revision reduces the facility's site footprint and reduces superstructure and envelope areas by +/- 5,000 SF.



# STAFF ROUTES FROM PARKING TO OFFICE OR YARD

The reorganization of the plan, and select building program, supports more effective staff circulation to and from work areas each day.



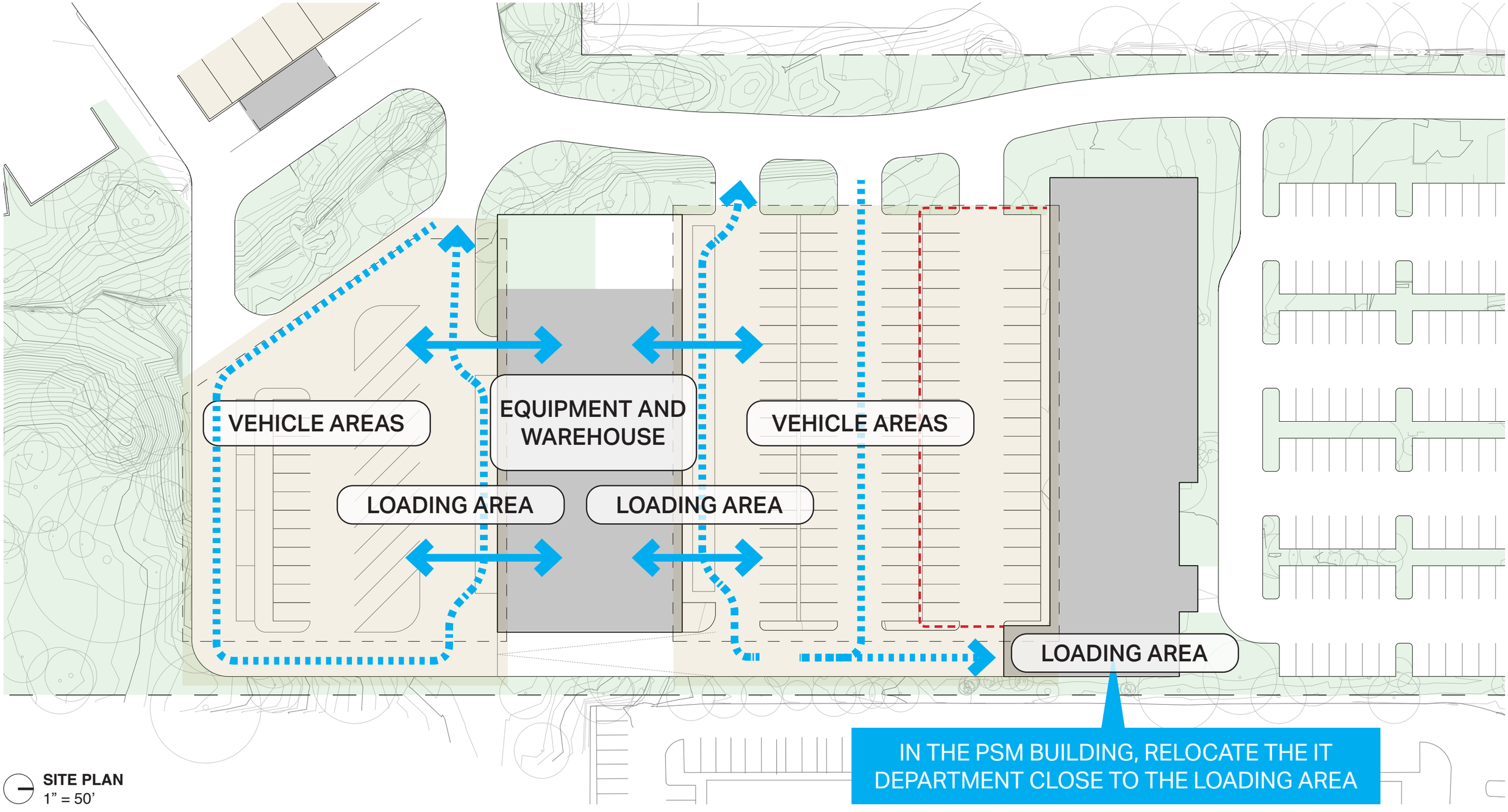

**SITE PLAN**
1” = 50’

# A VIEW OF A COVERED OPERATIONS AREA

This view illustrates the covered operations area located south of the Operations Building.

# CONSOLIDATING OPERATIONS FLOWS

The reorganization of the plan supports more efficient operations flows on a daily basis, offering clearer routes for loading and unloading activities as well as daily crew activities between the warehouse, equipment and material areas, and vehicles.



