

## City of Sebastopol

Planning Department 7120 Bodega Avenue Sebastopol, CA 95472 (707) 823-6167

## MASTER PLANNING APPLICATION FORM

## **APPLICATION TYPE**

	Alcohol Use Permit/ABC Transfer Conditional Use Permit Design Review	□ Lot Line Adjustment/Merger □ □ Preapplication Conference □ □ Preliminary Review □ □ Sign Permit □  or supplement form(s) for the type of permit re	Temporary Use Permit Tree Removal Permit Variance Other
	/iew/Hearing Bodies	,	
	] Staff/Admin □ Design Review	Tree Board ☐ Planning Commission ☐	City Council   Other
АРР	LICATION FOR		
St	reet Address:	Assessor's Parcel No(s):	
Pr	esent Use of Property:	Zoning/General Plan Desi	gnation:
АРР	LICANT INFORMATION		
Pr	roperty Owner Name:		
M	lailing Address:	Phone:	
Ci	ty/State/ZIP:	Email:	
Si	gnature:	Date:	
A	uthorized Agent/Applicant Name:		
M	lailing Address:	Phone:	
Ci	ty/State/ZIP:	Email:	
Si	gnature:	Date:	
Co	ontact Name (If different from above).	Phone/Email:	
Pro	JECT DESCRIPTION AND PERMITS	REQUESTED (ATTACH ADDITIONAL PAGES IF NECES	SARY)
Fil	USE ONLY	Action:	Action Date:
-	pplication Date:	Staff/Admin:	Date:
	anning File #:	Planning Director:	Date:
	eceived By:	Design Review/Tree Board: Planning Commission:	Date:
	ee(s): \$ completeness Date:	City Council:	Date: Date:

If an item is not applicable to your project, please indicate "Not Applicable" or "N/A" in the appropriate box; do not leave cells blank.

SITE DATA TABLE	REQUIRED / ZONING STANDARD	Existing	PROPOSED
Zoning	N/A		
Use	N/A		
Lot Size			
Square Feet of Building/Structures (if multiple structures include all separately)			
Floor Area Ratio (F.A.R)	FAR	FAR	FAR
Lot Coverage	% of lot sq. ft.	% of lot sq. ft.	% of lot sq. ft.
Parking			
Building Height			
Number of Stories			
Building Setbacks – Primary			
Front			
Secondary Front Yard (corner lots) Side – Interior			
Rear			
Building Setbacks – Accessory			
Front			
Secondary Front Yard (corner lots)			
Side – Interior			
Rear			
Special Setbacks (if applicable)	1		
Other ()			
Number of Residential Units	Dwalling Unit/s	Dwolling Unit(s)	Dwolling Unit(s)
	Dwelling Unit(s)	Dwelling Unit(s)	Dwelling Unit(s)
Residential Density	1 unit per sq. ft.	1 unit per sq. ft.	1 unit per sq. ft.
Useable Open Space	sq. ft.	sq. ft.	sq. ft.
Grading	Grading should be minimized to the extent feasible to reflect existing topography and protect significant site features, including trees.	N/A	Total: cu. yds Cut: cu. yds. Fill: cu. yds. Off-Haul: cu. yds
Impervious Surface Area	N/A	% of lot	% of lot
Pervious Surface Area	N/A	sq. ft. % of lot	sq. ft. % of lot
	1.177.	sq. ft.	sq. ft

#### CONDITIONS OF APPLICATION

- All Materials submitted in conjunction with this form shall be considered a part of this application.
- This application will not be considered filed and processing may not be initiated until the Planning Department determines that the submittal is complete with all necessary information and is "accepted as complete." The City will notify the applicant of all application deficiencies no later than 30 days following application submittal.
- The property owner authorizes the listed authorized agent(s)/contact(s) to appear before the City Council, Planning Commission, Design Review/Tree Board and Planning Director and to file applications, plans, and other information on the owner's behalf
- The Owner shall inform the Planning Department in writing of any changes.
- INDEMNIFICATION AGREEMENT: As part of this application, applicant agrees to defend, indemnify, release and hold harmless the City, its agents, officers, attorneys, employees, boards, committees and commissions from any claim, action or proceeding brought against any of the foregoing individuals or entities, the purpose of which is to attack, set aside, void or annul the approval of this application or the adoption of the environmental document which accompanies it or otherwise arises out of or in connection with the City's action on this application. This indemnification shall include, but not be limited to, damages, costs, expenses, attorney fees or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the City's action on this application, whether or not there is concurrent passive or active negligence on the part of the City.

