

27177 MISSION BOULEVARD

HAYWARD, CA

APRIL 30, 2021



Building Data

Occupancy Type:
3-story Residential: R-3 & U
4-story Residential: R-2 & U
Construction Type:
3-Story: Type V-B
4-Story: Type V-A

APPLICANT:
TTLC MOREAU-PESTANA/ACTON, LLC
12647 ALCOSTA BLVD., SUITE 470
SAN RAMON, CA 94583
ATTN: KELLY RUTCHENA
925-380-1210

ARCHITECT:
SDG ARCHITECTS, INC.
3361 WALNUT BLVD., SUITE 120
BRENTWOOD, CA 94513
ATTN: SCOTT PRICKETT
925-634-7000

CIVIL ENGINEER:
CARLSON BARBEE & GIBSON
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CA 94583
ATTN: COLT ALVARNAZ
925-866-0322

LANDSCAPE ARCHITECT:
R3 STUDIOS, INC.
201 4TH STREET, SUITE 108
OAKLAND, CA 94607
ATTN: ROMAN DE SOTA
510-808-5782

Building Areas

	Gross Living Area SF	Garage Area SF	Total Area SF	Private Open Space SF
Building 1	13,530	2,742	16,272	2,678
Building 2	6,210	816	7,026	1,074
Building 3	7,639	1,822	9,461	403
Building 4-10	11,406	2,733	14,139	619

Unit Mix

Unit Name	Description	Garage Type	Garage Size SF	Quantity	Unit Gross SF	Total Unit Gross SF	Private Open Space SF	Total Private Open Space SF
LiveWork Plan 1	3 BR + 2.5 B with Flex + 1 Bath	1-car	272	4	2,070	8,280	358	1,432
LiveWork Plan 2	3 BR + 2.5 B with Flex + 1 Bath	2-car Tandem	494	5	2,292	11,460	464	2320
Townhome Plan 1	3 BR +2.5 B	2-car Tandem	477	15	1,761	26,415	159	2,385
Townhome Plan 2	3 BR +2.5 Bath	2-car Standard	434	15	2,012	30,180	57	1,311
Townhome Plan 3	3 BR +2.5 Bath	2-car Tandem	477	8	1,807	14,456	111	888
Townhome Plan 4	3 BR +2.5 Bath	2 Car Standard	434	8	2,059	16,472	76	608
Subtotal				55		107,263	1225	8,944

SHEET INDEX

- A0

COVER SHEET
- A1

LIVEWORK UNIT 1 FLOOR PLANS
- A2

LIVEWORK UNIT 2 FLOOR PLANS
- A3

TOWNHOMES UNITS 1 & 2 FLOOR PLANS
- A4

TOWNHOMES UNITS 1 & 2 FLOOR PLANS
- A5

TOWNHOMES UNITS 3 & 4 FLOOR PLANS
- A6

TOWNHOMES UNITS 3 & 4 FLOOR PLANS
- A7

LIVE/WORK 3-UNIT BUILDING ELEVATIONS
- A8

LIVE/WORK 3-UNIT BUILDING FLOOR PLANS
- A9

LIVE/WORK 6-UNIT BUILDING ELEVATIONS
- A10

LIVE/WORK 6-UNIT BUILDING FLOOR PLANS
- A11

LIVE/WORK 6-UNIT BUILDING FLOOR PLANS
- A12

TOWNHOME 4-UNIT BUILDING ELEVATIONS
- A13

TOWNHOME 4-UNIT BUILDING FLOOR PLANS
- A14

TOWNHOME 6-UNIT BUILDING ELEVATIONS
- A15

TOWNHOME 6-UNIT BUILDING FLOOR PLANS
- A16

COLOR & MATERIALS
- A17

SUSTAINABILITY PLANS
- A18

SUSTAINABILITY PLANS
- C1.0

LOTTING PLAN
- C2.0

LEGEND, ABBREVIATIONS & TYPICAL SELECTIONS
- C3.0

EXISTING CONDITIONS PLAN
- C4.0

PRELIMINARY SITE PLAN
- C5.0

PRELIMINARY GRADING AND DRAINAGE PLAN
- C5.1

LIVEWORK & MISSION BLVD. FINE GRADING
- C6.0

PRELIMINARY UTILITY MAP
- C7.0

PRELIMINARY STORMWATER CONTROL PLAN
- C8.0

FIRE ACCESS PLAN
- C8.1

SOLID WASTE HANDLING PLAN
- C9.0

OPEN SPACE PLAN

- L-1.1

ILLUSTRATIVE SITE PLAN
- L-1.2

PRELIMINARY LANDSCAPE PLAN
- L-2.1

ARBORIST REPORT
- L-2.2

ARBORIST REPORT
- L-2.3

ARBORIST REPORT
- L-2.4

ARBORIST REPORT
- L-3.1

TREE MITIGATION SUMMARY
- L-3.2

EXISTING TREE AND TREE MITIGATION PLAN
- L-4

PROPOSED PLANT PALETTE
- L-5.1

WALL AND FENCE PLAN
- L-5.2

WALL AND FENCE DETAILS
- L-6.1

SITE FURNITURE
- L-6.2

SITE FURNITURE
- L-7.1

CONSTRUCTION DETAILS
- L-8.2

CONSTRUCTION DETAILS
- L-8.1

PLANTING DETAILS (PRIVATE)
- L-8.2

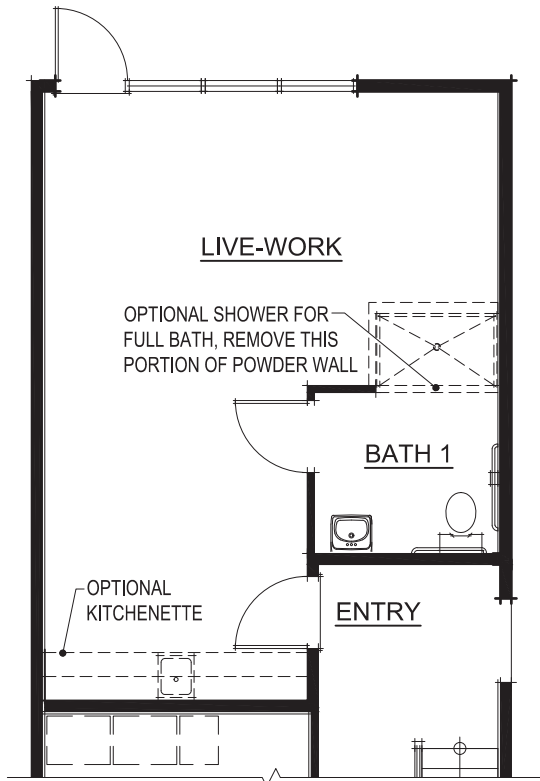
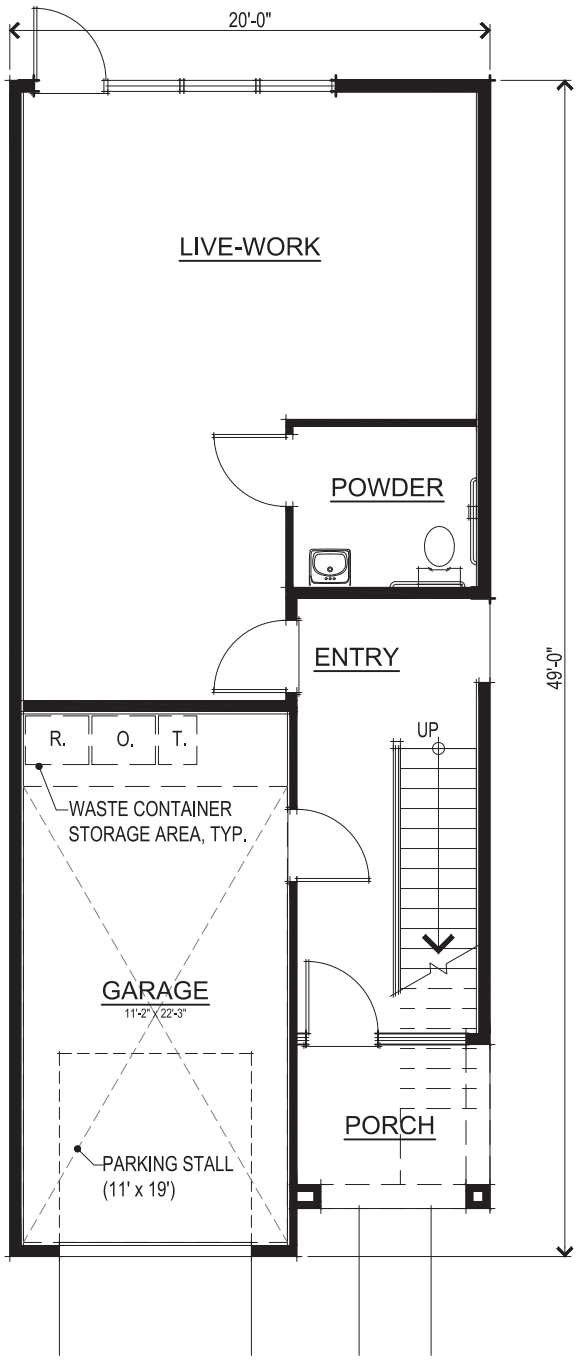
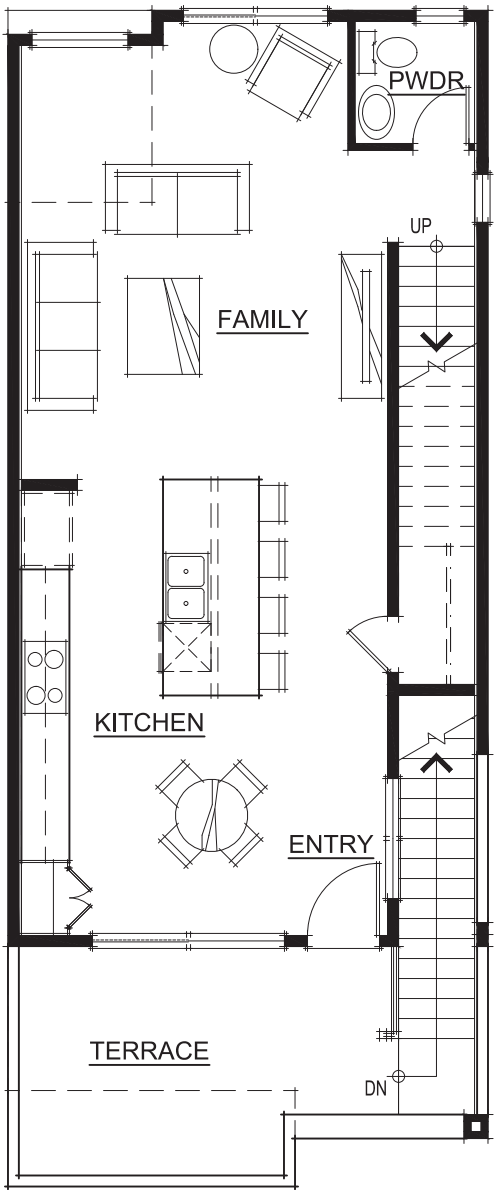
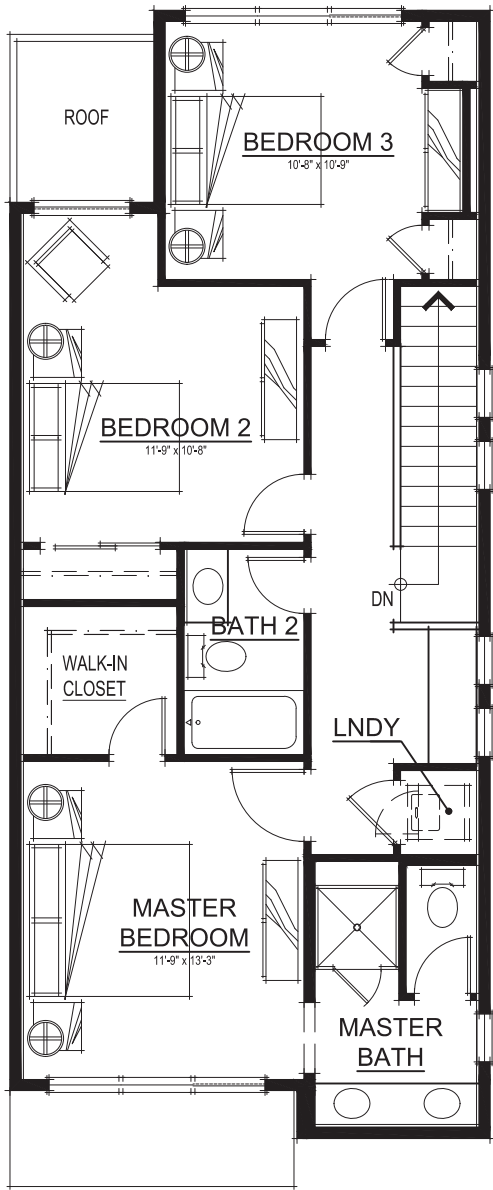
PLANTING DETAILS (PUBLIC)
- L-9.1

IRRIGATION DETAILS
- L-9.2

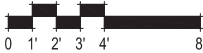
IRRIGATION DETAILS
- L-9.3

IRRIGATION DETAILS
- L-9.4

WATER USE CALCULATIONS



UNIT 1 SQUARE FOOTAGE	
UNIT 1 FIRST FLOOR	488 SQ. FT.
UNIT 1 SECOND FLOOR	735 SQ. FT.
UNIT 1 THIRD FLOOR	847 SQ. FT.
UNIT 1 TOTAL LIVING	2070 SQ. FT.
UNIT 1 GARAGE	272 SQ. FT.
UNIT 1 PORCH	204 SQ. FT.
UNIT 1 TERRACE	154 SQ. FT.



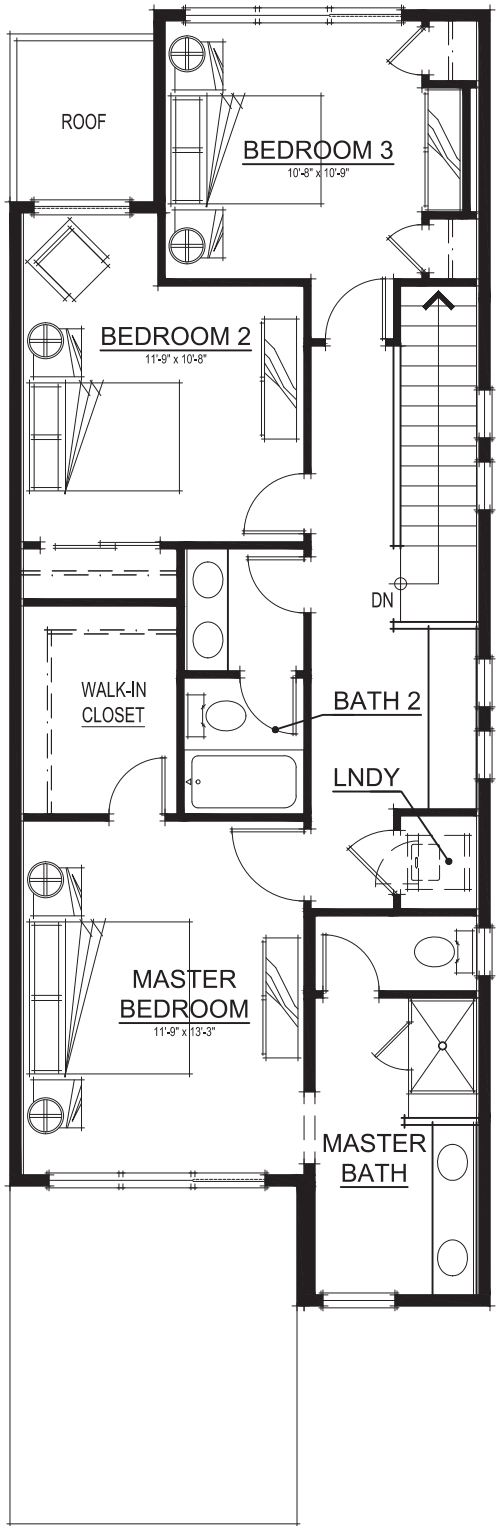
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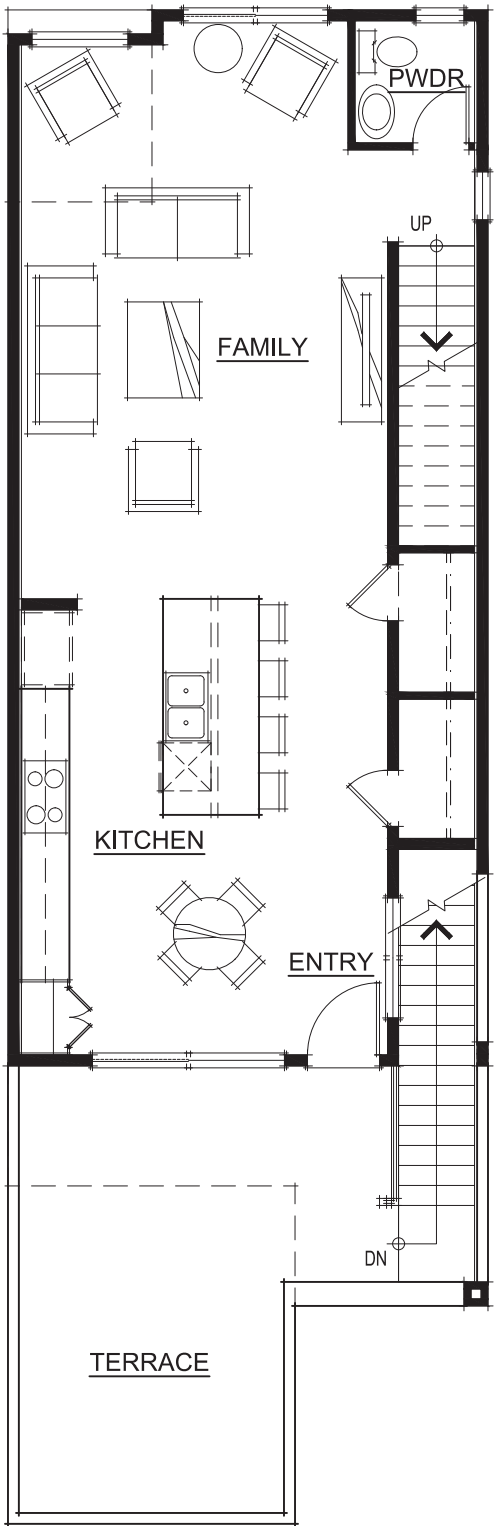
LIVEWORK UNIT 1 FLOOR PLANS
A1

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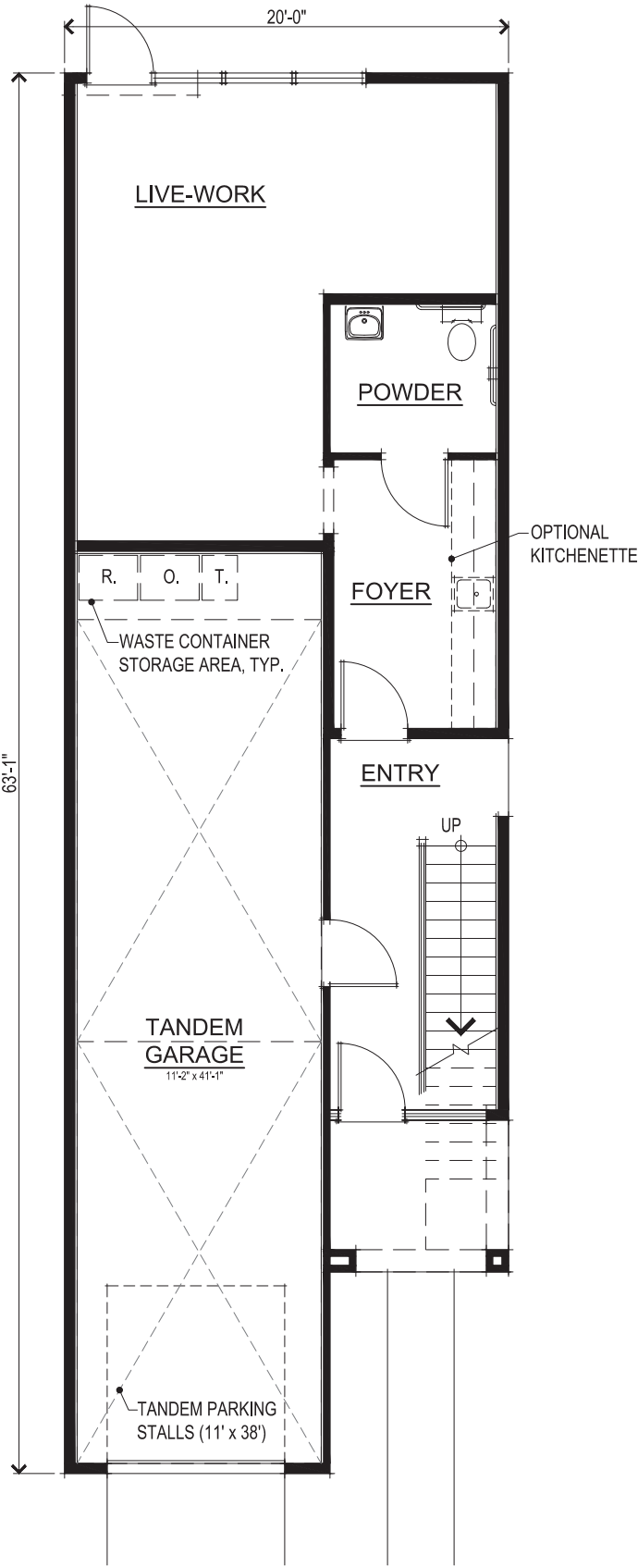




THIRD FLOOR PLAN

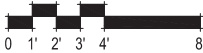


SECOND FLOOR PLAN



FIRST FLOOR PLAN

UNIT 2 SQUARE FOOTAGE	
UNIT 2 FIRST FLOOR	501 SQ. FT.
UNIT 2 SECOND FLOOR	840 SQ. FT.
UNIT 2 THIRD FLOOR	951 SQ. FT.
UNIT 2 TOTAL LIVING	2292 SQ. FT.
UNIT 2 GARAGE	494 SQ. FT.
UNIT 2 PORCH	193 SQ. FT.
UNIT 2 TERRACE	271 SQ. FT.



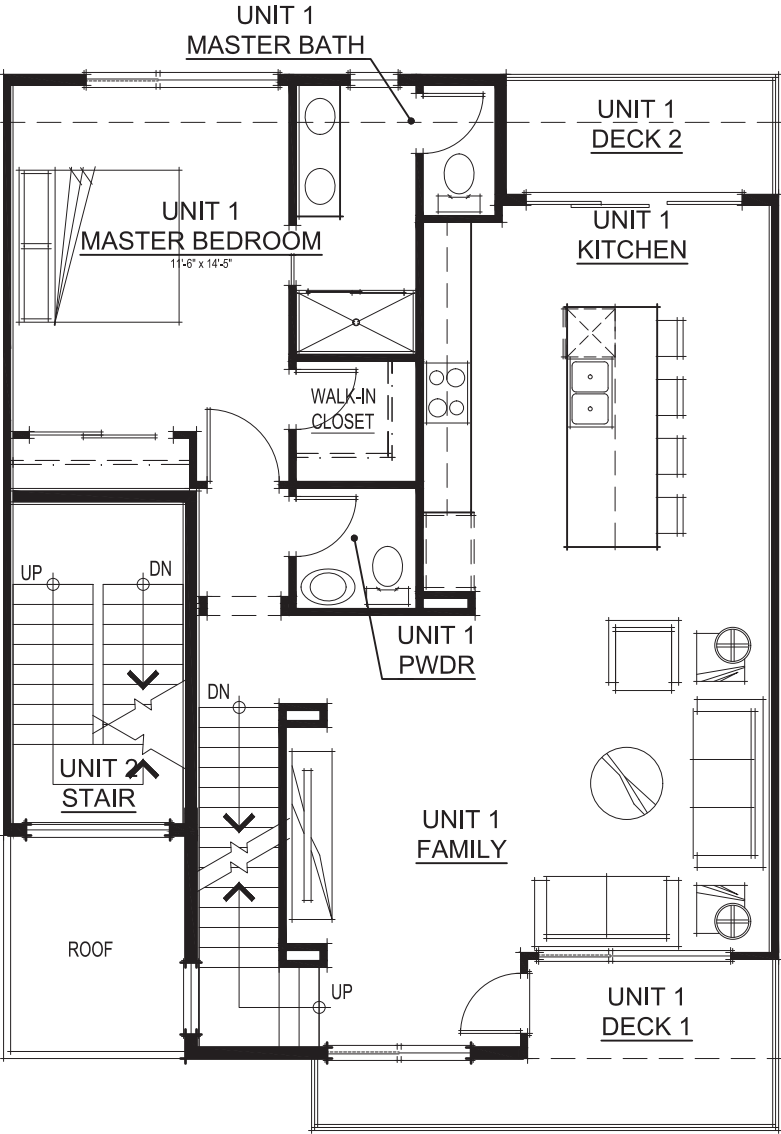
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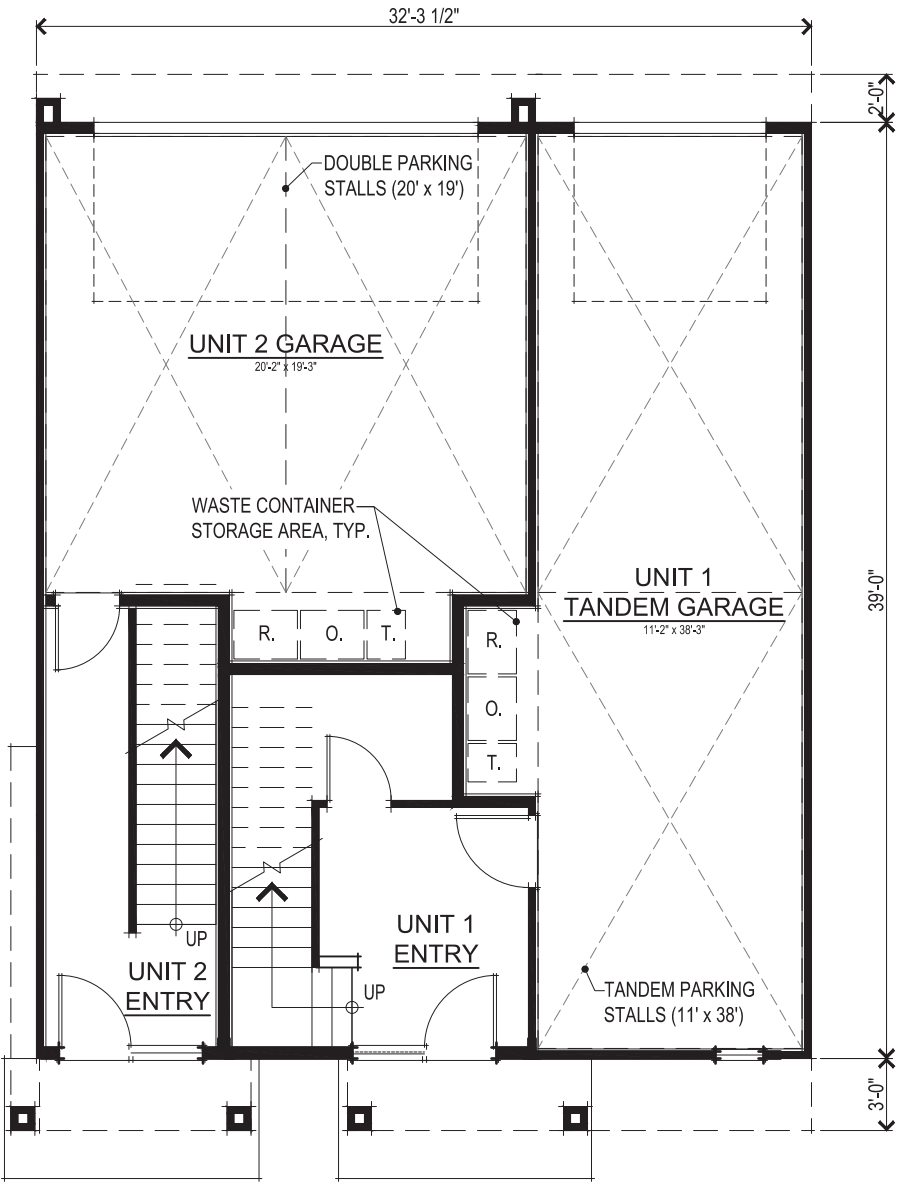
LIVEWORK UNIT 2 FLOOR PLANS
A2

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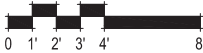


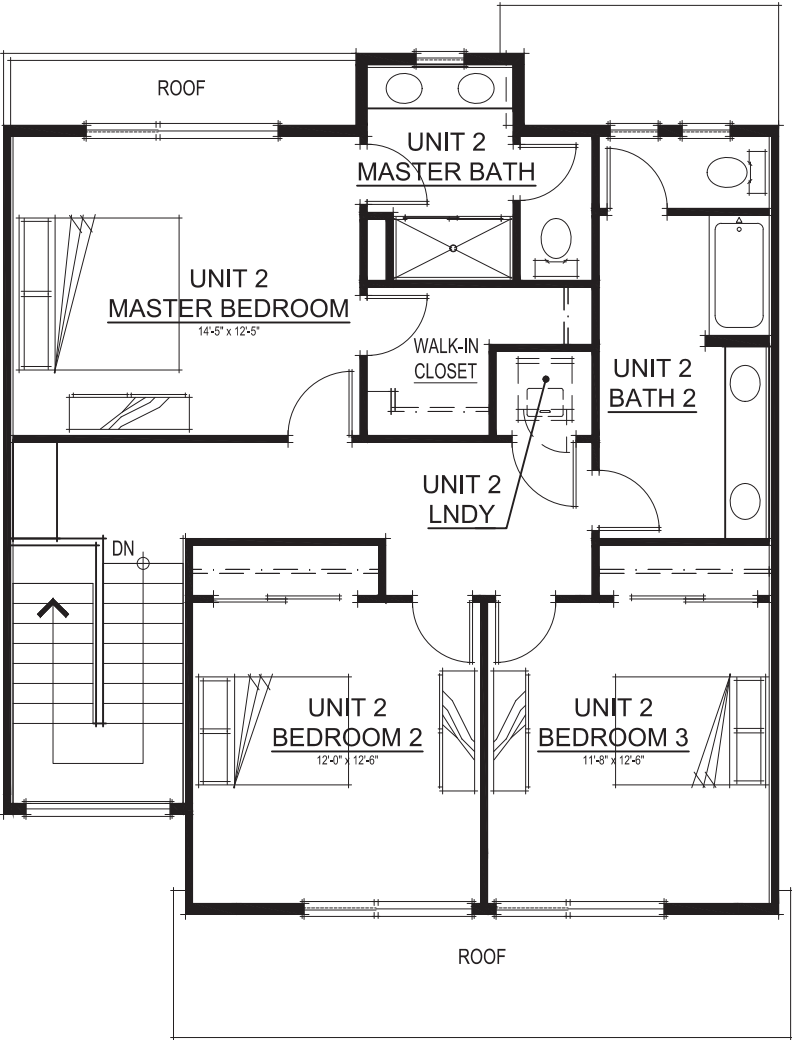
SECOND FLOOR PLAN



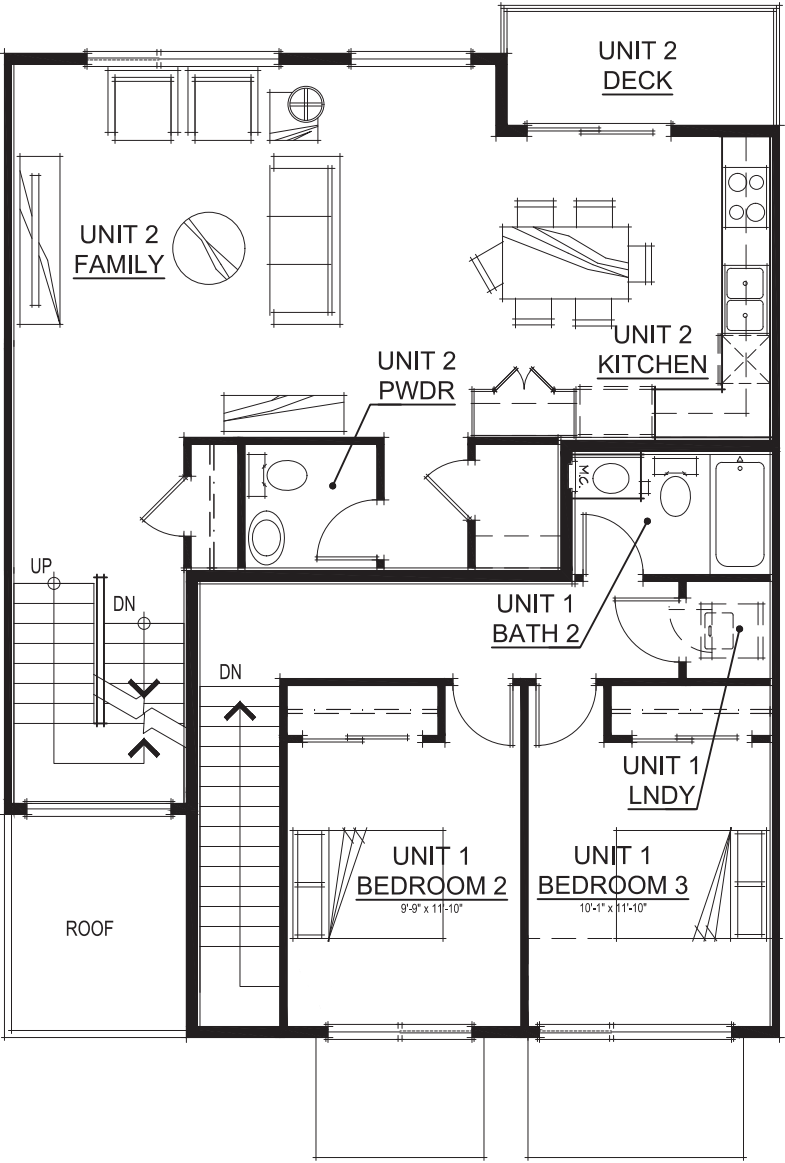
FIRST FLOOR PLAN

UNIT 1 SQUARE FOOTAGE	
UNIT 1 FIRST FLOOR	197 SQ. FT.
UNIT 1 SECOND FLOOR	1043 SQ. FT.
UNIT 1 THIRD FLOOR	521 SQ. FT.
UNIT 1 TOTAL LIVING	1761 SQ. FT.
UNIT 1 GARAGE	477 SQ. FT.
UNIT 1 DECK 1	102 SQ. FT.
UNIT 1 DECK 2	57 SQ. FT.
UNIT 2 SQUARE FOOTAGE	
UNIT 2 FIRST FLOOR	152 SQ. FT.
UNIT 2 SECOND FLOOR	110 SQ. FT.
UNIT 2 THIRD FLOOR	699 SQ. FT.
UNIT 2 FOURTH FLOOR	1051 SQ. FT.
UNIT 2 TOTAL LIVING	2012 SQ. FT.
UNIT 2 GARAGE	434 SQ. FT.
UNIT 2 DECK	57 SQ. FT.