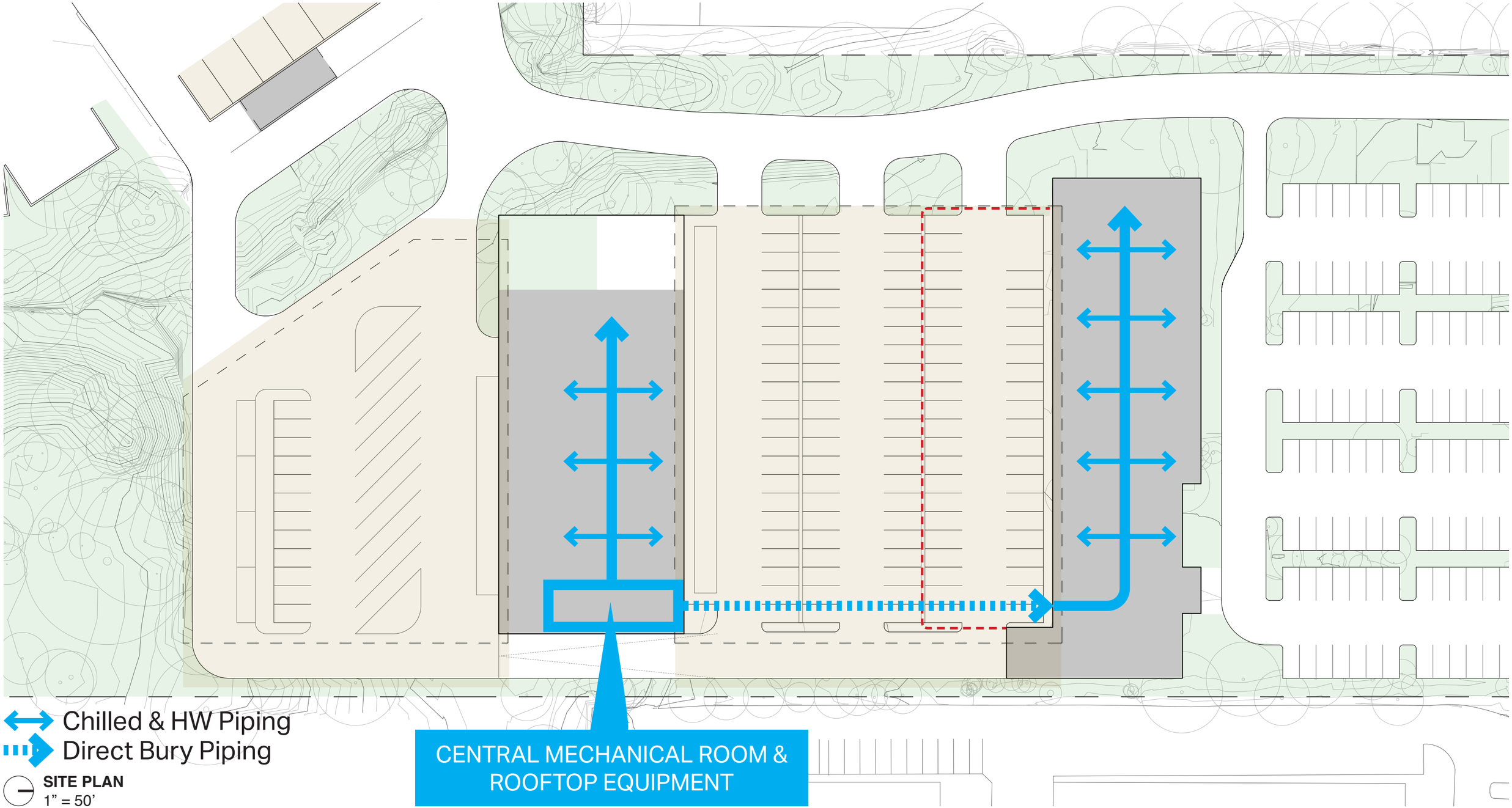

**SITE PLAN**
1” = 50’

# A VIEW FROM THE LOWER OPERATIONS WAREHOUSE TO THE COVERED OPERATIONS AREA

This view illustrates the warehouse and covered operations area located between the Operations Building and the PSM Building.

# CONSOLIDATING BUILDING SYSTEMS

Site reorganization opens new opportunities for system efficiency and cost savings.  Centralizing heat-pump systems in the Operations Building removes that square footage from the PSM Building and lowers the overall area required, lowering costs.