If, for any reason, any portion of this indemnification agreement is held to be void or unenforceable by a court of competent jurisdiction, the remainder of the agreement shall remain in full force and effect.

NOTE: The purpose of the indemnification agreement is to allow the City to be held harmless in terms of potential legal costs and liabilities in conjunction with permit processing and approval.

- REPRODUCTION AND CIRCULATION OF PLANS: I hereby authorize the Planning Department to reproduce plans and exhibits as necessary for the processing of this application. I understand that this may include circulating copies of the reduced plans for public inspection. Multiple signatures are required when plans are prepared by multiple professionals.
- 7. NOTICE OF MAILING: Email addresses will be used for sending out staff reports and agendas to applicants, their representatives, property owners, and others to be notified.
- DEPOSIT ACCOUNT INFORMATION: Rather than flat fees, some applications require a 'Deposit'. The initial deposit amount is based on typical processing costs. However, each application is different and will experience different costs. The City staff and City consultant time, in addition to other permit processing costs, (i.e., legal advertisements and copying costs are charged against the application deposit). If charges exceed the initial deposit, the applicant will receive billing from the City's Finance department. If at the end of the application process, charges are less than the deposit, the City Finance department will refund the remaining monies. Deposit accounts will be held open for up to 90 days after action or withdrawal for the City to complete any miscellaneous clean up items and to account for all project related costs.
- NOTICE OF ORDINANCE/PLAN MODIFICATIONS: Pursuant to Government Code Section 65945(a), please indicate, by checking the boxes below, if you would like to receive a notice from the City of any proposal to adopt or amend any of the following plans or ordinances if the City determines that the proposal is reasonably related to your request for a development permit:

	✓ A general plan	✓ A specific plan
	An ordinance affecting building permits or grading permits	✓ A zoning ordinance
Certification	<b>《大學》,例,在於一定學學,其中</b> 亦是自然的學	A. 74 M. E. W. W. W. W.
, the undersigned	d owner of the subject property, have read this application for a deve	elopment permit and agree with all of the

above and certify that the information, drawings and specifications herewith submitted are true and correct to the best of my knowledge and belief and are submitted under penalty of perjury. I hereby grant members of the Planning Commission, Design Review Board and City Staff admittance to the subject property as necessary for processing of the project application.

Property Owner's Signature:

I, the undersigned applicant, have read this application for a development permit and agree with all of the above and certify that the information, drawings and specifications herewith submitted are true and correct to the best of my knowledge and belief and are submitted under penalty of perjury.

Date: 4.19.2022 K. W. Applicant's Signature:

NOTE: It is the responsibility of the applicant and their representatives to be aware of and abide by City laws and policies. City staff, Boards, Commissions, and the City Council will review applications as required by law; however, the applicant has responsibility for determining and following applicable regulations.

> 1.000 (0.000) HUMBERS MARKET

## **Neighbor Notification**

In the interest of being a good neighbor, it is highly recommended that you contact those homes or businesses directly adjacent to, or within the area of your project. Please inform them of the proposed project, including construction activity and possible impacts such as noise, traffic interruptions, dust, larger structures, tree removals, etc.

Many projects in Sebastopol are remodel projects which when initiated bring concern to neighboring property owners, residents, and businesses. Construction activities can be disruptive, and additions or new buildings can affect privacy, sunlight, or landscaping. Some of these concerns can be alleviated by neighbor-to-neighbor contacts early in the design and construction process.

It is a "good neighbor policy" to inform your neighbors so that they understand your project. This will enable you to begin your construction with the understanding of your neighbors and will help promote good neighborhood relationships.

Many times, development projects can have an adverse effect on the tranquility of neighborhoods and tarnish relationships along the way. If you should have questions about who to contact or need property owner information in your immediate vicinity, please contact the Building and Safety Department for information at (707) 823-8597, or the Planning Department at (707) 823-6167.

I have informed site neighbors of my proposed project:	☐ Yes	☑ No
If yes, or if you will inform neighbors in the future, please d	escribe outread	ch efforts:

The neighbors were notified previously for our preliminary review our hearings we can notify again or we ask that you do the notify verbiage for the sign/s on the property so that we may place in the sign/s or the property so that we may place in the sign/s.	ication. Please provide

## Website Required for Major Projects

Applicants for major development projects (which involves proposed development of <a href="mailto:10,000 square feet of new floor area">10,000 square feet of new floor area</a> or greater, or 15 or more dwelling units/lots), are required to create a project website in conjunction with submittal of an application for Planning approval (including but not limited to Subdivisions, Use Permits, Rezoning, and Design Review). Required information may be provided on an existing applicant web site.