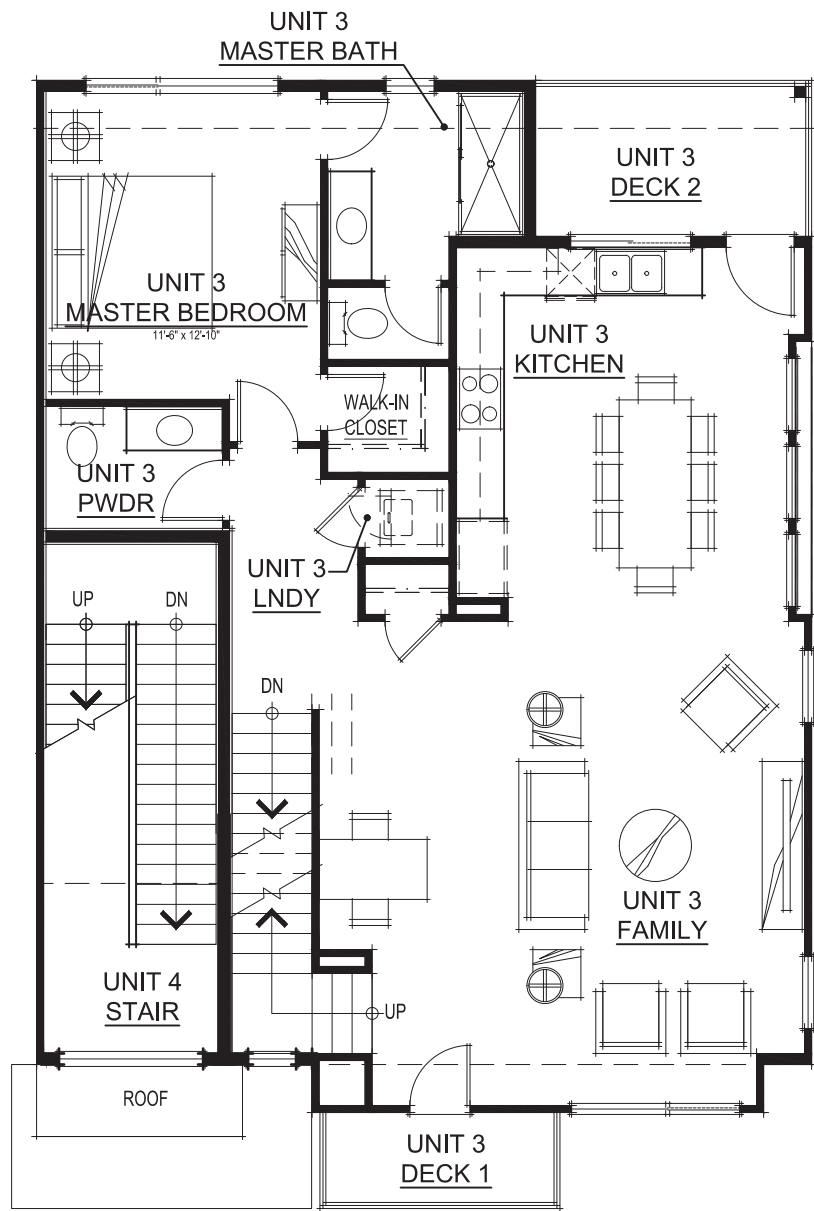
FOURTH FLOOR PLAN



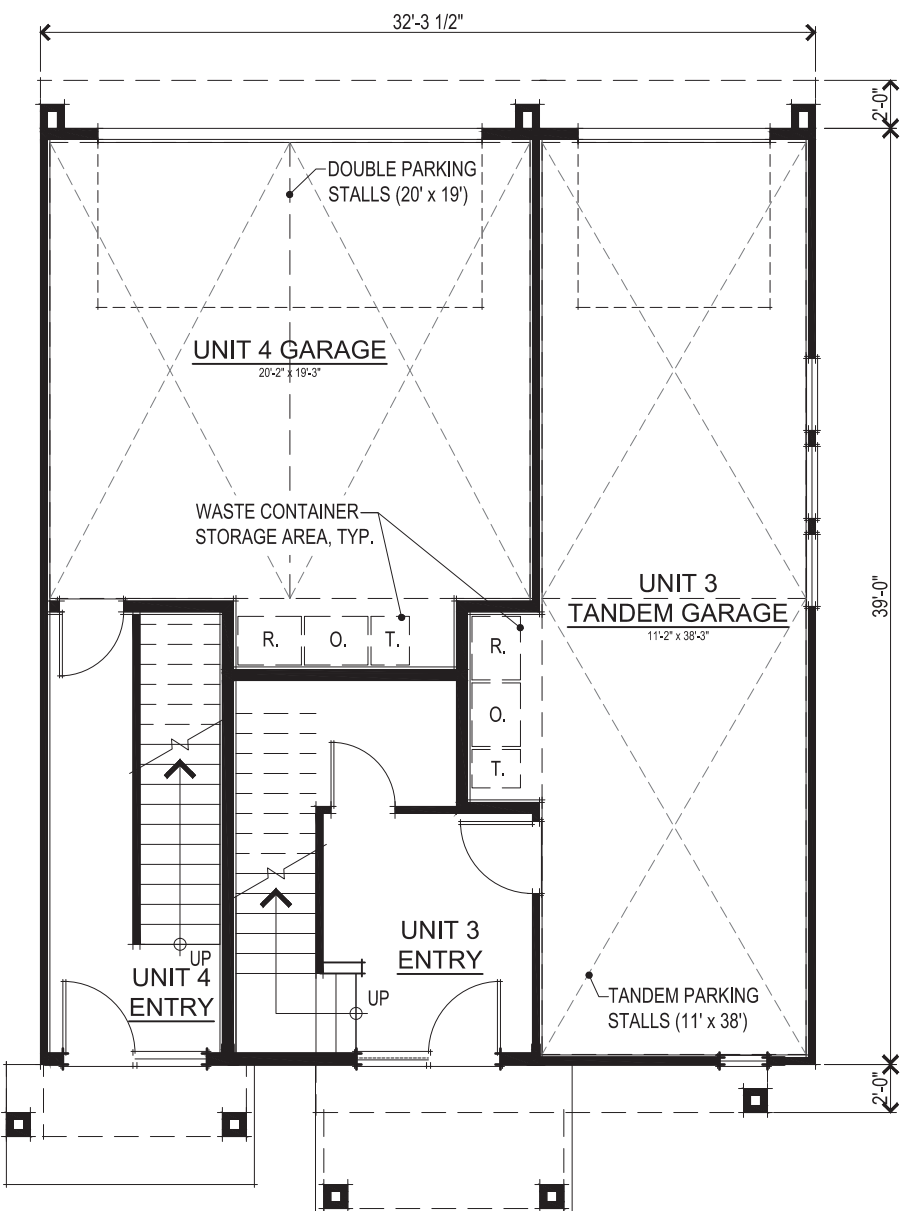
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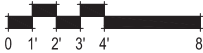


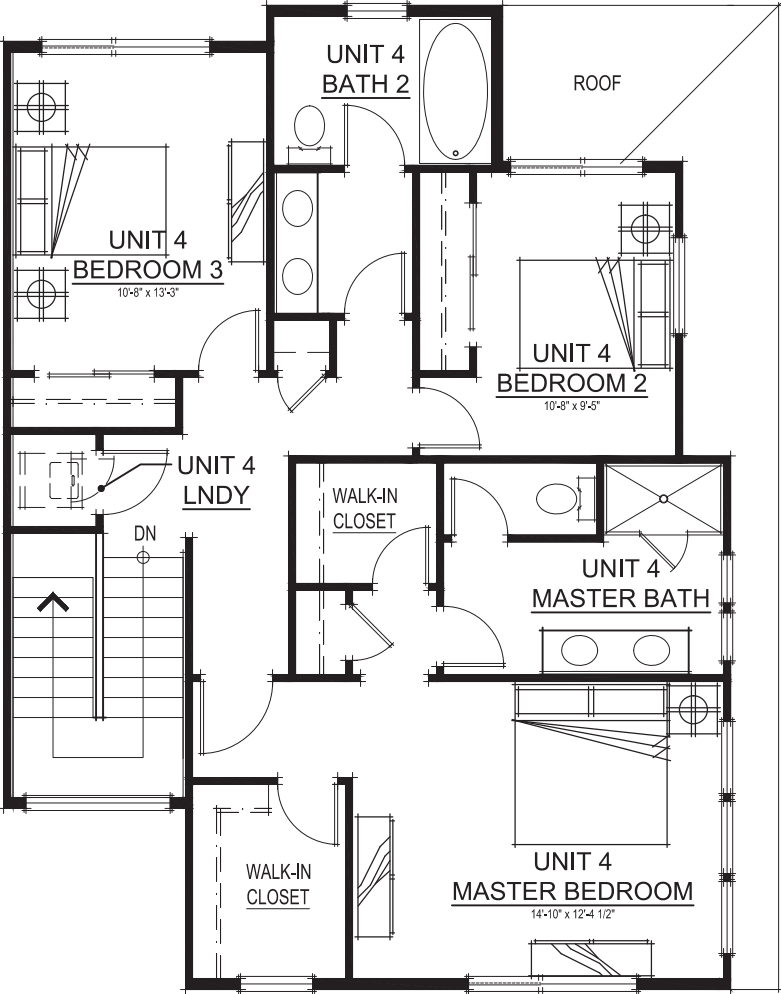
SECOND FLOOR PLAN



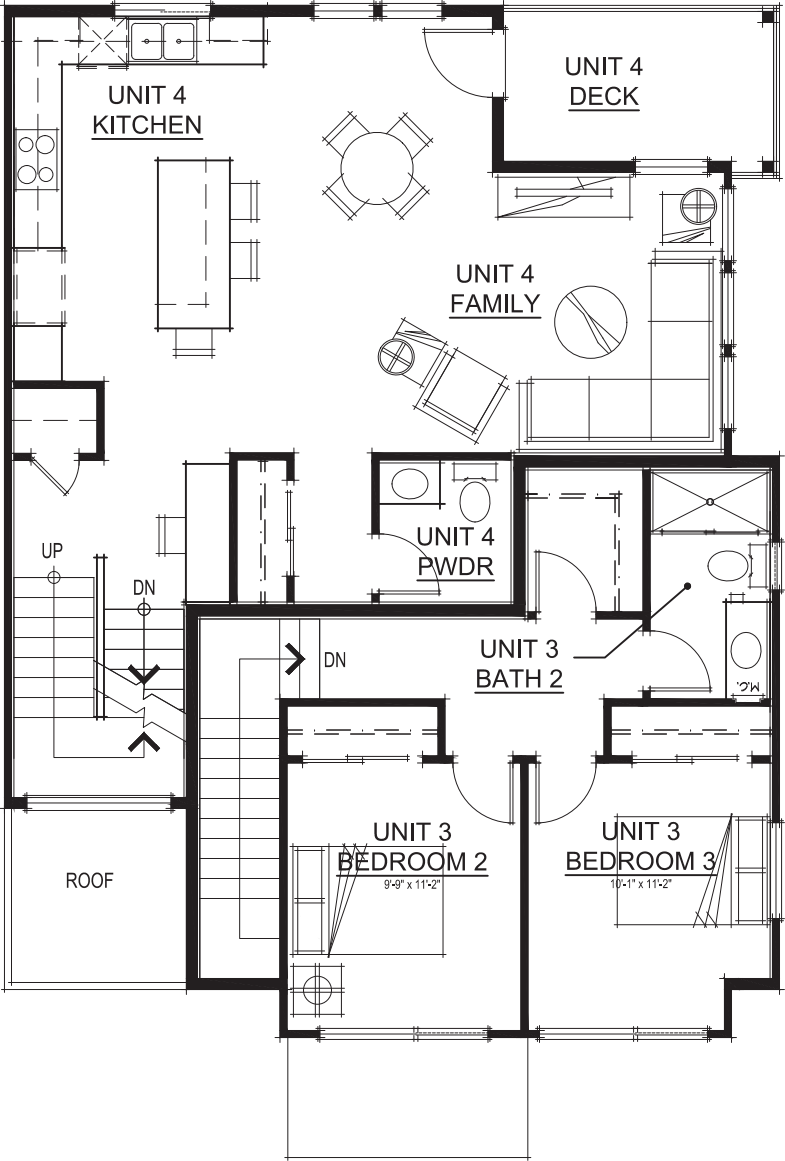
FIRST FLOOR PLAN

UNIT 3 SQUARE FOOTAGE	
UNIT 3 FIRST FLOOR	197 SQ. FT.
UNIT 3 SECOND FLOOR	1117 SQ. FT.
UNIT 3 THIRD FLOOR	493 SQ. FT.
UNIT 3 TOTAL LIVING	1807 SQ. FT.
UNIT 3 GARAGE	477 SQ. FT.
UNIT 3 DECK 1	36 SQ. FT.
UNIT 3 DECK 2	75 SQ. FT.
UNIT 4 SQUARE FOOTAGE	
UNIT 4 FIRST FLOOR	152 SQ. FT.
UNIT 4 SECOND FLOOR	113 SQ. FT.
UNIT 4 THIRD FLOOR	711 SQ. FT.
UNIT 4 FOURTH FLOOR	1083 SQ. FT.
UNIT 4 TOTAL LIVING	2059 SQ. FT.
UNIT 4 GARAGE	434 SQ. FT.
UNIT 4 DECK	76 SQ. FT.



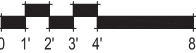


FOURTH FLOOR PLAN



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UNIT 4 DECK	76 SQ. FT.





RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION



FRONT ELEVATION

- MATERIALS**
- VERTICAL FIBER CEMENT SIDING
 - THIN BRICK VENEER
 - EXTERIOR PLASTER WITH LIGHT SAND FINISH
 - METAL SUSPENDED CANOPIES
 - HORIZONTAL SLAT RAILINGS
 - DARK BRONZE ALUMINUM STOREFRONT
 - DOORS & GLAZING SYSTEM



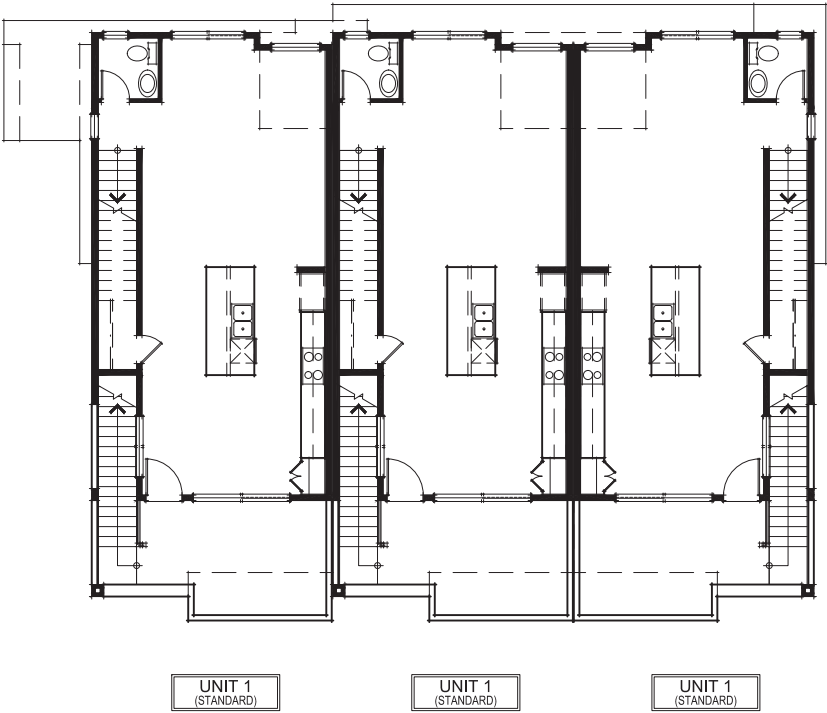
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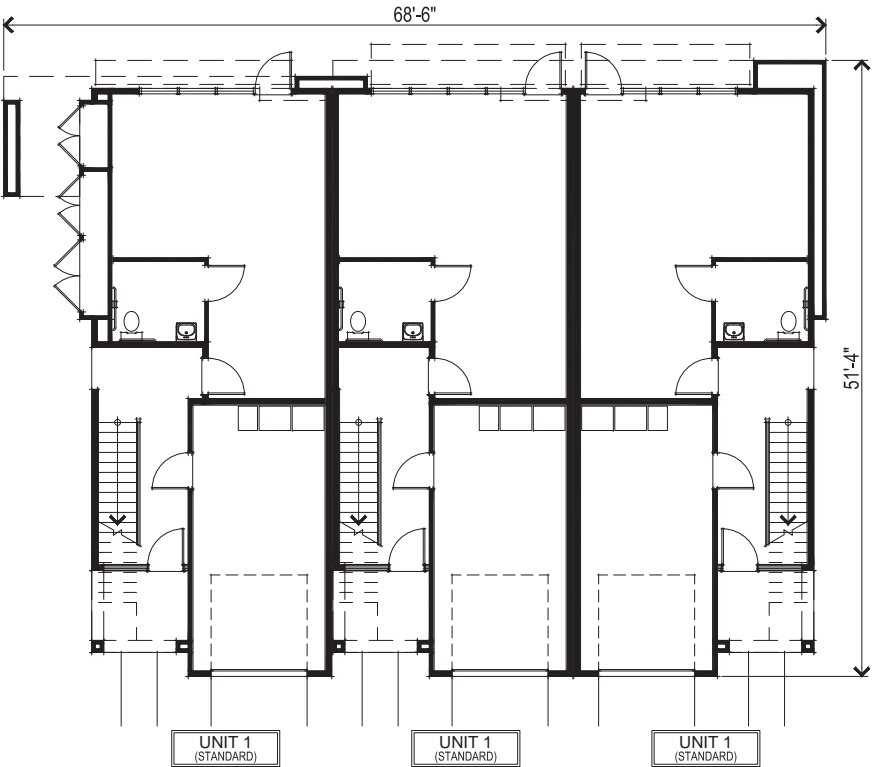
LIVEWORK 3-UNIT BUILDING ELEVATIONS
A7

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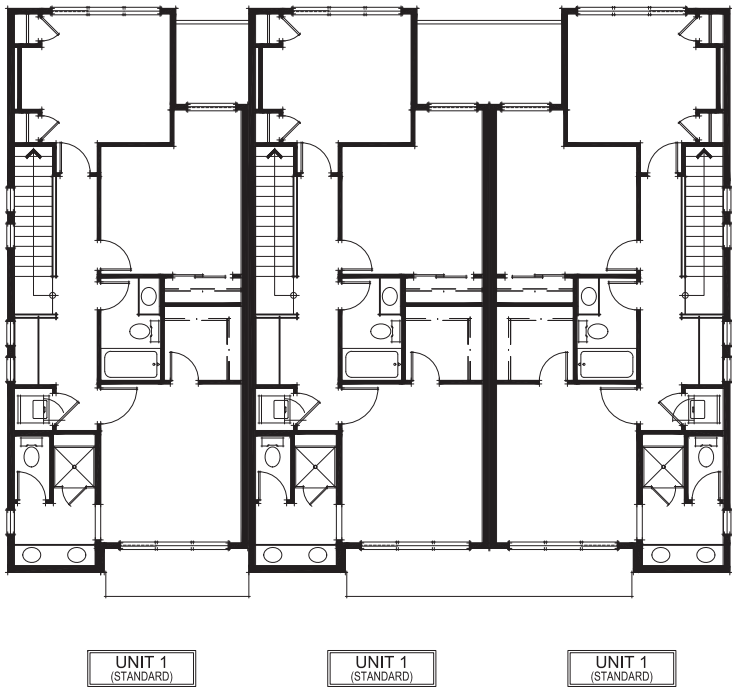




SECOND FLOOR PLAN



FIRST FLOOR PLAN



THIRD FLOOR PLAN



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LIVEWORK 3-UNIT BUILDING FLOOR PLANS
A8

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RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION



FRONT ELEVATION

MATERIALS
VERTICAL FIBER CEMENT SIDING
THIN BRICK VENEER
EXTERIOR PLASTER WITH LIGHT SAND FINISH
METAL SUSPENDED CANOPIES
HORIZONTAL SLAT RAILINGS
DARK BRONZE ALUMINUM STOREFRONT
DOORS & GLAZING SYSTEM



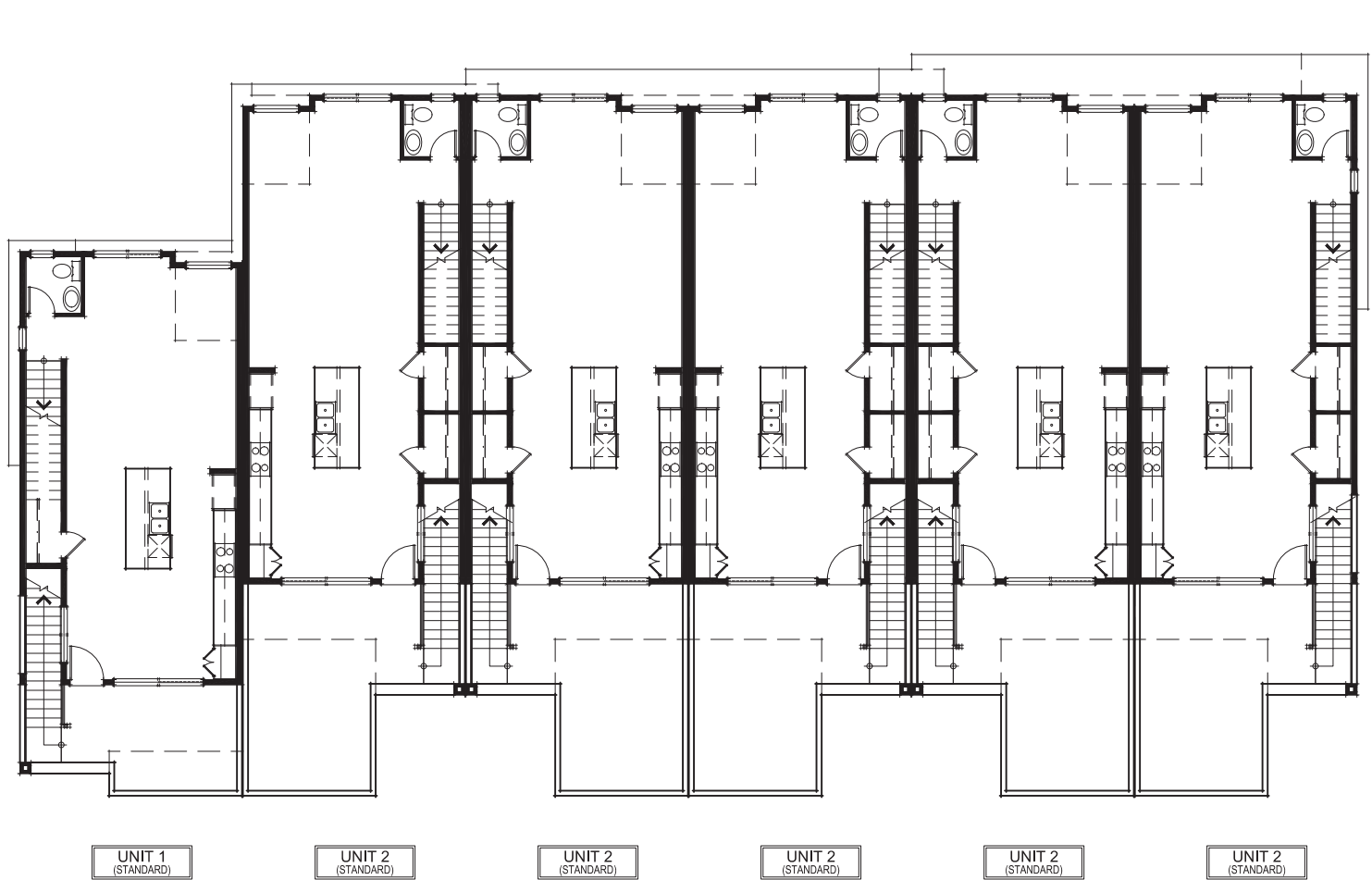
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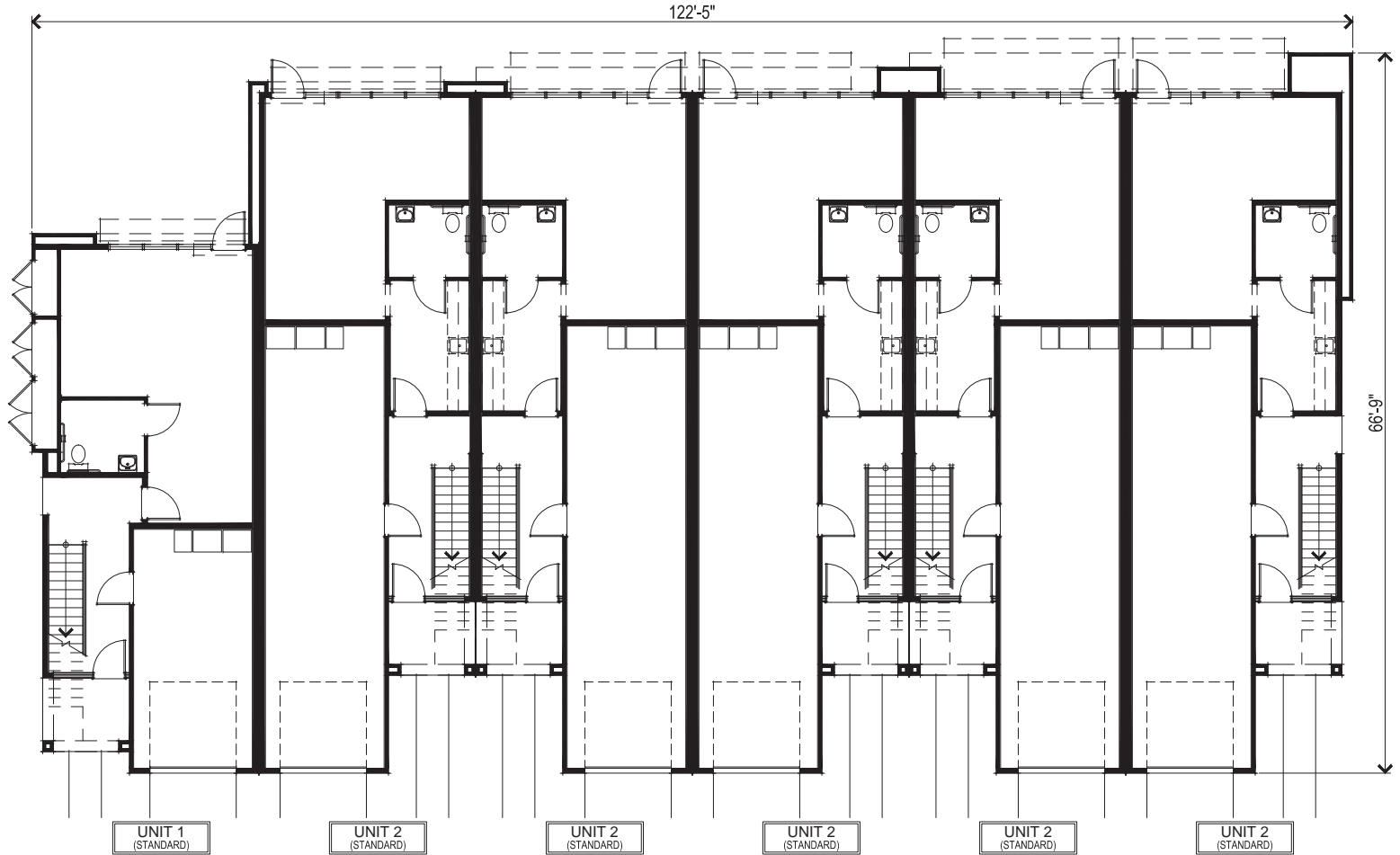
LIVEWORK 6-UNIT BUILDING ELEVATIONS
A9

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SECOND FLOOR PLAN



FIRST FLOOR PLAN



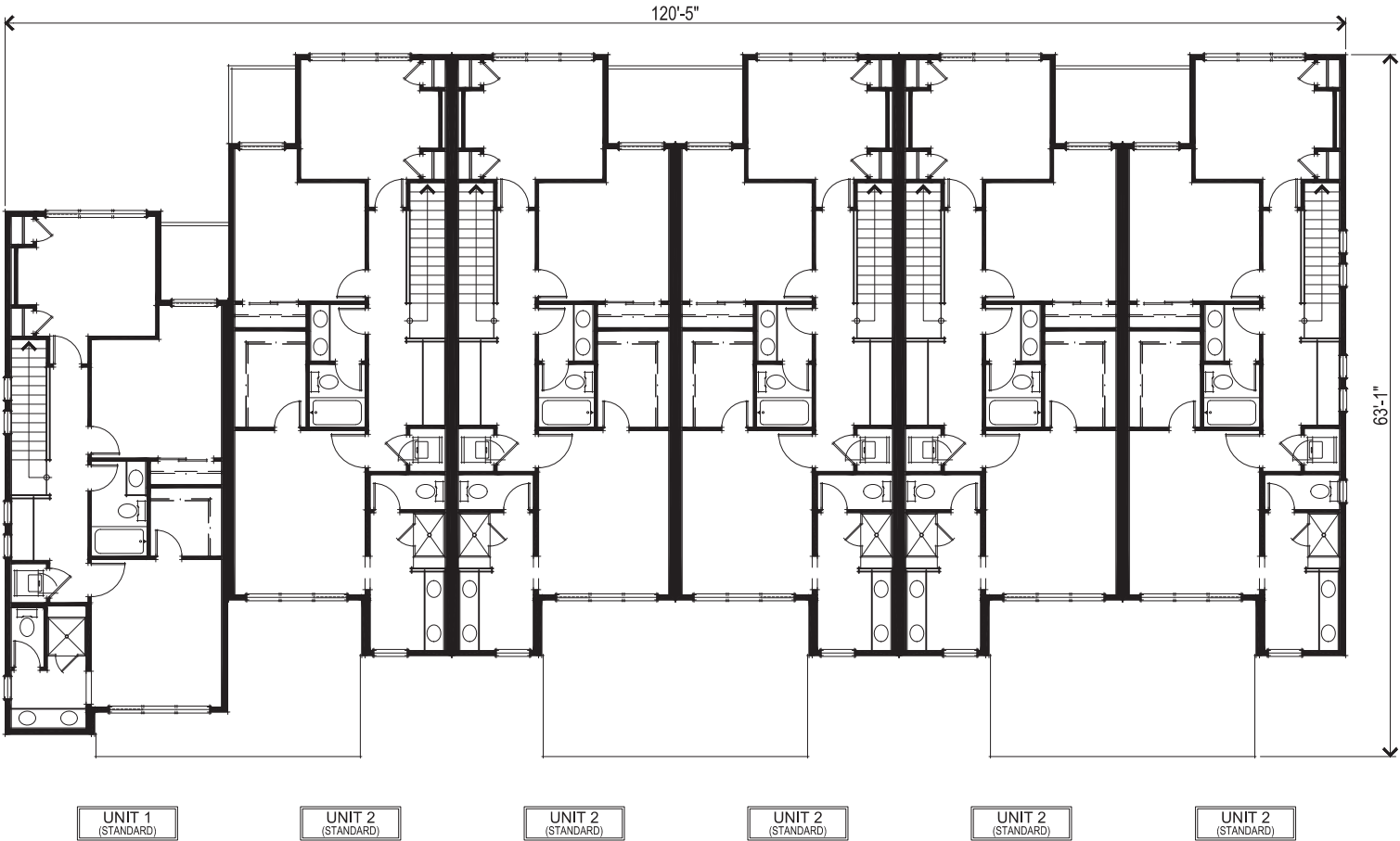
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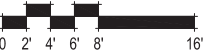
LIVEWORK 6-UNIT BUILDING FLOOR PLANS
A10

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THIRD FLOOR PLAN



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APRIL 30, 2021

LIVEWORK 6-UNIT BUILDING FLOOR PLANS
A11



RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION

43' - 6"
T.O.P.



FRONT ELEVATION

MATERIALS
HORIZONTAL FIBER CEMENT SIDING
EXTERIOR PLASTER WITH LIGHT SAND FINISH
METAL RAILINGS
METAL AWNINGS



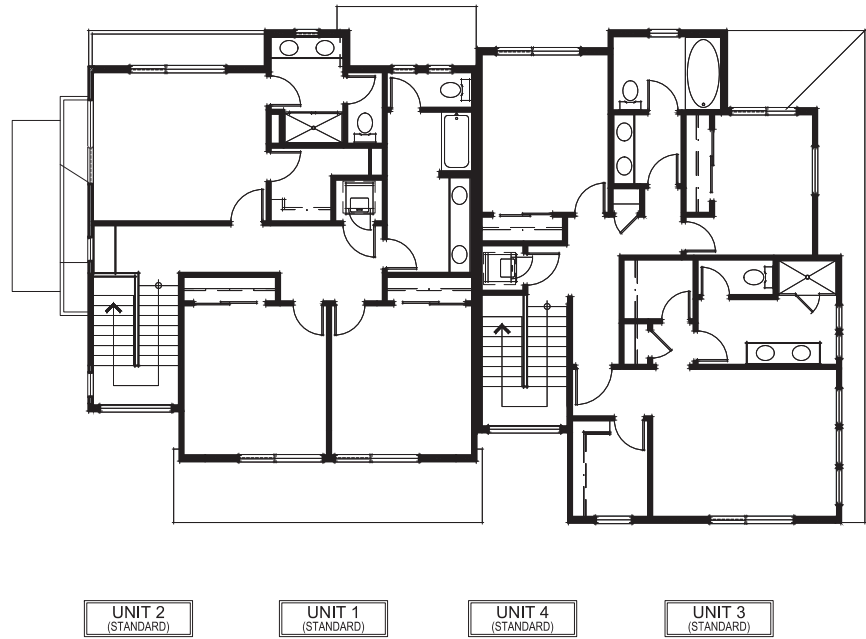
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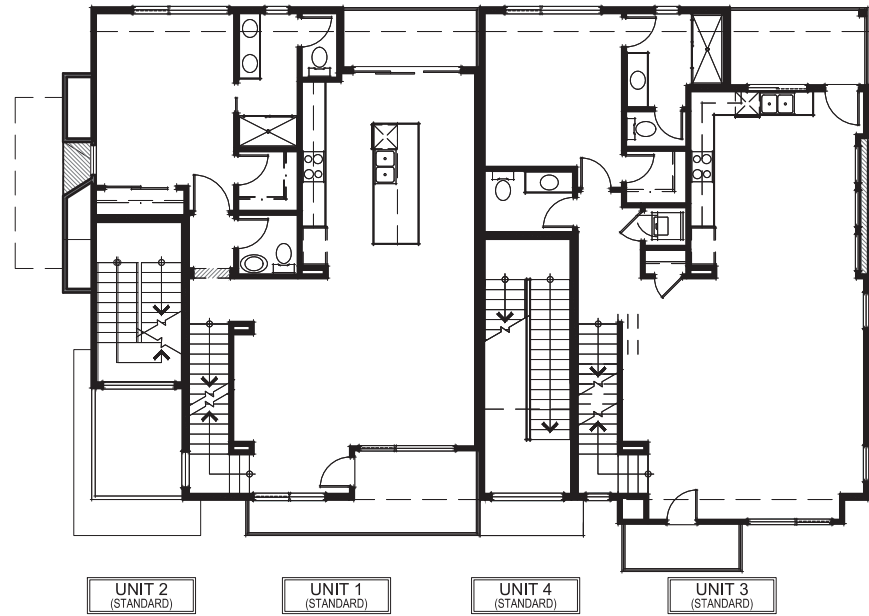
TOWNHOME 4-UNIT BUILDING ELEVATIONS
A12

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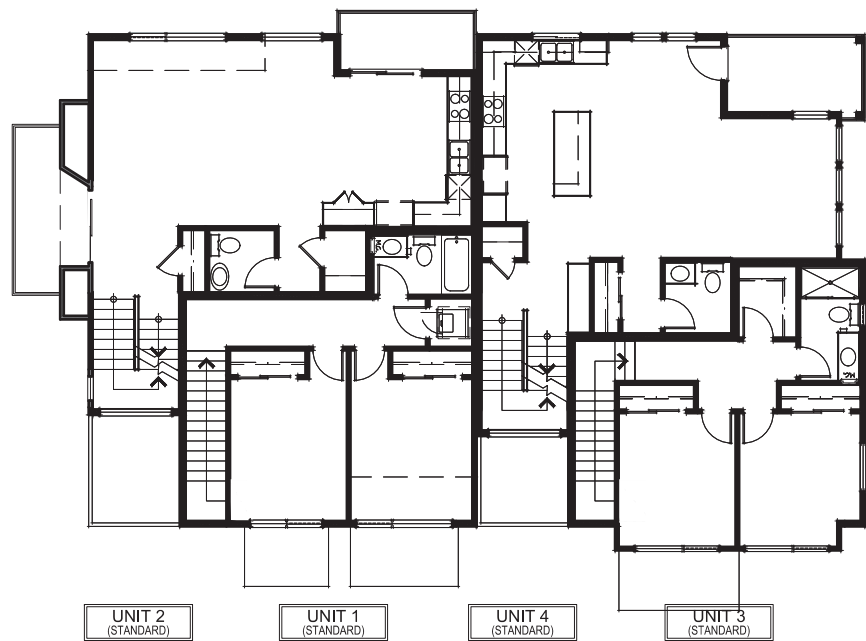




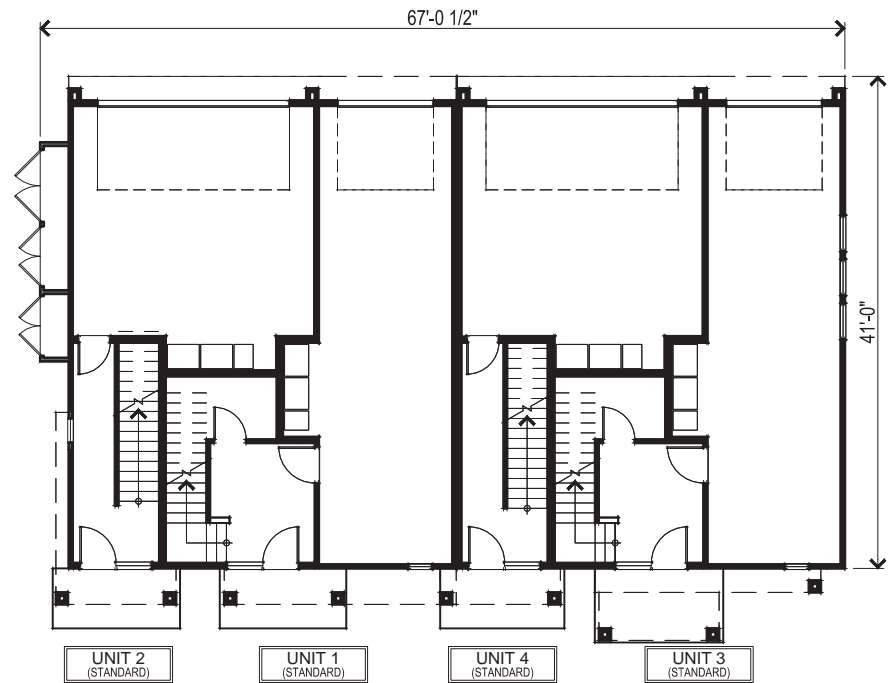
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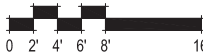
SECOND FLOOR PLAN



THIRD FLOOR PLAN



FIRST FLOOR PLAN



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TOWNHOME 4-UNIT BUILDING FLOOR PLANS
A13

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RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION



FRONT ELEVATION



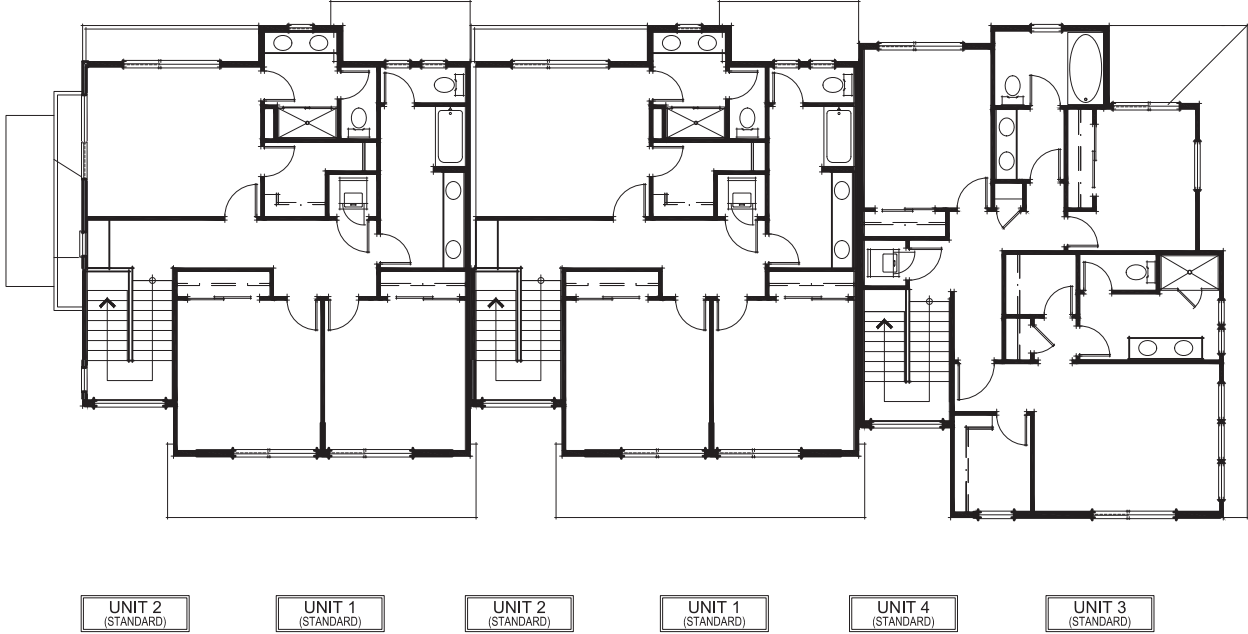
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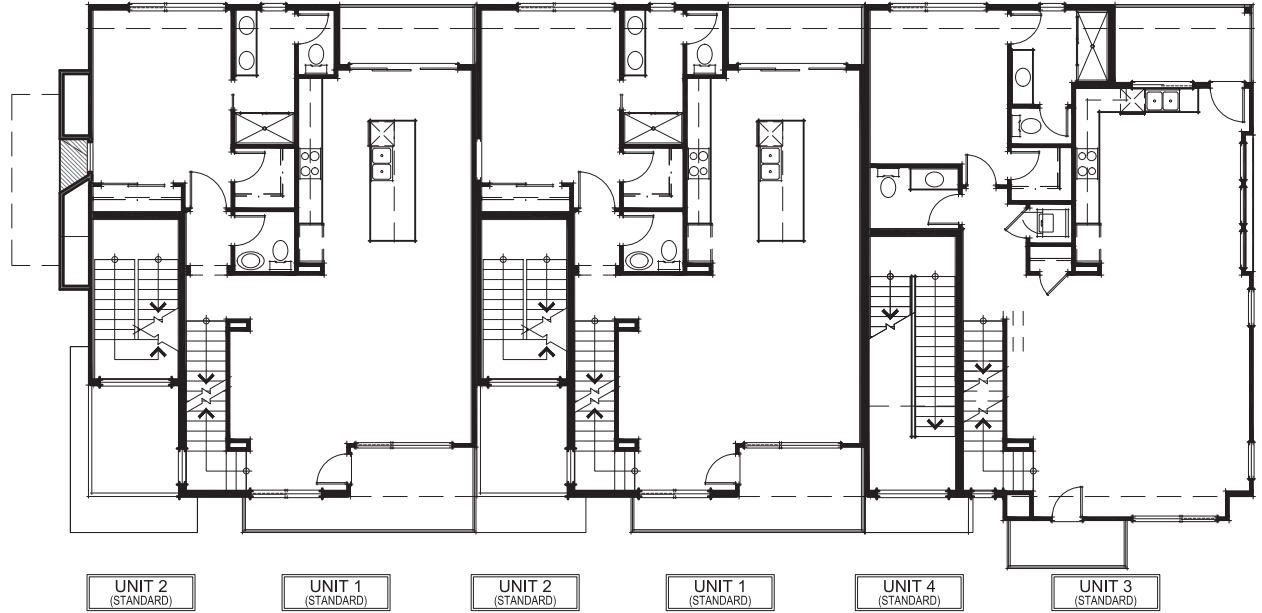
TOWNHOME 6-UNIT BUILDING ELEVATIONS
A14

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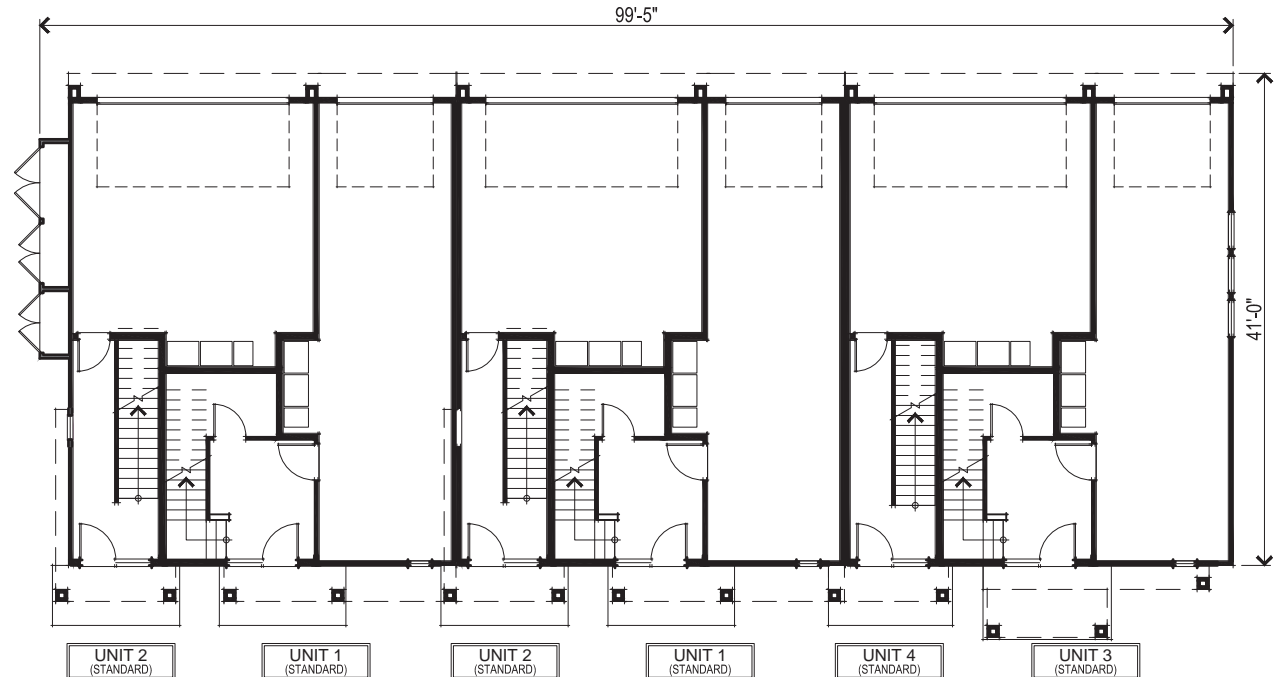
FOURTH FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN



FIRST FLOOR PLAN

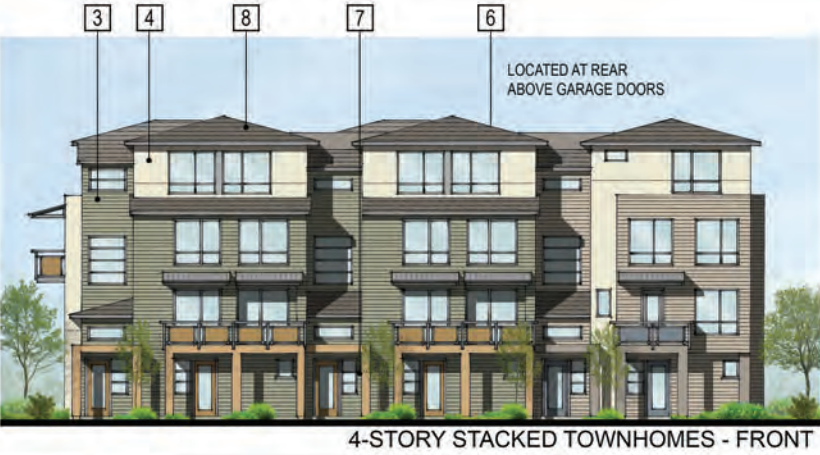


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TOWNHOME 6-UNIT BUILDING FLOOR PLANS
A15



MATERIALS



1 BRICK VENEER
H.C. MUDDOX THIN BRICK: TUMBLEWEED



2 VERTICAL SIDING
FIBER CEMENT BOARD AND BATTEN



3 HORIZONTAL SIDING
FIBER CEMENT LAP SIDING, CEDARMILL TEXTURE



4 STUCCO
LIGHT SAND FINISH



5 STEEL FRAMED RAILING
WITH HORIZONTAL WOOD PLANK RAILS



6 LED SURFACE MOUNT FIXTURE
WPX LED



7 CONTEMPORARY WALL SCONCE
MODERN FORMS: HILINE - WS-W23



8 COMPOSITION SHINGLE ROOFING
CERTAINTED - WEATHERED WOOD

SCHEMES

SCHEME 1: LIVE/WORK BUILDINGS



SCHEME 2: 4-STORY STACKED TOWNHOMES



H
HAYWARD

REACH CODE CHECKLIST

FOR NEW RESIDENTIAL BUILDINGS 3 STORIES OR LESS

This includes single-family, two-family & multi-family dwellings (3 or more units)

The Reach Code is a local ordinance adopted in Hayward which modifies the CA Energy Code to reduce natural gas use in new construction. The Reach Code also amends California to expand the requirements for Electric Vehicle (EV) ready parking spaces. For residential buildings taller than 3 stories or hotels/motels, please use the Reach Code Checklist for High-Rise Residential and Hotel/Motel. For all types of new commercial buildings, please use the Reach Code Checklist and Commercial Buildings. For checklists, background information and the full text of the Reach Code, please see the City of Hayward website here: <https://www.hayward-ca.gov/reach-code>

PART 1: ENERGY EFFICIENCY AND ELECTRIFICATION

- Is the building an accessory dwelling unit (ADU) that is 400 square feet or less? ☐ YES ☒ NO
If you checked "yes", the electrification provisions of this ordinance **do not** apply. Continue to PART 2. If you checked "no", continue below.
- THE DESIGN FOR THE BUILDING SHALL INCLUDE THE FOLLOWING:
(Check each item as you confirm it in the plans)
☒ All-electric end uses
☐ No fuel gas (such as natural gas or propane) appliances (use heat pumps for water heaters and HVAC)
☐ No fuel gas meters, piping or infrastructure
☐ Compliance with CA Energy Code

PART 2: EV CHARGING READINESS - ONE AND TWO-FAMILY DWELLINGS AND TOWNHOMES WITH ATTACHED GARAGES

- Does the new building include an attached garage? ☒ YES ☐ NO
If you checked "no", parts 2 and 3 do not apply to your project. If you checked "yes", continue below.
- Is the project a multi-family dwelling (3 or more dwelling units)? ☒ YES ☐ NO
If you checked "yes", continue to PART 3 of this form. If you checked no, complete PART 2 only and then go to part 6.
- EACH DWELLING UNIT SHALL HAVE TWO LEVEL 2 EV READY PARKING SPACES¹. LEVEL 2 EV Ready Spaces shall include the following:
☒ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.
☒ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.
☒ Include electrical single line drawings and/or specifications on the plans.
- ADJACENT TO THE PARKING SPACE, PROVIDE EITHER ONE OF THE FOLLOWING:

¹ For dwelling units that have only one parking space, only one Level 2 EV Ready Parking Space is required.