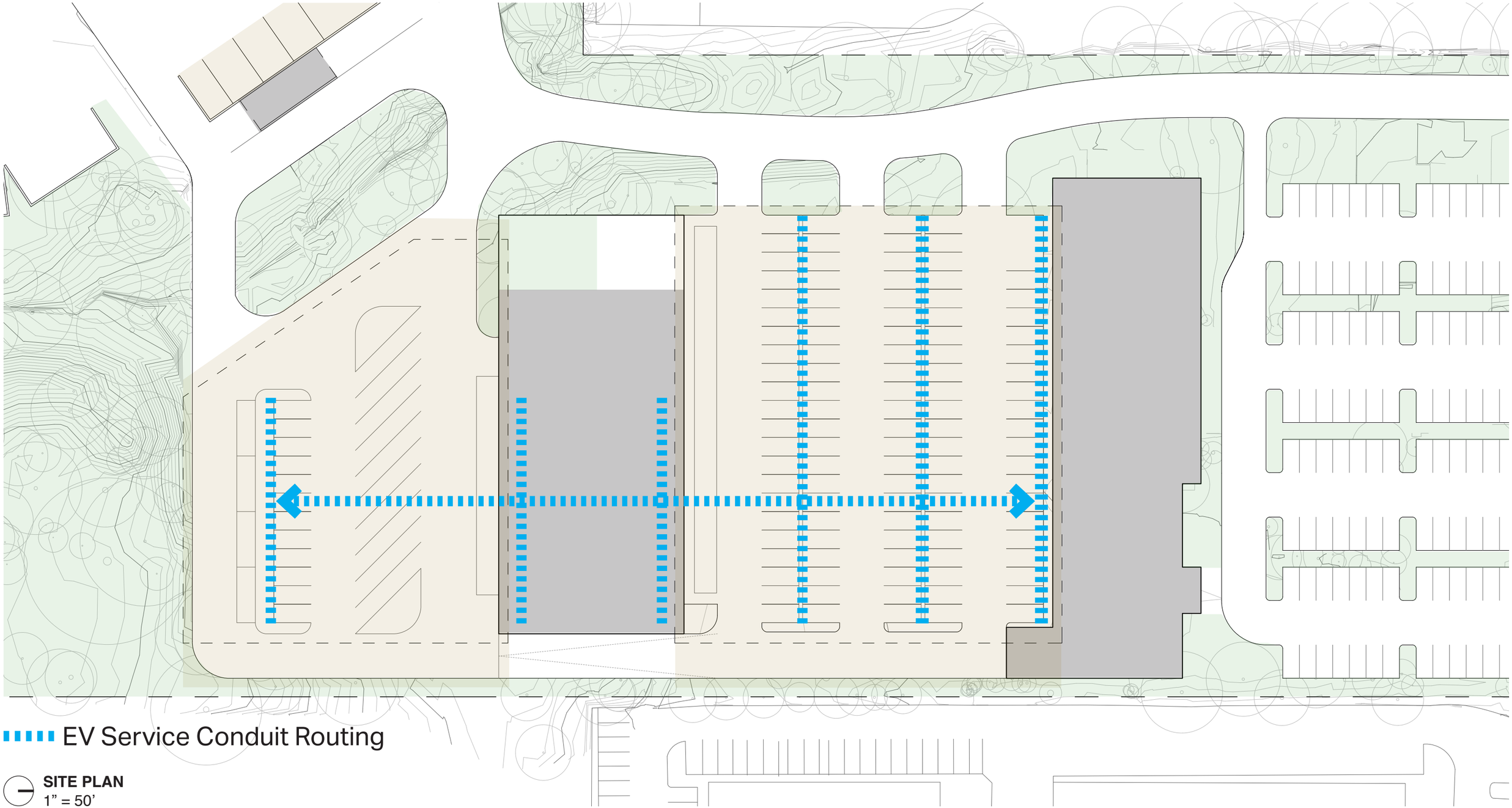



Chilled & HW Piping
Direct Bury Piping

**SITE PLAN**
1” = 50’

# CONSOLIDATING INFRASTRUCTURE

The provision for future systems, such as electric vehicle charging (EV), are simplified.  This diagram illustrates potential routing for EV conduit.  Consolidating this infrastructure may also result in a cost savings when compared to a more distributed layout.