The website address shall be provided as part of the application. The website shall be maintained and updated, as needed until final discretionary approvals are obtained for the project.

Such website shall include, at a minimum, the following information:

- **V** Project description
- V Contact information for the applicant, including address, phone number, and email address
- ▼ Map showing project location
- ▼ Photographs of project site
- V Project plans and drawings

B. Rodger Fall ()

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12/14/23
Agenda Item Number: 6.4

Pacific Knolls, 7621 Healdsburg Ave.
Proposed Development of 12 Apartments + 12 Town Homes
From: Katherine Austin, AIA Project Architect

## **Project Description:**

### Zoning:

The parcel has split zoning. The north portion of the site is Zoned CO Commercial Office, and the southerly portion of the site is zoned R7 High Density Residential. We received preliminary support from the Planning Commission to propose 100% Residential in the CO zone as housing is a much greater need than more commercial space. Our proposal is to provide much needed housing for Sebastopol by providing 12 town homes accessed off Murphy Ave. and 12 apartments accessed off Healdsburg Avenue through a Use Permit.

#### **Tree Preservation:**

We propose to save as many mature oak trees on the site as possible while still providing the needed circulation and parking required per city standards. Grading was carefully considered to save many trees in the south and east behind the town homes and between the parking lot and east property line. We have changed the location of the access drive of the parking lot to the west side of the proposed apartment building which provides greater retention of oaks on the east and minimizes grading.

**Landscaping**: large, boxed specimen native oak trees are being proposed for an immediate effect, to mitigate the removal of trees. Six street trees are proposed.

#### **Town Homes:**

The town homes are designed with a pier and grade beam foundation around root zones and are internally stepped down where needed for driveway access to minimize grading where possible. We are providing universal design access where grading permits. Full baths are on the first floor of 5 of the 12 town homes for universal design. EV charging will be provided in garages of each unit and PVs on each roof. Heat Pump mini-splits and WH will be used, and bike storage is provided in a rear exterior closet. Private rear patios and yards are provided for each town home. Town Homes are as follows: (7) 1120SF - 2 BR 2 1/2 Baths and (5) 1148 SF - 2 BR 3 Baths. The town homes have (2) BR suites to allow for flexible living. A multi-unit mailbox will be sited in coordination with the post office. 1st Fl plate is 9', 2nd floor plate 8'. No roof ridge exceeds 30 from average grade.

#### **Apartments:**

The apartment building is located on a gently sloped area behind the sidewalk along Healdsburg Ave and parking is in the rear, accessed off Healdsburg Ave on the westerly side of the new building. An elevator is proposed to provide an accessible route of travel to both floors so that all units can be adaptable for ADA. PVs and mini split units as well as heat pump WH will be provided on the roof concealed by parapets. Each upper unit has their own laundry and there is a skylight letting light into the center of the units. The lower units may have stacked w/d units provided. A California Access Specialist will review all plans for compliance with ADA including all path of travel signage. Private outdoor

spaces are provided for each apartment: 104+/- SF 2<sup>nd</sup> Fl & 143 +/- 1<sup>st</sup> fl. Apartments are as follows: (6) 590 SF 1-BD, 1-BA (6) 760 SF 1-BD, 1BA. The smaller apartments are necessary to provide for the depth of the required rear parking lot and retaining wall between the lower north side and higher south side of the site. Additional outdoor space is provided in the garden seating area on the west side. A multi-unit mailbox will be sited in coordination with the post office. Parapets do not exceed 30' from average grade.

#### **Town Home Site & Access:**

To access the town homes, we propose a 20' private drive plus 4' sidewalk off Murphy Ave with a "T" turn around and a 20' wide private drive plus 4' sidewalk for 4 of the town homes. The roadway is wider than 26' next to the fire hydrant per the Fire Dept. The trash and recycle center are located near the center of the access road and will be landscaped. The turnaround is sufficient for the trash hauler. Each town home has a 1 car garage and 1 tandem space in the driveway. We propose to make those driveways of permeable concrete. Between driveways we propose planting trees per the landscape plan to help with the storm water mitigation which is provided around the site in many retention areas as indicated in the Civil Engineering plans. Note there is a retention basin in the rear of each town home to retain the existing drainage pattern on site. A pathway from the town homes leads down the east side of the site. It steps down the hill to avoid grading under the trees proposed to be retained. The accessible route of travel is by private sidewalk to public sidewalk along Murphy Ave to Healdsburg Ave.