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- ☒ OPTION A: Provide an outlet adjacent to the parking space labelled "ELECTRIC VEHICLE OUTLET" with at least 1/2-inch font.
 - ☐ OPTION B: Provide electric vehicle supply equipment with a minimum capacity of 30 amperes.
- *Using option B for one space counts for 2 EV ready spaces. By installing 1 actual charger, you do not need to install an EV ready space as well in a 2-car garage.*

PART 3: EV CHARGING READINESS - MULTI-FAMILY BUILDINGS (3 TO 20 DWELLING UNITS)

- Does the multi-family building have less than or equal to 20 dwelling units? ☒ YES ☐ NO
If yes, complete this section and then see PART 5. If no, skip this section and continue to PART 4.
- ONE PARKING SPACE PER DWELLING UNIT SHALL BE A LEVEL 2 EV READY SPACE. For example, if a dwelling unit has a 2-car garage, only one space must be Level 2 EV Ready. LEVEL 2 EV Ready Spaces shall include the following:
☒ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.
☒ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.
☒ Include electrical single line drawings and/or specifications on the plans.
☒ Provide a table on the cover sheet listing the total number of parking spaces and the number of EV ready spaces or spaces with optional electric vehicle supply equipment.
- ADJACENT TO THE PARKING SPACE, PROVIDE EITHER ONE OF THE FOLLOWING:
☒ OPTION A: Provide an outlet adjacent to the parking space labelled "ELECTRIC VEHICLE OUTLET" with at least 1/2-inch font.
☐ OPTION B: Provide electric vehicle supply equipment with a minimum capacity of 30 amperes.

PART 4: EV CHARGING READINESS - MULTI-FAMILY BUILDINGS (OVER 20 UNITS)

- Does the multi-family building have more than 20 dwelling units? ☐ YES ☒ NO
If yes, complete this section, then see PART 5. If no, see previous sections.
- 75% OF THE DWELLING UNITS WITH ONE OR MORE PARKING SPACES SHALL BE PROVIDED WITH AT LEAST ONE LEVEL 2 EV READY SPACE. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number. LEVEL 2 EV Ready Spaces shall include the following:
☐ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.
☐ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.
☐ Include electrical single line drawings and/or specifications on the plans.
☐ Provide a table on the cover sheet listing the total number of parking spaces and the number of EV ready spaces or spaces with optional electric vehicle supply equipment.
- ADJACENT TO THE PARKING SPACE, PROVIDE EITHER ONE OF THE FOLLOWING:
☐ OPTION A: Provide an outlet adjacent to the parking space labelled "ELECTRIC VEHICLE OUTLET" with at least 1/2-inch font.
☐ OPTION B: Provide electric vehicle supply equipment with a minimum capacity of 30 amperes.

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- THE REMAINING 25% OF UNITS SHALL BE PROVIDED WITH AT LEAST ONE LEVEL 2 EV CAPABLE SPACE. EV Capable Circuits include the following:
a. A parking space linked to an electrical panel with sufficient capacity to provide at least 208/240 volts and 40 amperes to the parking space.
b. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground, or where penetrations to walls, floors or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least one inch in diameter and may be sized for multiple circuits as allowed by the California Electrical Code.
c. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as "EV CAPABLE". Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways.

PART 5: ADDITIONAL NOTES AND EXCEPTIONS FOR MULTI-FAMILY BUILDINGS

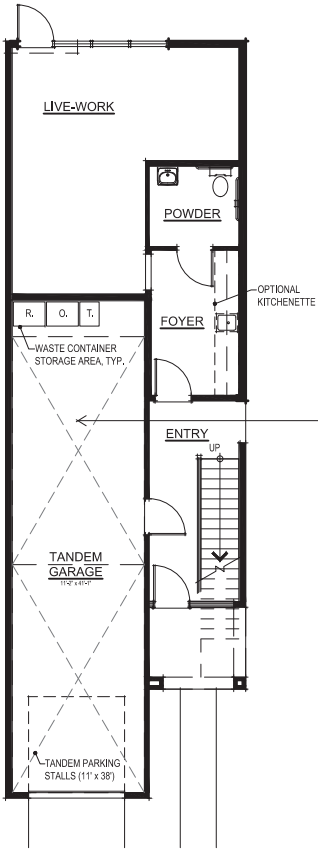
- ALMS may be installed to decrease electrical service and transformer costs associated with EV Charging Equipment subject to review of the authority having jurisdiction.
- The requirements apply to multifamily buildings with parking spaces including:
a. Assigned or leased to individual dwelling units, and
b. Unassigned residential parking.
- In order to adhere to accessibility requirements in accordance with the California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 2 EV Ready Spaces.
- If a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among parking spaces with Level 2 EV Ready Spaces, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.

PART 6: SIGNATURE LINE

This form has been completed by: _____

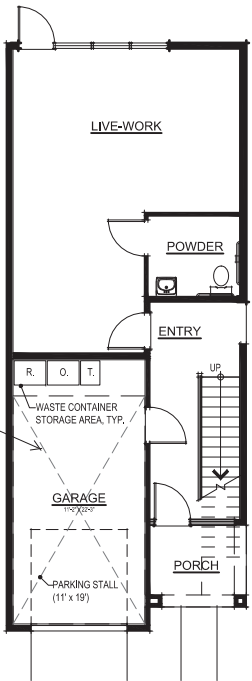
Signature _____ Date _____

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PARKING SUMMARY - LIVEWORK	
TOTAL NUMBER OF SPACES	TOTAL NUMBER OF LEVEL 2 EV READY SPACES / OR WITH OPT. EV SUPPLY EQUIPMENT
18 SPACES (14 SPACES ATTACHED AND 4 SPACES ON-STREET PRIVATE PARKING)	9 SPACES PROVIDED

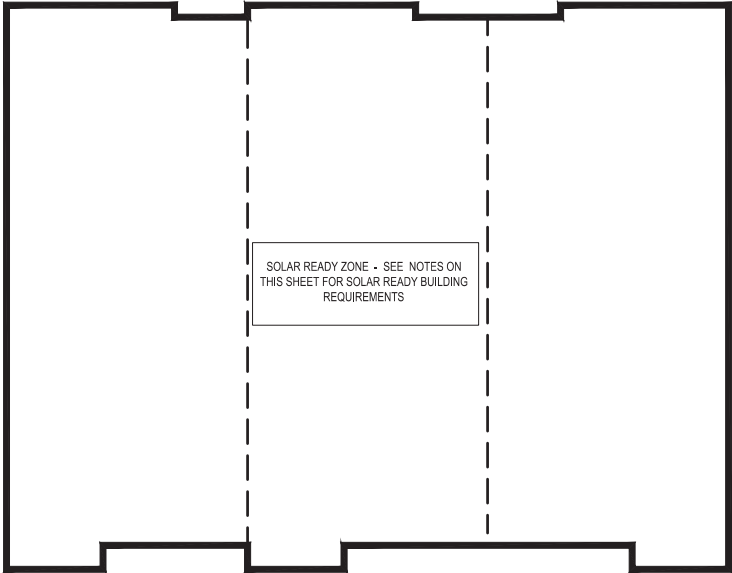
ONE PARKING SPACE PER DWELLING UNIT SHALL BE LEVEL 2 EV READY SPACE. (NOTE: IF A DWELLING UNIT HAS A 2-CAR GARAGE, ONLY ONE (1) SPACE MUST BE LEVEL 2 EV READY)
SEE PART 3 OF REACH CODE CHECKLIST ON THIS SHEET FOR LEVEL 2 EV READY REQUIREMENTS



LIVE WORK UNIT 1
FIRST FLOOR PLAN

LIVE WORK UNIT 2
FIRST FLOOR PLAN

SOLAR READY NOTES	
1. MANDATORY REQUIREMENTS UNDER 2019 CALIFORNIA ENERGY CODE SECTION 110.10(a) FOR SOLAR READY BUILDINGS ARE APPLICABLE FOR THIS PROJECT AS FOLLOWS: b) 1. MINIMUM AREA - THE SOLAR ZONE SHALL COMPLY WITH ACCESS, PATHWAY, SMOKE VENTILATION AND SPACING REQUIREMENTS AS SPECIFIED IN TITLE 24, PART 9 OR OTHER PARTS OF TITLE 24 OR IN ANY REQUIREMENTS ADOPTED BY A LOCAL JURISDICTION. THE SOLAR ZONE TOTAL AREA SHALL BE COMPRISED OF AREAS THAT HAVE NO DIMENSION LESS THAN FIVE FEET AND ARE NO LESS THAN 80 SQUARE FEET EACH FOR BUILDINGS WITH ROOF AREAS LESS THAN OR EQUAL TO 10,000 SQUARE FEET OR NO LESS THAN 160 SQUARE FEET EACH FOR BUILDINGS WITH ROOF AREAS GREATER THAN 10,000 SQUARE FEET.	b) 2. ORIENTATION - ALL SECTIONS OF THE SOLAR ZONE LOCATED ON STEEP-SLOPED ROOFS SHALL BE ORIENTED BETWEEN 90 DEGREES AND 300 DEGREES OF TRUE NORTH b) 3. SHADING - A. NO OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO, VENTS, CHIMNEYS, ARCHITECTURAL FEATURES AND ROOF MOUNTED EQUIPMENT, SHALL BE LOCATED IN THE SOLAR ZONE. B. ANY OBSTRUCTION, LOCATED ON THE ROOF OR ANY OTHER PART OF THE BUILDING THAT PROJECTS ABOVE A SOLAR ZONE SHALL BE LOCATED AT LEAST TWICE THE DISTANCE, MEASURED IN THE HORIZONTAL PLANE, OF THE HEIGHT DIFFERENCE BETWEEN THE HIGHEST POINT OF THE OBSTRUCTION AND THE HORIZONTAL PROJECTION OF THE NEAREST POINT OF THE SOLAR ZONE, MEASURED IN THE VERTICAL PLANE. b) 1. B. LOW RISE AND HIGH RISE MULTI FAMILY BUILDINGS - THE SOLAR ZONE SHALL BE LOCATED ON THE ROOF OR OVERHANG OF THE BUILDING OR ON THE ROOF OR OVERHANG OF ANOTHER STRUCTURE LOCATED WITHIN 250 FEET OF THE BUILDING OR ON COVERED PARKING INSTALLED WITHIN THE BUILDING PROJECT, AND SHALL HAVE A TOTAL AREA NO LESS THAN 15 PERCENT OF THE TOTAL ROOF AREA OF THE BUILDING EXCLUDING ANY SKYLIGHT AREA.



LIVEWORK 3 UNIT BUILDING

SAME REQUIREMENTS APPLICABLE TO LIVEWORK 6 UNIT BUILDING

HAYWARD

REACH CODE CHECKLIST
FOR NEW HIGH-RISE RESIDENTIAL (more than 3 habitable stories and 3 or more units per building)
AND NEW HOTEL/MOTEL BUILDINGS (any number of stories)

The Reach Code is a local ordinance adopted in Hayward which modifies the CA Energy Code to reduce natural gas use in new construction. The Reach Code also amends CalGreen to expand the requirements for Electric Vehicle (EV) ready parking spaces. For new residential buildings 3 stories or less, please use the Reach Code Checklist for New Residential Buildings 3 Stories or Less. For other commercial buildings, please use the Reach Code Checklist for Commercial Buildings. For checklists, background information and the full text of the Reach Code, please see the City of Hayward website here: <https://www.hayward-ca.gov/reach-code>

PART A: HIGH-RISE RESIDENTIAL (MORE THAN 3 HABITABLE STORIES) AND HOTEL / MOTEL BUILDINGS (ANY NUMBER OF STORIES)

The Reach Code requirements for these types of buildings offer two different approaches. One is an all-electric design and the other is a mixed fuel design. With the all-electric design, there is only a performance approach. Following the mixed fuel design, there are performance and prescriptive options. The checklists for each option are below. **Choose one option per building.** The first approach is the least complicated option.

CHECKLIST 1A – ALL ELECTRIC APPROACH

- ☐ The energy report for the new building shall be completed using the Performance Method with the current software approved by the CA Energy Commission.
- ☐ The project complies if the Proposed Design Building has an energy budget no greater than the Standard Design Building.
- ☐ No further requirements in Part A. **Continue to Part B for EV parking requirements.**

CHECKLIST 2A – MIXED FUEL – PERFORMANCE OPTION

- ☒ The entire solar zone (see CEC section 110.10) shall have a solar PV system installed.
**exception: The PV system may be sized to cover less than the solar zone provided that the system is sized to generate annual electrical output equal to the building's modelled annual electric load.*
- ☐ The energy report for the new building shall be completed using the Performance Method with the current software approved by the CA Energy Commission.
- ☒ The energy budget shall have a compliance margin of at least 10%* better than the Standard Design Building.

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**exception: If the Certificate of Compliance is prepared by and signed by a Certified Energy Analyst and the energy budget for the Proposed design is no greater than the Standard Design Building, the required compliance margin can be reduced to 5%.*

- ☒ Continue to Part B for EV charging requirements.

CHECKLIST 3A – MIXED FUEL – PRESCRIPTIVE OPTION

- ☐ The entire solar zone (see CEC section 110.10) shall have a solar PV system installed.
**exception: The PV system may be sized to cover less than the solar zone provided that the system is sized to generate annual electrical output equal to the building's modelled annual electric load.*
- ☐ The energy report for the new building shall be completed using the Prescriptive Method. The building shall have constructed and installed systems and components meeting the applicable requirements of Sections 140.3 through 140.9 and additionally the following measures as applicable intended to exceed the remaining prescriptive requirements:
1. Install fenestration with a solar heat gain coefficient no less than 0.45 in both common spaces and guest rooms.

2. Design VAV box minimum airflows to be equal to the zone ventilation minimums.

3. Include economizers and staged fan control in air handlers with a mechanical cooling capacity ≥ 33,000 Btu/h.

4. Reduce lighting power density (watts/ft2) by 10% from that required from Table 140.6-C.

5. In common areas, improve lighting without claiming any Power Adjustment Factor credits:

a. Control daylight dimming plus off per Section 140.6(a)2.H

b. Perform Institutional Tuning per Section 140.6(a)2.J

6. Install one drain water heat recovery device per every three guest rooms that is field verified as specified in the Reference Appendix RA3.6.9.

☐ Continue to Part B for EV charging requirements.
- PART B: EV CHARGING READINESS
- CHECKLIST 1B – RESIDENTIAL BUILDINGS WITH 3 to 20 UNITS
- **ONE PARKING SPACE PER DWELLING UNIT SHALL BE A LEVEL 2 EV READY SPACE.** For example, if a dwelling unit has a 2-car garage, only one space must be Level 2 EV Ready. LEVEL 2 EV Ready Spaces shall include the following:

☒ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.
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- ☒ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.

☒ Include electrical single line drawings and/or specifications on the plans.

☒ Provide a table on the cover sheet listing the total number of parking spaces and the number of EV ready spaces or spaces with optional electric vehicle supply equipment.
- **ADJACENT TO THE PARKING SPACE, PROVIDE EITHER ONE OF THE FOLLOWING:**

☒ **OPTION A:** Provide an outlet adjacent to the parking space labelled "ELECTRIC VEHICLE OUTLET" with at least 1/2-inch font.

☐ **OPTION B:** Provide electric vehicle supply equipment with a minimum capacity of 30 amperes.
- CHECKLIST 2B – RESIDENTIAL BUILDINGS WITH MORE THAN 20 UNITS
- **75% OF THE DWELLING UNITS WITH ONE OR MORE PARKING SPACES SHALL BE PROVIDED WITH AT LEAST ONE LEVEL 2 EV READY SPACE.** Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number. LEVEL 2 EV Ready Spaces shall include the following:

☐ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.

☐ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.

☐ Include electrical single line drawings and/or specifications on the plans.

☐ Provide a table on the cover sheet listing the total number of parking spaces and the number of EV ready spaces or spaces with optional electric vehicle supply equipment.

• **ADJACENT TO THE PARKING SPACE, PROVIDE EITHER ONE OF THE FOLLOWING:**

☐ **OPTION A:** Provide an outlet adjacent to the parking space labelled "ELECTRIC VEHICLE OUTLET" with at least 1/2-inch font.

☐ **OPTION B:** Provide electric vehicle supply equipment with a minimum capacity of 30 amperes.

• **THE REMAINING 25% OF UNITS SHALL BE PROVIDED WITH AT LEAST ONE LEVEL 2 EV CAPABLE SPACE.** EV Capable Circuits include the following:

a. A parking space linked to an electrical panel with sufficient capacity to provide at least 208/240 volts and 40 amperes to the parking space.

b. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground, or where penetrations to walls, floors or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least one inch in diameter and may be sized for multiple circuits as allowed by the California Electrical Code.

c. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as "EV CAPABLE". Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways.

ADDITIONAL NOTES AND EXCEPTIONS FOR ALL MULTI-FAMILY BUILDINGS

1. Automatic Load Management Systems (ALMS) may be installed to decrease electrical service and transformer costs associated with EV Charging Equipment subject to review of the authority having jurisdiction.

2. The requirements apply to multifamily buildings with parking spaces including:

a. Assigned or leased to individual dwelling units, and

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b. Unassigned residential parking.

3. In order to adhere to accessibility requirements in accordance with the California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 2 EV Ready Spaces.

4. If a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among parking spaces with Level 2 EV Ready Spaces, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.

CHECKLIST 3B – NEW HOTEL/MOTEL BUILDINGS

☐ When 10 or more parking spaces are constructed, 15% of the available parking spaces on site shall be equipped with Level 2 EV Ready Spaces. Calculations for the required minimum number of spaces equipped with Level 2 EV Ready spaces shall be rounded up to the nearest whole number.
**Exception: Installation of each Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 15 EV Ready spaces after a minimum of 15 Level 2 EV Ready spaces are installed.*

• LEVEL 2 EV Ready Spaces shall include the following:

☐ Provide a complete electric circuit with 208/240 volt, 40-ampere capacity with an overprotection device.

☐ Provide a minimum of 1-inch diameter raceway. This raceway may include multiple circuits as allowed by the California Electrical Code.

☐ Include electrical single line drawings and/or specifications on the plans.

☐ Provide a table on the cover sheet listing the total number of parking spaces and the number of EV ready spaces or spaces with optional electric vehicle supply equipment.

NOTES:

1. Facilities providing EV charging stations shall comply with CBC Ch. 11A or 11B for disabled access requirements.

2. If a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among parking spaces with Level 2 EV Ready Spaces, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.

PART C: SIGNATURE LINE

This form has been completed by: _____

Signature _____ Date _____

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TOWNHOME UNITS 3 AND 4
FIRST FLOOR PLAN

PARKING SUMMARY - TOWNHOMES	
TOTAL NUMBER OF SPACES	TOTAL NUMBER OF LEVEL 2 EV READY SPACES / OR WITH OPT. EV SUPPLY EQUIPMENT
92 SPACES (ATTACHED PARKING SPACES)	46 SPACES PROVIDED

ONE PARKING SPACE PER DWELLING UNIT SHALL BE LEVEL 2 EV READY SPACE. (NOTE: IF A DWELLING UNIT HAS A 2-CAR GARAGE, ONLY ONE (1) SPACE MUST BE LEVEL 2 EV READY)
SEE PART B OF REACH CODE CHECKLIST ON THIS SHEET FOR LEVEL 2 EV READY REQUIREMENTS

TOWNHOME UNITS 1 AND 2
FIRST FLOOR PLAN

SOLAR READY NOTES	
<div>1. MANDATORY REQUIREMENTS UNDER 2019 CALIFORNIA ENERGY CODE SECTION 110.10(a) FOR SOLAR READY BUILDINGS ARE APPLICABLE FOR THIS PROJECT AS FOLLOWS:</div> <div><div>b) 1. MINIMUM AREA - THE SOLAR ZONE SHALL COMPLY WITH ACCESS, PATHWAY, SMOKE VENTILATION AND SPACING REQUIREMENTS AS SPECIFIED IN TITLE 24, PART 9 OR OTHER PARTS OF TITLE 24 OR IN ANY REQUIREMENTS ADOPTED BY A LOCAL JURISDICTION. THE SOLAR ZONE TOTAL AREA SHALL BE COMPRISED OF AREAS THAT HAVE NO DIMENSION LESS THAN FIVE FEET AND ARE NO LESS THAN 80 SQUARE FEET EACH FOR BUILDINGS WITH ROOF AREAS LESS THAN OR EQUAL TO 10,000 SQUARE FEET OR NO LESS THAN 160 SQUARE FEET EACH FOR BUILDINGS WITH ROOF AREAS GREATER THAN 10,000 SQUARE FEET.</div></div>	<div><div>b) 2. ORIENTATION - ALL SECTIONS OF THE SOLAR ZONE LOCATED ON STEEP-SLOPED ROOFS SHALL BE ORIENTED BETWEEN 90 DEGREES AND 300 DEGREES OF TRUE NORTH</div><div><div>b) 3. SHADING -<div><div>A. NO OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO, VENTS, CHIMNEYS, ARCHITECTURAL FEATURES AND ROOF MOUNTED EQUIPMENT, SHALL BE LOCATED IN THE SOLAR ZONE.</div><div>B. ANY OBSTRUCTION, LOCATED ON THE ROOF OR ANY OTHER PART OF THE BUILDING THAT PROJECTS ABOVE A SOLAR ZONE SHALL BE LOCATED AT LEAST TWICE THE DISTANCE, MEASURED IN THE HORIZONTAL PLANE, OF THE HEIGHT DIFFERENCE BETWEEN THE HIGHEST POINT OF THE OBSTRUCTION AND THE HORIZONTAL PROJECTION OF THE NEAREST POINT OF THE SOLAR ZONE, MEASURED IN THE VERTICAL PLANE.</div></div></div></div></div>
<div><div>b) 1. B. LOW RISE AND HIGH RISE MULTI FAMILY BUILDINGS - THE SOLAR ZONE SHALL BE LOCATED ON THE ROOF OR OVERHANG OF THE BUILDING OR ON THE ROOF OR OVERHANG OF ANOTHER STRUCTURE LOCATED WITHIN 250 FEET OF THE BUILDING OR ON COVERED PARKING INSTALLED WITHIN THE BUILDING PROJECT, AND SHALL HAVE A TOTAL AREA NO LESS THAN 15 PERCENT OF THE TOTAL ROOF AREA OF THE BUILDING EXCLUDING ANY SKYLIGHT AREA.</div></div>	

TOWNHOME 4 UNIT BUILDING

SAME REQUIREMENTS APPLICABLE TO TOWNHOME 6 UNIT BUILDING

27177 MISSION BOULEVARD
Hayward, CA
APRIL 30, 2021

THE TRUE LIFE COMPANIES

The True Life Companies
12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300

SUSTAINABILITY PLAN
A18

SDG Architects, Inc.
3361 Walnut Blvd, Suite 120
Brentwood, CA 94513
925.634.7000 | sdgarchitectsinc.com

SDG architects

GENERAL NOTES

1.

ASSESSORS PARCEL NO.:

452-0056-007 & 452-0056-008
2.

BENCHMARK:

CITY OF HAYWARD BRASS DISK ON THE WHITMAN STREET OVERPASS OVER HARDER ROAD, HAVING AN NGVD29 ELEVATION OF 68.64 FEET.
3.

BASIS OF BEARINGS:

THE BASIS OF BEARING FOR THIS SURVEY IS DETERMINED BY FOUND MONUMENTS ON JEFFERSON STREET, THE BEARING BEING N58°09'37"E PER PARCEL MAP NO. 4134 (141 M 38).
4.

OVERALL PROJECT AREA:

GROSS: 2.43± AC
NET: 1.70± AC (EXCLUDES PUBLIC AND PRIVATE ROADWAYS & PUBLIC TRAIL AREA)
5.

TOTAL DWELLING UNITS:

55
6.

OVERALL PROJECT DENSITY:

22.63 DU/AC (GROSS)
32.35 DU/AC (NET)
7.

LOT COVERAGE:

36.3%
8.

FLOOR AREA RATIO:

1.0
9.

GENERAL PLAN:

SMU: SUSTAINABLE MIXED USE
10.

ZONING:

MB-CN: MISSION BOULEVARD CORRIDOR NEIGHBORHOOD - 17.5 TO 35 UNITS/NET ACRE
11.

EXISTING LAND USE:
PROPOSED LAND USE:

COMMERCIAL/INDUSTRIAL
RESIDENTIAL
12.

FLOOD ZONE:

ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLANE

SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06001C0293G
DATE: AUGUST 3, 2009
13.

EXISTING STRUCTURES:

ALL EXISTING BUILDINGS WITHIN THE PROJECT BOUNDARY TO BE REMOVED.
14.

EXISTING UTILITIES:

EXISTING UTILITIES WITHIN THE PROJECT BOUNDARY TO BE REMOVED AS NOTED.
15.

EXISTING TREES:

EXISTING TREES WITHIN THE PROJECT BOUNDARY TO BE REMOVED OR RELOCATED.
16.

STREETS:

ALL DRIVE AISLES WITHIN THE PROJECT WILL BE PRIVATE AND WILL BE PRIVATELY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. ALL PRIVATE STREETS WILL BE WITHIN PUE'S. (MINIMUM LONGITUDINAL SLOPE=0.5%)
17.

STREET TREES:

STREET TREES SHALL BE INSTALLED PER CITY DETAIL SD-122.
18.

WALLS AND FENCING:

ALL WALLS AND FENCING WILL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED.
19.

STORM DRAIN:

PROPOSED ONSITE STORM DRAIN FACILITIES WILL BE PRIVATE FACILITIES AND WILL BE PRIVATELY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
20.

PUBLIC UTILITIES:

PROPOSED ONSITE WATER AND SANITARY SEWER FACILITIES ARE PUBLIC AND WILL BE WITHIN A SANITARY AND/OR WATER EASEMENT. PROPOSED WATER AND SANITARY SEWER FACILITIES WILL BE CONSTRUCTED PER CITY OF HAYWARD STANDARDS AND DEDICATED TO THE CITY.
21.

LANDSCAPING:

ALL LANDSCAPING WITHIN PROJECT BOUNDARY WILL BE PRIVATELY OWNED AND MAINTAINED.
22.

WELLS ONSITE:

NONE
23.

SCHOOL DISTRICT:

HAYWARD UNIFIED SCHOOL DISTRICT
24.

PARK DISTRICT:

HAYWARD AREA RECREATION AND PARK DISTRICT
25.

UTILITIES:
WATER:
SEWER:
GAS:
ELECTRIC:
TELEPHONE:
CABLE TV:

CITY OF HAYWARD
CITY OF HAYWARD
PG&E
PG&E
SBC
COMCAST
26.

DIMENSIONS:

ALL DIMENSIONS ARE PRELIMINARY AND SUBJECT TO FINAL MAP
27.

GRADING:

PROPOSED GRADING AS SHOWN IS PRELIMINARY AND SUBJECT TO FINAL DESIGN.
28.

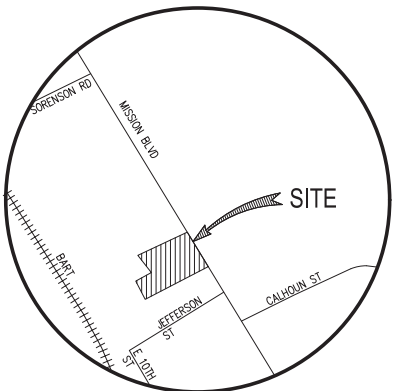
MAINTENANCE:

A HOMEOWNERS ASSOCIATION WILL BE FORMED TO OWN AND MAINTAIN PRIVATE STREETS, DRIVE AISLES, PRIVATE UTILITIES, STORM DRAINAGE FACILITIES AND LANDSCAPE WITHIN ALL RESIDENTIAL AREAS. RETAIL SITE OWNER SHALL BE RESPONSIBLE TO MAINTAIN ALL PRIVATE AMENITIES ON THE RETAIL SITE.
29.

CONDOMINIUM MAP:

A CONDOMINIUM MAP WILL BE RECORDED FOR THE RESIDENTIAL LOTS. THE SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTIONS 4125 AND 4285 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT.

TRACT 8556 - VESTING TENTATIVE MAP
LOTTING PLAN
C1.0



VICINITY MAP
NOT TO SCALE

CONTACTS

1. DEVELOPER:

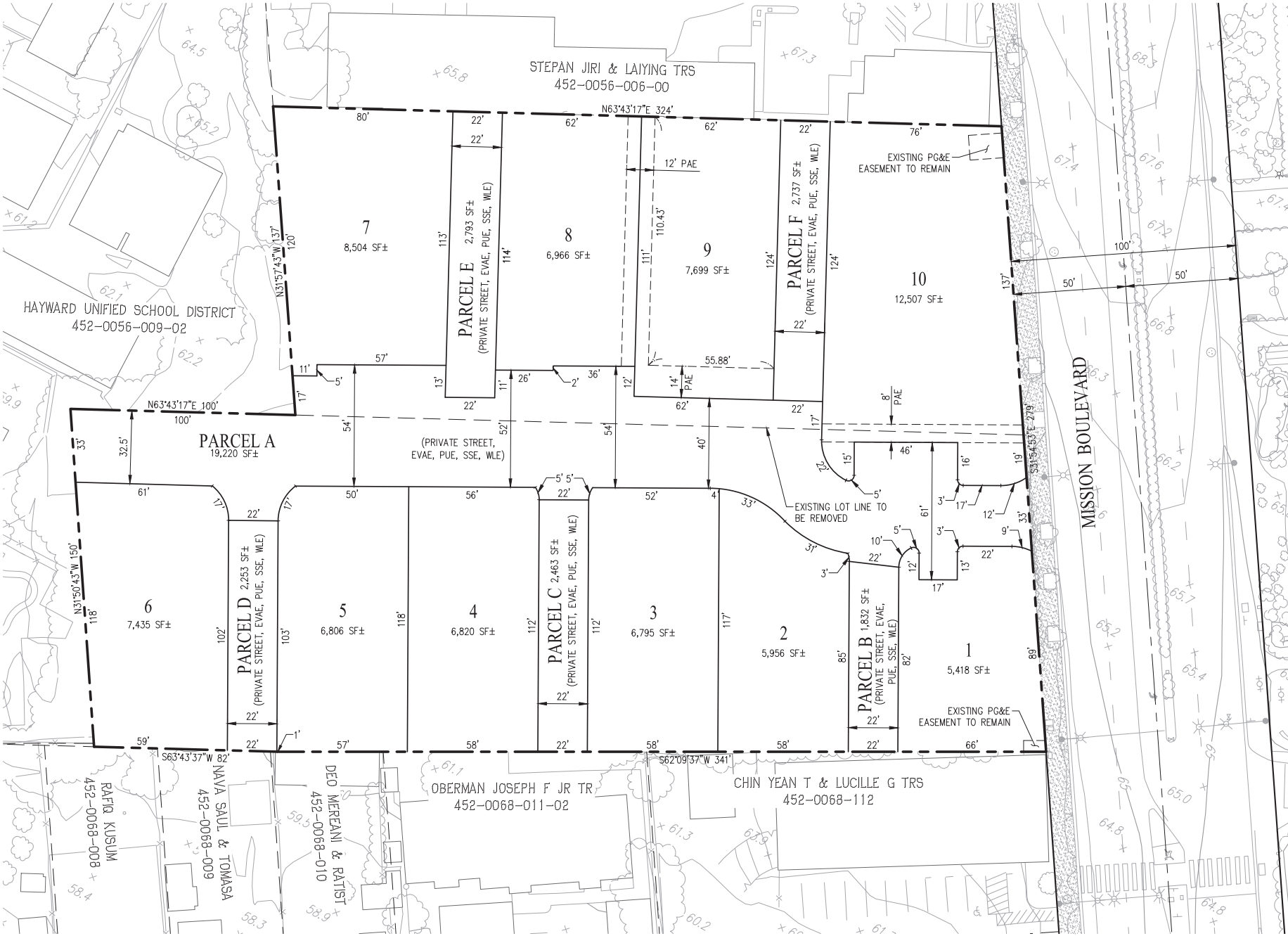
TTLIC MANAGEMENT, INC. AN ARIZONA CORP.
DBA. TTLIC MOREAU, LLC
12647 ALCOSTA BOULEVARD, SUITE 470
SAN RAMON, CA 94583
(925) 380-1210
KELLEY RUTCHENA
2. ENGINEER:

CARLSON, BARBEE & GIBSON, INC.
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CA 94583
(925) 866-0322
COLT ALVERNAZ, RCE 75740
3. SOILS ENGINEER:

CORNERSTONE EARTH GROUP
1220 OAKLAND BOULEVARD, SUITE 220
WALNUT CREEK, CA 94596
(925) 988-9500
JOHN DYE, GE 2582
4. ARCHITECT:

SDG ARCHITECTS, INC.
3361 WALNUT BOULEVARD, SUITE 120
BRENTWOOD, CA 94513
(925) 634-7000
SCOTT PRICKETT
5. LANDSCAPE ARCHITECT:

R3 STUDIOS, INC.
201 4TH STREET, SUITE 101B
OAKLAND, CA 94607
(510) 808-5782
ROMAN DE SOTA

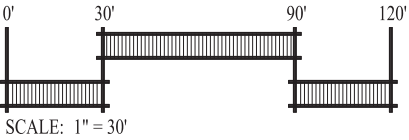


27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021



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925.824.4300



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ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACAE	ACFC & WCD ACCESS EASEMENT
AU	ACCESSIBLE UNIT
BC	BACK OF CURB
BD	BOUNDARY
BE	BRIDGE EASEMENT
BFP	BACK FLOW PREVENTION
CB	CATCH BASIN
DW	DRIVEWAY
EG	EXISTING GRADE
EVC	ELECTRIC VEHICLE CHARGING
EX	EXISTING
FAR	FLOOR AREA RATIO
FC	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FG	FINISHED GRADE
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FI	FIELD INLET
FL	FLOWLINE
FU	FUTURE
GB	GRADE BREAK
GLIP	GARAGE LIP
H	ACCESSIBLE STALL
HMP	HYDROMODIFICATION MANAGEMENT PLAN
HP	HIGH POINT
INV	INVERT
LL	LOT LINE
LP	LOW POINT
LS	LANDSCAPE
OH	OVERHEAD ELECTRIC
P	PAD
PAE	PUBLIC ACCESS EASEMENT
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PR	PROPOSED
PIEE	PRIVATE INGRESS EGRESS EASEMENT
PSDE	PRIVATE STORM DRAIN EASEMENT
PUE	PUBLIC UTILITY EASEMENT
R	RADIUS
RW	RIGHT-OF-WAY
RET	RETURN
SD	STORM DRAIN (PRIVATE)
SD-T	STORM DRAIN (TREATED)
SDBU	STORM DRAIN BUBBLE UP
SDE	STORM DRAIN EASEMENT
SDFM	STORM DRAIN FORCE MAIN
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SW	SIDEWALK
(T)	TOTAL
TC	TOP OF CURB
TFC	TOP OF FLUSH CURB
TRC	TOP OF ROLLED CURB
TSM	TOP OF SOIL MIX
TYP	TYPICAL
VU	VISITABLE UNIT
W	WATER
WLE	WATER LINE EASEMENT

LEGEND

EXISTING	PROPOSED	DESCRIPTION
	---	BOUNDARY
	----	EASEMENT
	=====	PROPERTY LINE
	=====	RIGHT-OF-WAY
		EXISTING TREE TO BE REMOVED
		TREE
		SIDEWALK AND TOP OF CURB
		DECORATIVE PAVING
		ASPHALT PAVEMENT
		BIORETENTION AREA
		HMP VAULT
		4'X4' NATIVE SOIL PLUG FOR TREE ROOTBALL
		COMPACT PARKING STALL
		VAN ACCESSIBLE PARKING STALL
		PARKING STALL PAVEMENT MARKING
		OVERLAND RELEASE
		SPOT ELEVATIONS
		INVERT ELEVATIONS
		STORM DRAIN LINE
		TREATED STORM DRAIN LINE
		SANITARY SEWER
		WATER
		OVERHEAD UTILITY LINE
		SANITARY SEWER MANHOLE (SSMH)
		STORM DRAIN MANHOLE (SDMH)
		CATCH BASIN (CB)
		JUNCTION BOX (JB)
		FIELD INLET (FI)
		FIRE HYDRANT
		BLOW OFF
		ELECTROLIER
		BUBBLER
		PUMP
		STORM DRAIN FORCE MAIN

UTILITY NOTES

1. EXISTING UTILITIES

ALL EXISTING UTILITIES SERVING ORIGINAL USE WITHIN THE BOUNDARY TO BE REMOVED. EXISTING STORM DRAIN, SANITARY SEWER AND WATER WITHIN EASEMENTS TO REMAIN.
2. PUBLIC UTILITIES

PROPOSED WATER AND SANITARY SEWER FACILITIES WITHIN PRIVATE ROADWAYS ARE PUBLIC AND WILL BE WITHIN A SANITARY AND/OR WATER EASEMENT. PROPOSED WATER AND SANITARY SEWER FACILITIES WILL BE CONSTRUCTED PER CITY OF HAYWARD STANDARDS AND BE DEDICATED TO THE CITY.
3. PRIVATE UTILITIES

STORM DRAIN SYSTEM
4. STORM DRAIN

PROPOSED ONSITE STORM DRAIN FACILITIES WILL BE PRIVATE AND WILL BE PRIVATELY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. MIN SLOPE OF PROPOSED STORM DRAIN PIPE = 0.0035. PUBLIC STORM DRAIN FACILITIES TO BE CONSTRUCTED TO CITY OF HAYWARD STANDARDS. ALL STORM PIPE TO BE RCP OR NDS N-12 PER CITY OF HAYWARD STANDARDS.
5. WATER

A. WATER SHALL BE CONSTRUCTED PER CITY OF HAYWARD STANDARDS
B. PROVIDE KEYS/ACCESS CODE/AUTOMATIC GATE OPENER TO UTILITIES FOR ALL METERS ENCLOSED BY A FENCE/GATE AS PER HAYWARD MUNICIPAL CODE 11-2.02.1. ONLY WATER DISTRIBUTION PERSONNEL SHALL PERFORM OPERATION OF VALVES ON THE HAYWARD WATER SYSTEM.
C. WATER AND SEWER SERVICE AVAILABLE SUBJECT TO STANDARD CONDITIONS AND FEES IN EFFECT AT TIME OF APPLICATION.
D. ALL WATER MAINS OUTSIDE OF ROADWAY OR UNDER DECORATIVE PAVEMENT TO BE DUCTILE IRON PIPE.
E. DOMESTIC WATER METERS TO BE LOCATED IN DRIVEWAYS UNLESS SPECIFIED OTHERWISE.
F. FIRE SERVICE: EACH BUILDING SHALL HAVE A DEDICATED FIRE SERVICE.
6. SEWER

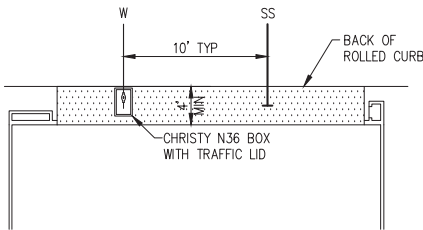
A. CITY OF HAYWARD
B. STANDARD MIN SLOPE OF PROPOSED 8" SEWER PIPE = 0.005
C. STANDARD MIN SLOPE OF PROPOSED 12" SEWER PIPE = 0.002
D. MIN SIZE OF PROPOSED SEWER MAIN IS 8". SEWER SHALL BE CONSTRUCTED OF PVC PIPE PER CITY OF HAYWARD STANDARDS.
E. MANHOLES SHALL BE INSTALLED AT THE 400 FOOT INTERVALS, DEAD ENDS, OR AT ANY CHANGE IN DIRECTION ON GRADE.
F. SEWER CLEANOUTS SHALL BE INSTALLED ON EACH SEWER LATERAL AT THE CONNECTION WITH THE BUILDING DRAIN AT ANY CHANGE IN ALIGNMENT AND AT UNIFORM INTERVAL NOT TO EXCEED 100'.
G. EACH TOWNHOME DWELLING UNIT SHALL HAVE AN INDIVIDUAL SEWER LATERAL PER SD-312.
H. THE MIXED USE BUILDING SHALL BE AN INDIVIDUAL SEWER LATERAL FOR EACH USE (1 RESIDENTIAL AND 1 COMMERCIAL).
7. GAS & ELECTRIC

PG&E
8. TELEPHONE

SBC
9. CABLE TV

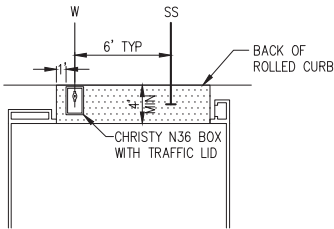
COMCAST CABLE
10. UTILITIES

UTILITIES SHOWN ARE TO BE USED AS A GUIDE AND MAY CHANGE DURING FINAL DESIGN. DESIGN SHALL ADHERE TO CITY OF HAYWARD STANDARDS.