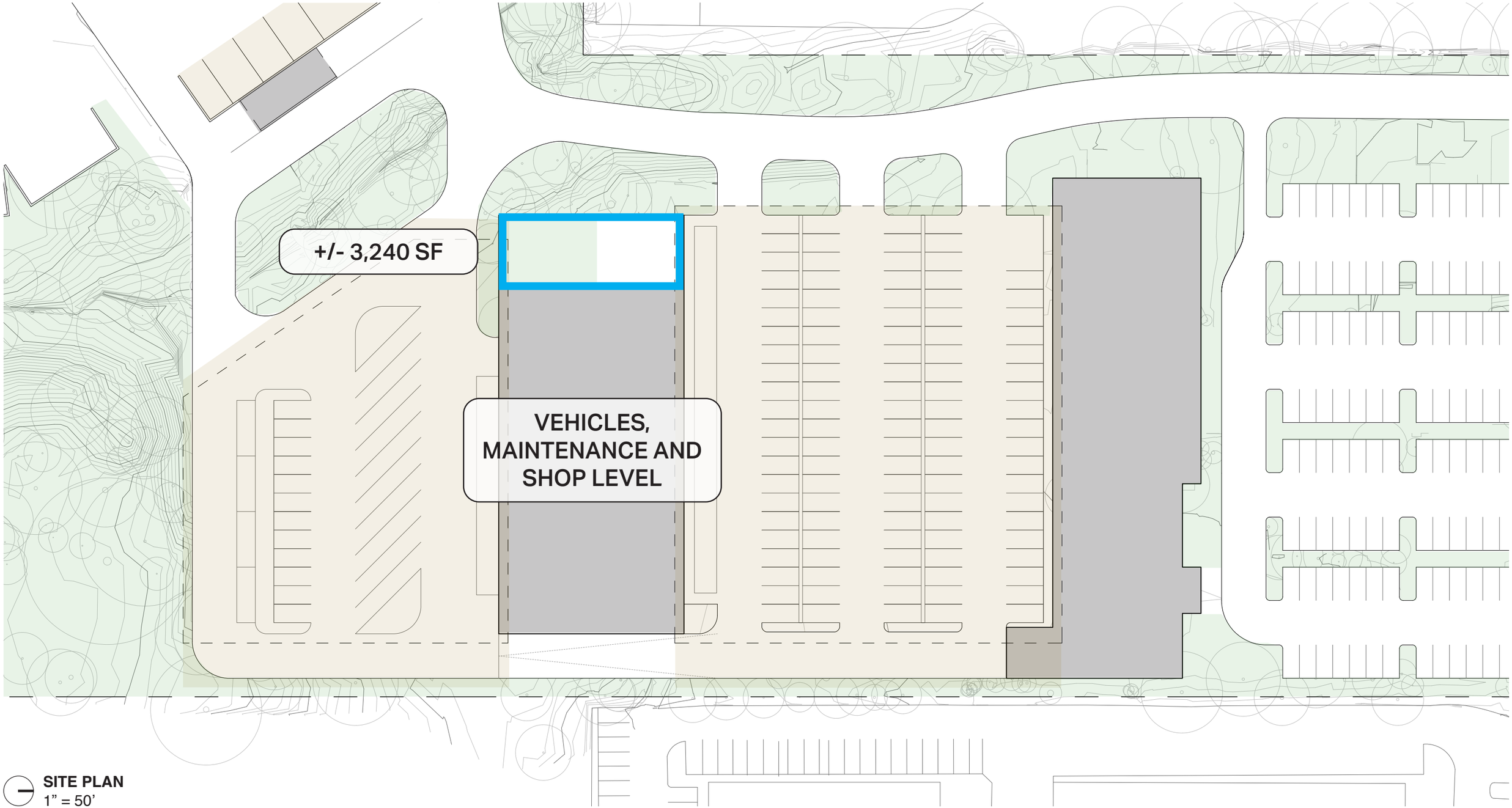


EV Service Conduit Routing

**SITE PLAN**
1” = 50’

# PROVIDING SITE AREA FOR FUTURE FACILITY NEEDS

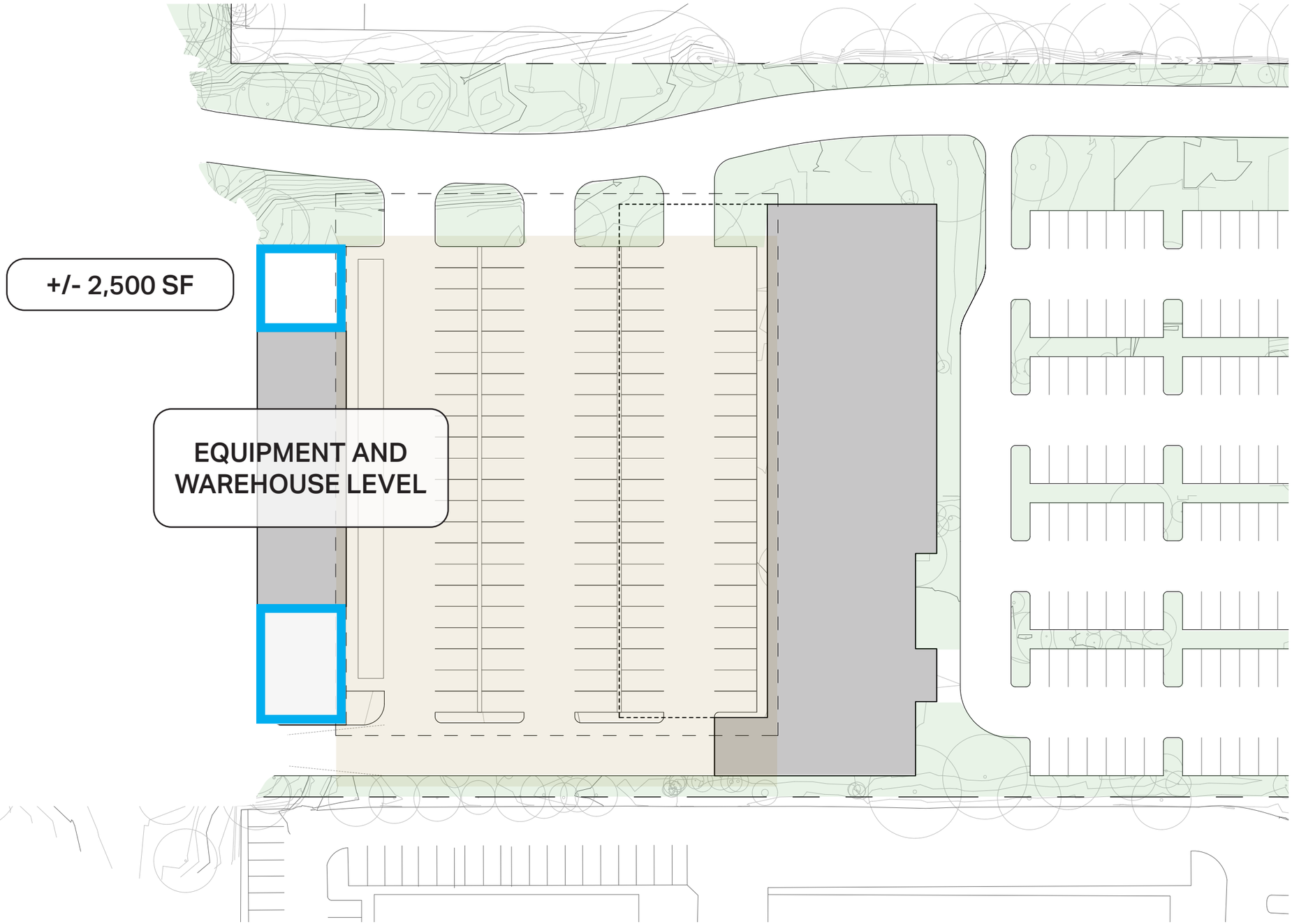
This diagram illustrates the location of reserve area on the upper level of the Operations Building site, for future facility needs.




