City of Tacoma
Planning and Development Services

HIT Site Planning Study Key Findings

01/17/24

Background and Summary

In 2021, City Council adopted a new housing growth vision and updated policies to enable Missing Middle Housing in Tacoma's neighborhoods and increase housing supply, affordability, and choice for current and future residents, through Home In Tacoma Phase 1. Now, the City is proposing to adopt new zoning designations, development standards, and other actions, together referred to as Home in Tacoma Phase 2. This includes addressing recent requirements from the HB1110 state legislation, which increased Middle Housing density requirements for Tacoma as compared to the previous policy direction.

Supporting the feasibility of Middle Housing development is essential to meet project goals including getting housing growth right, meeting multiple goals, and making housing more affordable. An important aspect of development feasibility is considering the spatial demands of all site requirements. These include buildings, required setbacks, amenity space, trees, vehicular and pedestrian access, car and bicycle parking, and infrastructure and utilities including solid waste, water, power, sewer, and stormwater management.

Planning and Development Services (PDS) staff collaborated with Mithun (lead consultants on the HIT Project) on Middle Housing site testing analysis to inform upcoming decisions as part of the proposed standards in the new UR-1, UR-2, and UR-3 zones. The analysis consisted of testing six scenarios for a range of middle housing types, along with a set of site assumptions for lot dimensions and access representing typical Tacoma lots. The development scenarios were intentionally chosen to represent the most constrained or highest-intensity scenarios, knowing that less intensive scenarios would be feasible on typical sites if these six scenarios could fit. Throughout the exercise, PDS staff sought input from members of the Tacoma Permit Advisory Group as well as from other departments and collaborated with our partner utility and public service providers.

Overall, the exercise demonstrates that it is generally feasible to develop the intended housing types and densities, provided adjustments are made to infrastructure, access and utility standards. As a result of the analysis and stakeholder discussion, three categories of recommendations were identified to improve Middle Housing feasibility.

Middle Housing Site Testing Analysis

PDS lead an analysis and site testing exercise to evaluate the feasibility of developing the increased density allowed in the new UR-1, UR-2, and UR-3 zones. PDS made assumptions for draft land use standards based on staff and public feedback. The goal of the exercise was to determine if there were conflicts with the proposed standards and the constructability of the new Missing Middles Housing types. The attached site plans depict the scenarios and assumptions analyzed through this exercise.

As part of this effort, PDS coordinated with members of the Tacoma Permit Advisory Group, other departments, and partner utility and public service providers. This included better understanding current requirements and needs, as well as discussing barriers and potential opportunities for changes that might better achieve overall project and City goals. Utility and public service providers agreed on the need to modify and/or adopt new practices, procedures, or policies to enable the development of this Missing Middle Housing.

Results and Recommendations

Overall, the site testing analysis concludes that it is generally feasible to develop the six highest-intensity scenarios studied while meeting the zoning and land use standards as proposed in the HIT package, **provided that a set of recommended changes to infrastructure, access and utilities standards are enacted**. Without the recommended changes, Middle Housing feasibility is diminished, and realizing project objectives may be limited.

The analysis found that in the six (highest-intensity) scenarios studied, space is limited and it can be challenging to develop at or near the number of units proposed to be permitted under the zoning package. In addition, the team recognizes that there are numerous variables that could be encountered in any future Middle Housing project (such as topography, lack of infrastructure, soil conditions, and critical areas) which would impact development potential irrespective of zoning and standards. Given these realities and the City's policy objectives to promote housing development, it will be helpful for the City to introduce flexibility into the standards and requirements—both as part of the HIT Project and subsequent to adoption as lessons are learned through implementation.

PDS staff have three categories of recommendations intended to address feasibility limitations stemming from spatial demands:

1. Minor changes to the HIT zoning and land use standards package.
2. Infrastructure, access and utilities standards changes. These were developed prior to the site testing analysis but were further vetted through this effort.
3. Future actions: Ongoing study will be needed to determine whether further adjustments should be made to the zoning and land use package and/or to infrastructure, access and utilities standards.

1. Zoning and land use standards package changes

While the HIT zoning and land use standards package is increasing some requirements that will take space on development sites (such as tree planting and bike parking), it is also substantially reducing many requirements (such as setbacks and vehicular parking) that more than make up for it. The package also offers additional flexibility to facilitate retention of existing buildings, and includes flexibility on landscaping requirements (such as a limited fee in lieu option). In sum, PDS staff conclude that the package strikes a reasonable balance that is consistent with the HIT policy direction and supportive of middle housing development.

Through the site planning exercise, several opportunities for minor refinements to the land use package became apparent, which staff propose to include in the HIT Package:

- Reduce the required amenity space, tree credits, parking ratios, and minimum setbacks for developments using the bonus options.