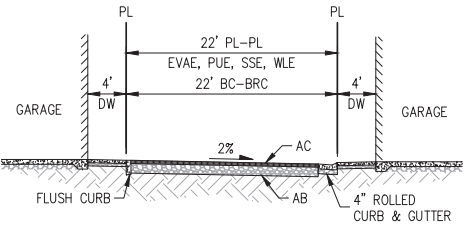
TYPICAL UTILITIES IN 16' DRIVEWAYS

(PRIVATE STREET)
NOT TO SCALE



TYPICAL UTILITIES IN 8' DRIVEWAYS

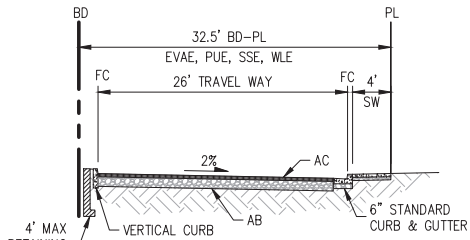
(PRIVATE STREET)
NOT TO SCALE



TYPICAL COURT

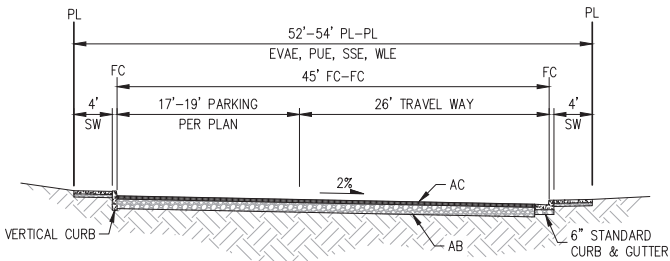
(COURTS A-E)

(NOT TO SCALE)



STREET A

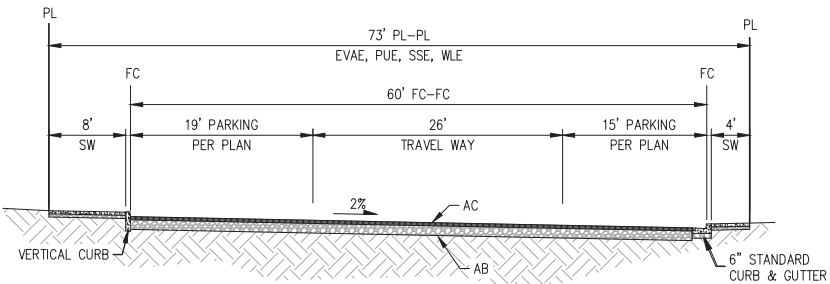
(NOT TO SCALE)



STREET A

(WITH PARKING ON ONE SIDE)

(NOT TO SCALE)



STREET A

(WITH PARKING ON BOTH SIDE)

(NOT TO SCALE)

TRACT 8556 - VESTING TENTATIVE MAP
LEGNEND, ABBREVIATIONS & TYPICAL SECTIONS

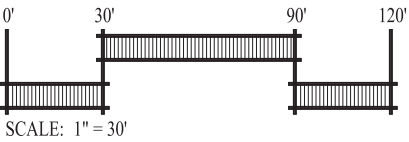
C2.0

27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021

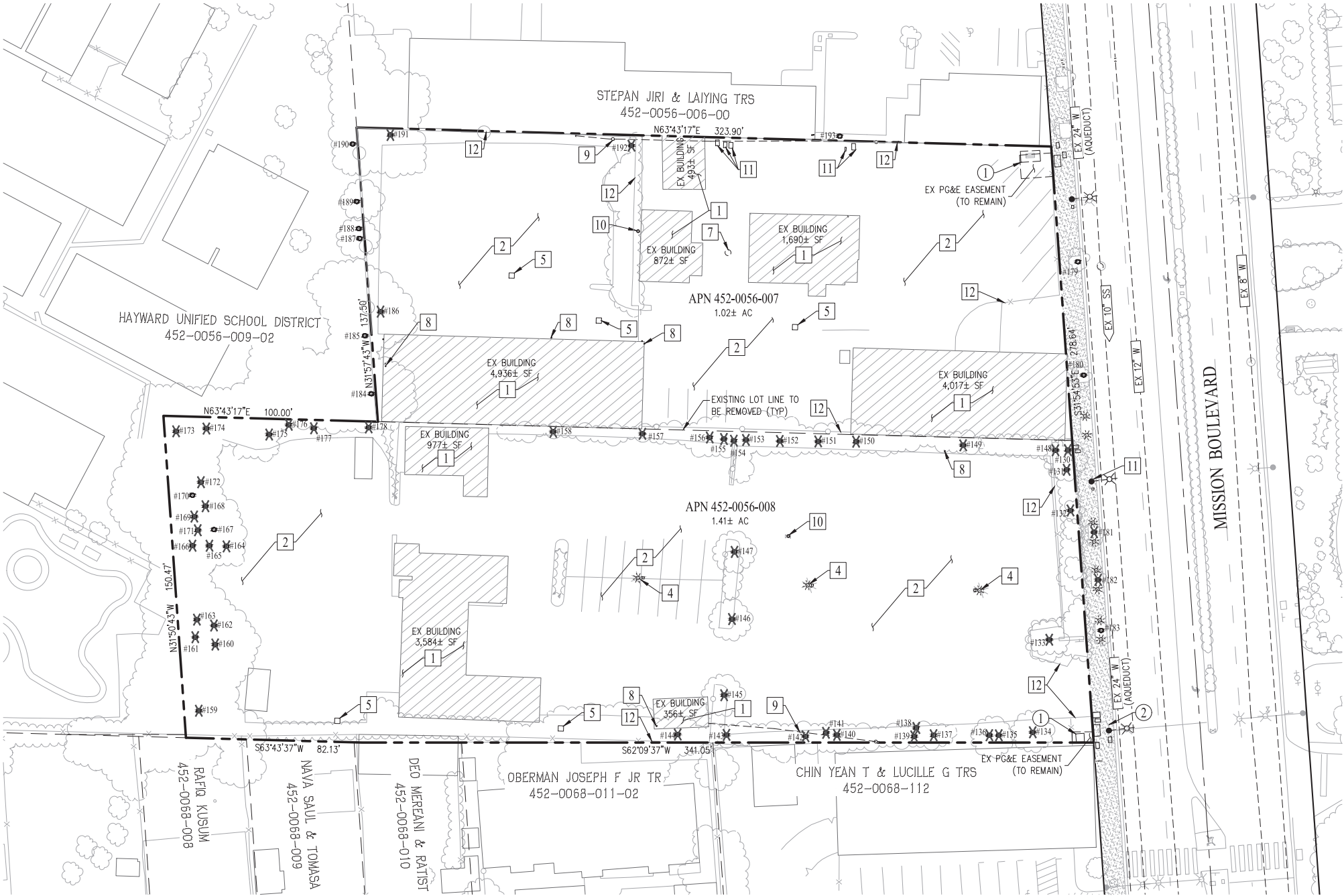


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LEGEND

- [Hatched Box] EXISTING BUILDING TO BE DEMOLISHED
- [Star in Circle] EXISTING TREE TO BE REMOVED
- [Circle with Dot] EXISTING TREE TO REMAIN OR RELOCATE

DEMOLITION NOTES

- | NOTE | DESCRIPTION |
|------|---|
| 1 | REMOVE EXISTING BUILDING STRUCTURE AND FOUNDATION |
| 2 | REMOVE EXISTING ASPHALT CONCRETE AND PARKING LOT CURB AND GUTTER |
| 3 | REMOVE EXISTING SERVICE/LATERAL |
| 4 | REMOVE EXISTING LIGHT POLE AND ASSOCIATED BOXES, CONDUIT AND WIRING |
| 5 | REMOVE EXISTING STORM DRAIN AND STRUCTURES |
| 6 | REMOVE EXISTING SIGN |
| 7 | REMOVE EXISTING WELL |
| 8 | REMOVE EXISTING GAS AND ELECTRIC LINES AND STRUCTURE |
| 9 | REMOVE EXISTING POWER POLES AND OVERHEAD WIRES |

PRESERVATION NOTES

- | NOTE | DESCRIPTION |
|------|--|
| 1 | EXISTING TRANSFORMER TO BE PROTECTED IN PLACE |
| 2 | EXISTING TRAFFIC SIGNAL TO BE PROTECTED IN PLACE |

TREE SUMMARY

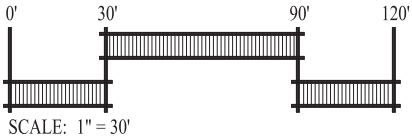
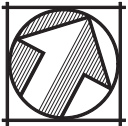
TREE NO.	SPECIES	TRUNK DIAMETER (INCHES)	REMOVE OR RETAIN	BASE ELEVATION	HERITAGE TREE	APPRAISED VALUE
130	HOLLYWOOD JUNIPER	10	REMOVE		YES	\$1,850
131	SOUTHERN MAGNOLIA	10	REMOVE		YES	\$1,300
132	SOUTHERN MAGNOLIA	7	REMOVE		NO	\$650
133	SOUTHERN MAGNOLIA	9	REMOVE		YES	\$1,500
134	HOLLYWOOD JUNIPER	6,4,4	REMOVE		NO	\$1,250
135	HOLLYWOOD JUNIPER	5,3,2	REMOVE		NO	\$750
136	HOLLY OAK	6,4,4	REMOVE		NO	\$1,300
137	COAST LIVE OAK	5,5,4,4	REMOVE		NO	\$950
138	HOLLY OAK	7	REMOVE		NO	\$950
139	LONDON PLANE	6,5,5	REMOVE		NO	\$950
140	HOLLY OAK	8	REMOVE		YES	\$1,700
141	HOLLY OAK	8	REMOVE		YES	\$1,200
142	HOLLY OAK	4,4,3	REMOVE		NO	\$800
143	SILVER DOLLAR GUM	5	REMOVE		NO	\$500
144	LONDON PLANE	7,6,6,5,5	REMOVE		NO	\$1,600
145	SOUTHERN MAGNOLIA	5	REMOVE		NO	\$450
146	SOUTHERN MAGNOLIA	6	REMOVE		NO	\$600
147	SOUTHERN MAGNOLIA	6	REMOVE		NO	\$600
148	HOLLYWOOD JUNIPER	13	REMOVE		YES	\$2,600
149	HOLLYWOOD JUNIPER	9,5	REMOVE		YES	\$1,650
150	HOLLYWOOD JUNIPER	15,8	REMOVE		YES	\$4,400
151	MAPLE SPECIES	9	REMOVE		YES	\$900
152	HOLLYWOOD JUNIPER	10,8,7,7,4	REMOVE		YES	\$2,850
153	SOUTHERN MAGNOLIA	8	REMOVE		YES	\$450
154	GLOSSY PRIVET	4,4,3,3,3,2,2	REMOVE		NO	\$300
155	HOLLYWOOD JUNIPER	10,10,5	REMOVE		YES	\$2,450
156	HOLLYWOOD JUNIPER	5,5,4	REMOVE		NO	\$750
157	SARATOGA BAY LAUREL	7	REMOVE		NO	\$200
158	HOLLY OAK	6	REMOVE		NO	\$700
159	BLUE ATLAS CEDAR	19,18,13,9,7,7	REMOVE		YES	\$11,750
160	COAST LIVE OAK	19,14	REMOVE		YES	\$9,800
161	COAST LIVE OAK	12,8	REMOVE		YES	\$2,650
162	COAST LIVE OAK	15	REMOVE		YES	\$4,000
163	COAST LIVE OAK	10	REMOVE		YES	\$1,300
164	CATALINA CHERRY	14,5	REMOVE		YES	\$4,750
165	COAST LIVE OAK	15,7	REMOVE		YES	\$4,900
166	CATALINA CHERRY	7,4	REMOVE		NO	\$1,450
167	COAST LIVE OAK	10	RELOCATE		YES	\$1,850
168	COAST LIVE OAK	10	REMOVE		YES	\$1,300
169	COAST LIVE OAK	7	REMOVE		YES	\$650
170	COST LIVE OAK	23	RELOCATE		YES	\$9,350
171	CATALINA CHERRY	7,5,4	REMOVE		YES	\$1,950
172	COAST LIVE OAK	19,10	REMOVE		NO	\$8,150
173	COAST LIVE OAK	7	REMOVE		YES	\$650
174	COAST LIVE OAK	7	REMOVE		YES	\$650
175	COAST LIVE OAK	8	REMOVE		YES	\$850
176	COAST LIVE OAK	14	REMOVE		YES	\$2,500
177	PARADOX WALNUT	28	REMOVE		YES	\$4,200
178	HOLLY OAK	7	REMOVE		NO	\$1,100
179	LONDON PLANE	8	REMAIN		YES	\$1,200
180	LONDON PLANE	8	REMAIN		YES	\$1,200
181	LONDON PLANE	7	REMOVE		NO	\$950
182	LONDON PLANE	7	REMOVE		NO	\$950
183	LONDON PLANE	7	REMAIN		NO	\$950
184	HOLLY OAK	15	REMAIN		YES	\$6,750
185	PLUM	7,7,6,6,5,4,4,4,3,3,3	REMAIN		NO	\$1,050
186	COAST LIVE OAK	22	REMOVE		YES	\$6,100
187	ALMOND	5,5,4,4	REMAIN		NO	\$300
188	ALMOND	7,7,4,4,4	REMAIN		NO	\$800
189	ALMOND	8,6,4,4,3,3,3	REMAIN		YES	\$800
190	COAST LIVE OAK	9	REMAIN		YES	\$1,050
191	COAST LIVE OAK	34	REMOVE		YES	\$14,100
192	ALMOND	5,5,5	REMOVE		NO	\$450
193	DATE PALM	36	REMAIN		YES	\$1,750

NOTE:
1. PER TREE INVENTORY PREPARED BY HORT SCIENCE ARBORIST SERVICES LLC DATED MARCH 5, 2020.
2. ALL CITY STANDARD TREE PROTECTION MEASURES WILL BE OUTLINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.
3. (*) INDICATES THAT THE TREES ARE IN ADJACENT PROPERTIES, WILL REMAIN AND SHOWN FOR INFORMATION ONLY.

27177 MISSION BOULEVARD
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APRIL 2021

THE TRUE LIFE COMPANIES

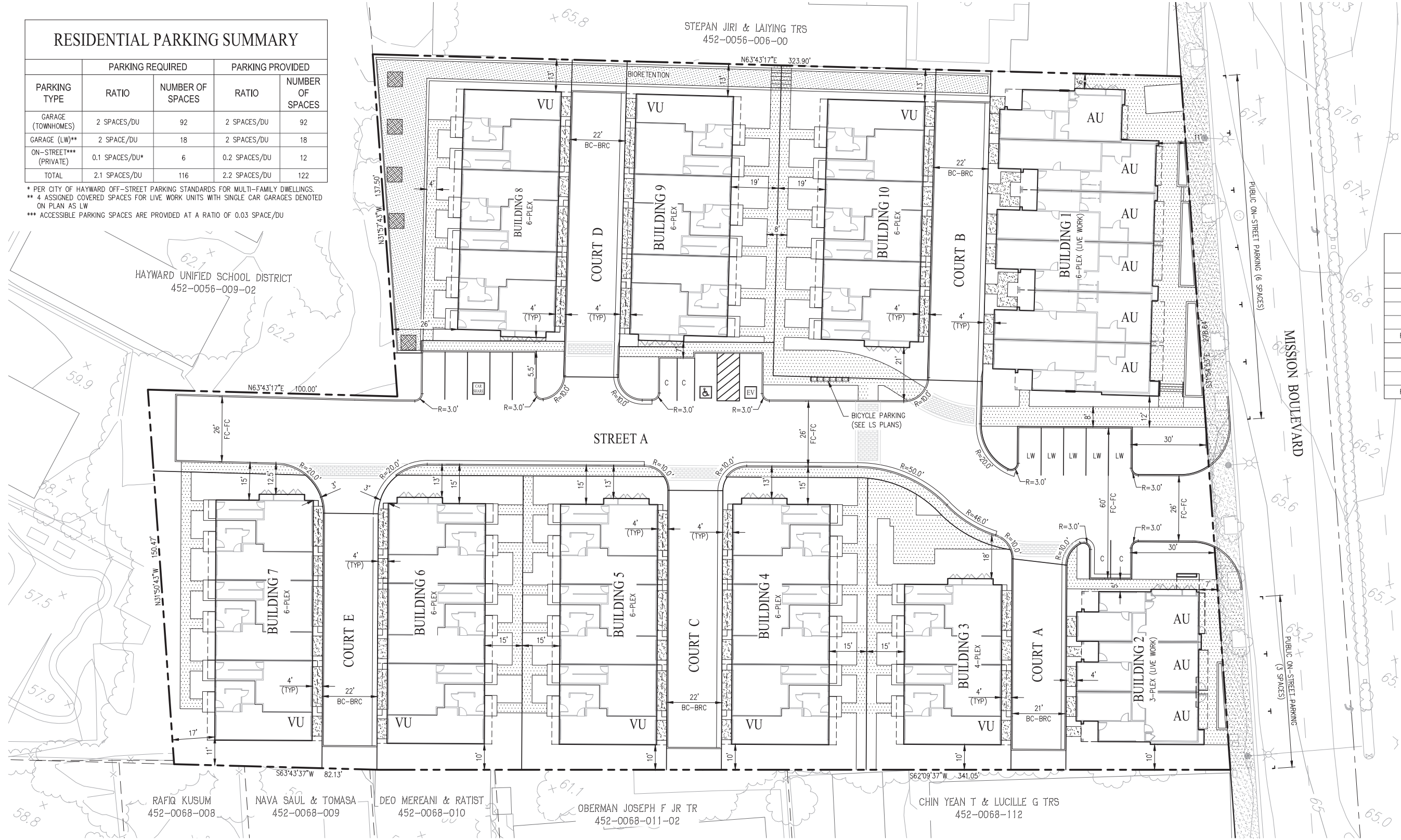
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RESIDENTIAL PARKING SUMMARY				
PARKING REQUIRED			PARKING PROVIDED	
PARKING TYPE	RATIO	NUMBER OF SPACES	RATIO	NUMBER OF SPACES
GARAGE (TOWNHOMES)	2 SPACES/DU	92	2 SPACES/DU	92
GARAGE (LW)**	2 SPACE/DU	18	2 SPACES/DU	18
ON-STREET*** (PRIVATE)	0.1 SPACES/DU*	6	0.2 SPACES/DU	12
TOTAL	2.1 SPACES/DU	116	2.2 SPACES/DU	122

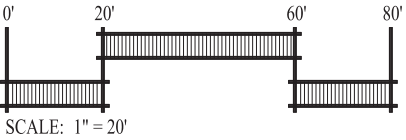
* PER CITY OF HAYWARD OFF-STREET PARKING STANDARDS FOR MULTI-FAMILY DWELLINGS.
** 4 ASSIGNED COVERED SPACES FOR LIVE WORK UNITS WITH SINGLE CAR GARAGES DENOTED ON PLAN AS LW
*** ACCESSIBLE PARKING SPACES ARE PROVIDED AT A RATIO OF 0.03 SPACE/DU

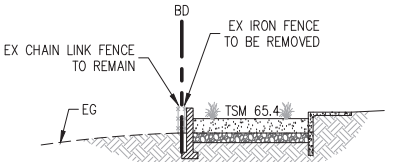
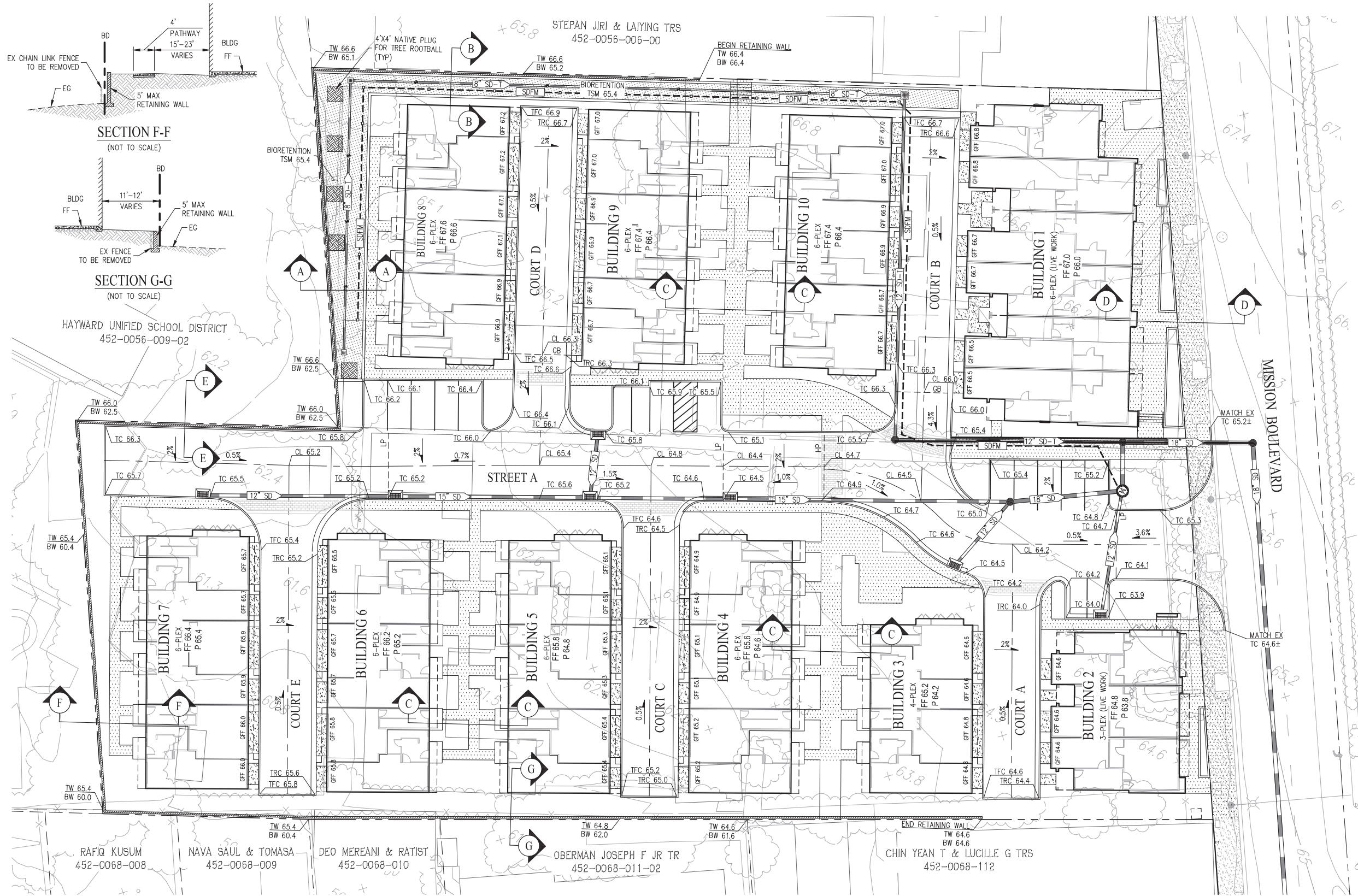


MINIMUM BUILDING SETBACKS		
TOWNS		
	REQUIRED	PROPOSED
FRONT	6'	10'
SIDE	0'	5'
REAR (DRIVE AISLE)	3'	4'
LIVE WORK		
FRONT	6'	10'
SIDE	0'	5'
REAR (DRIVE AISLE)	3'	4'

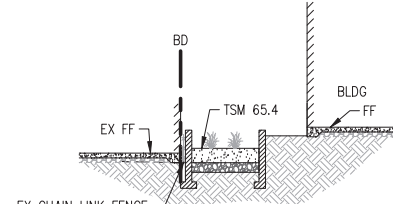
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Hayward, CA
APRIL 2021

TRACT 8556 - VESTING TENTATIVE MAP
PRELIMINARY SITE PLAN
C4.0

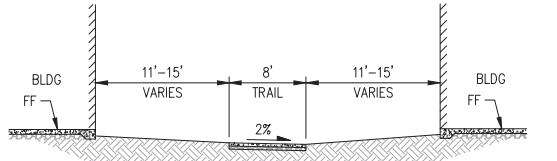




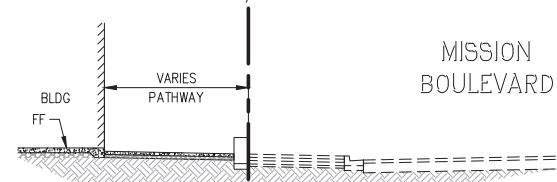
SECTION A-A
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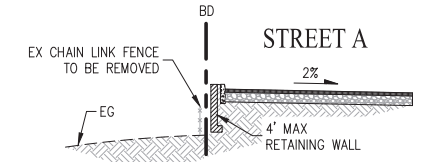
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SECTION C-C
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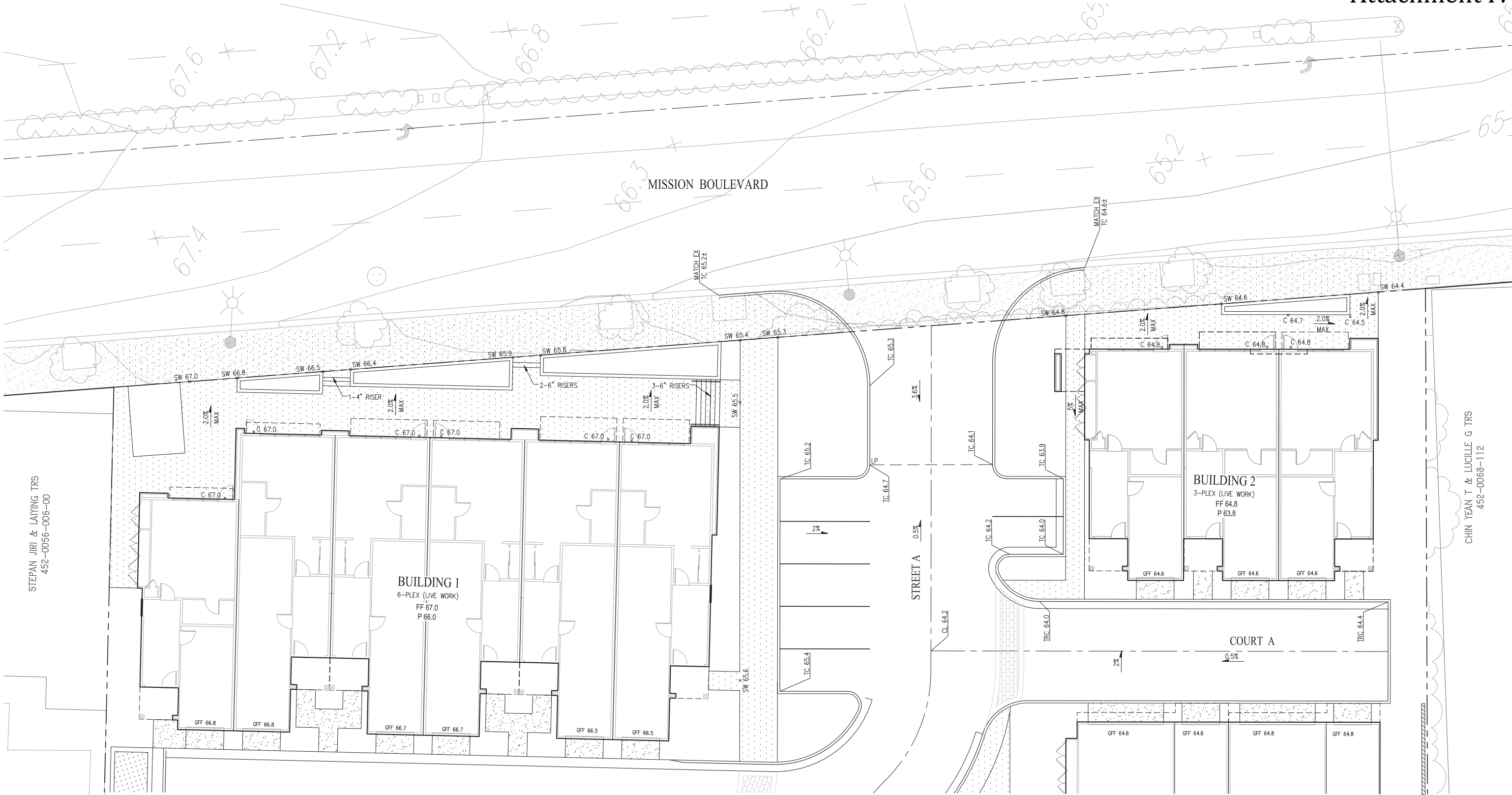
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SECTION E-E
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APRIL 2021

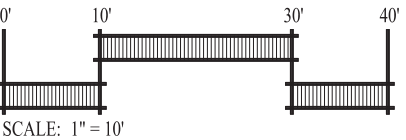
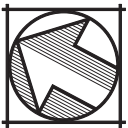
TRACT 8556 - VESTING TENTATIVE MAP
PRELIMINARY GRADING AND DRAINAGE PLAN
C5.0



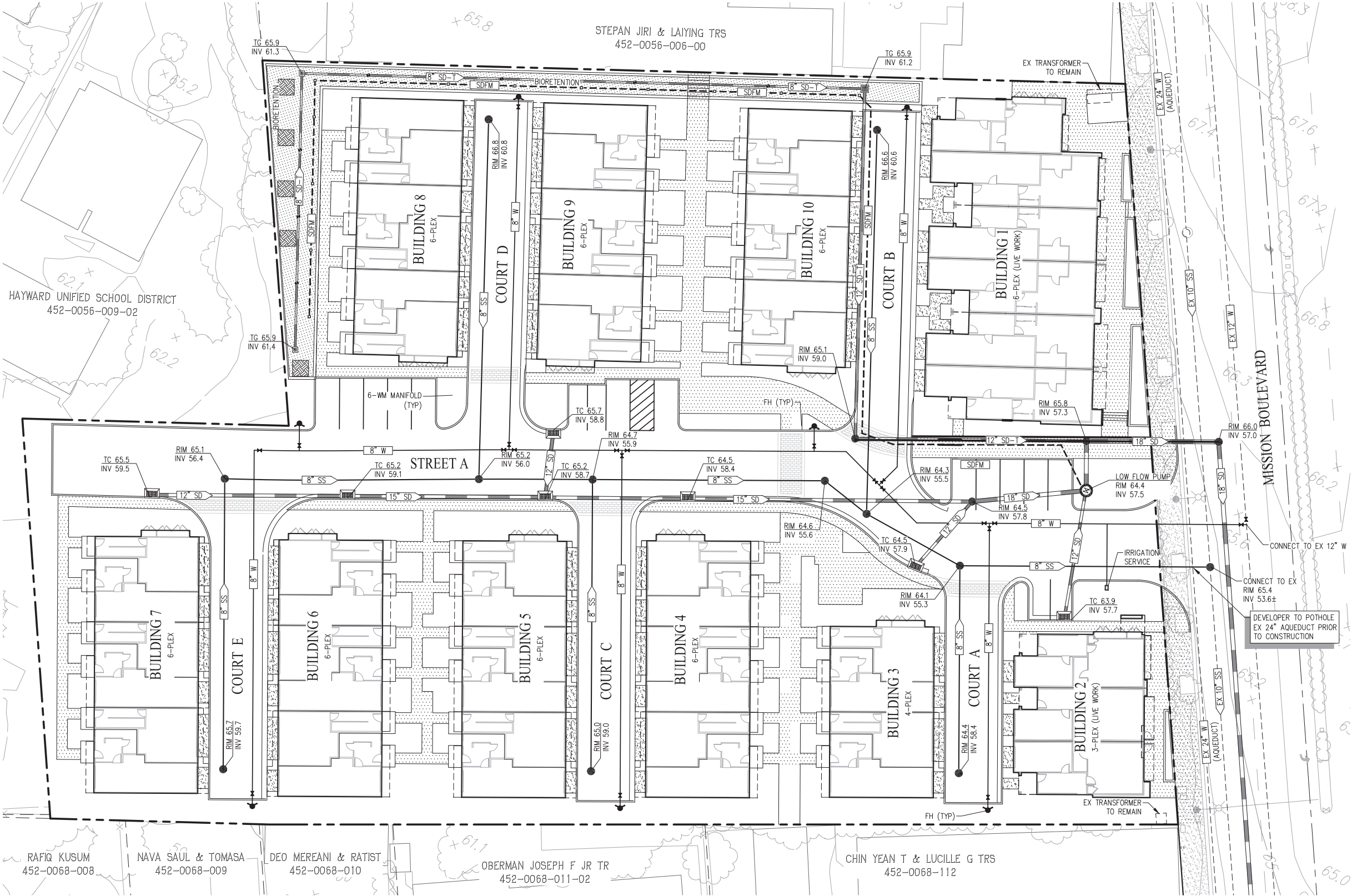
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TRACT 8556 - VESTING TENTATIVE MAP
LIVE WORK & MISSION BLVD FINE GRADING
C5.1

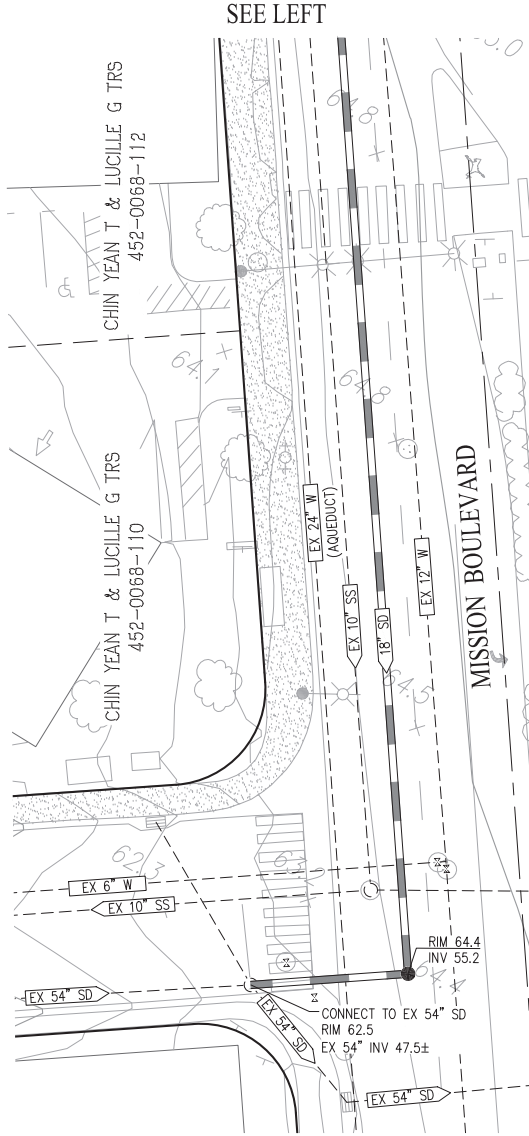
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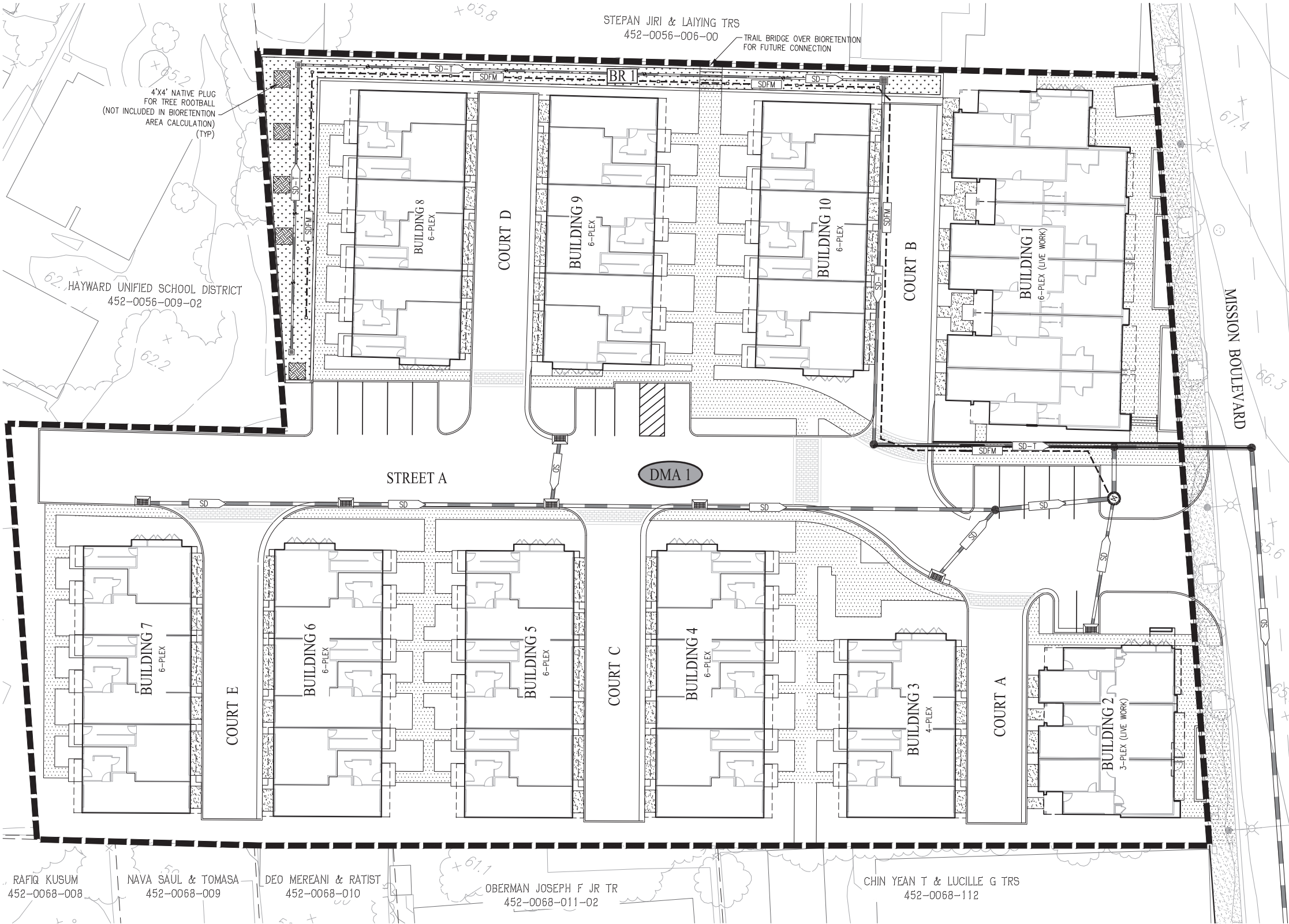
SEE SHEET C2.0 FOR
UTILITY NOTES & DETAILS



FIRE SERVICE NOTE:
INDIVIDUAL BUILDING FIRE SERVICE LOCATIONS SHALL BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO CONSTRUCTION.