**SITE PLAN**
1” = 50’

# PROVIDING SITE AREA FOR FUTURE FACILITY NEEDS

This diagram illustrates the location of reserve area on the lower level of the Operations Building site, for future facility needs.




**SITE PLAN**
1” = 50’

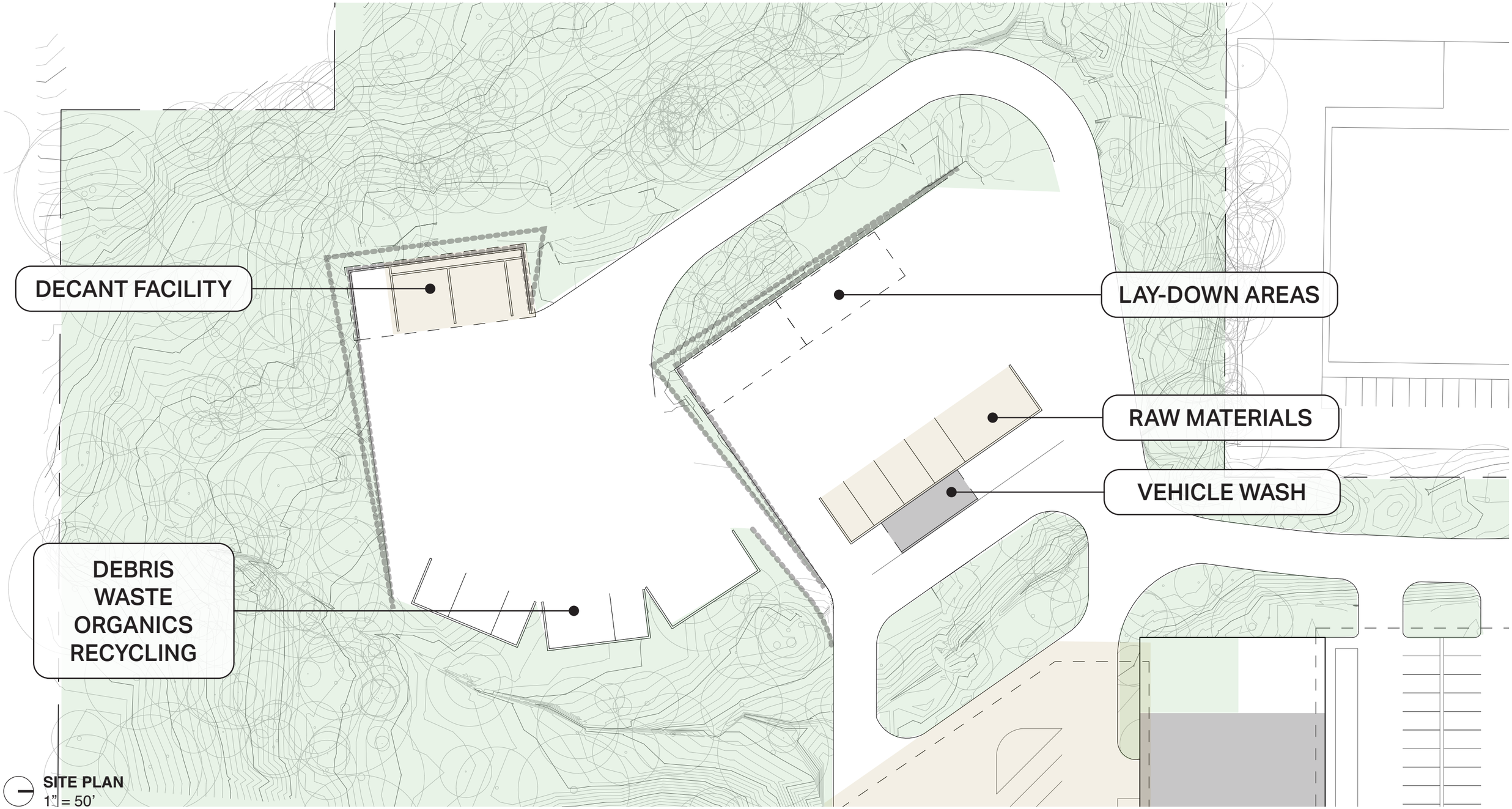
# Lower and Upper Yards

# A VIEW OF THE UPPER YARD DECANT AREA

This view illustrates