- Allow reduced soil volume where meeting required volumes would require demolition of established planting.
- Allow Suspended Pavement Systems (I.e. "Silva Cells") to count toward both stormwater and soil volume requirements

2. Summary of infrastructure, access and utilities standards changes

As anticipated, the site planning exercise demonstrated that updates to infrastructure, access and utilities standards are needed in order to facilitate middle housing development. Staff from multiple General Government and Tacoma Public Utilities work groups are collaborating to vet updates intended to allow sharing of facilities by multiple dwellings and/or reduced spatial demands. In addition, it is notable that one change not directly related to HIT is likely to increase spatial demands on housing development sites—stormwater modeling shows that increased precipitation due to climate change necessitates more robust onsite stormwater facilities in order to prevent urban flooding. The following standards updates will move ahead to City Council decision or administrative implementation generally on the HIT timeline so that they can be implemented concurrently.

Public Service	Description of Updates	Action Required

Solid Waste	• New Shared Service will be allowed between multiple units
	  ○ A Legal Entity will need to be responsible
	  ▪ Home Owners' Assoc. (HOA) acceptable
	• A Municipal Code Change will be required for new standards
	  ○ New enclosure requirements
	• Solid Waste is also evaluating additional new rate/size options
		Ordinance Required

Wastewater	• New Shared Side Sewers will be allowed in certain situations
	  ○ Recorded Maintenance Agreement to title of properties
	  ○ HOA could be responsible entity
		Resolution Required
		(Updated Side Sewer Manual)

Stormwater	• Allow shared facility/infrastructure
	  ○ C&E agreement recorded to all property titles
	  ○ HOA could be responsible entity
	• Updated onsite management requirements
		Resolution Required
		(Updated Stormwater Manual)

TPU Water	• New Shared Service will be allowed between multiple units (including for fire system)
	  ○ A Legal Entity will need to be responsible
	  ▪ HOA acceptable
	  ○ Easements and maintenance agreement needed
	• Individual meters still allowed if desired
	• HOA could be responsible entity for backflow check for irrigation and fire
		Administrative Change

TPU Power	• Continue to maintain separate meter per lot/unit • May require SSB for easy disconnect	Possible Board Action

Access Standards	• Pedestrian pathways:
	  ○ Accessory Dwelling Units: 3 feet width
	  ○ Multiple Units: 4 ft width
	  ○ Adjacent to driveways: No difference
	• Driveway widths – Now based on parking stalls
	  ○ 10 feet minimum up to 8 stalls
	  ○ 16 feet width for 9-20 stalls
	  ○ 20 feet width for 21+ units
	  ○ 20 feet width on any access aisle
		Ordinance Required (part of HIT package)
		Resolution Required (ROW Design Manual)

Parking Standards	• Vehicular
	  ○ 8.5 ft x 16.5 ft standard
	  ○ 7.5 ft x 15 ft compact
	  ▪ 50% of required parking can be compact
	  ○ Possible accessible stall requirements
	• Bike
	  ○ Short-term bike parking: 1 U-shaped bike rack per site (for projects over 5 dwelling units)
	  ○ Long-term bike parking: 1 stall per unit
		Ordinance Required (part of HIT package)
		Resolution Required (ROW Design Manual)

3. Future actions

The third category of staff recommendations includes actions that require further study, stakeholder engagement, and/or policy decisions than can be accomplished on the HIT timeline. Future consideration of these actions will be informed by the outcomes of early implementation of the HIT process, and undoubtedly additional actions will be added to this list. The following actions have emerged through the site planning exercise and ongoing discussions.

- Zoning and land use standards: Monitor implementation to identify refinements to the zoning and standards package
- Transportation and access: Evaluate site access standards for vehicles and pedestrians, potentially including approaches that allow pedestrians and cars to safely share space (e.g., woonerfs)
- Stormwater: Seek opportunities to promote housing and stormwater goals through the upcoming Watershed Planning effort
- Stormwater/landscaping: Consider development of a “Green Factor”—an innovative regulatory approach used by some cities to increase flexibility and options for housing developers while promoting stormwater, sustainability and urban forestry goals through a “pick list”