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TRACT 8556 - VESTING TENTATIVE MAP
PRELIMINARY UTILITY MAP
C6.0



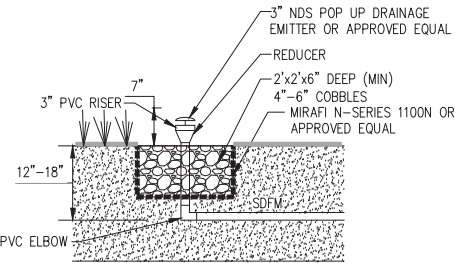
LEGEND

- | PROPOSED | DESCRIPTION |
|----------|------------------------------|
| | BIORETENTION AREA |
| | DRAINAGE AREA BOUNDARY |
| | DRAINAGE MANAGEMENT AREA |
| | BIORETENTION AREA |
| | DIRECTION OF FLOW |
| | WATER QUALITY PUMP STRUCTURE |
| | STORM DRAIN PIPE |
| | STORM DRAIN FORCE MAIN |

PRELIMINARY STORMWATER TREATMENT

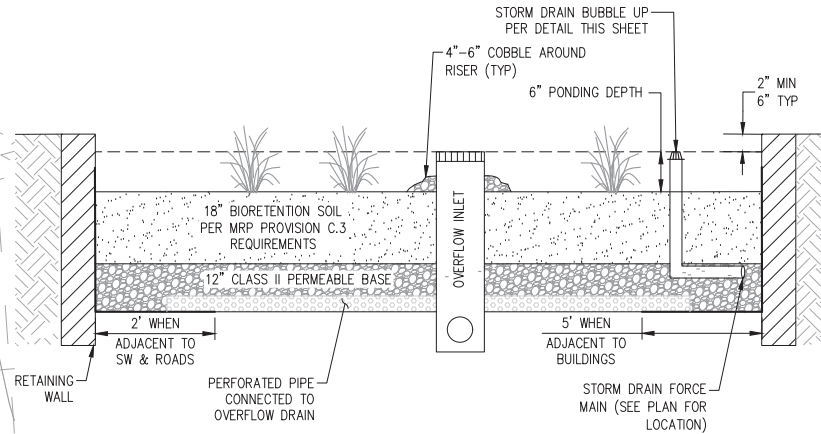
AREA ID	TREATMENT TYPE	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	TREATMENT AREA REQUIRED* (SF)	PONDING DEPTH (IN)	TREATMENT AREA PROVIDED (SF)
DMA 1	BIORETENTION	77,483	28,719	3,111	6	3,189

*REQUIRED TREATMENT AREA DETERMINED THROUGH THE 4% RULE



TYPICAL SDFM BUBBLE UP DETAIL

NOT TO SCALE



BIORETENTION AREA

(NOT TO SCALE)

TRACT 8556 - VESTING TENTATIVE MAP
PRELIMINARY STORMWATER CONTROL PLAN

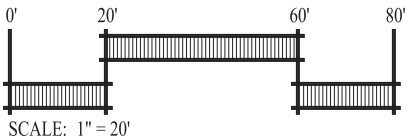
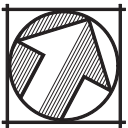
C7.0

27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021



TTL Management, Inc. an Arizona Corp.

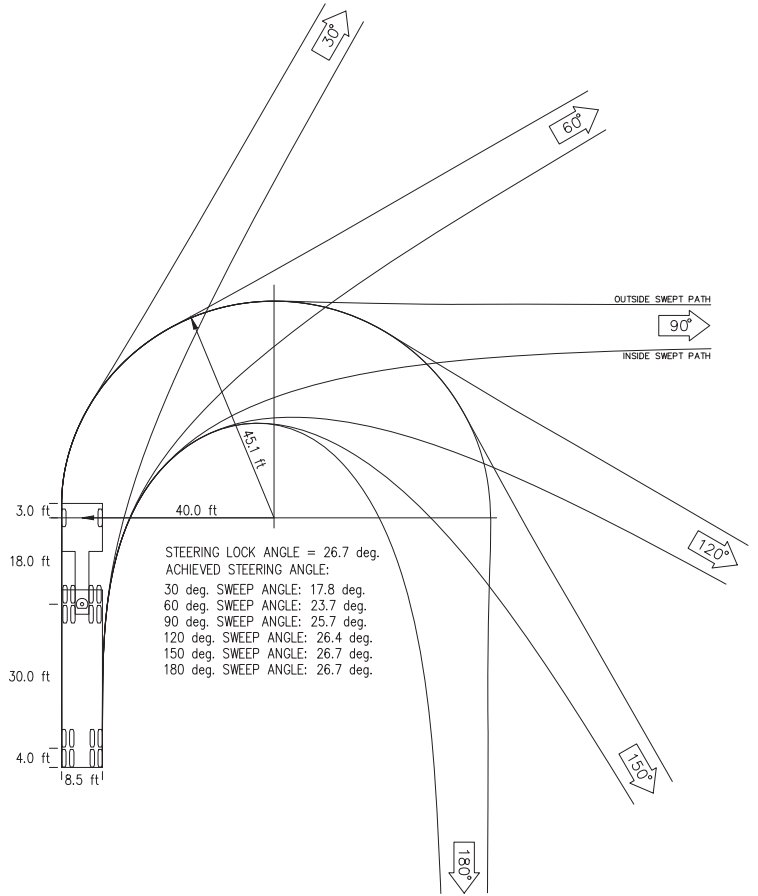
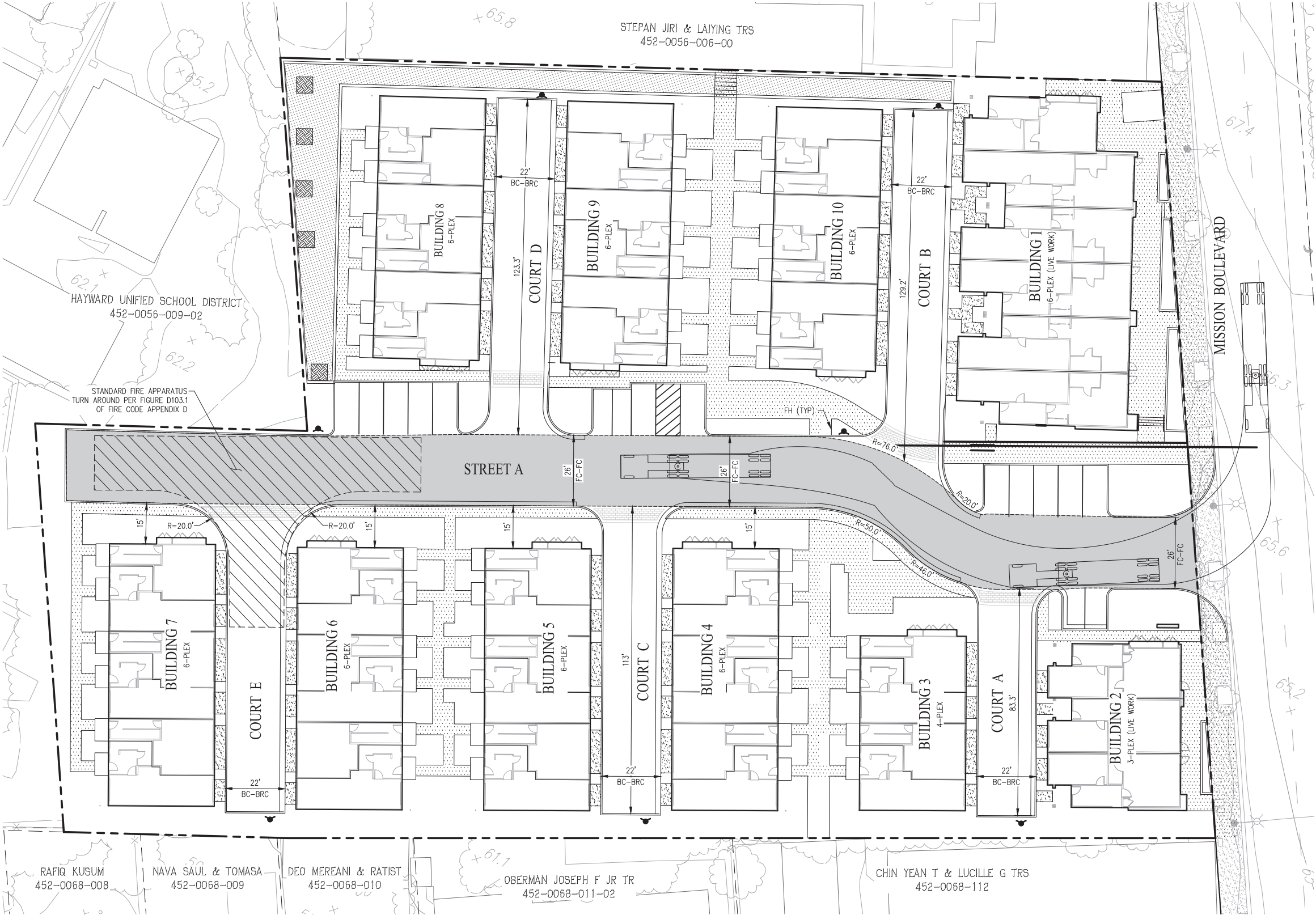
12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300



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SACRAMENTO (916) 375-1877
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F:\3016-000\ACAD\TMC7.0.DWG



CITY OF HAYWARD FIRE DEPARTMENT WB-50
TRUCK TURNING TEMPLATE

NOT TO SCALE
NOTE: MOST RESTRICTIVE TURN SHOWN ON PLAN FOR EACH
TURNING MOVEMENT

LEGEND

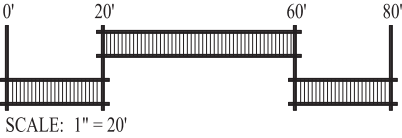
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EMERGENCY AERIAL APPARATUS TRAVEL WAY

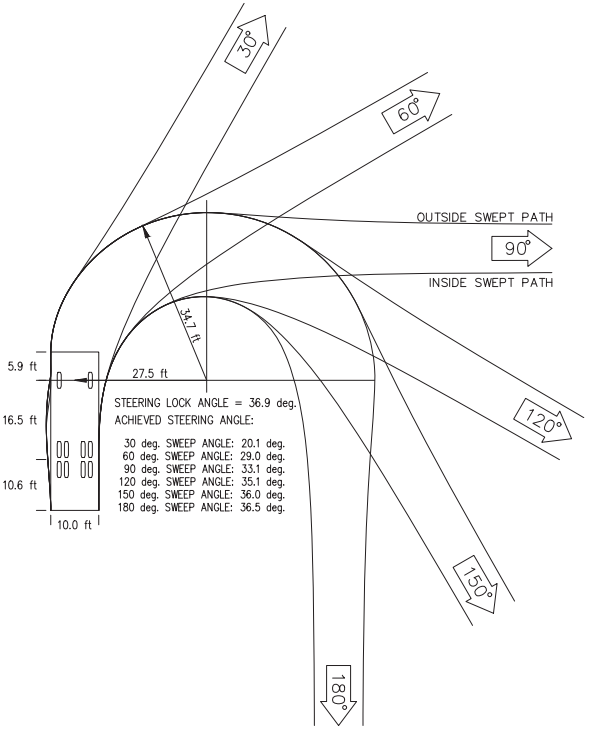
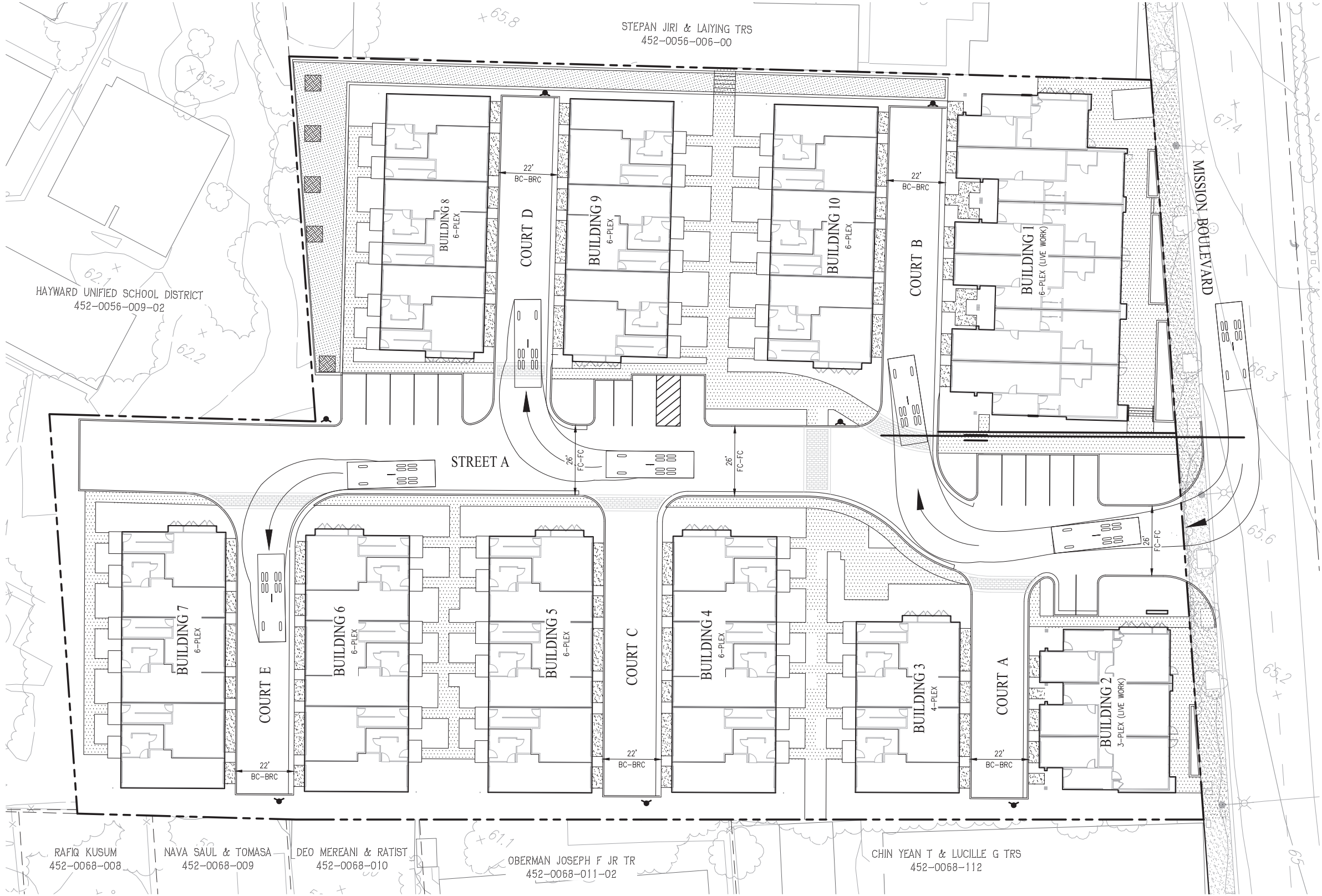
FIRE FLOW NOTES:

- | | |
|--|--|
| 1. BUILDING CONSTRUCTION TYPE: | TYPE VA & VB |
| 2. MAXIMUM BUILDING SQUARE FOOTAGE: | 16,272 SF |
| 3. REQUIRED FIRE FLOW PER CFC, APPENDIX B: | 1,500 GPM @ 20 PSI |
| 4. AVAILABLE FIRE FLOW AT PROJECT SITE: | TEST TO BE PROVIDED WITH CONSTRUCTION DOCUMENT |

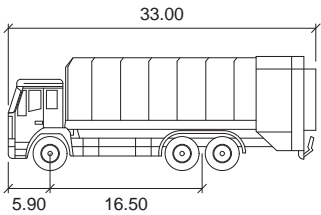
27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021

TRACT 8556 - VESTING TENTATIVE MAP
FIRE ACCESS PLAN
C8.0





WASTE MANAGEMENT TRUCK



Waste Management Truck

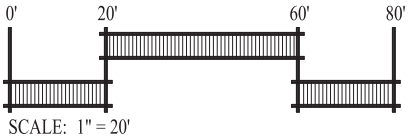
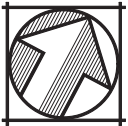
	feet
Width	: 10.00
Track	: 7.32
Lock to Lock Time	: 6.0
Steering Angle	: 36.9

GARBAGE COLLECTION NOTES:

- 1. CONDOMINIUMS SHALL UTILIZE CITY-STANDARD SOLID WASTE CARTS AND SERVICE
- 2. INDIVIDUAL TRASH COLLECTION WILL OCCUR AT EACH UNIT AT DRIVEWAY

27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021

TRACT 8556 - VESTING TENTATIVE MAP
SOLID WASTE HANDLING PLAN
C8.1



OPEN SPACE AREA SUMMARY					
AREA TYPE	PROVIDED GROUP OPEN AREA (SF)	PROVIDED PRIVATE OPEN AREA (SF)	TOTAL LOT AREA (SF)	% OPEN SPACE REQUIRED	% OPEN SPACE PROVIDED
GROUP OPEN SPACE	13,284	7,382	70,452	15%	28.0%

CIVIC SPACE SUMMARY				
AREA TYPE	PROVIDED CIVIC SPACE AREA (SF)	TOTAL LOT AREA (SF)	% CIVIC SPACE REQUIRED	% CIVIC SPACE PROVIDED
GREENWAY	8,397	70,452	10%	11.9%

LEGEND	
	GROUP OPEN SPACE
	PUBLIC USE TRAIL
	CIVIC SPACE (GREENWAY)

PRIVATE OPEN SPACE SUMMARY			
UNIT TYPE	PRIVATE OPEN SPACE (SF PER UNIT)	UNIT MIX	SUBTOTAL
LW1	210	4	840
LW2	324	5	1,620
TH1	157	23	3,611
TH2	57	23	1,311
TOTAL		55	7,382



27177 MISSION BOULEVARD
Hayward, CA
APRIL 2021

TRACT 8556 - VESTING TENTATIVE MAP
OPEN SPACE PLAN
C9.0



27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

Illustrative Site Plan
L-1.1



27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

Preliminary Landscape Plan
L-1.2

are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees
Fifteen (15) species comprised the 64 trees assessed. The assessment included seven off-site trees. Overall, trees were in fair condition with 35 trees, 24 were in good condition and five were poor. Descriptions of each tree can be found in the **Tree Assessment** and approximate locations are shown on the **Tree Assessment Plan** (see Exhibits).

Table 1: Condition ratings and frequency of occurrence of trees.
27177 & 27283 Mission Blvd., Additional Area, Hayward, CA

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Blue atlas cedar	<i>Cedrus atlantica</i> 'Glauca'	-	1	-	1
Silver dollar gum	<i>Eucalyptus polyanthemos</i>	-	1	-	1
Hollywood juniper	<i>Juniperus chinensis</i> 'Kaizuka'	-	3	6	9
Saratoga Bay laurel	<i>Laurus x 'Saratoga'</i>	1	-	-	1
Glossy privet	<i>Ligustrum lucidum</i>	-	1	-	1
Southern magnolia	<i>Magnolia grandiflora</i>	1	2	4	7
Maple	<i>Acer</i> spp.	1	-	-	1
Paradox walnut	<i>Juglans x paradox</i>	1	-	-	1
Date palm	<i>Phoenix dactylifera</i>	-	-	1	1
London plane	<i>Platanus x hispanica</i>	-	2	5	7
Catalina cherry	<i>Prunus ilicifolia</i> subsp. <i>lyoni</i>	-	3	-	3
Plum	<i>Prunus domestica</i>	-	1	-	1
Almond	<i>Prunus dulcis</i>	1	3	-	4
Coast live oak	<i>Quercus agrifolia</i>	-	12	6	18
Holly oak	<i>Quercus ilex</i>	-	6	2	8
Total		5	35	24	64

The most prevalent species assessed was coast live oak with 18 trees. Twelve were in fair condition and six were in good condition. Several of the live oaks were growing on the western property line. Tree #180 was located off-site (Photo 1). The live oaks ranged in size from 7 to 34 inches in diameter. Five trees had multiple trunks, the trunks of which ranged from 5 to 19 inches in diameter each. The live oaks growing on the western property line were tightly clustered and were being suppressed or were suppressing other trees.



Photo 1. Live oak along the western property line were suppressed or were suppressing other trees.

Low Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess other characteristics that are undesirable in landscape settings or are unsuited for use areas. Twenty-five (25) had low suitability for preservation.

Evaluation of Impacts and Recommendations

Appropriate tree retention is a practical match between the location and intensity of construction activities with the quality and health of trees. The tree assessment was the reference point for tree condition and quality.

Impacts from the proposed project were assessed using the *Site Plan and Project Data* sheet, prepared by SDG Architects, Inc dated November 18, 2019. Grading, drainage, stormwater, utility and landscape plans that could affect trees have yet to be prepared and were not reviewed for this report. When those plans are prepared, a more comprehensive assessment of impacts to trees and designation of tree protection measures can be prepared.

The development proposes to construct 55 residential units and nine commercial spaces with private streets, bike/trail and landscaping. Development will encompass the entire site leaving little opportunity for tree preservation. However, preservation of trees located on the western property line and off-site is possible depending on the exact location of the buildings and access streets.

Off-site trees #184, 185, 187, 188, 189 and 193 can be preserved if buildings and streets are 15-20 feet from the trunks of the trees. Additionally, street trees #179-181 can be preserved given the distance is provided. I recommend working to preserve coast live oaks on the western property line #160-163, 165, 167-170 and 172-176 and Catalina cherries #164, 166 and 171.

Based on my evaluation of the preliminary plans, 31 trees are within the building envelope and will be removed for construction, 12 of which are protected. Thirty-two (32) can potentially be preserved (Table 3). I recommend removal of Paradox walnut #177 based on significant structural defects. Tree preservation is predicted on adherence to the **Tree Preservation Guidelines** (see page 8).

Table 3: Tree Disposition Table
27177 & 27283 Mission Blvd. Hayward, CA.

Tag #	Species	Diameter	Protected	Disposition
130	Hollywood juniper	10	Yes	Remove
131	Southern magnolia	10	Yes	Remove
132	Southern magnolia	7	No	Remove
133	Southern magnolia	9	Yes	Remove
134	Hollywood juniper	6,4,4	Yes	Remove
135	Hollywood juniper	5,3,2	Yes	Remove
136	Holly oak	6,4,4	Yes	Remove
137	Coast live oak	5,5,4,4	No	Remove
138	Holly oak	7	No	Remove
139	London plane	6,5,5	Yes	Remove
140	Holly oak	8	Yes	Remove
141	Holly oak	8	Yes	Remove
142	Holly oak	4,3,3	No	Remove
143	Silver dollar gum	5	No	Remove

Preliminary Arborist Report
27177 & 27283 Mission Blvd.
Hayward, CA

Table of Contents

	Page
Introduction and Overview	1
Assessment Methods	1
Description of Trees	2
Suitability for Preservation	4
Preliminary Evaluation of Impacts and Recommendations	6
Appraisal of Value	8
Preliminary Tree Preservation Guidelines	9

List of Tables

Table 1. Condition ratings and frequency of occurrence of trees	2
Table 2. Tree suitability for preservation	5
Table 3: Tree Disposition	6
Table 4: Appraisal of value	8

Exhibits

Tree Assessment Map
Tree Assessment
Tree Appraisal Calculation

The remaining 10 species were represented by fewer than four trees. The most notable of which were:

- Four almonds (#87-189 and 192) with multiple stems that were embedded in the fence (Photo 5). Trees were planted off site.
- Blue atlas cedar #159 was planted in the southwestern corner of the site. The blue atlas cedar had multiple trunks ranging from 7 to 19 inches.
- Date palm #193 had 6 feet of brown trunk height and was in good condition (Photo 6).
- Paradox walnut #177 had several cavities at the base which went all the way through the tree.



Photo 5: Almond #187 was embedded in the fence



Photo 6: Date palm #193 had 6 feet of brown trunk and was in good condition.

City of Hayward Tree Protection Requirements

The City of Hayward Municipal Code Article 15, protects all trees 8 inches and larger in diameter, native trees 4 inches or larger in diameter and street trees of any size. Based on this definition, 55 trees assessed are protected, including off-site almond #189, date palm #193 and holly oak #184. Tree protection designations for individual trees are provided in the **Tree Assessment** (see Exhibit).

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health presents a low risk of damage or injury if they fall. However, we must be concerned about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their

Preliminary Arborist Report
27177 & 27283 Mission Blvd.
Hayward, CA

Introduction and Overview

The True Life Company (TLC) is proposing to develop two parcels 27177 & 27283 Mission Blvd. in Hayward, CA. The site consisted of several structures, associated parking lots and landscaping. HortScience | Bartlett Consulting (Divisions of the F.A. Bartlett Tree Expert Company) was asked to prepare a **Preliminary Arborist Report** as a part of the submission to the City of Hayward. The report is considered preliminary as the drainage, grading or landscape plans were not reviewed prior to preparation of this report.

This report provides the following information:

1. An assessment of each tree's health, structure, suitability for preservation and protected status within and adjacent to the proposed project area.
2. A preliminary evaluation of impacts to trees based on plans provided by TTLC.
3. The appraised value of assessed trees.
4. Preliminary guidelines for tree preservation throughout the planned demolition and construction phases of the project.

Assessment Methods

Trees were assessed on February 21 and 27th, 2020. Off-site trees with canopies extending into the subject site were viewed from standing on the subject property. All trees measuring 4 inches and greater in diameter were included in the assessment, as required by the City of Hayward (Hayward Municipal Code Chapter 18.215). Tree tag numbers started at #130. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54 inches above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics, extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

High: Trees with good health and structural stability that have the potential for longevity at the site.

Moderate: Trees with somewhat declining health and/or structural defects that can be abated with treatment. The tree will require more intense management and monitoring and may have shorter life span than those in "high" category.

Low: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that

potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure and death should be allowed to continue.

Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees. Saratoga Bay laurel #157 had excessive dieback and is not likely to survive.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. A good example of this is paradox walnut #177, with basal cavities rendering the tree unsuitable for preservation independent of construction.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. Coast live oak and London planes have good tolerance to construction impacts. However, blue atlas cedar is less tolerant of construction impacts.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Invasiveness**
Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<http://www.ca.inp.org/rpr/>) lists species identified as being invasive. Hayward is part of the Central West Floristic Province. Glossy privet is listed as having limited invasiveness potential.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2). We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2: Tree suitability for preservation
27177 & 27283 Mission Blvd. Hayward, CA

High	Trees in this category had good health and structural stability that have the potential for longevity at the site. Seven trees had high suitability for preservation.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life spans than those in the "high" category. Thirty-two (32) had moderate suitability for preservation.

27177 MISSION BOULEVARD
Hayward, CA

April 30, 2021



TTLC Management, Inc. an Arizona Corp.

12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300

Arborist Report
L-2.1

PLANNING URBAN DESIGN
LANDSCAPE ARCHITECTURE
201 4th street suite 101B, oakland, ca 94607
phone: 510.452.4190 www.r3studios.com



Tag #	Species	Diameter	Protected	Disposition
144	Londonplane	7,6,5,5	Yes	Remove
145	Southern magnolia	5	Yes	Remove
146	Southern magnolia	6	No	Remove
147	Southern magnolia	6	Yes	Remove
148	Hollywood juniper	13	Yes	Remove
149	Hollywood juniper	9,5	Yes	Remove
150	Hollywood juniper	15,8	Yes	Remove
151	Maple species	9	Yes	Remove
152	Hollywood juniper	10,8,7,7,4	No	Remove
153	Southern magnolia	8	Yes	Remove
154	Glossy privet	4,4,3,3,3,2,2	Yes	Remove
155	Hollywood juniper	10,10,5	Yes	Remove
156	Hollywood juniper	5,5,4	Yes	Remove
157	Saratoga Bay laurel	7	No	Remove
158	Holly oak	6	Yes	Remove
159	Blue atlas cedar	19,18,13,9,7,7	No	Preserve (?)
160	Coast live oak	19,14	No	Preserve (?)
161	Coast live oak	12,8	No	Preserve (?)
162	Coast live oak	15	Yes	Preserve (?)
163	Coast live oak	10	Yes	Preserve (?)
164	Catalina cherry	14,5	Yes	Preserve (?)
165	Coast live oak	15,7	Yes	Preserve (?)
166	Catalina cherry	7,4	Yes	Preserve (?)
167	Coast live oak	10	Yes	Preserve (?)
168	Coast live oak	10	Yes	Preserve (?)
169	Coast live oak	7	Yes	Preserve (?)
170	Coast live oak	23	Yes	Preserve (?)
171	Catalina cherry	7,5,4	Yes	Preserve (?)
172	Coast live oak	19,10	No	Preserve (?)
173	Coast live oak	7	Yes	Preserve (?)
174	Coast live oak	7	Yes	Preserve (?)
175	Coast live oak	8	Yes	Preserve (?)
176	Coast live oak	14	Yes	Preserve (?)
177	Paradox walnut	28	Yes	Condit.
178	Holly oak	7	Yes	Preserve
179	Londonplane	8	Yes	Preserve
180	Londonplane	8	Yes	Preserve
181	Londonplane	7	Yes	Preserve
182	Londonplane	7	Yes	Remove
183	Londonplane	7	Yes	Remove
184	Holly oak	15	Yes	Preserve
185	Plum	7,7,6,6,5,4,4,4,3,3,3	Yes	Preserve
186	Coast live oak	22	Yes	Preserve
187	Almond	5,5,4,4	Yes	Preserve
188	Almond	7,7,4,4,4	Yes	Preserve
189	Almond	8,6,4,4,3,3,3	Yes	Preserve
190	Coast live oak	9	Yes	Preserve
191	Coast live oak	34	Yes	Preserve
192	Almond	5,5,5	Yes	Preserve
193	Date palm	36	Yes	Preserve

- Where demolition must occur close to trees, such as removing curb and pavement, install temporary trunk protection devices such as winding silt sock wattle or wood planks around trunks or stacking hay bales around tree trunks to a height of approximately 5'. Any low branches that are within the work zone should also be protected. Remove trunk protection after demolition is completed and install protective fence at the limits of the tree protection zone. Do not retain wattling around tree trunks for more than 2-3 weeks to avoid damaging trunks from excess moisture.
- Trees may require pruning to provide construction clearance. All pruning shall be done by a State of California Licensed Tree Contractor (C011049). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
- All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.
- Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and undestory to remain. Tree stumps shall be ground 12" below ground surface.

Recommendations for tree protection during construction

- Any approved grading, construction, demolition or other work within the **TREE PROTECTION ZONE** should be monitored by the Project Arborist.
- All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved.
- Tree protection devices are to remain until all site work has been completed within the work area. Fences or other protection devices may not be relocated or removed without permission of the Project Arborist.
- Construction trailers, traffic and storage areas must remain outside **TREE PROTECTION ZONE** at all times.
- Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the Project Arborist. Roots should be cut with a saw to provide a flat and smooth cut. Removal of roots larger than 2 inches in diameter should be avoided.
- If roots 2 inches and greater in diameter are encountered during site work and must be cut to complete the construction, the Project Arborist must be consulted to evaluate effects on the health and stability of the tree and recommend treatment.
- Spoil from trench, footing, utility or other excavation shall not be placed within the **TREE PROTECTION ZONE**, neither temporarily nor permanently.
- All grading within the dripline of trees shall be done using the smallest equipment possible. The equipment shall operate perpendicular to the tree and operate from outside the **TREE PROTECTION ZONE**. Any modifications must be approved and monitored by the Project Arborist.

Appraisal Value

The City of Hayward requires an estimate of value be prepared for trees on the property. To estimate the reproduction cost of the trees, I used the cost approach, reproduction method, trunk formula technique as described in the Guide for Plant Appraisal, 10th edition (International Society of Arboriculture, Champaign IL, 2018). In addition, I referred to Species Classification and Group Assignment (2004), a publication of the Western Chapter of the International Society of Arboriculture.

When estimating reproduction cost, the trunk formula technique considers four factors: size, condition, functional limitations and external limitations. Size is measured as trunk diameter, normally 54 inches above grade. Condition reflects the health and structural integrity of the trees. Functional limitations reflect constraints to tree development based on the site and species. In this case, the functional limitations were evaluated for each tree, individually.

The estimated reproduction cost of each tree is included in **Table 4**. The reproduction cost of all of the trees assessed was \$148,350. The reproduction cost of the of the trees proposed for removal is \$38,050.

Table 4: Appraisal of Value
27177 & 27283 Mission Blvd., Hayward, CA.

Tree No.	Species	Trunk Diameter (in.)	Heritage Tree?	Appraised Value
130	Hollywood juniper	10	Yes	\$1,850
131	Southern magnolia	10	Yes	\$1,300
132	Southern magnolia	7	No	\$650
133	Southern magnolia	9	Yes	\$1,500
134	Hollywood juniper	6,4,4	Yes	\$1,350
135	Hollywood juniper	5,3,2	Yes	\$750
136	Holly oak	6,4,4	Yes	\$1,300
137	Coast live oak	5,5,4,4	Yes	\$950
138	Holly oak	7	No	\$950
139	London plane	6,5,5	Yes	\$950
140	Holly oak	8	Yes	\$1,700
141	Holly oak	8	Yes	\$1,200
142	Holly oak	4,4,3	Yes	\$800
143	Silver dollar gum	5	No	\$500
144	London plane	7,6,6,5,5	Yes	\$1,600
145	Southern magnolia	5	No	\$450
146	Southern magnolia	6	No	\$600
147	Southern magnolia	6	No	\$600
148	Hollywood juniper	13	Yes	\$2,600
149	Hollywood juniper	9,5	Yes	\$1,650
150	Hollywood juniper	15,8	Yes	\$4,400
151	Maple species	9	Yes	\$900
152	Hollywood juniper	10,8,7,7,4	Yes	\$2,850
153	Southern magnolia	8	Yes	\$450
154	Glossy privet	4,4,3,3,3,2,2	Yes	\$300
155	Hollywood juniper	10,10,5	Yes	\$2,450
156	Hollywood juniper	5,5,4	Yes	\$750
157	Saratoga Bay laurel	7	No	\$300
158	Holly oak	6	No	\$700
159	Blue atlas cedar	19,18,13,9,7,7	Yes	\$11,750

- If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Project Arborist so that appropriate treatments can be applied.
- No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
- Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.
- Trees that accumulate a sufficient quantity of dust on their leaves, limbs and trunk as judged by the Project Arborist shall be spray-washed at the direction of the Project Arborist.

Maintenance of impacted trees

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

If you have any questions regarding my observations or recommendations, please contact me.

HortScience | Bartlett Consulting



Darya Barar, Consulting Urban Forester
ISA Certified Arborist No. WE-6757A
ISA Tree Risk Assessment Qualified

Tree No.	Species	Trunk Diameter (in.)	Heritage Tree?	Appraised Value
160	Coast live oak	19,14	Yes	\$9,800
161	Coast live oak	12,8	Yes	\$2,550
162	Coast live oak	15	Yes	\$4,000
163	Coast live oak	10	Yes	\$1,300
164	Catalina cherry	14,5	Yes	\$4,750
165	Coast live oak	15,7	Yes	\$4,800
166	Catalina cherry	7,4	Yes	\$1,450
167	Coast live oak	10	Yes	\$1,850
168	Coast live oak	10	Yes	\$1,300
169	Coast live oak	7	Yes	\$850
170	Coast live oak	23	Yes	\$9,350
171	Catalina cherry	7,5,4	Yes	\$1,950
172	Coast live oak	19,10	Yes	\$8,150
173	Coast live oak	7	Yes	\$850
174	Coast live oak	7	Yes	\$850
175	Coast live oak	8	Yes	\$850
176	Coast live oak	14	Yes	\$2,500
177	Paradox walnut	28	Yes	\$4,200
178	Holly oak	7	No	\$1,100
179	London plane	8	Yes	\$1,200
180	London plane	8	Yes	\$1,200
181	London plane	7	Yes	\$850
182	London plane	7	Yes	\$950
183	London plane	7	Yes	\$950
184	Holly oak	15	Yes	\$6,750
185	Plum	7,7,6,6,5,4,4,4,3,3,3	Yes	\$1,050
186	Coast live oak	22	Yes	\$6,100
187	Almond	5,5,4,4	Yes	\$300
188	Almond	7,7,4,4,4	Yes	\$800
189	Almond	8,6,4,4,3,3,3	Yes	\$900
190	Coast live oak	9	Yes	\$1,050
191	Coast live oak	34	Yes	\$14,100
192	Almond	5,5,5	Yes	\$450
193	Date palm	36	Yes	\$1,750
Total				\$148,350

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods. Coordinating any construction activity inside the **TREE PROTECTION ZONE** can minimize these impacts.