the public works decant facility located in the upper yard.

# LOWER AND UPPER YARD AREAS

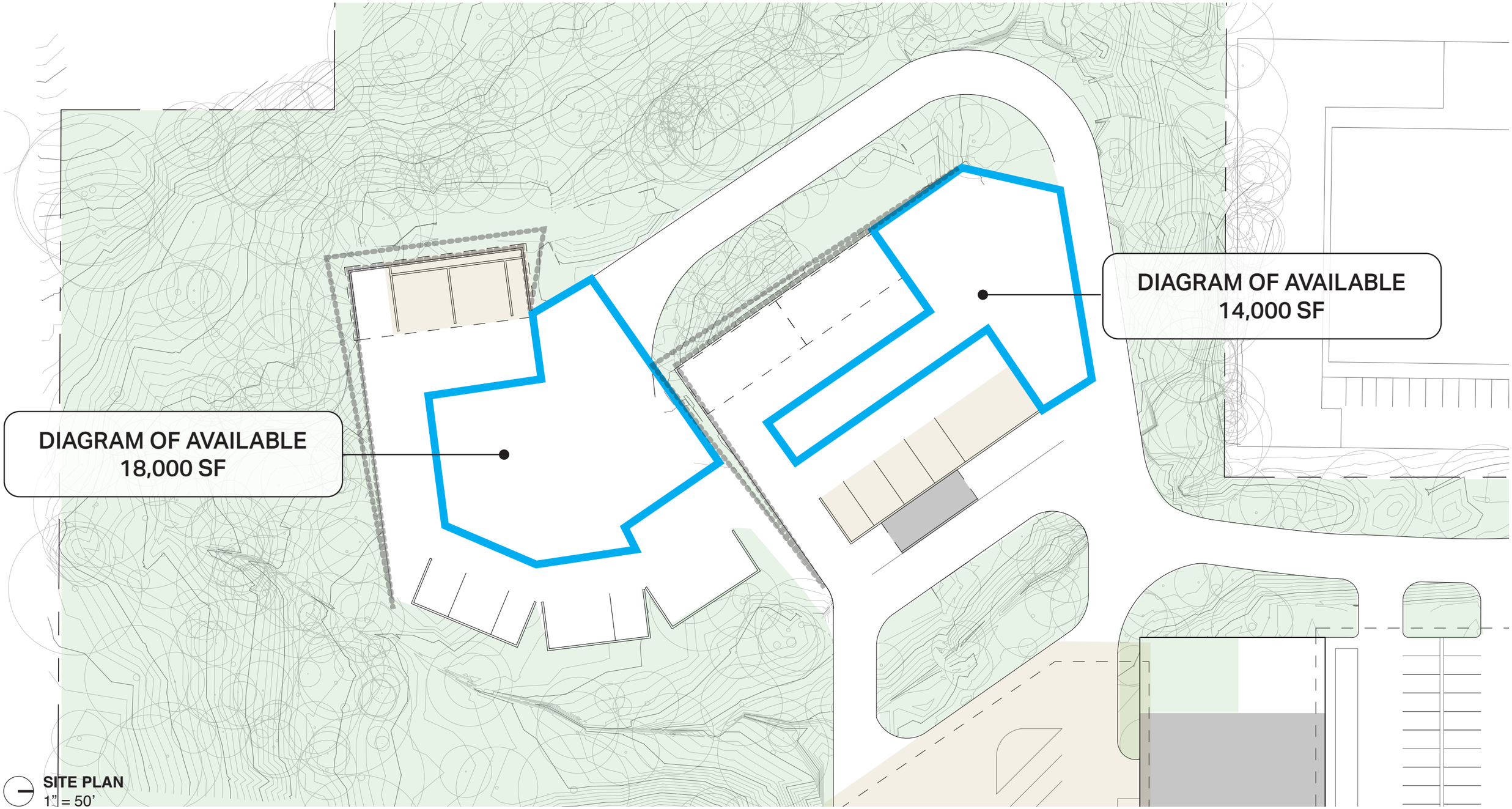
This plan illustrates a capacity test layout on the Lower and Upper Yard areas. Initial capacity layouts have been organized around the perimeter of yard areas and are to be further consolidated through review with city staff.