Attachment: Site Planning Layouts

#1A **Retain House + 3-Unit Backyard Building**

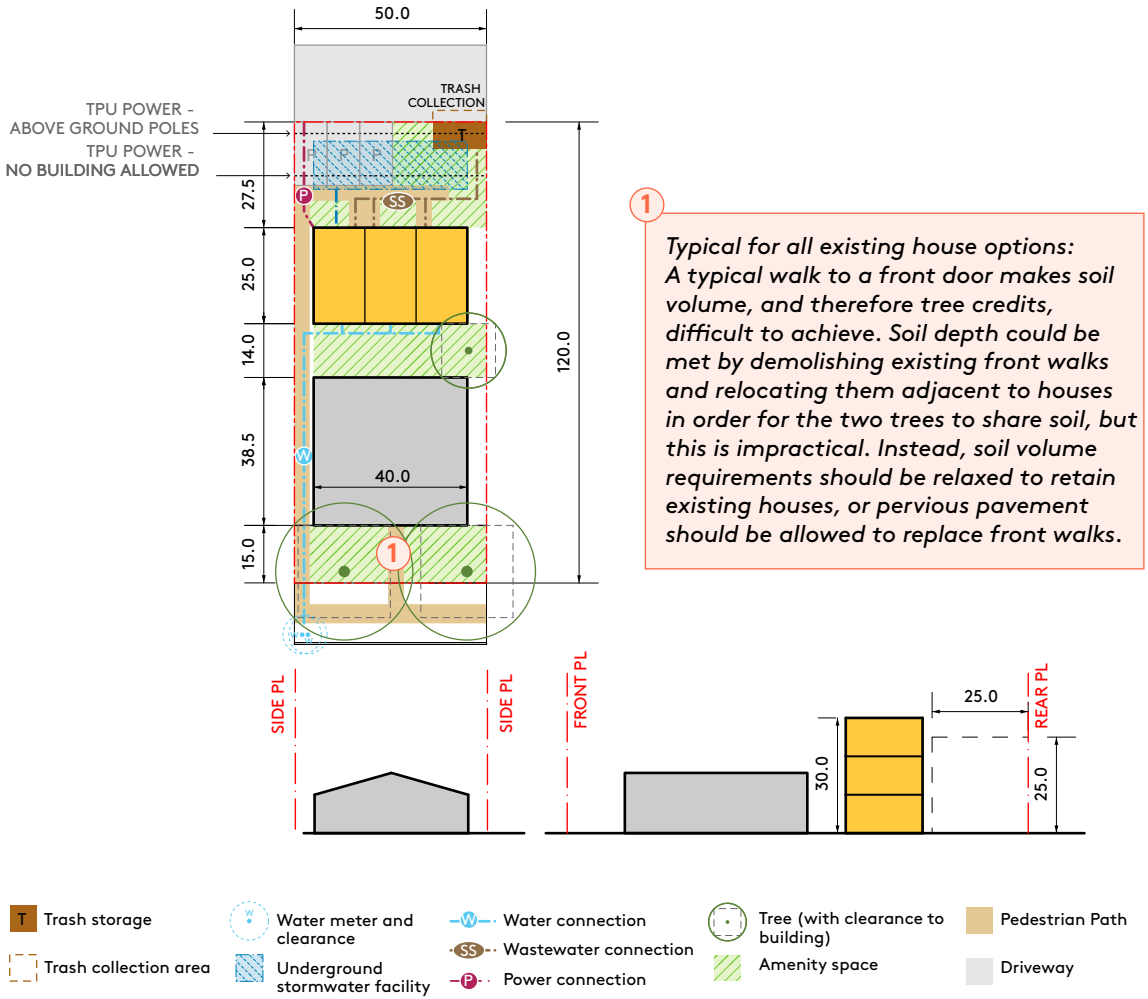
Building Data
- UR-1, 6000 sf lot
- FAR: 0.8, BYB* 3,000 GSF, 3 stories
- BYB unit size: 1,000 SF

Access & Parking
- Alley-loaded
- 3 surface parking stalls
- In-unit bike parking

*Note: * BYB = Backyard Building*

Amenity Space
- Ground level amenity space: 2,180 SF
- Amenity space min: 1,200

Tree Credits
- Tree credit shown: 2,200
- Tree credit min.: 2,100
- Can meet soil volume without SPS
  Greatest soil depth to meet volume requirements: 3.5'



1 *Typical for all existing house options: A typical walk to a front door makes soil volume, and therefore tree credits, difficult to achieve. Soil depth could be met by demolishing existing front walks and relocating them adjacent to houses in order for the two trees to share soil, but this is impractical. Instead, soil volume requirements should be relaxed to retain existing houses, or pervious pavement should be allowed to replace front walks.*