The following recommendations will help reduce impacts to off-site trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Design recommendations

- Plan for tree preservation by designing adequate space around trees to be preserved. This area is called the **TREE PROTECTION ZONE**. No grading, excavation, construction or storage of materials should occur within that zone. Route underground services including utilities, sub-drains, water or sewer around the **TREE PROTECTION ZONE**. If preservation of trees along the western property line is possible, plan to add tree protection fencing at 10 to 15 feet from the western property line.
- Plot accurate locations of all trees to be preserved on all project plans. Identify the **TREE PROTECTION ZONE** for each tree on the plans.
- Consider the vertical clearance requirements near trees during design. Avoid designs that would require pruning more than 20% of a tree's canopy.
- Fences are to be installed at the edge of the **TREE PROTECTION ZONES** where possible or at the following locations:
- All plans affecting trees shall be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, grading plans, drainage plans, utility plans, and landscape and irrigation plans.
- Any changes to the plans affecting the trees should be reviewed by the Project Arborist with regard to tree impacts.
- Irrigation systems must be designed so that no trenching severs roots larger than 1 inch in diameter will occur within the **TREE PROTECTION ZONE**.
- Tree Preservation Guidelines prepared by the Project Arborist, which include specifications for tree protection during demolition and construction, should be included on all plans.
- Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
- Do not lime the subsoil within 50 feet of any tree. Lime is toxic to tree roots.
- Ensure adequate but not excessive water is supplied to trees; in most cases, occasional irrigation will be required. Avoid directing runoff toward trees.

Pre-demolition and pre-construction treatments and recommendations

- The demolition and construction superintendents shall meet with the Project Arborist before beginning work to review all work procedures, access routes, storage areas, and tree protection measures.
- Fence all trees to be retained to completely enclose the **Tree Protection Zone** prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by the Consulting Arborist. Fences are to remain until all grading and construction is completed.



Exhibits

- Tree Assessment Map
- Tree Assessment
- Tree Appraisal Calculation



Tree Assessment Map

**27177-27283 Mission Blvd.
Hayward, CA**

Prepared for:
The True Life Companies
San Ramon, CA

February 2020

No Scale

Notes:

Base map provided by:
Google Earth

Numbered tree locations are approximate

HORT SCIENCE
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27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

Arborist Report
L-2.3

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
130	Hollywood juniper	10	Yes	4	Moderate	Typical form; growing 2' from building; crowded.
131	Southern magnolia	10	Yes	3	Moderate	Multiple attachments at 5'; full crown; low branches removed.
132	Southern magnolia	7	No	3	Low	Codominant at 5' with included bark; thin crown.
133	Southern magnolia	9	Yes	4	Moderate	Multiple attachments at 4'; full crown.
134	Hollywood juniper	6,4,4	Yes	4	High	Nice specimen; low branching.
135	Hollywood juniper	5,3,2	Yes	4	High	Nice specimen; low branching.
136	Holly oak	6,4,4	Yes	3	Moderate	Multiple attachments at base; sooty mold throughout crown.
137	Coast live oak	5,5,4,4	Yes	3	Moderate	Multiple attachments at base; sheared at parking lot edge; dense crown.
138	Holly oak	7	No	3	Moderate	Sooty mold throughout crown; thin crown.
139	London plane	6,5,5	Yes	3	Moderate	Multiple attachments at base; topped.
140	Holly oak	8	Yes	4	Moderate	Sooty mold throughout crown; dense crown; low branching.
141	Holly oak	8	Yes	3	Moderate	Sooty mold throughout crown; dense crown; low branching; growing on fence line; codominant at 4'.
142	Holly oak	4,4,3	Yes	3	Moderate	Sooty mold throughout crown; dense crown; low branching; growing on fence line; multiple attachments at base.
143	Silver dollar gum	5	No	3	Moderate	Crooked trunk; full crown.
144	London plane	7,6,6,5	Yes	3	Low	Multiple attachments at base; growing between wall and building; poor form.
145	Southern magnolia	5	No	4	Moderate	Sinuuous trunk; full crown.
146	Southern magnolia	6	No	4	Moderate	Good form; full crown; girdling wound at 4'.
147	Southern magnolia	6	No	4	Moderate	Good form; full crown; girdling wound at 5'.
148	Hollywood juniper	13	Yes	4	Moderate	Typical form; growing 1' from building; crowded; corrected form.
149	Hollywood juniper	9,5	Yes	4	Moderate	Typical form; growing 2' from building; crowded by small holly oak.


Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
183	London plane	7	Yes	4	Moderate	Planted in a 6.5x5.5 tree well cut out; good upright form; healthy crown.
184	Holly oak	15	Yes	4	Moderate	Off-site overhangs by 15'; at fence line; codominant at 10' healthy crown.
185	Plum	7,7,6,6,5,4,4,4,3,3,3	Yes	3	Low	Off-site; base at fence; multiple attachments at base; stump sprouts; twig dieback.
186	Coast live oak	22	Yes	3	Low	Base embedded in fence; poor form and structure; crook at 12'; one-sided to north; canopy overhangs 18'.
187	Almond	5,5,4,4	Yes	2	Low	Off-site; base embedded in fence; multiple attachments at base; stump sprouts; branch dieback.
188	Almond	7,7,4,4,4	Yes	3	Low	Off-site; base embedded in fence; multiple attachments at base; twig dieback; crossing branches.
189	Almond	8,6,4,4,3,3	Yes	3	Low	Off-site; base embedded in fence; multiple attachments at base; twig dieback; crossing branches.
190	Coast live oak	9	Yes	3	Moderate	Off-site; tag on fence; base embedded in fence; leans to south; canopy overhangs 5'.
191	Coast live oak	34	Yes	3	Moderate	Fence embedded in base; multiple attachments at 5'; full, dense crown; codominant at 15' with included bark; canopy overhangs 20'.
192	Almond	5,5,5	Yes	3	Low	Base embedded in fence; multiple attachments at base.
193	Date palm	36	Yes	4	High	Off-site; no tag; at fence line; 6' clear trunk; crown overhangs 10'.

27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
150	Hollywood juniper	15,8	Yes	4	Moderate	Typical form; growing 2' from building; crown reduced on parking lot side.
151	Maple species	9	Yes	2	Low	Codominant at 4' topped; branch dieback; pyracantha over taking crown.
152	Hollywood juniper	10,8,7,7,4	Yes	3	Low	Topped; growing at fence; multiple attachments at base; crown reduced on parking lot side.
153	Southern magnolia	8	Yes	2	Low	Thin crown; poor color; sprouts at base.
154	Glossy privet	4,4,3,3,3,2,2	Yes	3	Low	Multiple attachments at base; growing at fence; crowded.
155	Hollywood juniper	10,10,5	Yes	3	Low	Multiple attachments at base; crowded out by #154; engulfed in ivy.
156	Hollywood juniper	5,5,4	Yes	3	Low	Multiple attachments at base; crowded.
157	Saratoga Bay laurel	7	No	1	Low	Extensive dieback.
158	Holly oak	6	No	3	Moderate	Sooty mold throughout crown; dense crown; low branching.
159	Blue atlas cedar	19,18,13,9,7,7	Yes	3	Moderate	Multiple attachments at 5' with narrow attachments.
160	Coast live oak	19,14	Yes	4	Moderate	Codominant at 2'; full crown; one sided to east.
161	Coast live oak	12,8	Yes	3	Low	Codominant at base; very suppressed and one-sided to west.
162	Coast live oak	15	Yes	4	High	Upright form; codominant at 10'; full crown.
163	Coast live oak	10	Yes	3	Moderate	Codominant at 8'; suppressed and one-sided to west.
164	Catalina cherry	14,5	Yes	3	Low	Codominant trunks arise from 5'; stems removed from base; suppressed on west side thin crown; bleeding on base and trunk.
165	Coast live oak	15,7	Yes	4	High	Dominant tree of the group; 7" trunk is leaning heavily on other trees to the west; full healthy crown.
166	Catalina cherry	7,4	Yes	3	Low	Narrow upright suppressed codominant trunks arising from base.

Tree No.	Species	Diameter	Cond. Value	Functional Limitation	External Limitation	Species Value	Unit Tree Cost	Appraised Trunk Area	Trunk Area Increase	Basic Tree Cost	Appraised Value	Final Value
130	Hollywood juniper	10	0.7	0.7	1	0.5	45.46	78.5	74.7	3741.32	1833.2478	\$1,860
131	Southern magnolia	10	0.5	0.7	1	0.9	45.46	78.5	74.7	3741.32	1309.4627	\$1,300
132	Southern magnolia	7	0.5	0.7	1	0.9	45.46	38.485	34.665	1821.33	672.46582	\$650
133	Southern magnolia	9	0.7	0.7	1	0.9	45.46	63.585	59.785	3063.29	1501.0102	\$1,500
134	Hollywood juniper	6,4,4	0.7	0.7	1	0.5	45.46	53.38	49.58	2599.37	1273.6897	\$1,250
135	Hollywood juniper	5,3,2	0.7	0.7	1	0.5	45.46	29.83	26.03	1528.78	749.10406	\$750
136	Holly oak	6,4,4	0.5	0.6	1	0.7	77.04	53.38	51.14	4285.29	1265.5857	\$1,300
137	Coast live oak	5,5,4,4	0.5	0.6	1	0.9	45.46	84.37	80.57	3068.97	929.69186	\$950
138	Holly oak	7	0.5	0.6	1	0.7	77.04	38.485	36.225	3136.23	940.8702	\$950
139	London plane	6,5,5	0.5	0.6	1	0.7	45.46	87.51	83.71	3241.72	972.51498	\$950
140	Holly oak	8	0.7	0.6	1	0.7	77.04	50.24	48	4043.38	1698.2196	\$1,700
141	Holly oak	8	0.5	0.6	1	0.7	77.04	50.24	48	4043.38	1213.014	\$1,200
142	Holly oak	4,4,3	0.5	0.6	1	0.7	77.04	32.185	29.945	2652.42	795.72884	\$800
143	Silver dollar gum	5	0.5	0.6	1	0.7	77.04	19.625	17.385	1684.8	505.44012	\$500
144	London plane	7,6,6,5,5	0.5	0.6	1	0.7	45.46	114.61	110.81	5382.88	1614.8848	\$1,600
145	Southern magnolia	5	0.7	0.6	1	0.9	45.46	19.625	15.825	1064.88	447.24306	\$450
146	Southern magnolia	6	0.7	0.6	1	0.9	45.46	25.26	24.46	1457.41	612.11287	\$600
147	Southern magnolia	6	0.7	0.6	1	0.9	45.46	25.26	24.46	1457.41	612.11287	\$600
148	Hollywood juniper	13	0.7	0.6	1	0.5	45.46	132.885	128.885	6203.66	2505.5384	\$2,800
149	Hollywood juniper	9,5	0.7	0.6	1	0.5	45.46	83.21	79.41	3855.44	1861.2842	\$1,850
150	Hollywood juniper	15,8	0.7	0.6	1	0.5	45.46	228.885	223.085	10486	4404.1178	\$4,400
151	Maple species	9	0.3	0.6	1	0.7	77.04	63.585	61.345	5071.45	912.86518	\$900
152	Hollywood juniper	10,8,7,7,4	0.5	0.6	1	0.5	45.46	205.97	201.87	9522.47	2856.7411	\$2,850
153	Southern magnolia	8	0.3	0.6	1	0.9	45.46	50.24	46.44	2456.62	442.16203	\$450
154	Glossy privet	4,4,3,3,3,2,2	0.5	0.3	1	0.3	45.46	39.25	35.45	1957.02	293.65255	\$300
155	Hollywood juniper	10,10,5	0.5	0.6	1	0.5	45.46	178.625	172.825	8202.08	2460.6254	\$2,450
156	Hollywood juniper	5,5,4	0.5	0.6	1	0.5	45.46	51.81	48.01	2527.99	758.39838	\$750
157	Saratoga Bay laurel	7	0.1	0.6	1	0.7	77.04	38.485	36.225	3136.23	188.17404	\$200
158	Holly oak	6	0.5	0.6	1	0.7	77.04	25.26	26.02	2350.04	705.01224	\$700
159	Blue atlas cedar	19,18,13,9,7,7	0.5	0.7	1	0.9	45.46	733.975	730.175	33539.2	11738.725	\$11,750
160	Coast live oak	19,14	0.7	0.7	1	0.9	45.46	437.245	433.445	20049.9	8824.4362	\$9,800
161	Coast live oak	12,8	0.5	0.7	1	0.9	45.46	183.28	159.48	7666.42	2858.3873	\$2,850
162	Coast live oak	15	0.7	0.7	1	0.9	45.46	178.625	172.825	8202.08	4019.0214	\$4,000

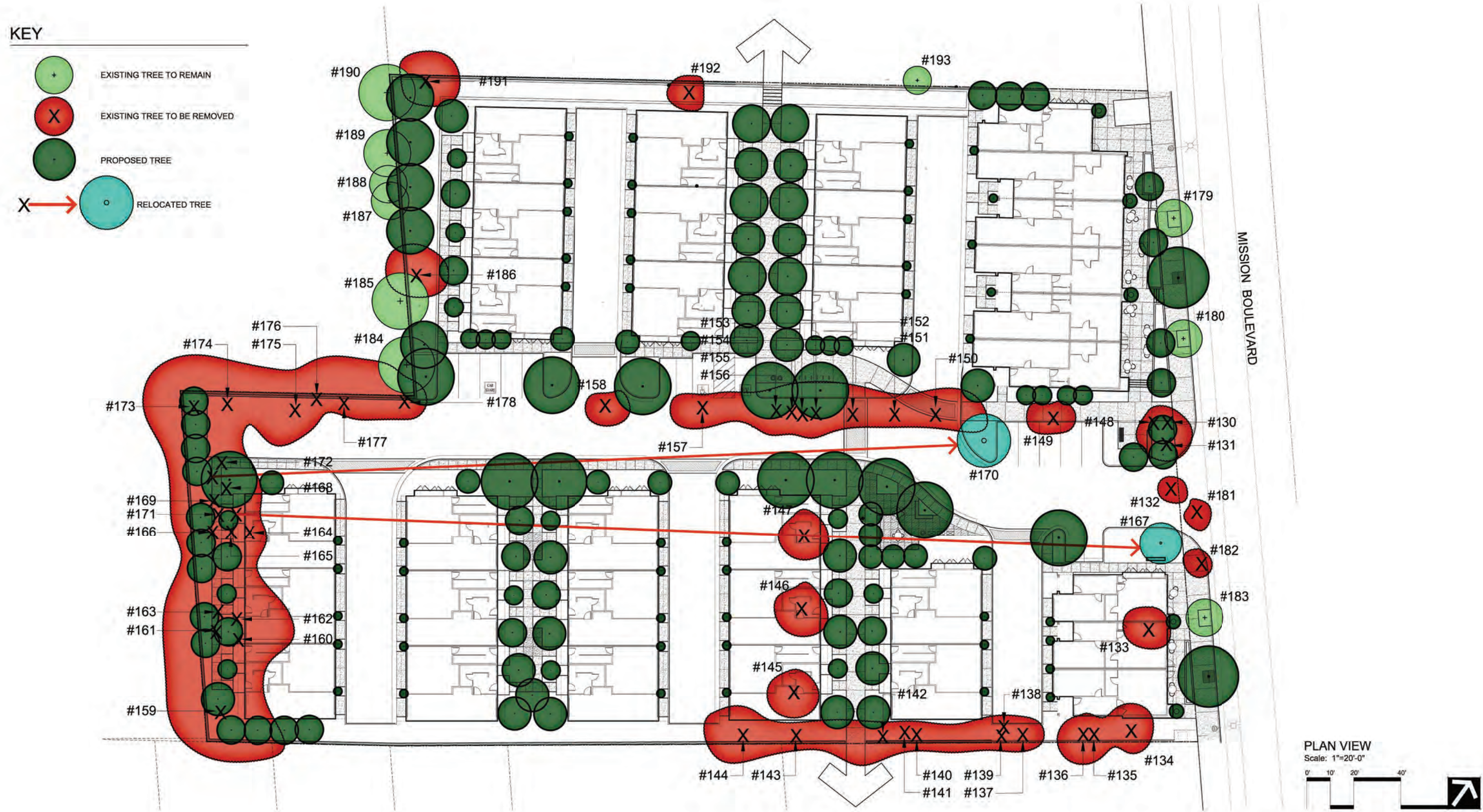
Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
167	Coast live oak	10	Yes	4	High	Narrow sinuous form; high up right crown; healthy growth.
168	Coast live oak	10	Yes	3	Low	Trunk leans heavily East; healthy growth; suppressed crown.
169	Coast live oak	7	Yes	3	Moderate	Narrow sinuous form; high up right crown bows East high in crown; healthy growth.
170	Coast live oak	23	Yes	4	High	Multiple trunks arise from 4'; full round crown.
171	Catalina cherry	7,5,4	Yes	3	Low	Multiple trunks arise from base; heavily suppressed ; all growth on eastern side.
172	Coast live oak	19,10	Yes	4	Moderate	Seam in attachment at base; suppressed crown; healthy growth mostly on west side.
173	Coast live oak	7	Yes	3	Low	Narrow sinuous form; high up right crown bows East high in crown; healthy growth.
174	Coast live oak	7	Yes	3	Low	Narrow sinuous form; high up right crown bows west; healthy growth.
175	Coast live oak	8	Yes	3	Low	Narrow sinuous form; high up right crown bows south; healthy growth.
176	Coast live oak	14	Yes	3	Low	Trunk bows low east; healthy growth.
177	Paradox walnut	28	Yes	2	Low	Large cavity in base taking 1/4 of root area; history of branch failure; some decay in crown; ***removal recommend ***.
178	Holly oak	7	No	3	Moderate	Full healthy crown full to the ground.
179	London plane	8	Yes	4	Moderate	Planted in a 6.5x5.5 tree well cut out; good upright form; healthy crown.
180	London plane	8	Yes	4	Moderate	Planted in a 6.5x5.5 tree well cut out; good upright form; healthy crown.
181	London plane	7	Yes	4	Moderate	Planted in a 6.5x5.5 tree well cut out; good upright form; healthy crown.
182	London plane	7	Yes	4	Moderate	Planted in a 6.5x5.5 tree well cut out; good upright form; healthy crown.

Tree Appraisal Table														
Tree No.	Species	Diameter	Cond. Value	Functional Limitation	External Limitation	Species Value	Unit Tree Cost	Appraised Trunk Area	Trunk Area Increase	Basic Tree Cost	Appraised Value	Final Value		
163	Coast live oak	10	0.5	0.7	1	0.9	45.46	78.5	74.7	3741.32	1309.4627	\$1,300		
164	Catalina cherry	14.5	0.5	0.7	1	0.5	77.04	173.485	171.245	13538.2	4738.3812	\$4,750		
165	Coast live oak	15.7	0.7	0.7	1	0.9	45.46	215.06	211.29	9950.7	4875.8447	\$4,900		
166	Catalina cherry	7.4	0.5	0.7	1	0.5	77.04	51.025	48.785	4103.85	1436.3497	\$1,450		
167	Coast live oak	10	0.7	0.7	1	0.9	45.46	78.5	74.7	3741.32	1833.2478	\$1,850		
168	Coast live oak	10	0.5	0.7	1	0.9	45.46	78.5	74.7	3741.32	1309.4627	\$1,300		
169	Coast live oak	7	0.5	0.7	1	0.9	45.46	38.485	34.665	1921.33	672.46582	\$650		
170	Coast live oak	23	0.7	0.7	1	0.9	45.46	415.285	411.465	19050.7	9334.8229	\$9,350		
171	Catalina cherry	7.5,4	0.5	0.7	1	0.5	77.04	70.95	68.41	5615.77	1965.5162	\$1,950		
172	Coast live oak	19,10	0.7	0.7	1	0.9	45.46	361.885	358.085	16624	8145.762	\$8,150		
173	Coast live oak	7	0.5	0.7	1	0.9	45.46	38.485	34.665	1921.33	672.46582	\$650		
174	Coast live oak	7	0.5	0.7	1	0.9	45.46	38.485	34.665	1921.33	672.46582	\$650		
175	Coast live oak	8	0.5	0.7	1	0.9	45.46	50.24	48.44	2456.62	859.81784	\$850		
176	Coast live oak	14	0.5	0.7	1	0.9	45.46	153.65	150.08	7167.19	2508.5157	\$2,500		
177	Paradox walnut	28	0.3	0.5	1	0.5	45.46	615.44	611.64	28150.6	4222.5922	\$4,200		
178	Holly oak	7	0.5	0.7	1	0.7	77.04	38.485	36.225	3136.23	1087.6819	\$1,100		
179	London plane	8	0.7	0.7	1	0.7	45.46	50.24	46.44	2456.62	1203.745	\$1,200		
180	London plane	8	0.7	0.7	1	0.7	45.46	50.24	46.44	2456.62	1203.745	\$1,200		
181	London plane	7	0.7	0.7	1	0.7	45.46	38.485	34.665	1921.33	941.45214	\$950		
182	London plane	7	0.7	0.7	1	0.7	45.46	38.485	34.665	1921.33	941.45214	\$950		
183	London plane	7	0.7	0.7	1	0.7	45.46	38.485	34.665	1921.33	941.45214	\$950		
184	Holly oak	15	0.7	0.7	1	0.7	77.04	178.92	174.385	13780.1	4752.2394	\$4,750		
185	Plum	7.6,6.5,4.1	0.5	0.2	1	0.5	77.04	133.45	131.21	10453.9	4105.3878	\$1,050		
186	Coast live oak	22	0.5	0.7	1	0.9	45.46	370.94	376.14	17444.5	6165.6745	\$6,100		
187	Almond	5.5,4.4	0.3	0.2	1	0.3	77.04	84.37	62.13	5131.68	307.91731	\$300		
188	Almond	7.7,4.4	0.5	0.2	1	0.3	77.04	102.06	99.81	8034.82	803.48224	\$800		
189	Almond	8.6,4.4,3.3	0.5	0.2	1	0.3	77.04	103.62	101.38	8155.76	815.57752	\$800		
190	Coast live oak	9	0.5	0.7	1	0.9	45.46	63.585	59.785	3063.29	1072.1501	\$1,050		
191	Coast live oak	34	0.5	0.7	1	0.9	45.46	881.91	878.14	40265.7	14062.997	\$14,100		
192	Almond	5.5,5	0.5	0.2	1	0.3	77.04	58.375	56.635	4708.62	470.86204	\$450		
193	Date palm	38	0.7		1	0.3	#N/A	973.64	#N/A	1750	0	\$1,750		
Total												\$148,380		

27177 MISSION BOULEVARD - HAYWARD, CA
TREE MITIGATION SUMMARY REPORT

1. EXISTING TREE INVENTORY LIST FROM ARBORIST REPORT:						
Tree Tag #	Species	Common Name	Trunk Diameter	Protected	Status	Value of Tree to be
						Removed
130	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	10	Yes	Removal	\$1,850.00
131	<i>Magnolia grandiflora</i>	Southern Magnolia	10	Yes	Removal	\$1,300.00
132	<i>Magnolia grandiflora</i>	Southern Magnolia	7	No	Removal	\$650.00
133	<i>Magnolia grandiflora</i>	Southern Magnolia	9	Yes	Removal	\$1,500.00
134	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	6,4,4	Yes	Removal	\$1,250.00
135	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	5,3,2	Yes	Removal	\$750.00
136	<i>Quercus ilex</i>	Holly Oak	6,4,4	Yes	Removal	\$1,300.00
137	<i>Quercus agrifolia</i>	Coast Live Oak	5,5,4,4	No	Removal	\$950.00
138	<i>Quercus ilex</i>	Holly Oak	7	No	Removal	\$950.00
139	<i>Platanus x hispanica</i>	London Plane	6,5,5	Yes	Removal	\$950.00
140	<i>Quercus ilex</i>	Holly Oak	8	Yes	Removal	\$1,700.00
141	<i>Quercus ilex</i>	Holly Oak	8	Yes	Removal	\$1,200.00
142	<i>Quercus ilex</i>	Holly Oak	4,4,3	No	Removal	\$800.00
143	<i>Eucalyptus polyanthemos</i>	Silver Dollar Gum	5	No	Removal	\$500.00
144	<i>Platanus x hispanica</i>	London Plane	7,6,6,5,5	Yes	Removal	\$1,600.00
145	<i>Magnolia grandiflora</i>	Southern Magnolia	5	Yes	Removal	\$450.00
146	<i>Magnolia grandiflora</i>	Southern Magnolia	6	No	Removal	\$600.00
147	<i>Magnolia grandiflora</i>	Southern Magnolia	6	Yes	Removal	\$600.00
148	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	13	Yes	Removal	\$2,600.00
149	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	9,5	Yes	Removal	\$1,650.00
150	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	15,8	Yes	Removal	\$4,400.00
151	<i>Acer spp.</i>	Maple Species	9	Yes	Removal	\$900.00
152	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	10,8,7,7,4	No	Removal	\$2,850.00
153	<i>Magnolia grandiflora</i>	Southern Magnolia	8	Yes	Removal	\$450.00
154	<i>Ligustrum lucidum</i>	Glossy Privet	4,4,3,3,3,2,2	Yes	Removal	\$300.00
155	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	10,10,5	Yes	Removal	\$2,450.00
156	<i>Juniperus chinensis "kaizuka"</i>	Hollywood Juniper	5,5,4	Yes	Removal	\$750.00
157	<i>Laurus x "Saratoga"</i>	Saratoga Bay Laurel	7	No	Removal	\$200.00
158	<i>Quercus ilex</i>	Holly Oak	6	Yes	Removal	\$700.00
159	<i>Cedrus atlantica "Glauca"</i>	Blue Atlas Cedar	19,18,13,9,7,7	No	Removal	\$11,750.00
160	<i>Quercus agrifolia</i>	Coast Live Oak	19,14	No	Removal	\$9,800.00
161	<i>Quercus agrifolia</i>	Coast Live Oak	12,8	No	Removal	\$2,650.00
162	<i>Quercus agrifolia</i>	Coast Live Oak	15	Yes	Removal	\$4,000.00
163	<i>Quercus agrifolia</i>	Coast Live Oak	10	Yes	Removal	\$1,300.00
164	<i>Prunus ilicifolia subsp. lyonii</i>	Catalina Cherry	14,5	Yes	Removal	\$4,750.00
165	<i>Quercus agrifolia</i>	Coast Live Oak	15,7	Yes	Removal	\$4,900.00
166	<i>Prunus ilicifolia subsp. Lyonii</i>	Catalina Cherry	7,4	Yes	Removal	\$1,450.00
167	<i>Quercus agrifolia</i>	Coast Live Oak	10	Yes	Relocate	\$1,850.00
168	<i>Quercus agrifolia</i>	Coast Live Oak	10	Yes	Removal	\$1,300.00
169	<i>Quercus agrifolia</i>	Coast Live Oak	7	Yes	Removal	\$650.00
170	<i>Quercus agrifolia</i>	Coast Live Oak	23	Yes	Relocate	\$9,350.00
171	<i>Prunus ilicifolia subsp. Lyonii</i>	Catalina Cherry	7,5,4	Yes	Removal	\$1,950.00
172	<i>Quercus agrifolia</i>	Coast Live Oak	19,10	No	Removal	\$8,150.00
173	<i>Quercus agrifolia</i>	Coast Live Oak	7	Yes	Removal	\$650.00
174	<i>Quercus agrifolia</i>	Coast Live Oak	7	Yes	Removal	\$650.00
175	<i>Quercus agrifolia</i>	Coast Live Oak	8	Yes	Removal	\$850.00
176	<i>Quercus agrifolia</i>	Coast Live Oak	14	Yes	Removal	\$2,500.00
177	<i>Juglans x paradox</i>	Paradox Walnut	28	Yes	Removal	\$4,200.00
178	<i>Quercus ilex</i>	Holly Oak	7	Yes	Removal	\$1,100.00
179	<i>Platanus x hispanica</i>	London Plane	8	Yes	Preserve	\$1,200.00
180	<i>Platanus x hispanica</i>	London Plane	8	Yes	Preserve	\$1,200.00
181	<i>Platanus x hispanica</i>	London Plane	7	Yes	Removal	\$950.00
182	<i>Platanus x hispanica</i>	London Plane	7	Yes	Removal	\$950.00
183	<i>Platanus x hispanica</i>	London Plane	7	Yes	Preserve	\$950.00
184	<i>Quercus ilex</i>	Holly Oak	15	Yes	Preserve	\$6,750.00
185	<i>Prunus domestica</i>	Plum	7,7,6,6,5,4,4,4,3,3,3	Yes	Preserve	\$1,050.00
186	<i>Quercus agrifolia</i>	Coast Live Oak	22	Yes	Removal	\$6,100.00
187	<i>Prunus dulcis</i>	Almond	5,5,4,4	Yes	Preserve	\$300.00
188	<i>Prunus dulcis</i>	Almond	7,7,4,4,4	Yes	Preserve	\$800.00
189	<i>Prunus dulcis</i>	Almond	8,6,4,4,3,3,3	Yes	Preserve	\$800.00
190	<i>Quercus agrifolia</i>	Coast Live Oak	9	Yes	Preserve	\$1,050.00
191	<i>Quercus agrifolia</i>	Coast Live Oak	34	Yes	Removal	\$14,100.00
192	<i>Prunus dulcis</i>	Almond	5,5,5	Yes	Removal	\$450.00
193	<i>Phoenix dactylifera</i>	Date Palm	36	Yes	Preserve	\$1,750.00
TOTAL VALUE FOR PRESERVATION BOND						\$27,050.00
TOTAL VALUE FOR MITIGATION						\$121,300.00

2. TREE MITIGATION SUMMARY CHART:				
Required Trees	Required Tree Quantity/ Size/ Installed Unit Cost	Proposed Tree Quantity/ Size/ Installed Unit Cost	Unit Cost Difference	Total
Street Trees	22 / 24" box / \$350.00	22 / 48" box / \$1,000.00	\$650.00	\$14,300.00
Parking Lot Trees	3 / 15 gallon / \$175.00	3 / 36" box / \$750.00	\$575.00	\$1,725.00
Additional Trees for Mitigation		141 / 36" box / \$750.00	\$750.00	\$105,750.00
Total				\$121,775.00
Mitigation Goal				\$121,300.00
Balance				\$0.00



27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

TTL Management, Inc. an Arizona Corp.
12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300

Existing Tree and Tree Mitigation Plan
L-3.2

PLANNING URBAN DESIGN
LANDSCAPE ARCHITECTURE
201 4th street suite 101B, oakland, ca 94607
phone: 510.452.4190 www.r3studios.com

R3 STUDIOS

PROPOSED PLANT PALETTE

BOTANICAL NAME	COMMON NAME	MINIMUM CONTAINER SIZE	SPACING	WULCOLS	BOTANICAL NAME	COMMON NAME	MINIMUM CONTAINER SIZE	SPACING	WULCOLS
MISSION BOULEVARD STREET TREE:					VINES:				
PLATANUS X HISPANICA	LONDON PLANE	36" BOX	N/A	M	CAMP SIS RADICANS 'MONBAL'	BALBOA SUNSET TRUMPET VINE	5 GALLON	N/A	L
					DISTICUS SPECIES	SCARLET TRUMPET VINE	5 GALLON	N/A	M
					GELSEMIUM SEMPERVIRENS	CAROLINA JASMINE	5 GALLON	N/A	L
					JASMINUM POLYANTHUM	PINK JASMINE	5 GALLON	N/A	M
					PARTHENOCISSUS TRICUSPIDATA	BOSTON IVY	5 GALLON	N/A	L
					ROSA SPECIES	CLIMBING ROSE	5 GALLON	N/A	M
STREET A TREE:					GROUND COVER:				
ACER RUBRUM 'RED SUNSET'	RED MAPLE	36" BOX	N/A	L	CONVOLVULUS SABATIUS	GROUND MORNING GLORY	1 GALLON	3' O.C.	L
					COPROSMA KIRKII 'PROSTATUS'	NCN	1 GALLON	18" O.C.	L
					CORREA SPECIES	AUSTRALIAN FUCHSIA	1 GALLON	VARIES	L
					GERANIUM SPECIES	GERANIUM	1 GALLON	VARIES	M
					GREVILLEA LANIGERA 'COASTAL GEM'	NCN	1 GALLON	3' O.C.	L
					MAHONIA REPENS	OREGON GRAPE	1 GALLON	18" O.C.	M
					NEPETA SPECIES	CAT MINT	1 GALLON	VARIES	L
					ROSA SPECIES	GROUND COVER ROSE	2 GALLON	2' O.C.	L
					TEUCRIUM SPECIES	GERMANDER	1 GALLON	2' O.C.	L
					ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L
FLOWERING ACCENT TREES:					GRASSES:				
ACER PALMATUM 'BIHOU'	NCN	36" BOX	N/A	L	CALAMAGROSTIS SPECIES	FEATHER REED GRASS	1 GALLON	VARIES	M
ARBUTUS UNEDO	STRAWBERRY TREE	36" BOX	N/A	L	CAREX SPECIES	NEW ZEALAND SEDGE	1 GALLON	VARIES	L
CERCIS CANADENSIS SPECIES	EASTERN REDBUD	36" BOX	N/A	M	FESTUCA SPECIES	FESCUE	1 GALLON	3' O.C.	L
CHIONANTHUS RETUSUS	FRINGE TREE	36" BOX	N/A	M	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	1 GALLON	2' O.C.	L
x CHITALPA TASHKENTENSIS	CHITALPA	36" BOX	N/A	L	MUHLBERGIA SPECIES	DEER GRASS	1 GALLON	4' O.C.	L
CORNUS 'EDDIE'S WHITE WONDER'	FLOWERING DOGWOOD	36" BOX	N/A	M	PENNISETUM SPECIES	FOUNTAIN GRASS	1 GALLON	3' O.C.	L
LAGERSTROEMIA FAUREI 'MUSKOGEE'	CRAPE MYRTLE	36" BOX	N/A	L	LOMANDRA SPECIES	NCN	1 GALLON	VARIES	L
MAGNOLIA 'LITTLE GEM'	MAGNOLIA	36" BOX	N/A	M					
MALUS SPECIES	FLOWERING CRAB APPLE	36" BOX	N/A	M					
PRUNUS SPECIES	FLOWERING PLUM/CHERRY	36" BOX	N/A	L					
EVERGREEN SCREEN TREES:					SUCCULENTS:				
ARBUTUS 'MARINA'	NCN	36" BOX	N/A	L	AGAVE ATTENUATA	FOXTAIL AGAVE	2 GALLON	N/A	L
ELEOCARPUS DECIPIENS	BLUEBERRY TREE	36" BOX	N/A	L	AEONIUM SPECIES	NCN	1 GALLON	18" O.C.	L
LAURUS NOBILIS 'SARATOGA'	SWEET BAY	36" BOX	N/A	L	ALOE SPECIES	ALOE	5 GALLON	N/A	L
LYONOTHAMNUS FLORIBUNDUS	IRONWOOD	36" BOX	N/A	L					
LOPHOSTEMON CONFERTUS	BRISBANE BOX	36" BOX	N/A	L					
PODOCARPUS MACROPHYLLA	YEW PINE	36" BOX	N/A	M					
PRUNUS CAROLINIANA	WATER GUM	36" BOX	N/A	L					
TRISTANIA LAURINA 'ELEGANT'		36" BOX	N/A	L					
BACKGROUND/FOUNDATION SHRUBS:					STORM WATER TREATMENT TREES SHRUBS AND GRASSES:				
ABELIA SPECIES	LINNAEA	5 GALLON	N/A	M	ACER RUBRUM SPECIES	NCN	1 GALLON	MIX EVENLY	L
BAMBOO TEXTILIS	WEAVER'S BAMBOO	15 GALLON	5' O.C.	L	ARISTIDA PURPUREA	PURPLE THREE-AWN	1 GALLON	MIX EVENLY	L
BUXUS SPECIES	BOXWOOD	5 GALLON	3' O.C.	M	BOUTELOUA GRACIS	BLUE GRAMA	1 GALLON	MIX EVENLY	L
CALLISTEMON 'LITTLE JOHN'	DWARF BOTTLBRUSH	5 GALLON	3' O.C.	L	CERCIS SPECIES	REDBUD	1 GALLON	MIX EVENLY	L
CORREA SPECIES	AUSTRALIAN FUCHSIA	5 GALLON	4' O.C.	L	CHONDROPETALUM TECTORUM	CAPE RUSH	1 GALLON	MIX EVENLY	L
COPROSMA SPECIES	NCN	5 GALLON	3' O.C.	L	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GALLON	MIX EVENLY	L
ESCALLONIA SPECIES	ESCALLONIA	5 GALLON	3' O.C.	M	JUNCUS PATENS	BLUE RUSH	1 GALLON	MIX EVENLY	L
EUONYMOUS SPECIES	EUONYMOUS	5 GALLON	4' O.C.	L	JUNCUS SPECIES	JUNCUS SPECIES	1 GALLON	MIX EVENLY	L
LOROPETULUM CHINENSE	NCN	5 GALLON	3' O.C.	L	MELICA CALIFORNICA	CALIFORNIA MELIC	1 GALLON	MIX EVENLY	L
MYRTUS SPECIES	MYRTLE	5 GALLON	3' O.C.	M	MIMULUS SPECIES	MONKEY FLOWER	1 GALLON	MIX EVENLY	L
PITTIOSPORUM SPECIES	TOBIRA	5 GALLON	3' O.C.	L					
ROSMARINUS SPECIES	ROSEMARY	5 GALLON	3' O.C.	L					
WESTRINGIA FRUTICOSA	NCN	5 GALLON	3' O.C.	L					
TEUCRIUM CHAMAEDRY'S 'COMPACTA'	GERMANDER	5 GALLON	3' O.C.	L					
INTERMEDIATE SHRUBS:									
BERBERIS SPECIES	BARBERRY	5 GALLON	3' O.C.	M					
CORREA SPECIES	AUSTRALIAN FUCHSIA	5 GALLON	VARIES	L					
DIANELLA SPECIES	FLAX LILY	5 GALLON	3' O.C.	L					
DIETES SPECIES	FORTNIGHT LILY	5 GALLON	3' O.C.	L					
LAVANDULA SPECIES	LAVENDER	5 GALLON	3' O.C.	L					
LIRIOPE GIGANTEA	LILY TURF	5 GALLON	2' O.C.	M					
NANDINA SPECIES	HEAVENLY BAMBOO	5 GALLON	2' O.C.	L					
PHORMIUM SPECIES	NEW ZEALAND FLAX	5 GALLON	3' O.C.	L					
RHAPHIOLEPIS INDICA SPECIES	INDIAN HAWTHORN	5 GALLON	4' O.C.	L					
ROSA SPECIES	SHRUB ROSE	5 GALLON	3' O.C.	M					
SALVIA SPECIES	SAGE	5 GALLON	3' O.C.	L					
ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L					
FOREGROUND SHRUBS:									
ANIGOZANTHUS SPECIES	DWARF KANGAROO PAWS	1 GALLON	18" O.C.	L					
BULBINE FRUTESCENS	NCN	1 GALLON	30" O.C.	L					
DIANELLA SPECIES	FLAX LILY	1 GALLON	30" O.C.	L					
GERANIUM SPECIES	GERANIUM	1 GALLON	18" O.C.	M					
HEMEROCALLIS SPECIES	EVERGREEN DAYLILY	1 GALLON	2' O.C.	M					
LAVANDULA SPECIES	LAVENDER	5 GALLON	3' O.C.	L					
LIRIOPE SPECIES	BIG BLUE LILY TURF	1 GALLON	18" O.C.	M					
NANDINA SPECIES	HEAVENLY BAMBOO	5 GALLON	3' O.C.	L					
PHORMIUM SPECIES	NEW ZEALAND FLAX	5 GALLON	3' O.C.	L					
POLYSTICHUM MUNITUM	SWORD FERN	1 GALLON	VARIES	L					
RUPELLIA SPECIES	NCN	5 GALLON	3' O.C.	L					
SANTOLINA SPECIES	LAVENDER COTTON	5 GALLON	3' O.C.	L					
SALVIA SPECIES	SAGE	5 GALLON	3' O.C.	L					
TEUCRIUM SPECIES	GERMANDER	1 GALLON	18" O.C.	L					
ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L					

NOTES

WATER CONSERVATION STATEMENT:

PLANT MATERIAL HAS BEEN CHOSEN FOR WATER CONSERVING AND REDUCED MAINTENANCE CHARACTERISTICS. A MAXIMUM OF 25% OF NON-TURF PLANS WILL HAVE A MODERATE IRRIGATION WATER REQUIREMENT AND A MINIMUM OF 50% OF NON-TURF PLANTS WILL HAVE A LOW TO VERY LOW IRRIGATION WATER REQUIREMENT.