**SITE PLAN**
1” = 50’

# PROVIDING SITE AREA FOR FUTURE NEEDS

The layout capacity test illustrates the site area that remains available for future needs.  Initial program layouts are to be further consolidated in order to clearly delineate reserve areas.




**SITE PLAN**
1” = 50’

# Mercer Island Public Safety and Maintenance Facility

# Council Direction Needed

This proposed revision to the site layout will reduce construction costs, increase operational effectiveness, and leave room for potential future operational capacity to ensure that this facility is positioned to serve the city over the next 50-plus years.

The Design Team and city staff are seeking Council approval of this design strategy.

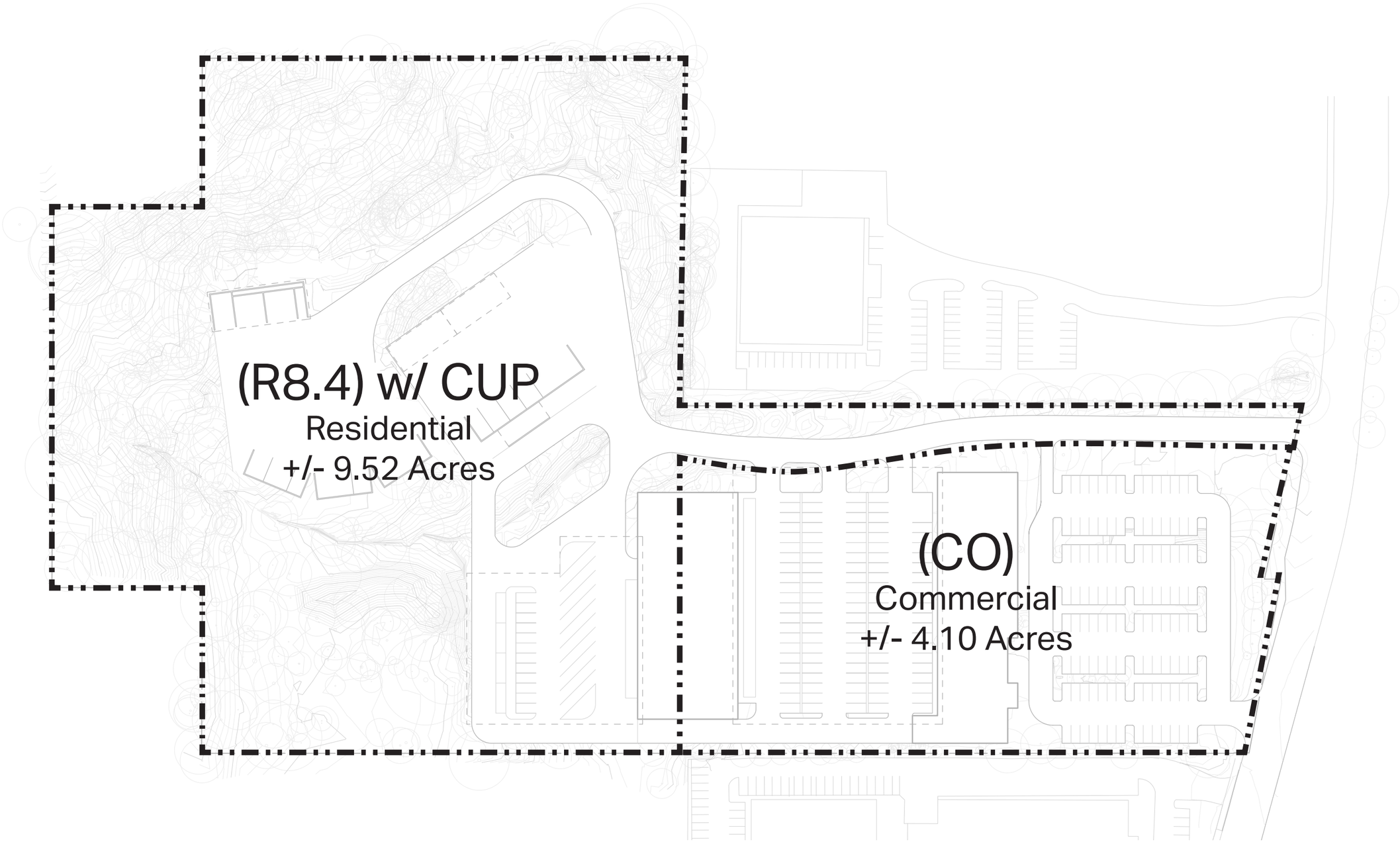
# Recommended Action

Approve the revised PSM Facility site layout and direct the City Manager to continue project design work in anticipation of having a schematic design and revised cost estimate ready for City Council review and approval in June.