#1B **Retain House + 3-Unit Backyard Building**

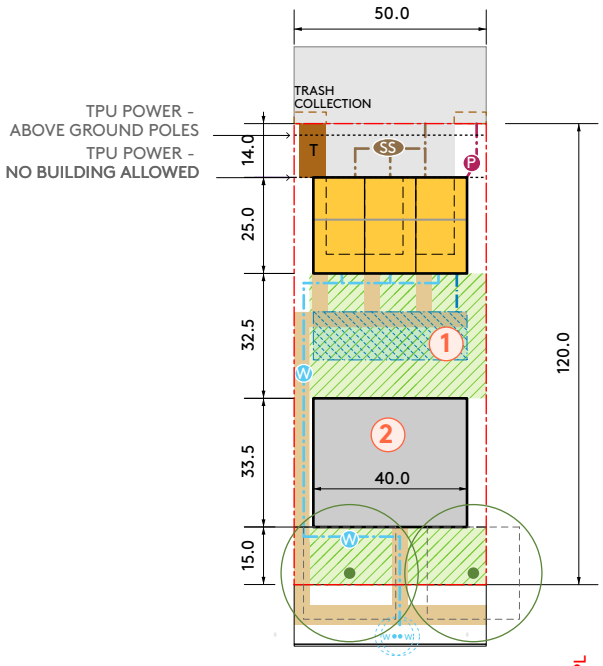
Building Data
- UR-1, 6000 sf lot
- FAR: 0.7, BYB* 2,560 GSF, 2.5 stories
- BYB unit size: 650 SF

Access & Parking
- Alley-loaded
- 3 parking spaces in garages
- In-unit bike parking

*Note: * BYB = Backyard Building*

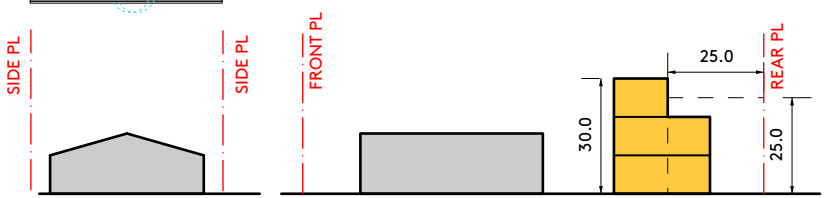
Amenity Space
- Ground level amenity space: 2,180 SF
- Amenity space min: 1,200

Tree Credits
- Tree credit shown: 2,000
- Tree credit min.: 2,100
- Does not meet tree credits (1)



(1) *Stormwater facility here allows a bigger yard, but doesn't fit trees. Propose use of suspended pavement system to allow tree planting.*

(2) *Configuration only works with a very shallow existing house.*



T Trash storage
Trash collection area
Water meter and clearance
Underground stormwater facility
W Water connection
SS Wastewater connection
P Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway

#1C **Retain House + 3-Unit Backyard Building**

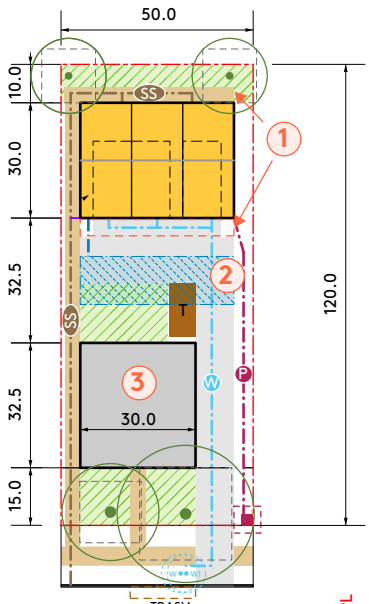
Building Data
- UR-1, 6000 sf lot
- FAR: 0.7, BYB* 3,000 GSF, 3 stories
- BYB unit size: 1,000 SF

Access & Parking
- Street-loaded
- 3 parking spaces in garages
- In-unit bike parking

*Note: * BYB = Backyard Building*

Amenity Space
- Ground level amenity space: 1,300 SF
- Amenity space min: 1,200

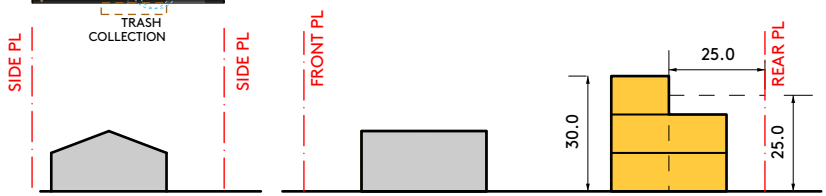
Tree Credits
- Tree credit shown: 1,900
- Tree credit min.: 2,100
- Does not meet tree credits (2)



(1) *Requirement for separated pedestrian and auto access puts rear sidewalks too close to building and negates private yards for the units. Discuss moving sidewalk to cross driveway.*

(2) *Stormwater facility here allows a bigger yard, but doesn't fit trees. Propose use of suspended pavement system to allow tree planting.*

(3) *Configuration only works with a shallow existing house with a sideyard large enough for a driveway.*



T Trash storage
Trash collection area
Transformer pad
Water meter and clearance
Underground stormwater facility
W Water connection
SS Wastewater connection
P Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway

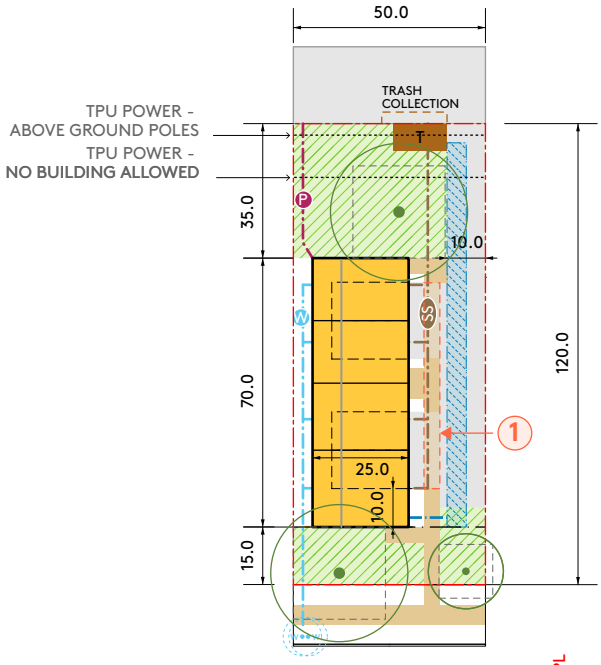
#2 **4-Unit Houseplex (Deep Townhouses)**

Building Data
- UR-1 , 6000 sf lot
- FAR: 0.8, 4800 GSF, 2.7 stories
- Unit size: 1,200 SF

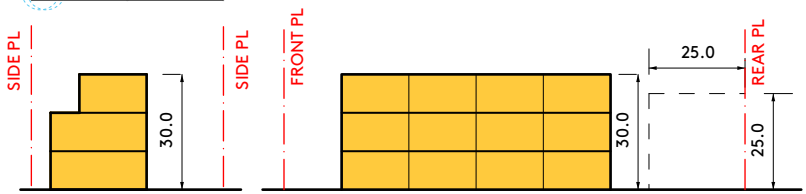
Access & Parking
- Alley-loaded
- 4 parking spaces in garages
- In-unit bike parking

Amenity Space
- Ground level amenity space: 2,050 SF
- Amenity space min: 1,200

Tree Credits
- Tree credit shown: 2,200
- Tree credit min.: 2,100
- Can meet soil volume without SPS
  Greatest soil depth to meet volume requirements: 2.4'



1 *This configuration assumes that pedestrian paths are allowed to cross driveways in order to avoid dedicating other side yard to entries which would require more setback and make a skinnier building.*



T Trash storage
Trash collection area
Water meter and clearance
Underground stormwater facility
Water connection
Wastewater connection
Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway

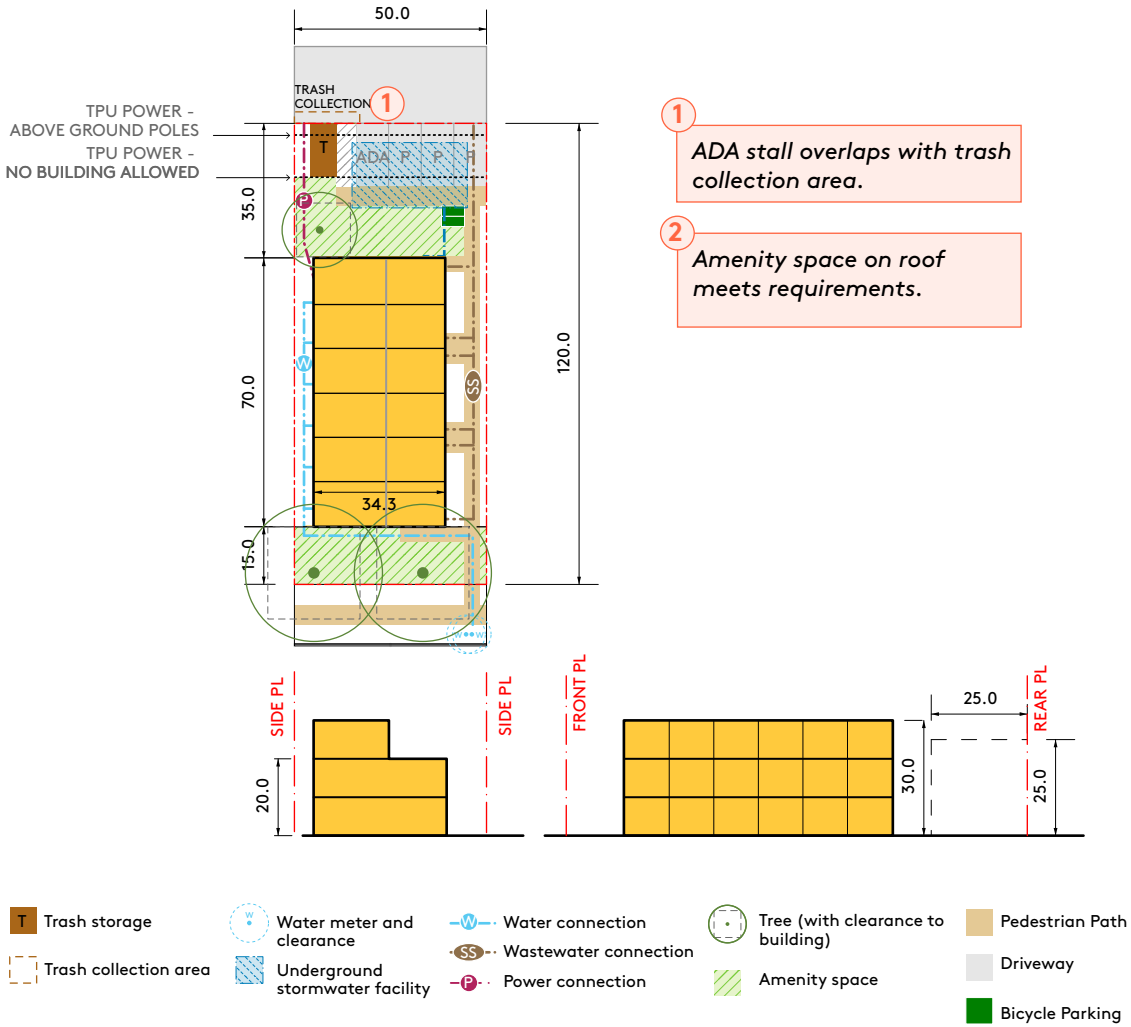
#3A **6-unit Houseplex (Deep Townhouses)**