#### **Apartment Site & Access:**

A 20' driveway off Healdsburg Ave. on the west side of the new building is proposed, providing access to the rear 18 space parking lot for the 12 1-BR apartments. Half of the parking spaces are "tuck-under" the walkway above. On the south side of the parking lot is a planting area that will contain storm water filtration and include plantings. A retaining wall between the lower and upper area is provided with a guardrail placed at the top of the wall. Dark sky compliant lighting is indicated in the landscape plans as is 40% (7) EV charging spaces in the parking lot.

A handicap parking space is provided next to the elevator that serves the upper apartments which each have a semiprivate outdoor area on the south side. One unit, to be determined, will be built out for accessibility and the remainder will be adaptable. Bike parking is provided next to the garden seating area on the west side of the parking lot.

There is a walled multi-unit trash/recycle enclosure under the walkway and beside the stairs for the apartments that will be managed by the owner transporting the bins to the streetside and back. The sidewalk along Healdsburg Ave is proposed to be widened so that the cans can be placed on trash day without blocking the path of travel. This is after discussion with the trash hauler, Recology, who will not pull into or back out of the driveway onto Healdsburg Ave.

## **Possible Easement on South Property Line**

There is a small triangular area at the rear of lots 2-5 of the town homes that is above the slope and on our side of the existing fence that belongs to the adjacent property. Should our project be approved, we would like to work with the neighboring property to obtain an easement to use that as yard area and replace the fence with a new one.

Job

or 10 sh



Street View of Healdsburg Avenue



Street View of Murphy Avenue with proposed new private street entrance to Town Homes

Scale As Noted



Perspective of Apartments looking from North East Corner along Healdsburg Avenue



Perspective of the Apartments from the rear Parking Lot

7621 Healdsburg Ave. Sebastopol CA

Agenda Item Number 6

Pacific Knolls Apartment Building Floor Plans

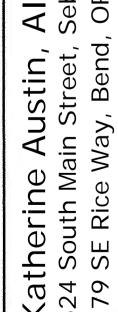
atherine Austin, AIA, Archited 24 South Main Street, Sebastopol, CA 79 SE Rice Way, Bend, OR

Date: 3-27-2024 Scale: As noted Drawn: KA&MG

3









East Elevation



North Elevation along Healdsburg Avenue

Note: Drawings are not to scale. Maximum Height at middle parapet is 29' +/- Building steps 6" at each color change to work with slope to minimize height. At no point will the building exceed 30' in height. Floor to floor height is 10' at west end and 11' at east end. Parapet is 3' on east and west, 4' at center. Site slopes in both east and west and north and south direction. Maximum foundation height is 4' on north east and 3' on north west to provide ADA access on the south side.



West Elevation with elevator tower

South Elevation facing parking lot

Apartment Building Elevations NTS

Job

Agenda Item Number: 6
City Council Meeting Packet of: November 5, 2024
Page 77 of 256