IRRIGATION NOTE:

A FULLY AUTOMATIC IRRIGATION SYSTEM SHALL BE PROPOSED FOR THE PROJECT UTILIZING WATER CONSERVING METHODS. IRRIGATION SHALL BE INSTALLED THROUGHOUT THE BIO-RETENTION AREAS TO PROVIDE SUPPLEMENTAL IRRIGATION IN THE DRY MONTHS WITH REDUCED IRRIGATION DURING SEASONAL RAINFALL OR WET MONTHS.

MINIMUM TREE CLEARANCE NOTE:

- SMALL TREES (15' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 6' FROM BUILDINGS AND A MINIMUM OF 2' FROM EDGES OF PAVING, CURBS OR WALLS.
- MEDIUM TREES (25' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 10' FROM BUILDINGS AND A MINIMUM OF 3' FROM PAVING, CURBS OR WALLS.
- LARGE TREES (ABOVE 25' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 15' FROM BUILDINGS AND A MINIMUM OF 3' FROM PAVING, CURBS OR WALLS.
- 5' MINIMUM FROM JOINT TRENCH, WATER LINES, WATER METERS AND FIRE HYDRANTS.
- 8' MINIMUM FROM SANITARY SEWER AND STORM DRAINS.
- ALL TREES PLANTED WITHIN 5'-0" OF FUTURE CURBS, SIDEWALK, WALLS AND ALL UTILITIES, SHALL INCLUDE A ROOT BARRIER.

LANDSCAPE NOTES:

PLANT PALETTE IS FOR REFERENCE ONLY, NOT ALL TREES, SHRUBS, GRASSES, AND GROUND COVER LISTED WILL BE UTILIZED IN THE PREPARATION OF CONSTRUCTION DOCUMENTS. ADDITIONAL PLANTS MAY BE SUBSTITUTED DUE TO AVAILABILITY AND CONTAINER SIZE. PLANT MATERIAL SHALL BE SELECTED AT THE DISCRETION OF THE LANDSCAPE ARCHITECT.

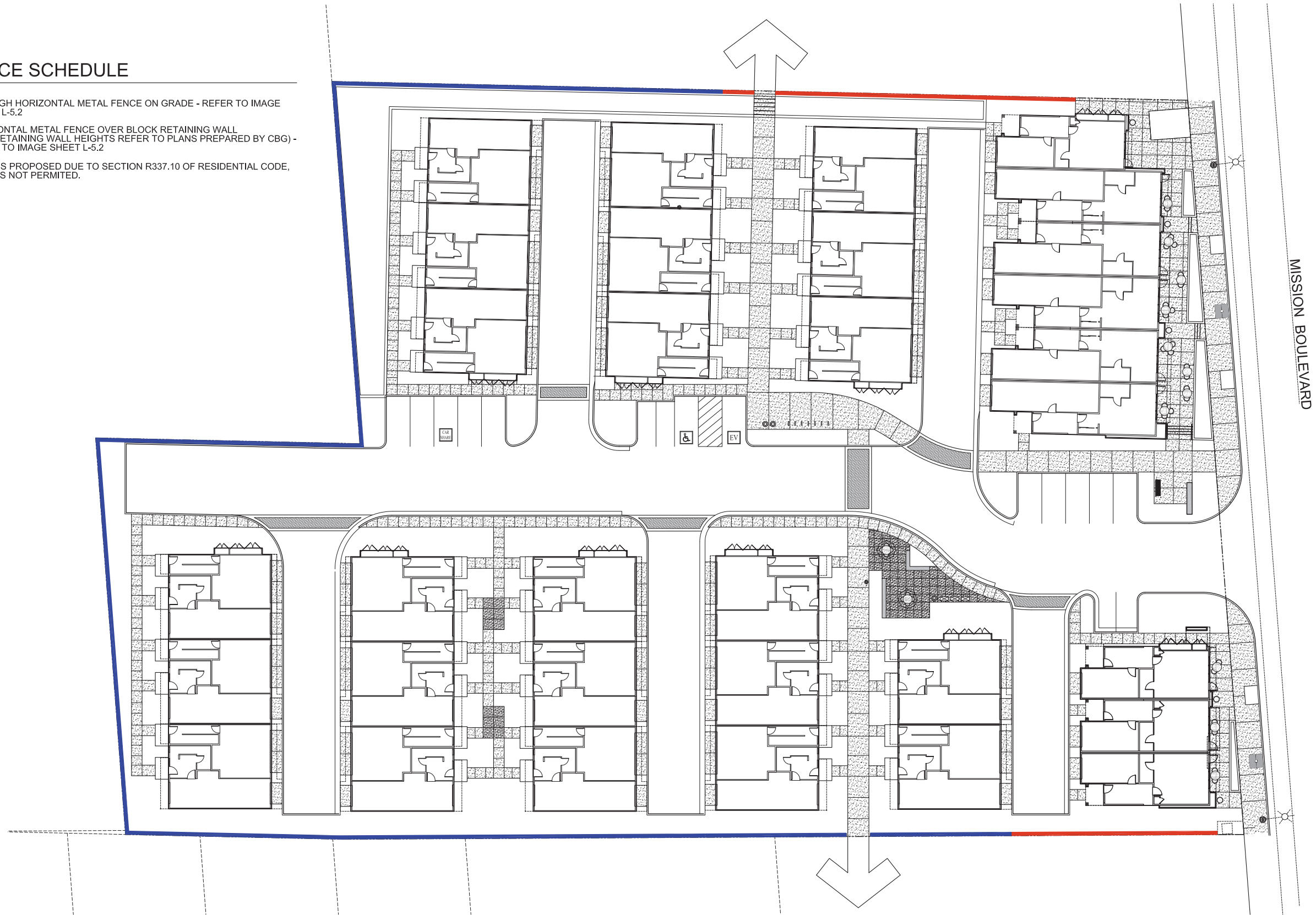
LANDSCAPING SHALL BE OF THE TYPE AND SITUATED IN LOCATIONS TO MAXIMIZE OBSERVATION WHILE PROVIDING THE DESIRED DEGREE OF AESTHETICS. LANDSCAPING SHOULD BE TRIMMED SO AS NOT TO PROVIDE CONCEALMENT OPPORTUNITIES OR MEANS TO ACCESS ROOF. SECURITY PLANTING MATERIALS ARE ENCOURAGED ALONG PROPERTY LINE AND UNDER VULNERABLE WINDOWS.

ALL TRANSFORMERS AND UTILITY BOXES TO BE SCREENED WITH EVERGREEN SHRUBS.

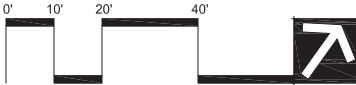
WALL & FENCE SCHEDULE

- 6'-0" HIGH HORIZONTAL METAL FENCE ON GRADE - REFER TO IMAGE SHEET L-5.2
- HORIZONTAL METAL FENCE OVER BLOCK RETAINING WALL (FOR RETAINING WALL HEIGHTS REFER TO PLANS PREPARED BY CBG) - REFER TO IMAGE SHEET L-5.2

NOTE: METAL FENCING IS PROPOSED DUE TO SECTION R337.10 OF RESIDENTIAL CODE, WOOD FENCING IS NOT PERMITTED.

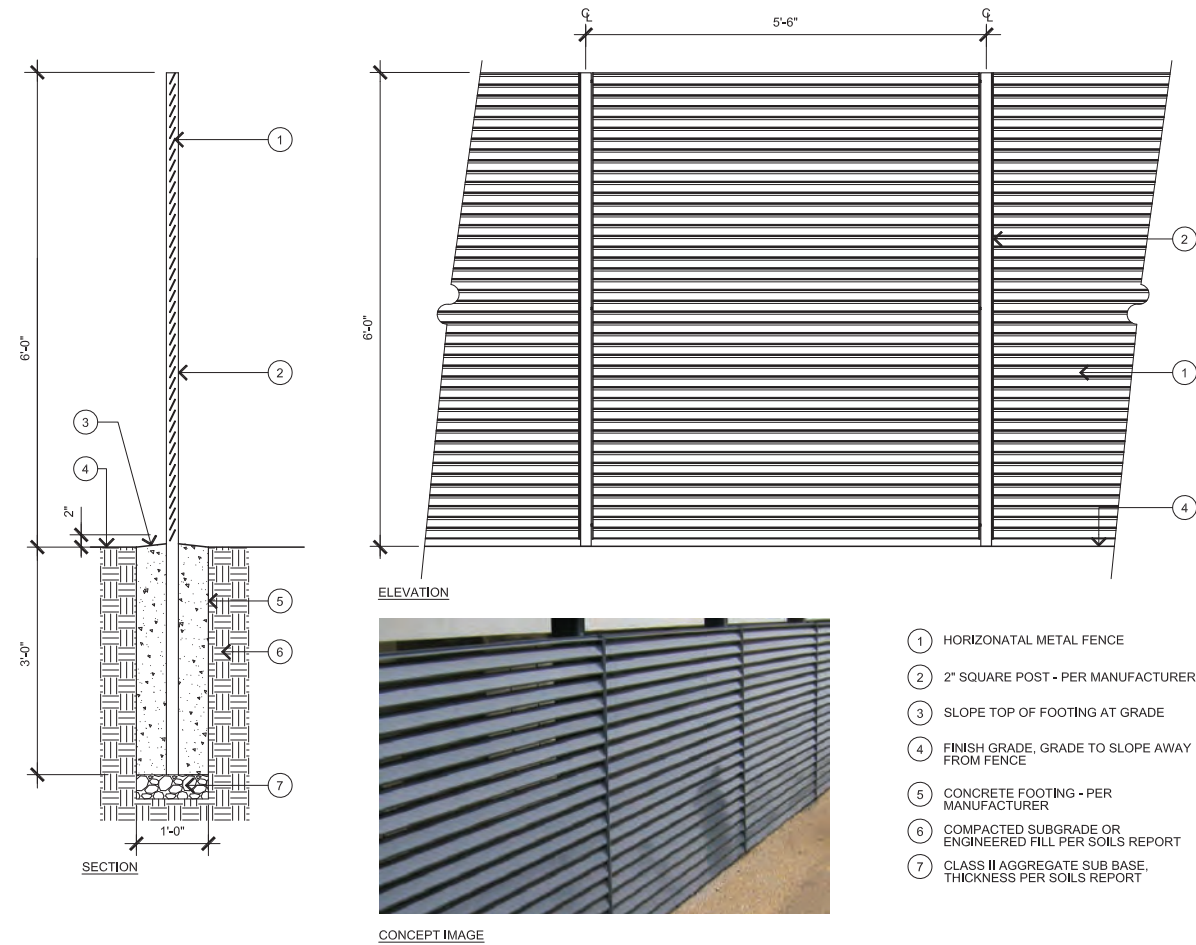


PLAN VIEW
Scale: 1"=20'-0"

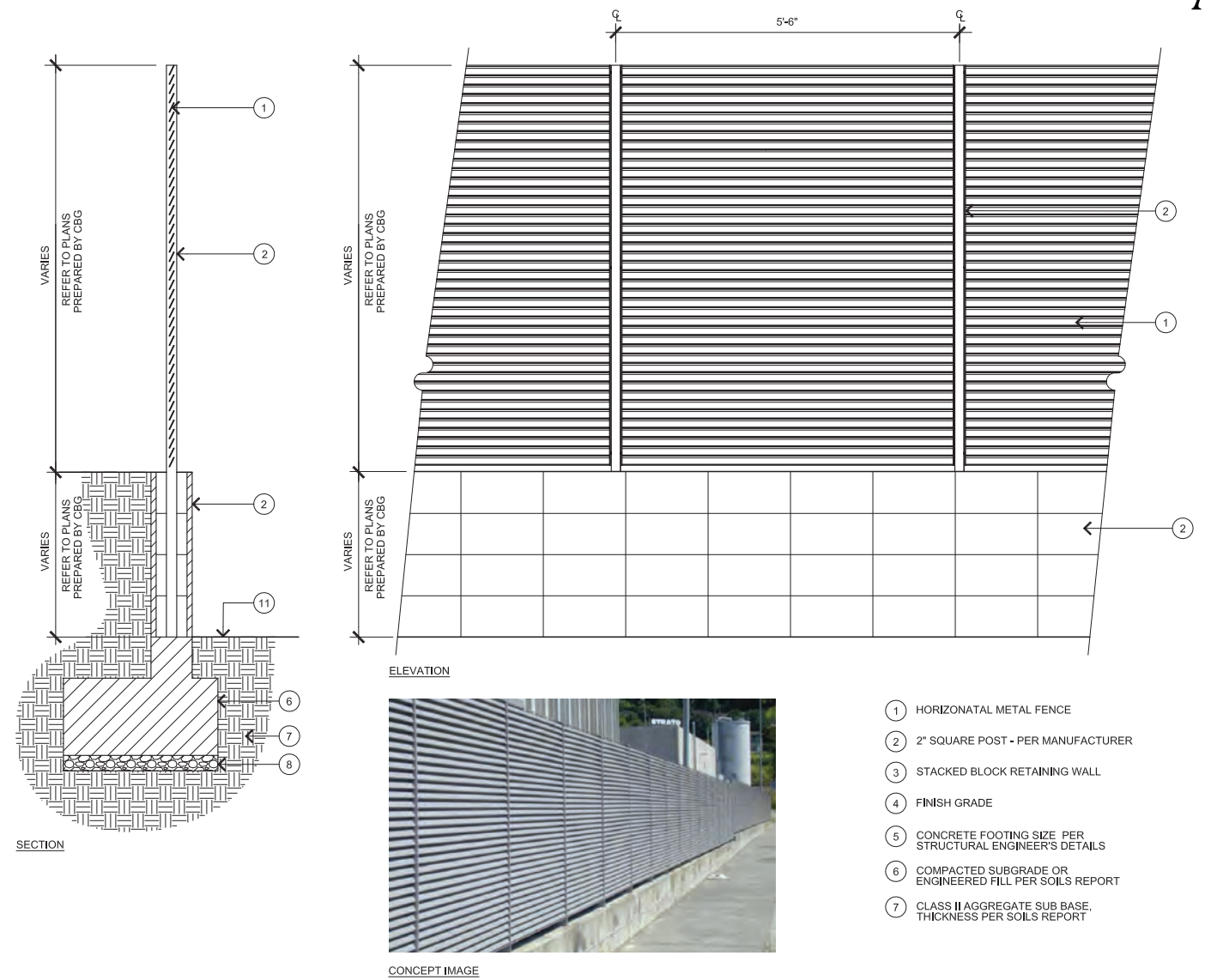


27177 MISSION BOULEVARD
Hayward, CA
April 30, 2021

Wall and Fence Plan
L-5.1



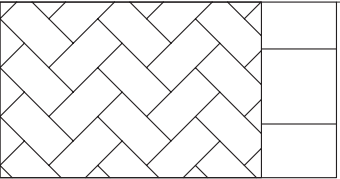
1 6'-0" HIGH HORIZONTAL METAL FENCE ON GRADE SCALE : 3/4"=1'-0"



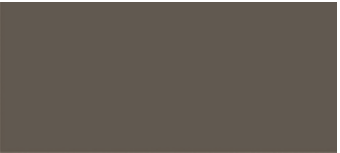
2 HORIZONTAL METAL FENCE OVER BLOCK RETAINING WALL SCALE : 3/4"=1'-0"



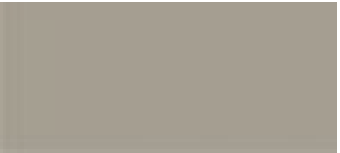
ACID-ETCHED CONCRETE PAVING



FIELD PRINT: STANDARD HERRINGBONE
BORDER PRINT: STACKED BRICK



FIELD COLOR: GRANITE



BORDER COLOR: SANDSTONE



WASTE RECEPTACLE

FINISH TO BE ALUMINUM TEXTURE POWDERCOAT



BENCH

FINISH TO BE ALUMINUM TEXTURE POWDERCOAT



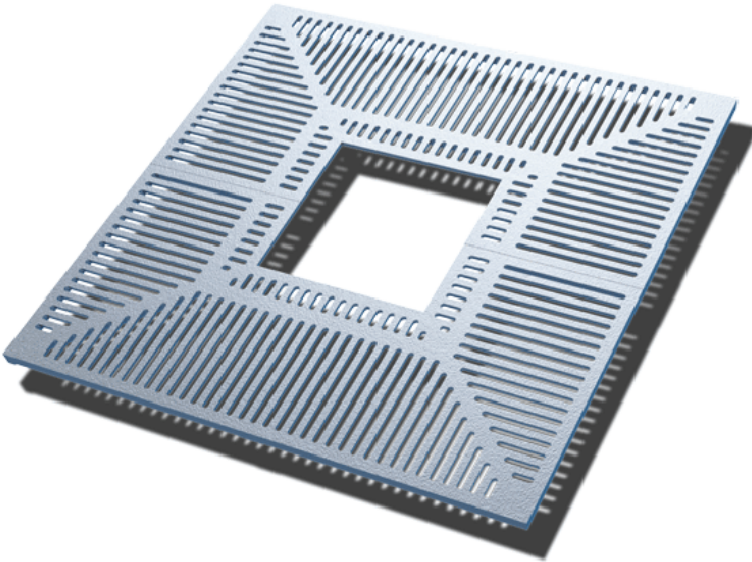
BICYCLE RACK

FINISH TO BE ALUMINUM TEXTURE POWDERCOAT



MAILBOX STATION

FINISH TO BE ALUMINUM



TREE GRATE (MISSION BOULEVARD)

TREE GRATE TO BE ADA TREE GRATE 1/2", FINISH TO BE CAST ALUMINUM

27177 MISSION BOULEVARD
Hayward, CA

April 30, 2021



TTL Management, Inc. an Arizona Corp.

12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300

Site Furniture
L-6.1

PLANNING URBAN DESIGN
LANDSCAPE ARCHITECTURE
201 4th street suite 101B, oakland, ca 94607
phone: 510.452.4190 www.r3studios.com





TABLE AND CHAIRS WITH UMBRELLA

FINISH TO BE ALUMINUM TEXTURE POWDERCOAT



STACKED DECORATIVE BLOCK SEATWALL

FINISH TO BE GROUND FACE, COLOR TO BE 225



STREET LIGHT

FINISH TO BE ALUMINUM
TEXTURE POWDERCOAT



CONCEPT

PROJECT IDENTIFICATION WALL



CONCEPT

STORE FRONT PLANTERS

27177 MISSION BOULEVARD
Hayward, CA

April 30, 2021



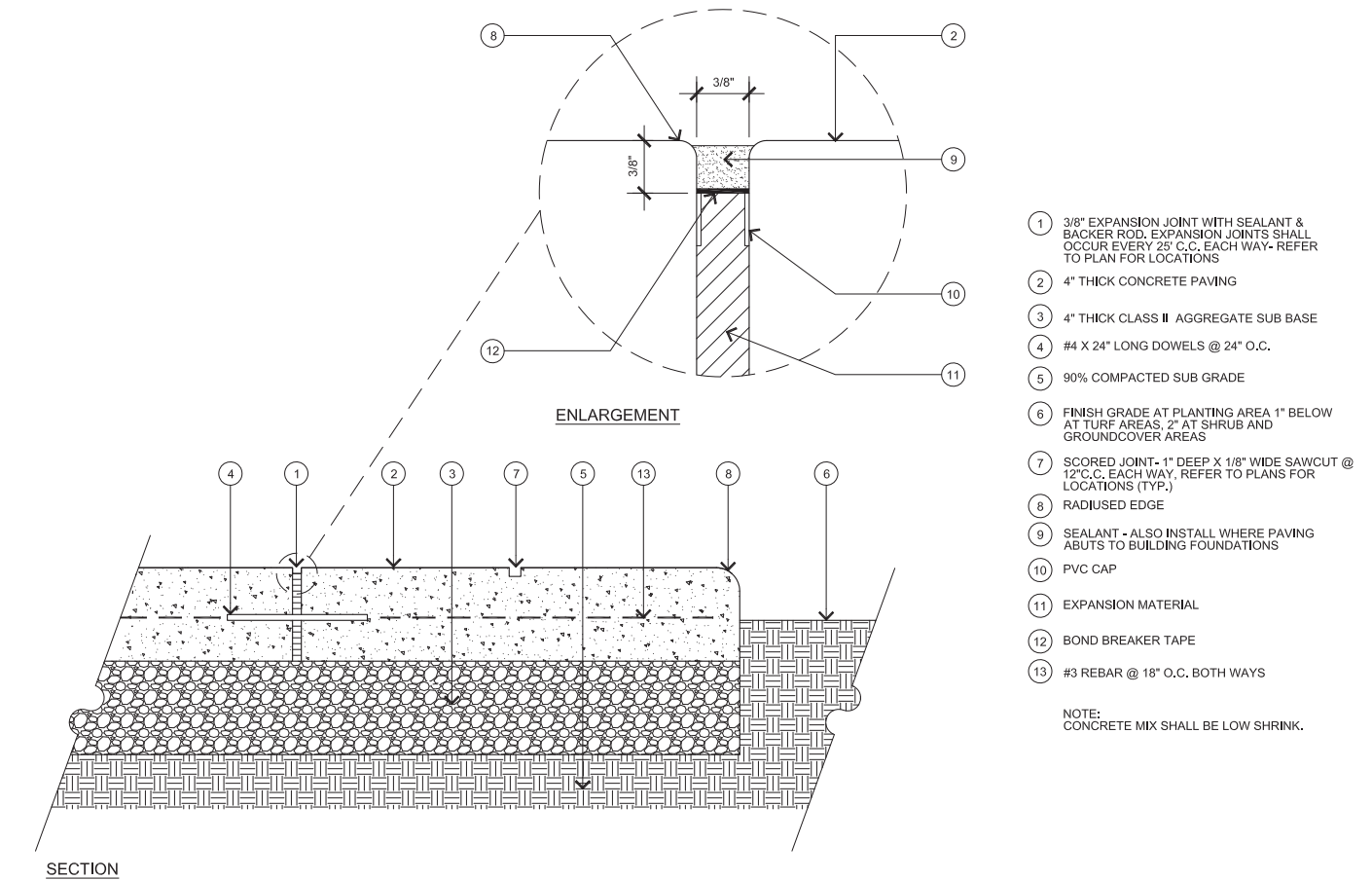
TTL Management, Inc. an Arizona Corp.

12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
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Site Furniture
L-6.2

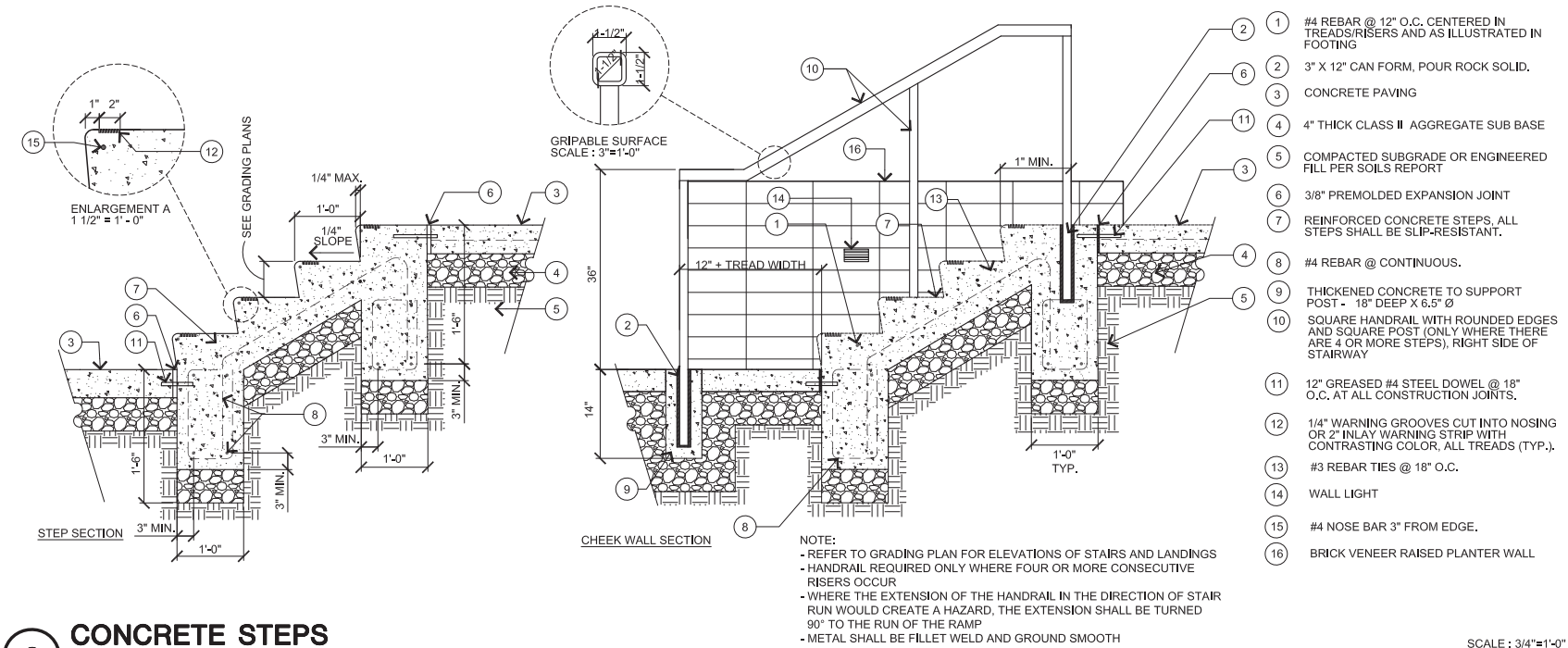
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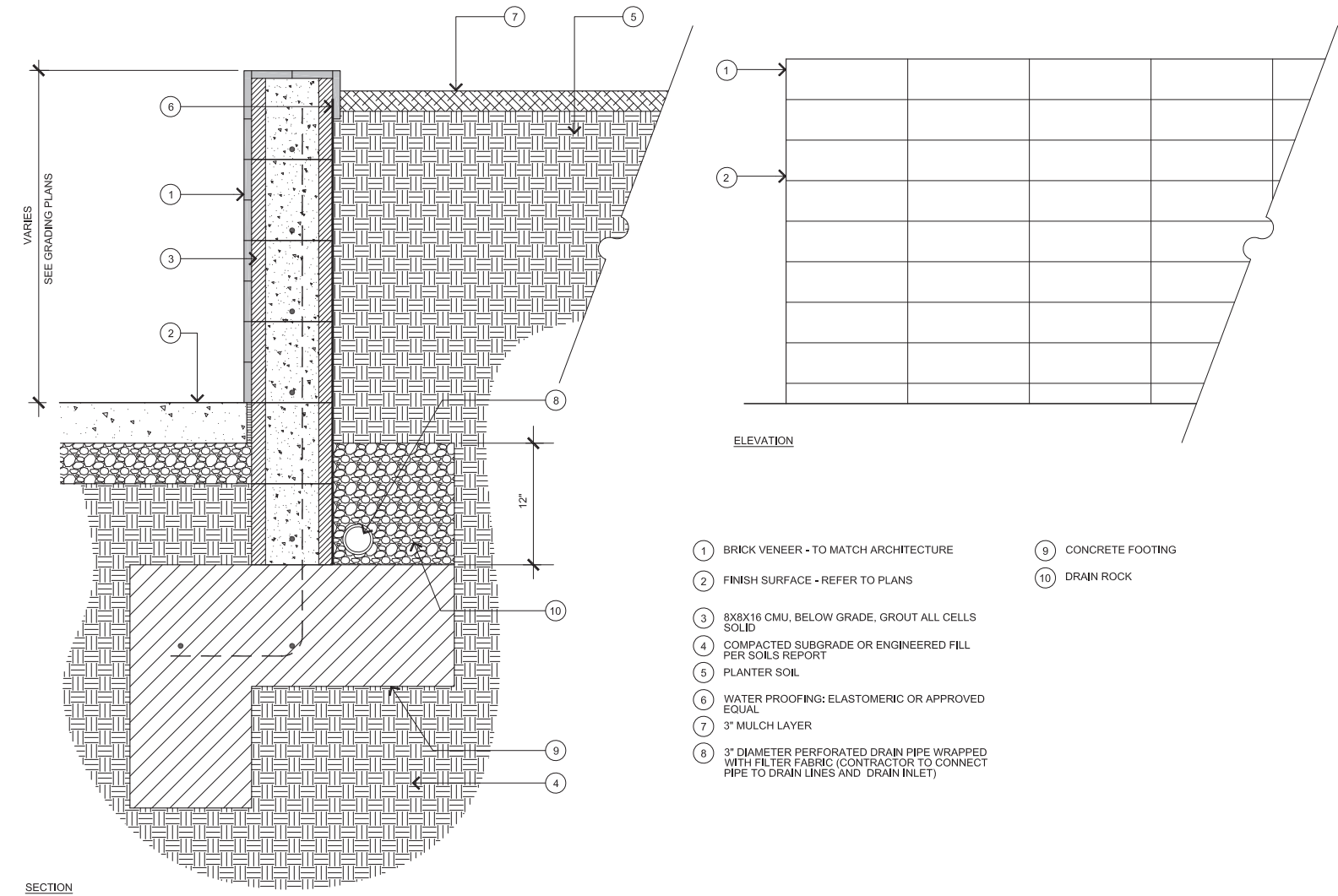
1 CONCRETE PAVING

SCALE : 3/4"=1'-0"



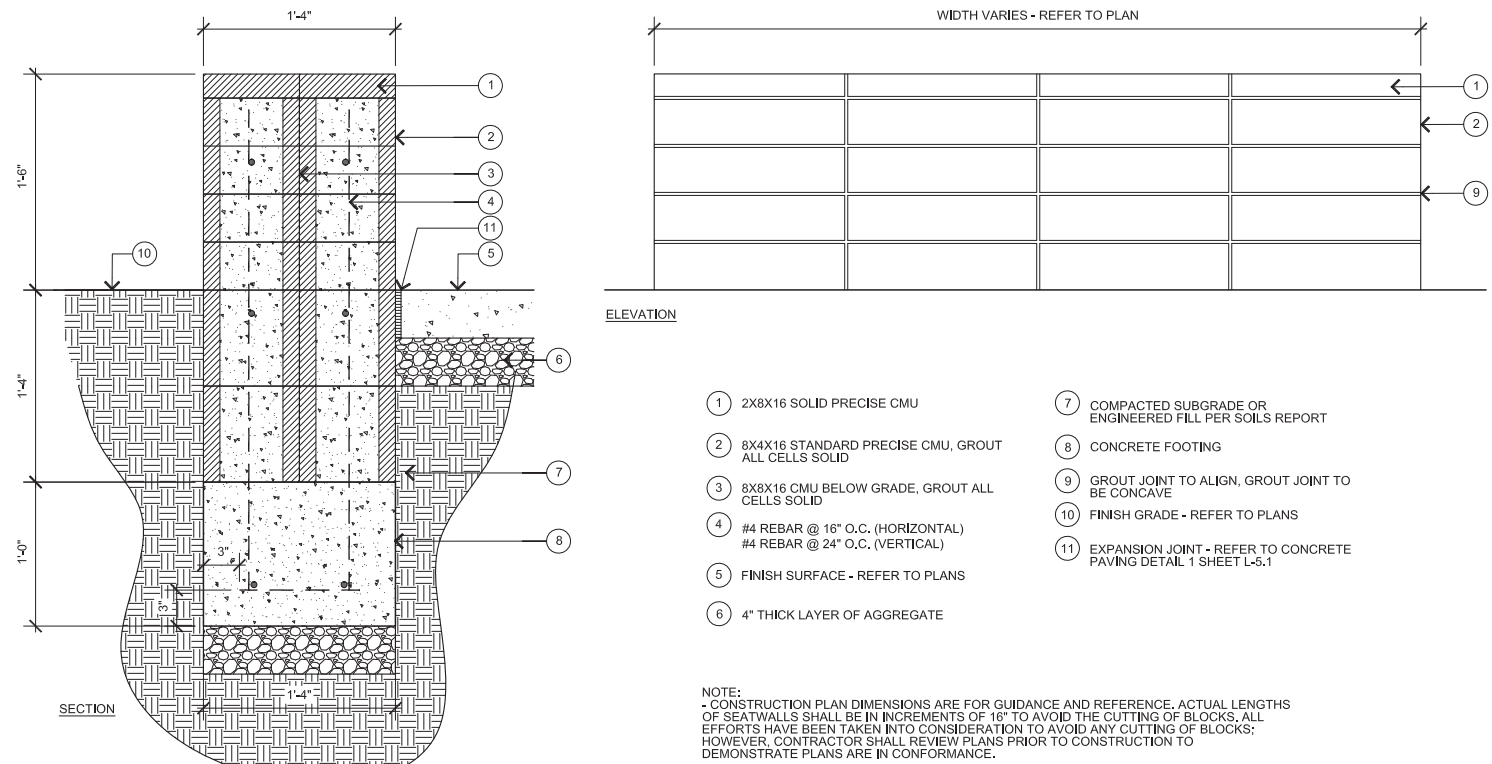
2 CONCRETE STEPS (WITH HANDRAIL WHERE REQUIRED)

SCALE : 3/4"=1'-0"



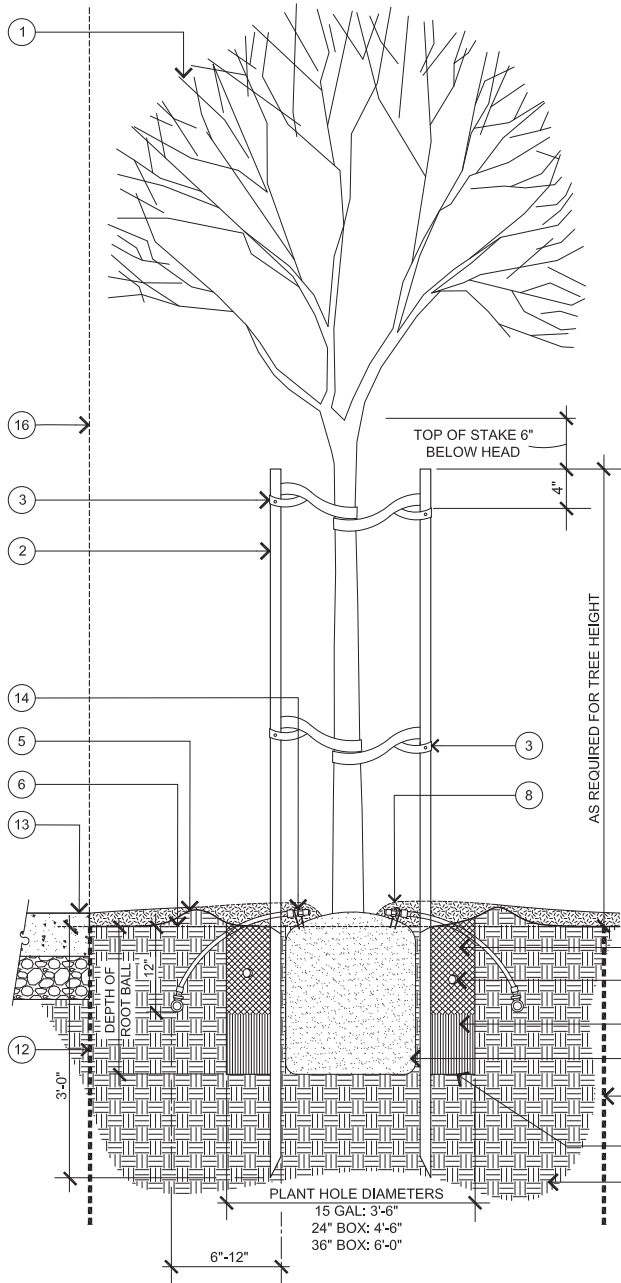
1 BRICK VENEER RAISED PLANTER WALL

SCALE : 1-1/2"=1'-0"



2 STACKED BLOCK SEATWALL

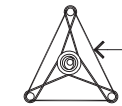
SCALE : 1 1/2"=1'-0"



- 1 TREE: REFER TO PLANTING PLAN FOR LOCATION AND PLANTING LEGEND FOR SPECIES
- 2 LODGE POLE PINE TREE STAKES: 3"x10" LONG TREE STAKES FOR WINDY CONDITIONS AND 36" BOX AND LARGER TREES
- 3 TREE TIE: WONDER TREE-TIE(800-910-2810) MODEL# W14-46, W24-84 OR APPROVED EQUAL. LOOP IN A FIGURE EIGHT AND NAIL TO BACK OF STAKE WITH GALVANIZED THREADED NAILS. ALLOW 3" OF MOVEMENT OF TREE IN ALL DIRECTIONS.
- 4 TREE ROOTBALL SET ON 12" LAYER UNDISTURBED NATIVE SOIL. DO NOT PENETRATE ROOTBALL WITH STAKES. TAMP SOIL TO 85% RELATIVE COMPACTION. SET CROWN OF ROOTBALL 2" ABOVE FINISH GRADE.
- 5 3" EARTH BERM FOR WATER BASIN
- 6 FINISH GRADE. SET 1" BELOW AT TURF AREAS AND 2" AT SHRUB AND GROUNDCOVER AREAS
- 7 BACK FILL MIX: (TOP 12 INCHES ONLY): 70% PULVERIZED NATIVE SOIL, 30% NITROGEN FORTIFIED FIR OR REDWOOD SAWDUST.
- 8 BARK MULCH: 3" DEPTH, KEEP CLEAR FROM TRUNK OF TREE
- 9 PULVERIZED NATIVE SOIL
- 10 FERTILIZER TABS (21 GRAM, 20-10-5):
 - 15 GAL: 7 TABS
 - 24" BOX: 15 TABS
 - 36" BOX: 24 TABS
- 11 PLANTING HOLE, PULVERIZED NATIVE SOIL BELOW 12" FROM FINISHED GRADE; SCARIFY WALLS
- 12 ROOT BARRIER(AS NEEDED): REFER TO PLANTING NOTES AND SPECIFICATIONS
- 13 PAVING: REFER TO PLAN
- 14 1/4 GPM IRRIGATION BUBBLER, OFFSET FROM TREE TUCKED TO ROOTBALL
- 15 COMPACTED SUBGRADE OR ENGINEERED FILL PER SOILS REPORT
- 16 BUILDING OR WALL

NOTES:

ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT.



NAIL 1X4 BOARDS TO STAKES FOR STABILITY, TYP.

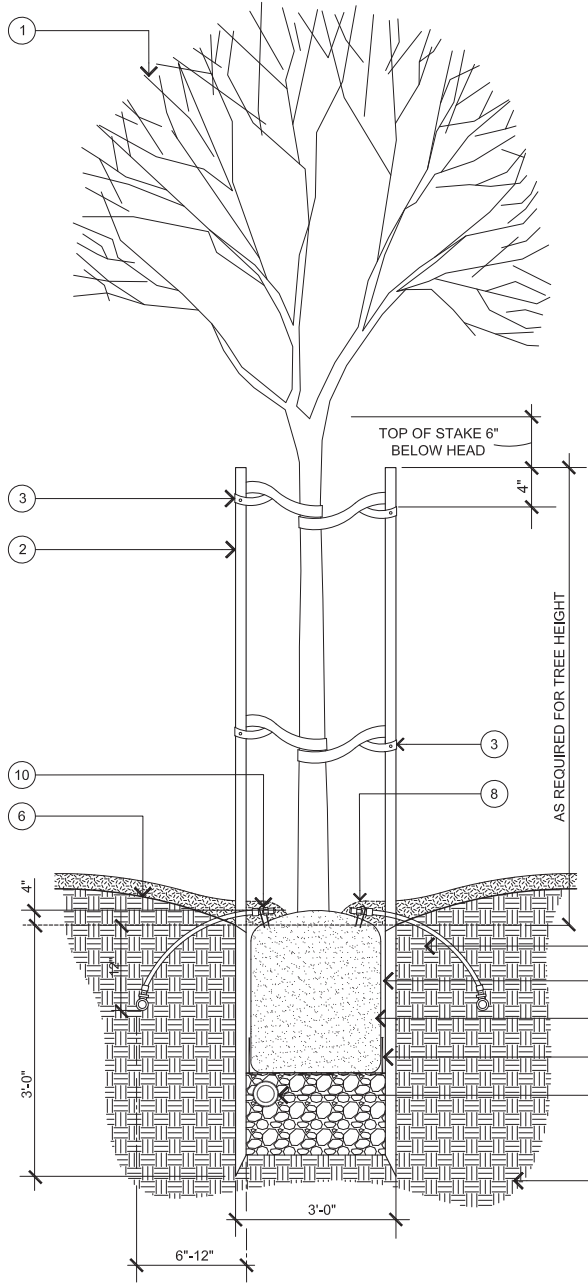
PREVAILING WIND

TREE STAKE, NAIL TREE TIE TO BACK OF STAKE

TREE

1 TREE STAKING

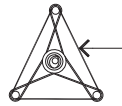
N.T.S.