Building Data
- UR-1 with bonus, 6000 sf lot
- FAR: 1.0, 6,000 GSF, 2.5 stories
- Unit size: 1,000 SF

Access & Parking
- Alley-loaded
- 4 surface parking stalls (including one accessible stall)
- 2 in-unit bike parking; 2 spaces in bike lockers

Amenity Space (2)
- Ground level amenity space: 1,570 SF
- Amenity space min: 1,800

Tree Credits
- Tree credit shown: 2,200
- Tree credit min.: 2,100
- Can meet soil volume without SPS
- Greatest soil depth to meet volume requirements: 2.6'



(1) *ADA stall overlaps with trash collection area.*

(2) *Amenity space on roof meets requirements.*

T Trash storage
Trash collection area
Water meter and clearance
Underground stormwater facility
W Water connection
SS Wastewater connection
P Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway
Bicycle Parking

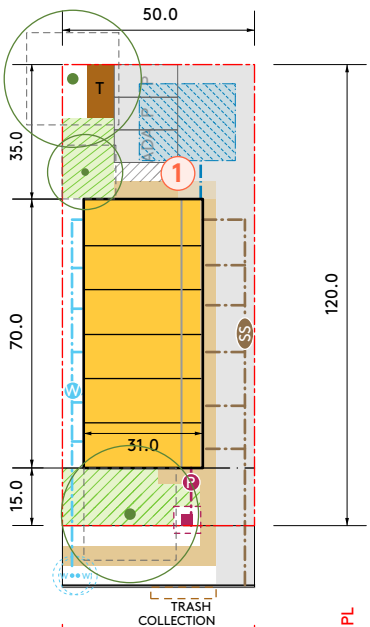
#3B **6-unit Houseplex (Deep Townhouses)**

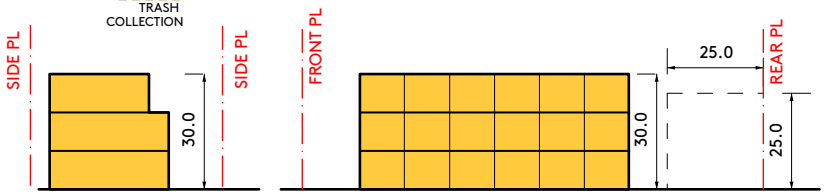
Building Data
- UR-1 with bonus, 6000 sf lot
- FAR: 1.0, 6,000 GSF, 2.75 stories
- Unit size: 1,000 SF

Access & Parking
- Street-loaded
- 3 surface parking stalls (including one accessible stall) (1)
- In-unit bike parking

Amenity Space (2)
- Ground level amenity space: 790 SF
- Amenity space min: 1,800

Tree Credits
- Tree credit shown: 2,200
- Tree credit min.: 2,100
- Can meet soil volume without SPS Greatest soil depth to meet volume requirements: 3.6'