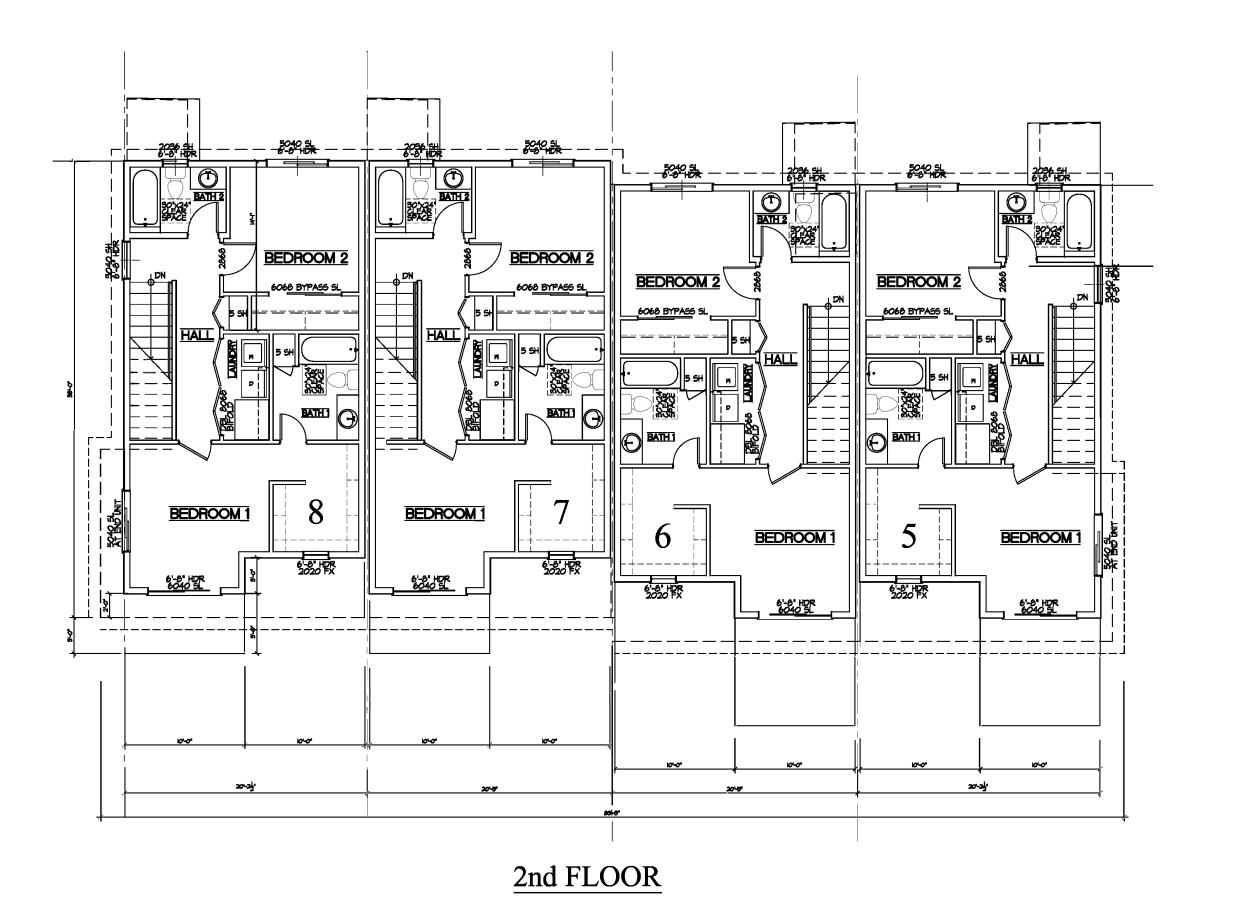
Sheet 5

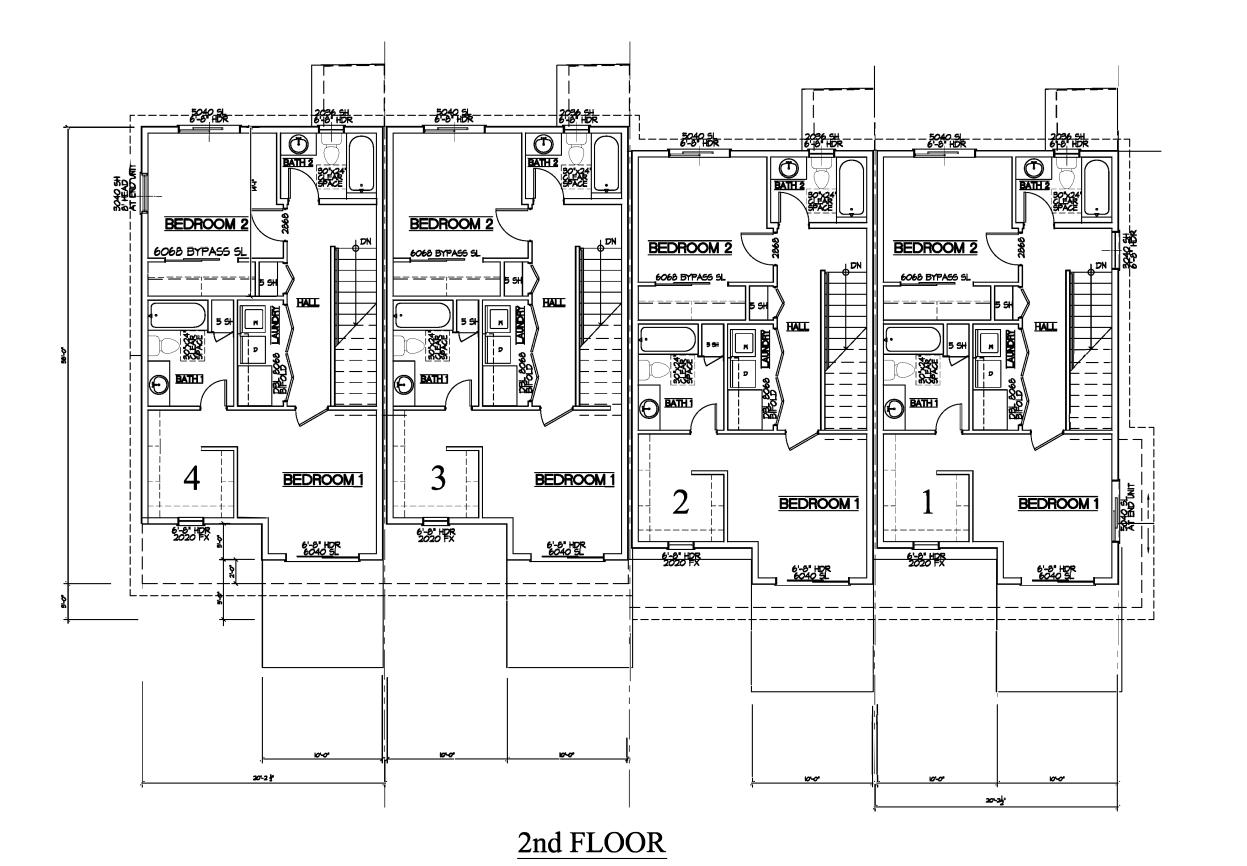


Perspective of Town Homes lots 8 through 5 left to right

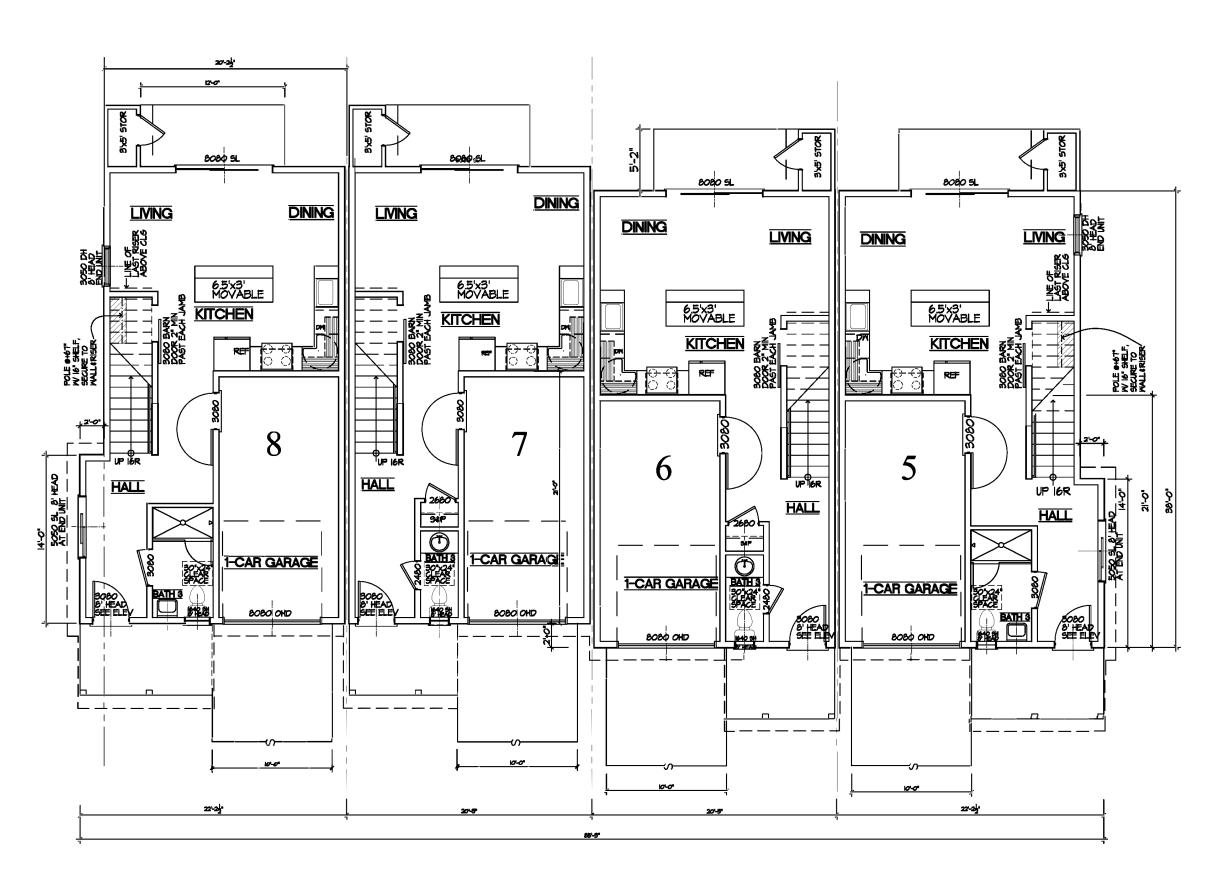


Perspective of Town Homes 4 through 1 left to right

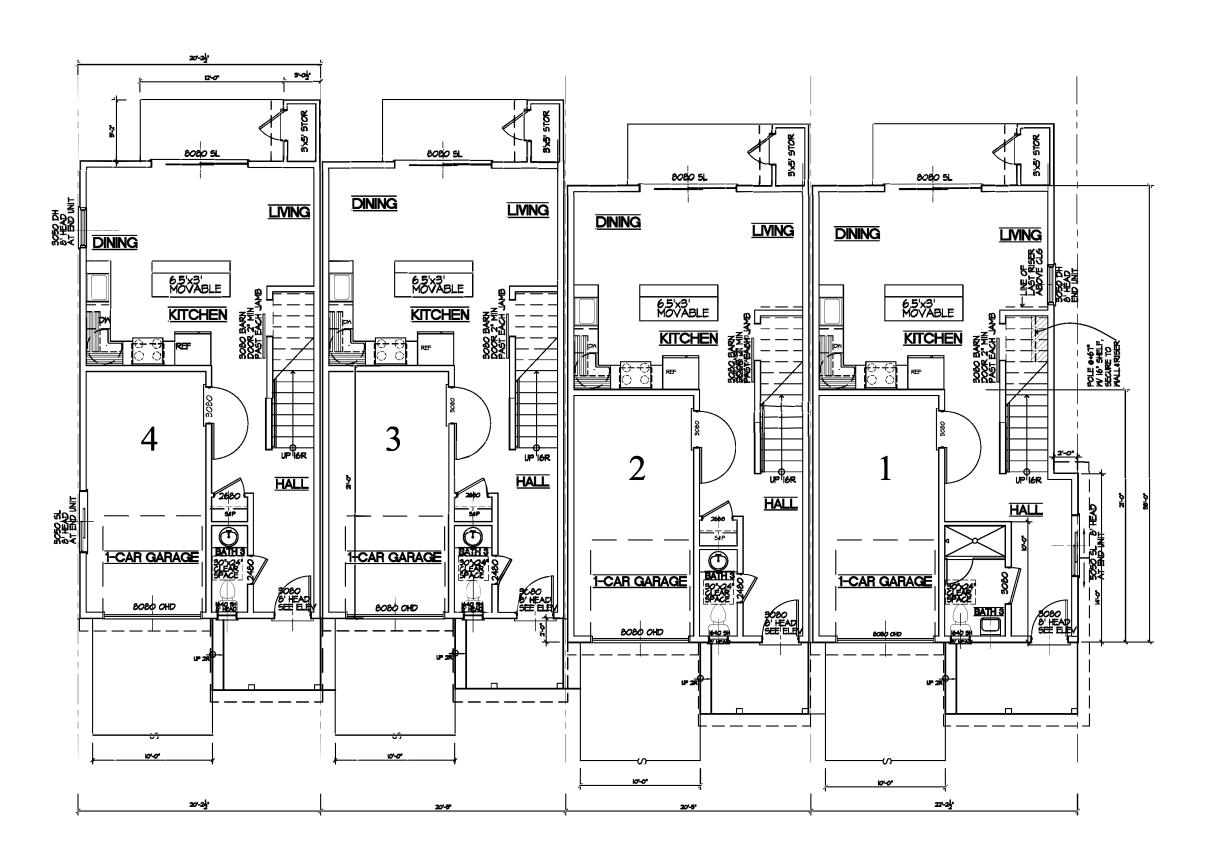




Town Homes 1,5,8 = 1148 +/- SFTown Homes 2,3,4,6&7 = 1120 +/- SF

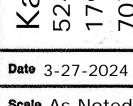


GROUND FLOOR



GROUND FLOOR

Town Homes lots 1 - 8
Floor Plans
1/8"=1'-0"





East Elevation Lot 4



West Elevation lot 1 on Murphy Avenue



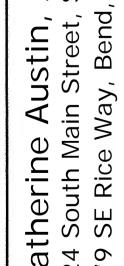
North Elevations lots 4 through 1 left to right

Note: Drawings are not to scale. Maximum height at peak of ridge is 30', each unit steps with the grade. First floor 9' plate, 12"+/- ceiling joists, second floor 8' plate with scissor trusses for vaulted ceilings. Foundations to be pier and grade beam around root zones and remain as low as possible to grade.