- 1 TREE: REFER TO PLANTING PLAN FOR LOCATION AND PLANTING LEGEND FOR SPECIES
- 2 LODGE POLE PINE TREE STAKES: 3"x10" LONG TREE STAKES FOR WINDY CONDITIONS AND 36" BOX AND LARGER TREES
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- 4 TREE ROOTBALL SET ON 12" LAYER UNDISTURBED NATIVE SOIL. DO NOT PENETRATE ROOTBALL WITH STAKES. TAMP SOIL TO 85% RELATIVE COMPACTION. SET CROWN OF ROOTBALL 2" ABOVE FINISH GRADE.
- 5 MIRAFL 140 OR EQUAL - EXTEND 6" PAST ROOT BALL ON SIDES AND 4" ON EITHER SIDE ALONG CENTERLINE OF TRENCH
- 6 FINISH GRADE OF TREATMENT SOIL, SET 4" BELOW TOP OF ROOT BALL
- 7 6" PVC SLEEVE TO BE PLACED AROUND 4" PERFORATED SUBDRAIN FOR 4" ON EITHER SIDE OF TREE CENTERLINE
- 8 CEDAR MULCH: 3" DEPTH, KEEP CLEAR FROM TRUNK OF TREE
- 9 PLANTING HOLE, PULVERIZED NATIVE SOIL BELOW 12" FROM FINISHED GRADE; SCARIFY WALLS
- 10 1/4 GPM IRRIGATION BUBBLER, OFFSET FROM TREE TUCKED TO ROOTBALL
- 11 COMPACTED SUBGRADE OR ENGINEERED FILL PER SOILS REPORT

NOTES:

ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT.



NAIL 1X4 BOARDS TO STAKES FOR STABILITY, TYP.

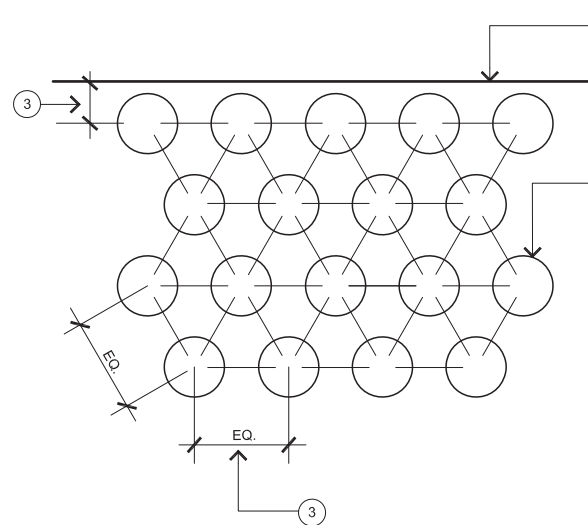
PREVAILING WIND

TREE STAKE, NAIL TREE TIE TO BACK OF STAKE

TREE

2 TREE IN BIO-SWALE

N.T.S.



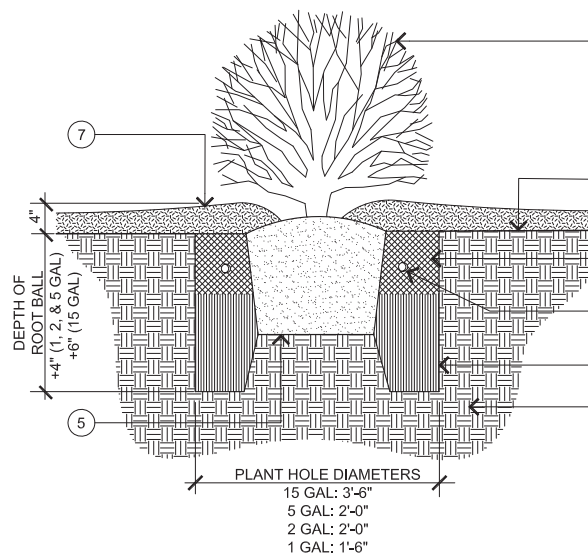
- 1 EDGE OF PAVING, HEADER, FACE OF BUILDING, WALL, ETC.
- 2 GROUNDCOVER OR SHRUB: REFER TO PLANTING PLAN FOR LOCATION AND PLANTING LEGEND FOR SPECIES
- 3 GROUNDCOVER AND SHRUB SPACING PER PLANTING PLAN AND LEGEND

NOTES:

1. ALL PLANTS SHALL BE PLANTED AT EQUAL SPACING (TRIANGULAR) UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2. CENTERLINE OF PLANTS SHALL BE 1/2 OF EQUAL SPACING MINIMUM FROM EDGE OF PLANTING AREA.
3. INFILL PLANTS AS REQUIRED TO MAINTAIN SPACING AT IRREGULAR EDGES.
4. KEEP MULCH CLEAR OF PLANT BASE.
5. ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT.

3 GROUNDCOVER PLANTING

N.T.S.



- 1 SHRUB: REFER TO PLANTING PLAN FOR LOCATION AND PLANTING LEGEND FOR SPECIES
- 2 COMPACTED SUBGRADE OR ENGINEERED FILL PER SOILS REPORT
- 3 FINISH GRADE
- 4 BACK FILL MIX: (1/2 DEPTH OF ROOT BALL HEIGHT): 70% PULVERIZED NATIVE SOIL, 30% NITROGEN FORTIFIED FIR OR REDWOOD SAWDUST.
- 5 SHRUB ROOTBALL SET ON LIGHTLY TAMPED SOIL. SET CROWN OF ROOTBALL 1" ABOVE FINISH GRADE.
- 6 FERTILIZER TABS (21 GRAM, 20-10-5):
 - 1 GALLON: 1 TAB
 - 2 GALLON: 2 TABS
 - 5 GAL: 3 TABS
 - 15 GAL: 5 TABS
- 7 BARK MULCH: 3" DEPTH, KEEP CLEAR FROM ROOT BALL CROWN
- 8 PULVERIZED NATIVE SOIL

NOTES:

ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT

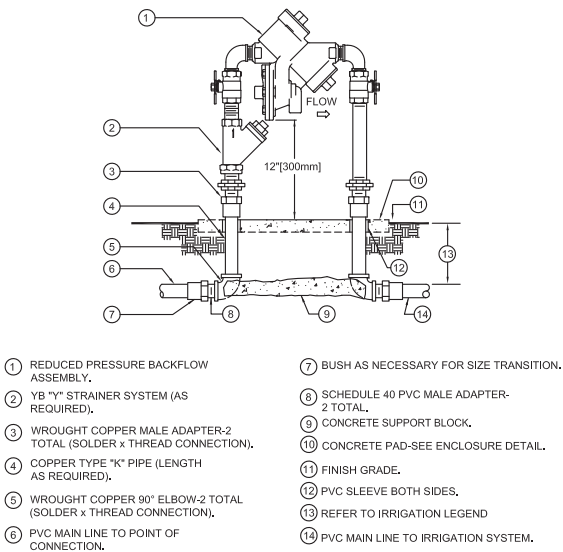
4 SHRUB PLANTING

N.T.S.

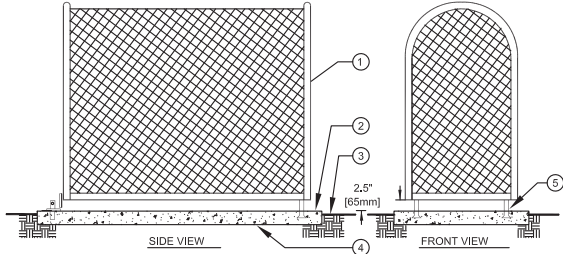


- | | | | | |
|-----|------|----|--|---|
| | | |  <div style="text-align: center;"> CITY OF
HAYWARD
 PUBLIC WORKS DEPT. </div> | <div style="text-align: right;"> DWG. NO. SD-122 </div> |
| | | | DRAWN BY: JT DATE: 08/13/08
CHECKED BY: MHW DATE: 08/13/08
APP'D BY: <i>[Signature]</i> | <div style="text-align: center;"> STANDARD
STREET
TREE PLANTING </div> |
| REV | DATE | BY | CITY ENGINEER <i>[Signature]</i>
PUBLIC WORKS | FILED

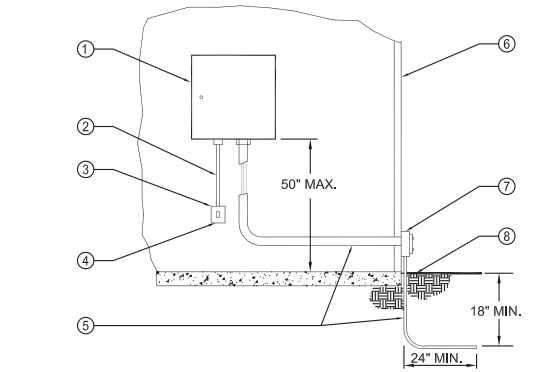
SHT. 2 of 2 |



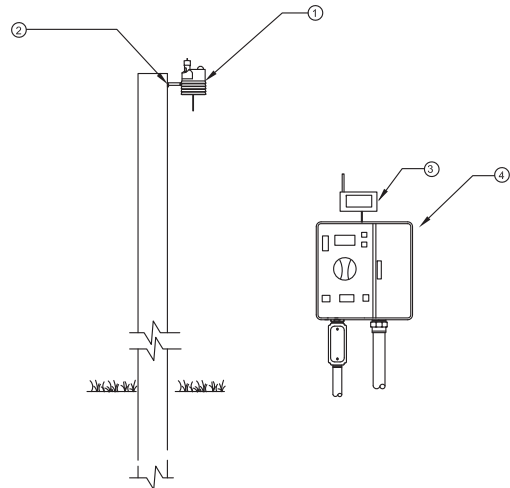
NOTES:
1. INSTALL A FREEZE PREVENTATIVE BLANKET AROUND BACKFLOW ASSEMBLY, BLANKET SHALL BE GREEN.
2. DO NOT SOLDER CONNECT FITTINGS WHILE THREADED INTO BACKFLOW ASSEMBLY, THIS MAY CAUSE DAMAGE TO DEVICE.
3. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS BACKFLOW ASSEMBLY.
4. PROVIDE A STAINLESS STEEL ENCLOSURE TO COMPLETELY ENCLOSE DEVICE, INSTALL ENCLOSURE TO CONCRETE BASE AS DIRECTED BY MANUFACTURER.



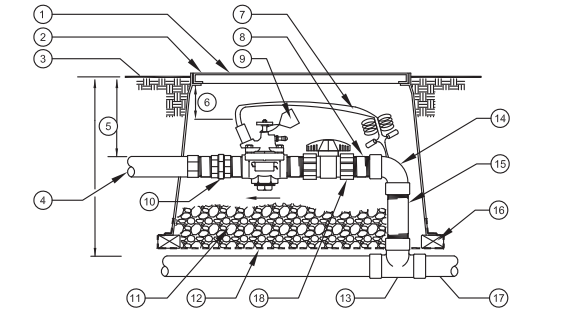
1 IRRIGATION CONTROLLER
2 120 VOLT SERVICE IN RIGID STEEL CONDUIT
3 120 VOLT LOCKABLE ON/OFF SWITCH PROVIDED UNDER IRRIGATION CONTRACT
4 120 VOLT SERVICE TO CONTROLLER LOCATION PROVIDED BY ELECTRICAL CONTRACTOR
5 SCHEDULE 40 GREY PVC ELECTRICAL CONDUIT FOR LOW VOLTAGE WIRE
6 EXTERIOR WALL
7 ELECTRICAL PULL BOX PER ELECTRICAL CODE
8 FINISH GRADE



1 WIRELESS CLIMATE SENSOR TRANSMITTER
2 SUITABLE POST, POLE, OR GUTTER MOUNT. MOUNT IN LOCATION WHERE SENSOR CAN RECEIVE FULL SUN, IS OPEN TO RAINFALL AND OUT OF SPRINKLER SPRAY PATTERN
3 SENSOR RECEIVER
4 CONTROLLER

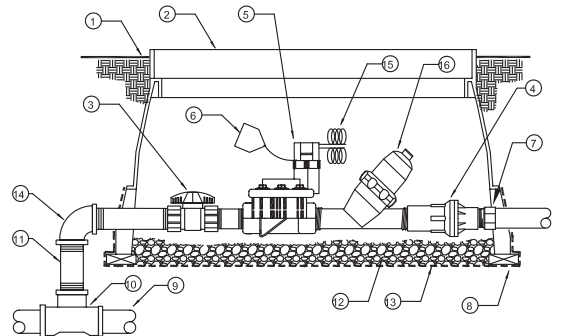


1 REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS).
2 USE A 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID FOR 1" VALVES, FOR 1.5" AND LARGER VALVES INSTALL BALL VALVE WITHIN A SEPARATE 10" ROUND BOX OR ONE BALL VALVE PER MANIFOLD OF VALVES, GATE VALVE SIZE SHALL BE SAME AS LARGEST VALVE WITHIN MANIFOLD, ONE VALVE PER BOX- NO EXCEPTIONS, INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
3 FINISH GRADE.
4 PVC LATERAL LINE.
5 REFER TO IRRIGATION SPECS.
6 3" (75mm) MIN, 6" (150mm) MAX.
7 VALVE CONTROL WIRE- PROVIDE SEAL PACKS AT ALL SPLICES AND 3' (1m) OF EXCESS UF WIRE IN A 1" (25mm) DIAMETER COIL.

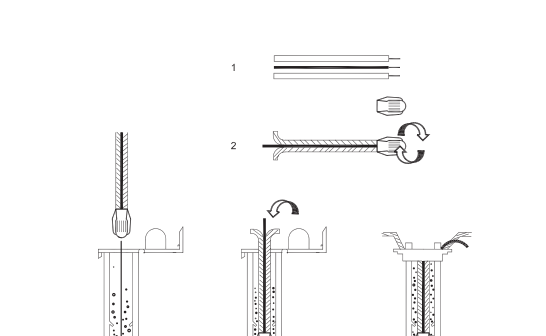


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7 VALVE CONTROL WIRE- PROVIDE SEAL PACKS AT ALL SPLICES AND 3' (1m) OF EXCESS UF WIRE IN A 1" (25mm) DIAMETER COIL.

1 REDUCED PRESSURE BACKFLOW ASSEMBLY

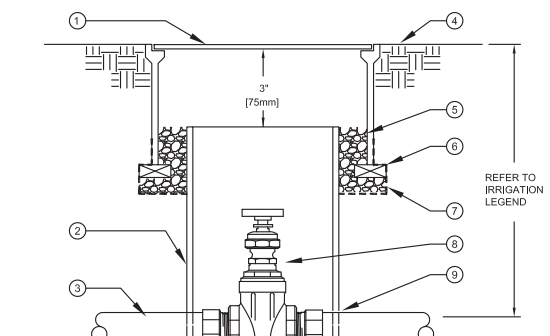


2 BACKFLOW ASSEMBLY ENCLOSURE



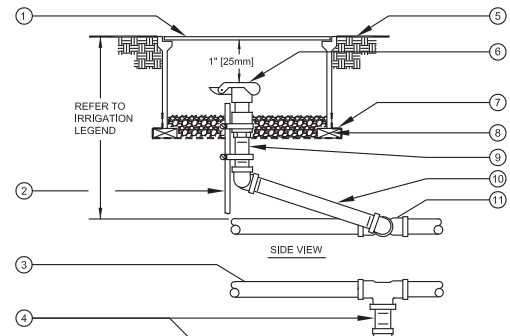
INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" (13 mm) TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

3 INTERIOR MOUNTED CONTROLLER



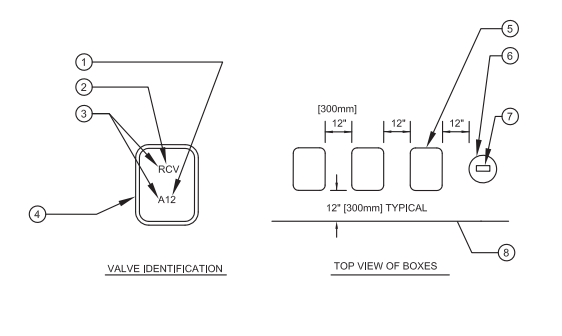
1 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID.
2 8" (200mm) CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE).
3 PVC MAIN LINE.
4 FINISH GRADE.
5 PEA GRAVEL OR 3/4" (20mm) DRAIN ROCK - 4" (100mm) DEEP (NO SOIL IN VALVE BOX).
6 BRICK-2 TOTAL.
7 19 GAUGE 1/2" (13mm) SQUARE WIRE MESH.
8 GATE VALVE.
9 MALE ADAPTER, REFER TO LEGEND FOR FITTING TYPE.

4 WIRELESS WEATHER SENSOR



NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.

5 REMOTE CONTROL VALVE



INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" (25mm) ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE, INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.

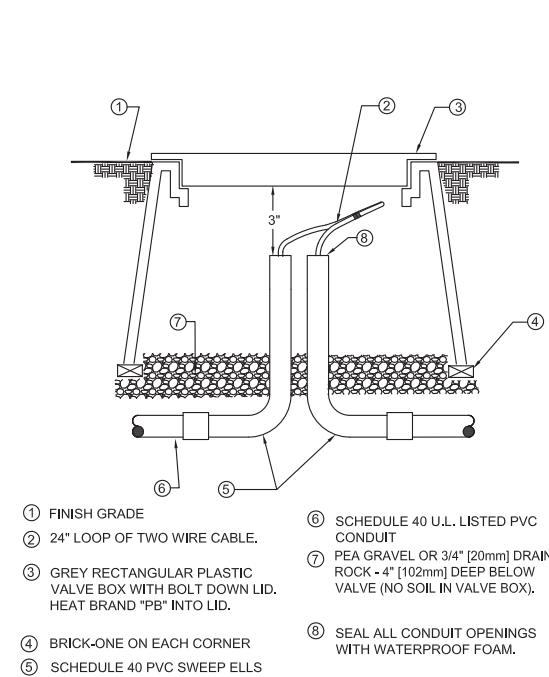
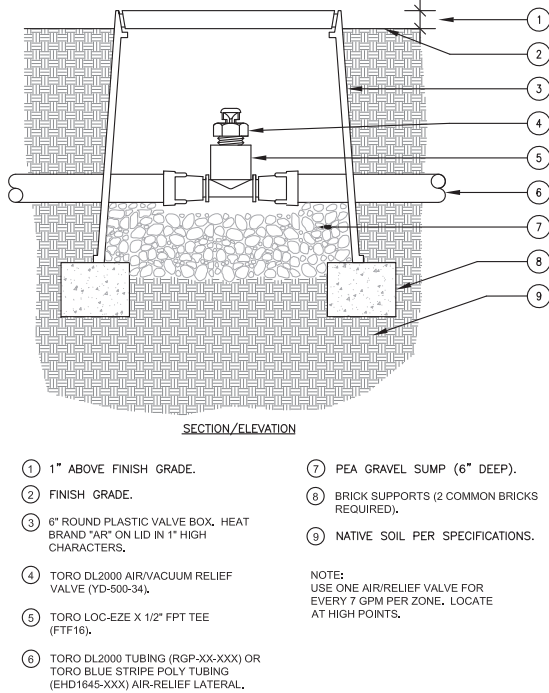
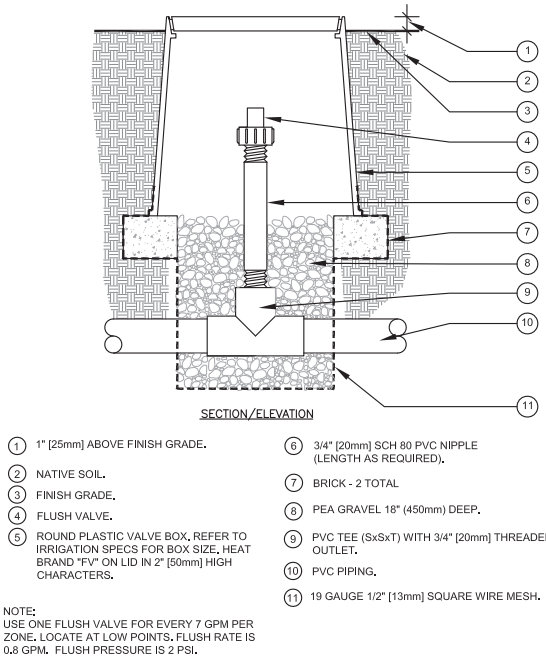
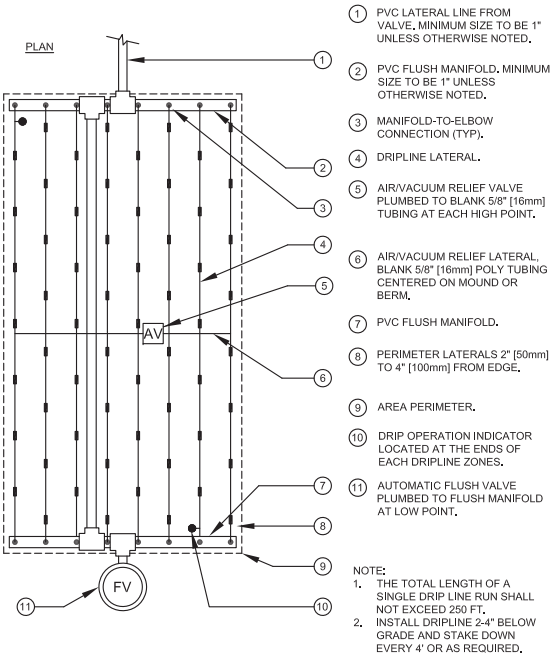
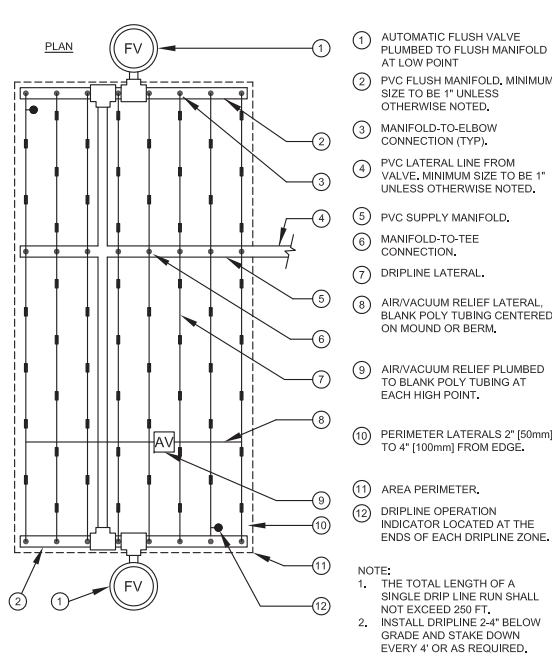
6 REMOTE CONTROL VALVE (DRIPZONE)

7 WEATHERPROOF WIRE SPLICE ASSEMBLY

8 GATE VALVE

9 QUICK COUPLING VALVE

10 VALVE BOX INSTALLATION



1 TORO DL 2000 CENTER FEED LAYOUT

SCALE: NONE

2 TORO DL 2000 END FEED LAYOUT

SCALE: NONE

3 TORO DL 2000 FLUSH VALVE (PVC TEE)

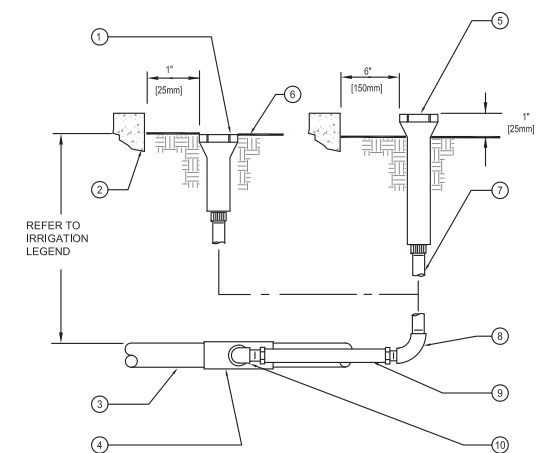
SCALE: NONE

4 TORO DL 2000 AIR VACUUM RELIEF VALVE

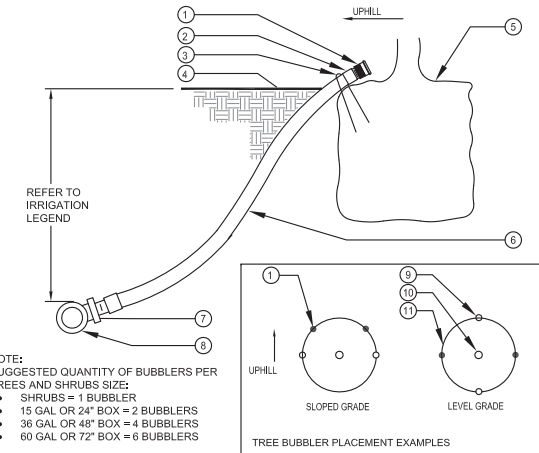
SCALE: NONE

5 IRRIGATION TWO WIRE PULL BOX

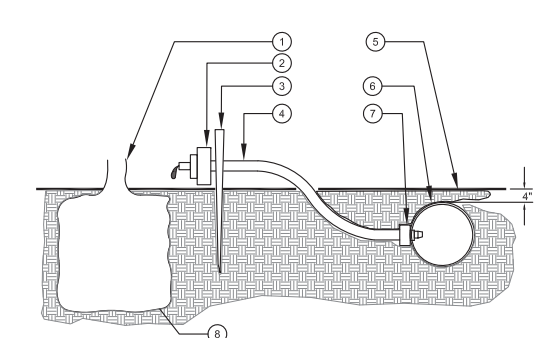
SCALE: NONE



- POP-UP LAWN SPRAY SPRINKLER
- WALL, WALK, CURB OR BUILDING
- PVC LATERAL LINE
- UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW
- POP-UP SHRUB SPRAY SPRINKLER OR BUBBLER
- FINISH GRADE
- 1/2" [13mm] SCHEDULE 80 PVC THREADED NIPPLE (LENGTH AS REQUIRED)
- 1/2" [13mm] SCHEDULE 40 PVC THREADED 90° ELL
- 1/2" [13mm] FLEXIBLE IPS HOSE 6" [150mm] LONG WITH MALE ADAPTERS OR 1/2" [13mm] FLEXIBLE SWING JOINT (1/2" x 6") [13mm x 150mm] WITH A MINIMUM PRESSURE RATING OF 100 PSI [690kPa]
- 1/2" [13mm] SCHEDULE 40 PVC STREET ELL



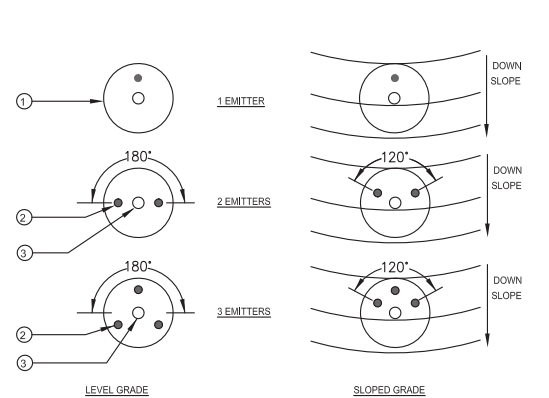
- BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL)
- 1/2" [13mm] SCH. 40 MALE ADAPTER
- 6" [150mm] STEEL STAPLE
- FINISH GRADE
- TREE OR SHRUB ROOTBALL
- 1/2" [13mm] IPS FLEXIBLE PVC
- PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER
- PVC LATERAL LINE
- TREE STAKES
- TREE OR SHRUB
- EDGE OF ROOTBALL (TYPICAL)



- SHRUB STEM
- EMITTER REFER TO EMITTER SCHEDULE FOR QUANTITY OF EMITTERS PER PLANT
- TUBING SUPPORT STAKE (SALCO DTS-200-400)
- 1/4" TUBING DO NOT EXCEED 3' [1m] IN LENGTH
- FINISH GRADE
- SALCO PVC FLEX HOSE, INSTALL 4" [100mm] BELOW FINISH GRADE
- BARBED MALE ADAPTER
- EDGE OF ROOTBALL

8 SALCO FLEX TUBING EMITTER PLACEMENT

SCALE: NONE



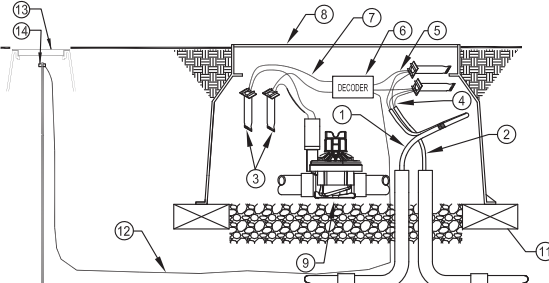
EMITTER SCHEDULE			
PLANT SIZE	EMITTER SPECIFICATION	FLOW (GPH)/PER EMITTER OR OUTLET	QUANTITY OF EMITTERS PER SHRUB/TREE
1 GALLON SHRUBS	USE SLV-PS-CV-1	1 GPH	2
5 GALLON SHRUBS	USE SLV-PS-CV-2	2 GPH	2
15 GALLON	USE SLV-PS-CV-2	2 GPH	3

MAXIMUM AMOUNT OF FLOW PER DRIP TUBING RUN IS 240 GPH

9 SALCO EMITTER PLACEMENT AND

SCALE: NONE

NOTE:
1. ALL DECODERS SHALL HAVE A VALVE NUMBER ADDRESSED AT CONTROLLER PRIOR TO INSTALLATION.
2. USE U.F. SAFETY CABLE STRIPPER BY KING INNOVATION (MODEL NUMBER 46200) FOR ALL TWO-WIRE SPLICE CONNECTIONS.



- #14AWG TWO WIRE CABLE FROM CONTROLLER. REFER TO IRRIGATION NOTES FOR MODEL NUMBER OF WIRE. ALLOW A 24" SLACK PER DECODER. USE ELECTRICAL TAPE TO HOLD SLACK CABLES TOGETHER
- TWO WIRE CABLE TO NEXT DECODER
- 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
- A MAXIMUM OF 4" OF WIRE SHALL BE STRIPPED FROM TWO WIRE CABLE WHEN SPLICING AT DECODERS
- CONNECT CORRECT DECODER WIRES TO TWO WIRE CABLES
- DECODER
- CONNECT CORRECT DECODER WIRES TO VALVE SOLENOID WIRES
- VALVE BOX. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS
- REMOTE CONTROL VALVE. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS
- 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM
- BRICK-ONE ON EACH CORNER
- #6 BARE COPPER GROUND WIRE. SPLICE INTO GROUND WIRE AT DECODER. ONLY REQUIRED AT EVERY 10TH DECODER AND AT THE ENDS OF THE LINE
- 8' LONG COPPER GROUND ROD. LOCATE A MINIMUM OF 8' AWAY FROM DECODER AND TWO WIRE CABLE. LOCATE IN 10" ROUND BOX
- CADWELDED CONNECTIONS

10 DECODER WIRING IN CONDUIT

SCALE: NONE

27177 MISSION BOULEVARD
Hayward, CA

April 30, 2021



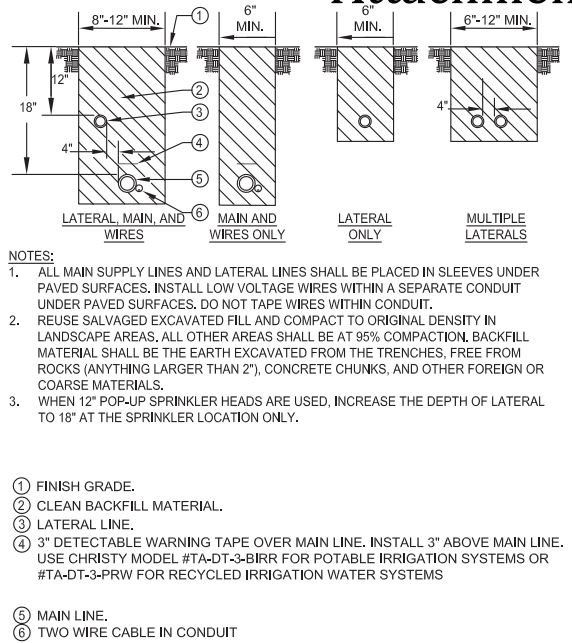
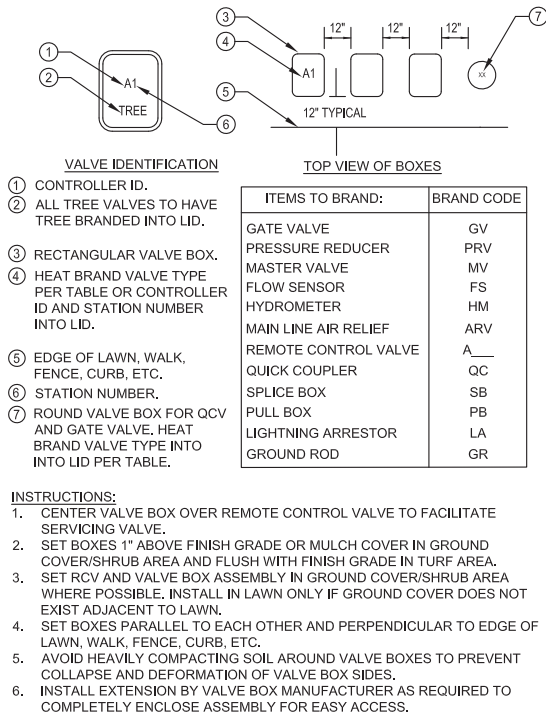
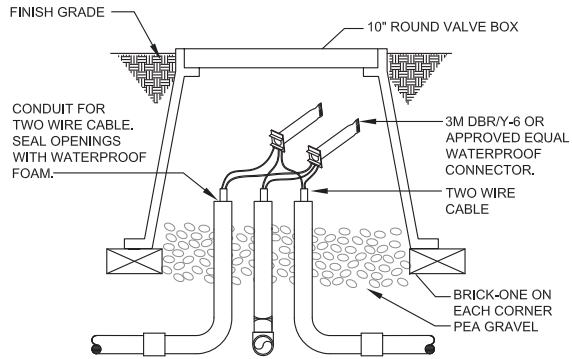
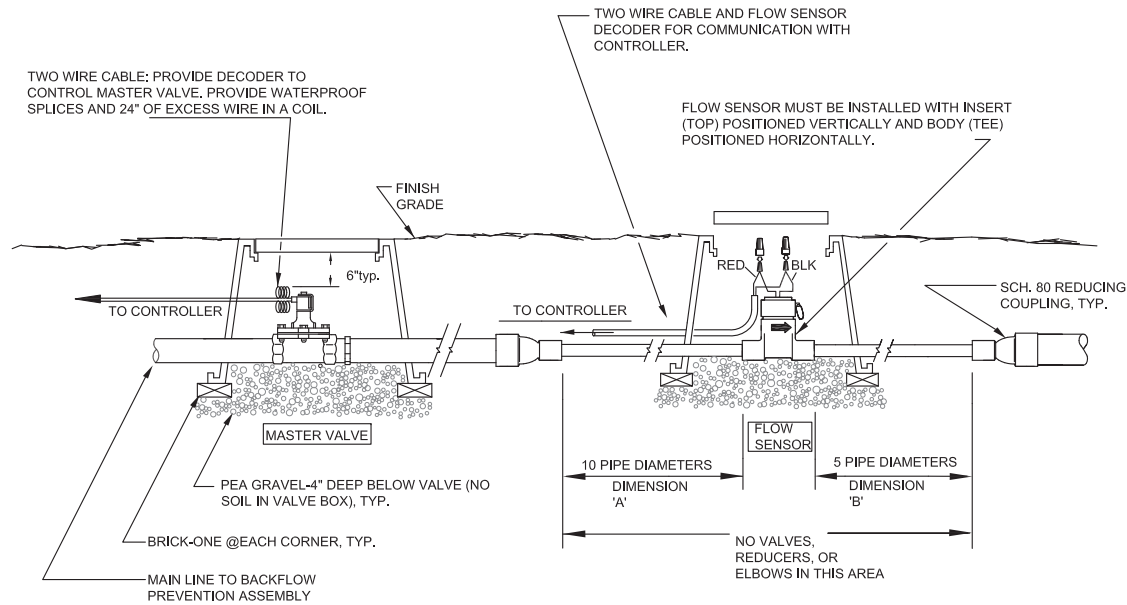
TTL Management, Inc. an Arizona Corp.

12647 Alcosta Blvd., Suite 470 San Ramon CA 94583
925.824.4300

Irrigation Details
L-9.2

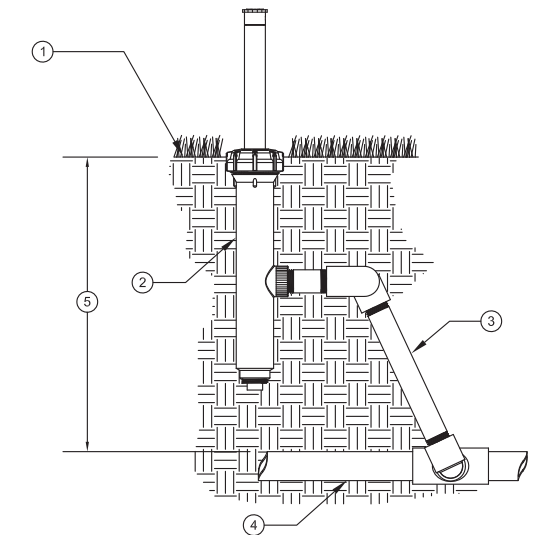
PLANNING URBAN DESIGN
LANDSCAPE ARCHITECTURE
201 4th street suite 101B, oakland, ca 94607
phone: 510.452.4190 www.r3studios.com





1 INSTALLATION DETAIL MASTER VALVE/FLOW SENSOR

SCALE: NONE



- NOTE: TEFLON TAPE ALL THREADED JOINTS

5 570 POP-UP DRIP OPERATION INDICATOR

SCALE: NONE

2 2-WIRE SPLICE BOX AT MAIN LINE TEE OR 3 WAY WIRE BRANCH

SCALE: NONE

3 VALVE BOX INSTALLATION

SCALE: NONE

4 TRENCHING

SCALE: NONE

WATER USE ESTIMATION - MOREAU MISSION

WATER TYPE	POTABLE
SITE ETO=	44.2

REGULAR LANDSCAPE AREAS												
HYDROZONE #	HYDROZONE NAME	PLANT WATER USE TYPE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY	ETAF (PF/IE)	AREA (SQ. FT) (HA)	ETAF X AREA (HA)	ETWU (GAL/YR)	ACRE FEET/ YEAR	HCF/ YEAR	PERCENTAGE OF LANDSCAPE
1	SHRUBS/GC	LOW	0.3	DRIP	0.81	0.370	16,896	6,258	171,488	0.53	229.26	75%
2	SHRUBS/GC	MOD	0.5	DRIP	0.81	0.617	5,632	3,477	95,271	0.29	127.37	25%
TOTALS							22,528	9,734	266,759	0.82	356.63	100%

SPECIAL LANDSCAPE AREAS												
HYDROZONE #	HYDROZONE NAME											
							1					0%
							TOTALS	0				0%

MAWA	GALLONS/YR	277,811
	ACRE FEET/YR	0.85
	HCF/YR	371.40

ETWU	GALLONS/YR	266,759
	ACRE FEET/YR	0.82
	HCF/YR	356.63

SITE IRRIGATION EFFICIENCY	SITE PLANT FACTOR	MAWA COMPLIANT
81.0%	0.35	YES

ETAF Calculations	
REGULAR LANDSCAPE AREAS	
TOTAL ETAF x AREA	9,734
TOTAL AREA	22,528
AVG. ETAF	43.21%

MAWA FORMULA
MAXIMUM APPLIED WATER ALLOWANCE (MAWA) GALLONS PER YEAR
MAWA = (ETo)(0.62)[(LA x 0.45) + (0.55 x SLA)]

ETo = REFERENCE EVAPOTRANSPIRATION
0.55= ET ADJUSTMENT FACTOR
LA=LANDSCAPED AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

ETWU FORMULA
ESTIMATED TOTAL WATER USE (ETWU) GALLONS PER YEAR
ETWU= ((ETo)(0.62)(ETAF x LA))

ETo = REFERENCE EVAPOTRANSPIRATION
PF = PLANT FACTOR FOR HYDROZONES
HA = HYDROZONE AREA (SQ.FT)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

IE = IRRIGATION EFFICIENCY (0.81)-BUBBLER/DRIP
IE = IRRIGATION EFFICIENCY (0.75)-ROTORS/SPRAY