(1) *Not able to fit 4 stalls in street-loaded configuration.*

(2) *Amenity space on roof is capped at 50%, cannot meet requirement. Suggest relaxing amenity requirements for bonused developments.*

T Trash storage
Trash collection area
Transformer pad
Water meter and clearance
Underground stormwater facility
W Water connection
SS Wastewater connection
P Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway

#4A Three 2-unit Houseplexes ("Reggie Duplexes")

Building Data
- UR-1 with bonus, 6000 sf lot
- (1) FAR: 0.8, 4,990 GSF, 3 stories
- Unit size: 525 - 1,150 SF

Access & Parking
- Alley-loaded
- 4 surface parking stalls (including one accessible stall)
- 3 in-unit bike parking; 3 spaces in bike lockers

Amenity Space
- Ground level amenity space: 1,890 SF
- Amenity space min: 1,800

Tree Credits
- Tree credit shown: 2,500
- Tree credit min.: 2,100
- Can meet soil volume without SPS Greatest soil depth to meet volume requirements: 2.9'

(1) *Not maxed in FAR, but meets min. tree credits.*

(2) *ADA stall overlaps with trash collection area.*

T Trash storage
Trash collection area
Water meter and clearance
Underground stormwater facility
Water connection
Wastewater connection
Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway
Bicycle Parking

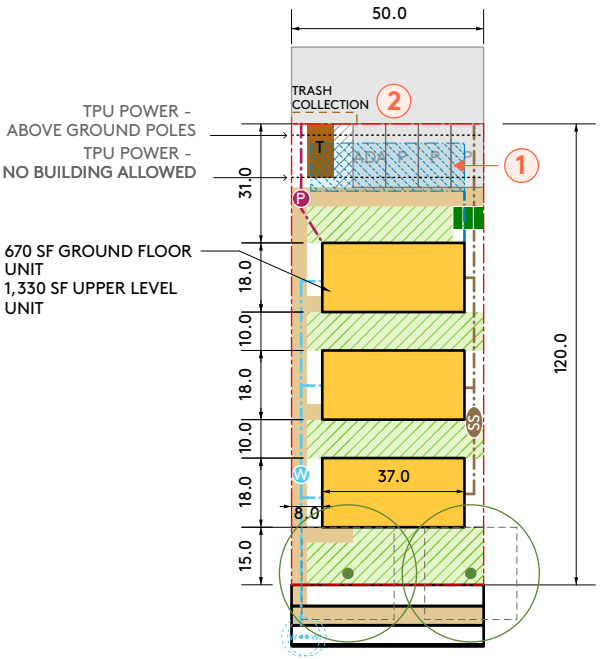
#4B **Three 2-unit Houseplexes ("Reggie Duplexes")**

Building Data
- UR-1 with bonus, 6000 sf lot
- FAR: 1.0, 6,000 GSF, 3 stories
- Unit size: 670 - 1,330 SF

Access & Parking
- Alley-loaded
- 4 surface parking stalls (including one accessible stall)
- 3 in-unit bike parking; 3 spaces in bike lockers

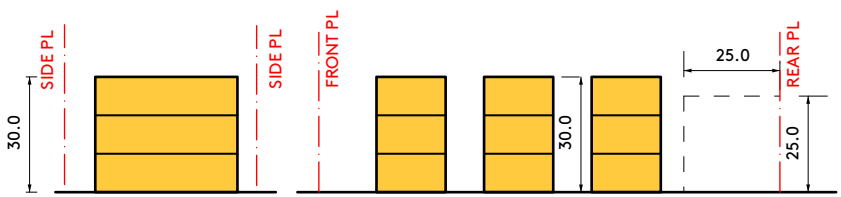
Amenity Space
- Ground level amenity space: 1,900 SF
- Amenity space min: 1,800

Tree Credits
- Tree credit shown: 2,000
- Tree credit min.: 2,100
- Does not meet tree credits (1)



1 *FAR is maxed but stormwater facility makes it difficult to meet min. tree credit, and requirement to plant trees within 50' of each parking stall. Allow suspended pavement system to meet both stormwater and tree requirements.*

2 *ADA stall overlaps with trash collection area.*



T Trash storage
Trash collection area
Water meter and clearance
Underground stormwater facility
Water connection
Wastewater connection
Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway
Bicycle Parking