# Zone Change and Boundary Line Adjustment

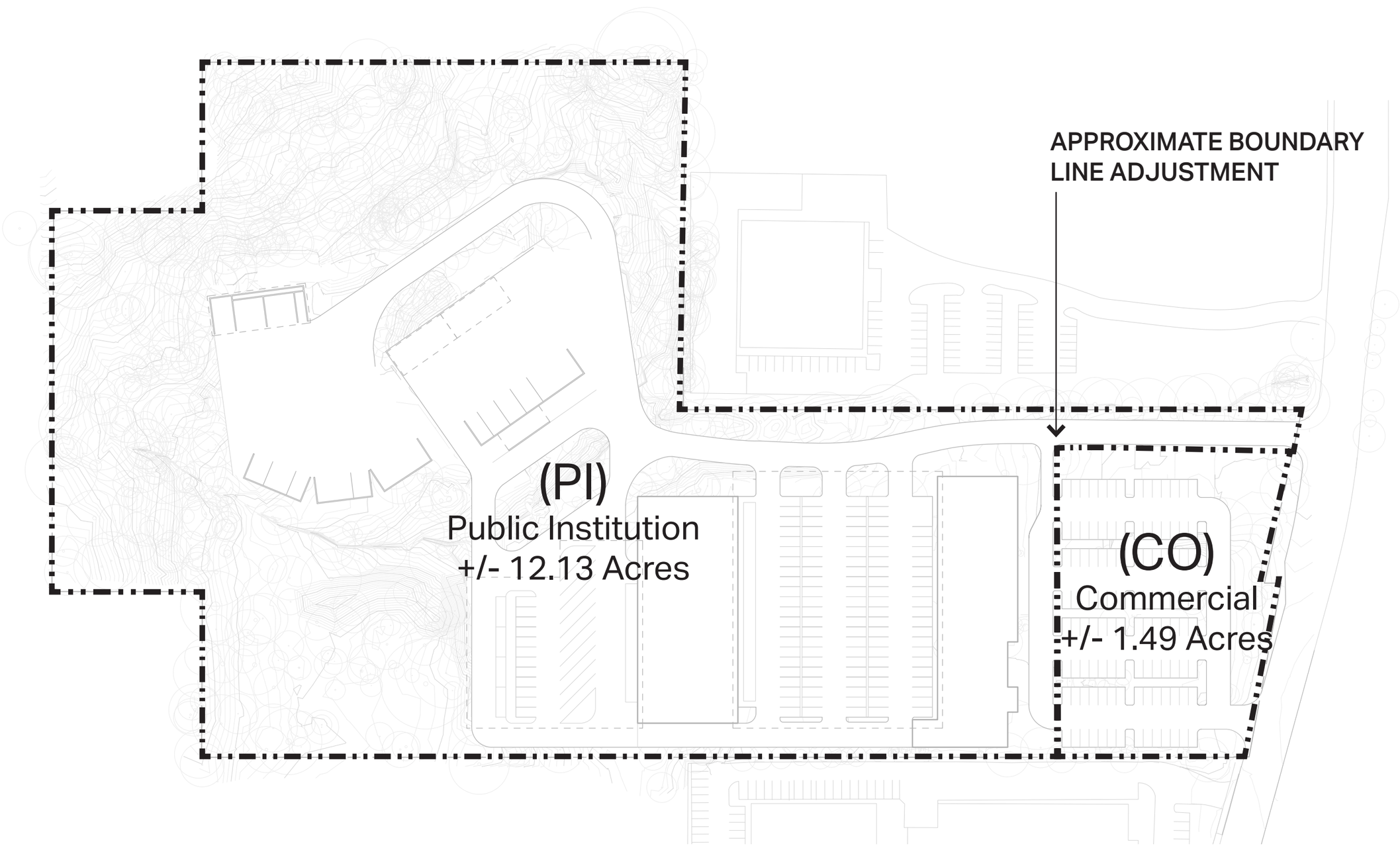
# EXISTING PARCELS ZONING DESIGNATIONS

This diagram illustrates the existing boundary lines and zoning designations for each parcel.



# PROPOSED BOUNDARY LINE ADJUSTMENT AND ZONING DESIGNATIONS

This diagram illustrates the approximate boundary line adjustment, to coordinate with the proposed Public Safety and Maintenance Facility project, and a corresponding potential rezone from Residential (R) to Public Institution (PI).



# Recommended Action

Direct the City Manager to:

1. Pursue a Boundary Line Adjustment between the City Hall and Public Works parcels based on the final site layout; and

2. Prepare and submit an application for a re-zone of the south City Hall parcel to Public Institution (PI).

# Mercer Island Public Safety and Maintenance Facility