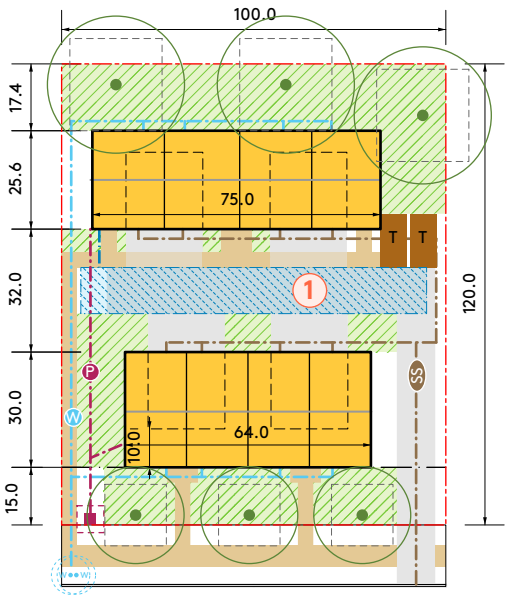
#5 4 Rowhouses with 4 Backyard Buildings ("8-Pack")

Building Data
- UR-1, 12,000 sf lot
- FAR: 0.8, 9,600 GSF, 2.5 stories
- Unit size: 1,200 SF

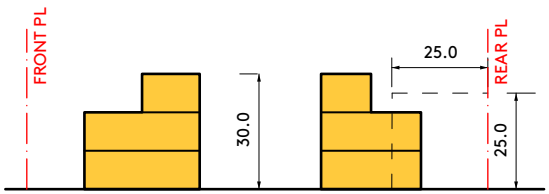
Access & Parking
- Street-loaded
- 8 parking stalls in garages
- In-unit bike parking

Amenity Space
- Ground level amenity space: 4,360 SF
- Amenity space min: 2,400

Tree Credits
- Tree credit shown: 4,500
- Tree credit min.: 4,200
- Can meet soil volume without SPS Greatest soil depth to meet volume requirements: 2'



1 *Standard stormwater facility clearance results in a larger parking area and more impervious surface than is desirable. Would be a better design to minimize parking area and put more amenity space in front and back yards.*



T Trash storage
Trash collection area
Transformer pad
Water meter and clearance
Underground stormwater facility
W Water connection
SS Wastewater connection
P Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway

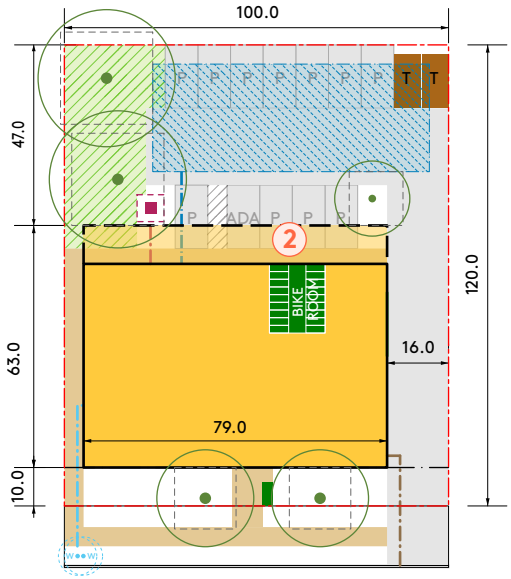
#6 **Multiplex with 24 Units**

Building Data
- UR-3 with bonus, 12,000 sf lot
- FAR: 1.6, 19,200 GSF, 4 stories
- Unit size: 680 SF
  (Excluding 650 SF per level for access and ground-floor bike room)

Access & Parking
- Street-loaded
- 12 surface parking stalls (including one accessible stall)
- Bike room: 260 SF, 18 spaces

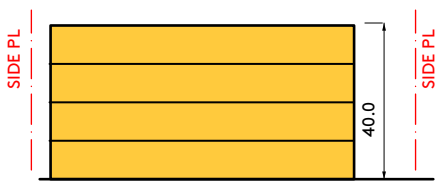
Amenity Space (1)
- Ground level amenity space: 1,200 SF
- Amenity space min: 2,400

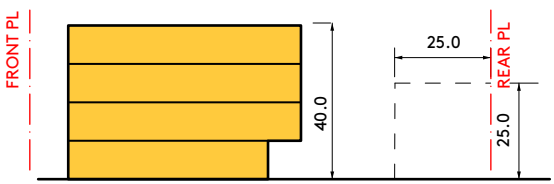
Tree Credits
- Tree credit shown: 3,200
- Tree credit min.: 3,000
- Can meet soil volume without SPS
  Greatest soil depth to meet volume requirements: 2.1'



(1) *Amenity space on roof meets requirements. However, roof decks of that size require an expensive elevator and 2 egress stairs.*

(2) *This study shows tuck-under parking to meet unit and FAR goals. This is only necessary in street-loaded conditions, and would not be necessary in reduced parking areas (because of reduced parking requirements).*





T Trash storage
Trash collection area
Transformer pad
Water meter and clearance
Underground stormwater facility
Water connection
Wastewater connection
Power connection
Tree (with clearance to building)
Amenity space
Pedestrian Path
Driveway