South Elevations lots 1 through 4 left to right

Town Home Elevations lots 1 through 4 NTS



Date 3-27-2024 Scale As Noted

of 10 Sheets



## East Elevation lot 8

Note: Drawings are not to scale. Maximum height at peak of ridge is 30'. each unit steps with the grade. First floor 9' plate, 12"+/- ceiling joists, second floor 8' plate with scissor trusses for vaulted ceilings. Foundations to be pier and grade beam around root zones and remain as low as possible to grade.



West Elevation lot 5



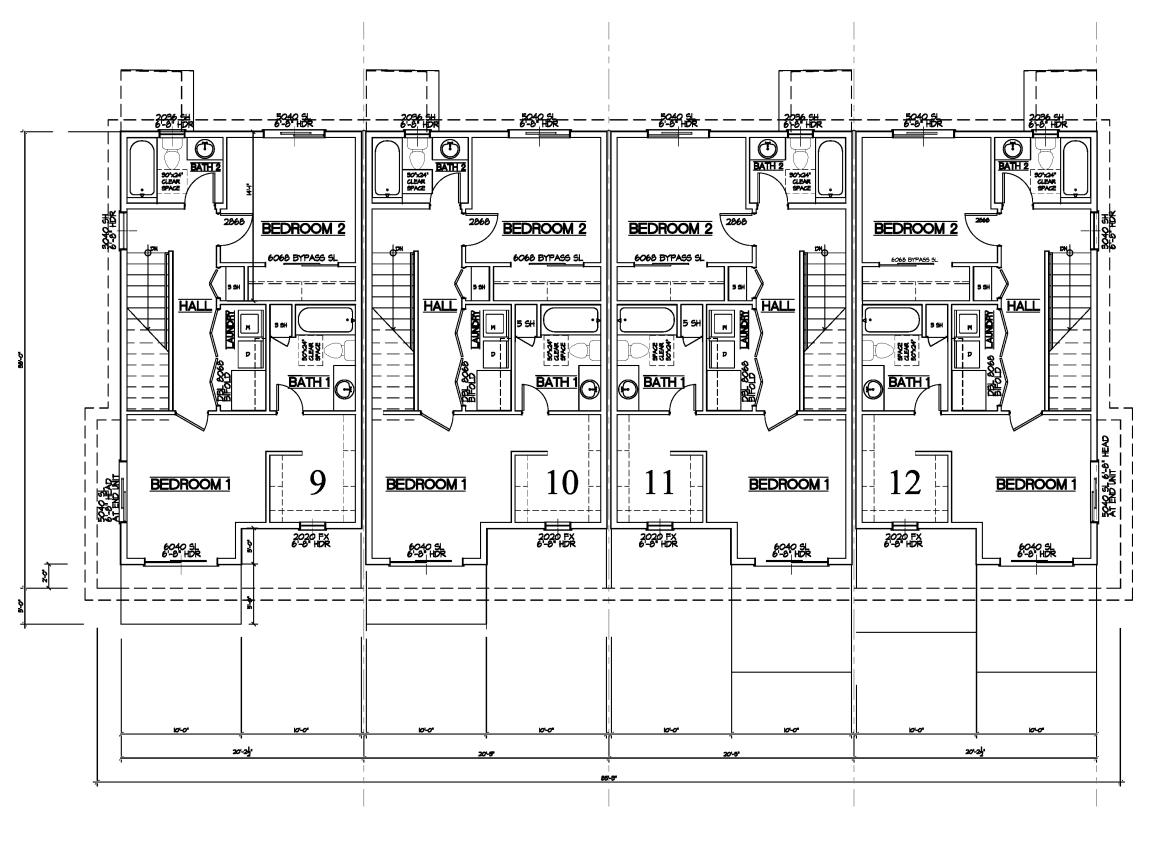
North Elevation lots 8 through 5 left to right



South Elevation lots 5 through

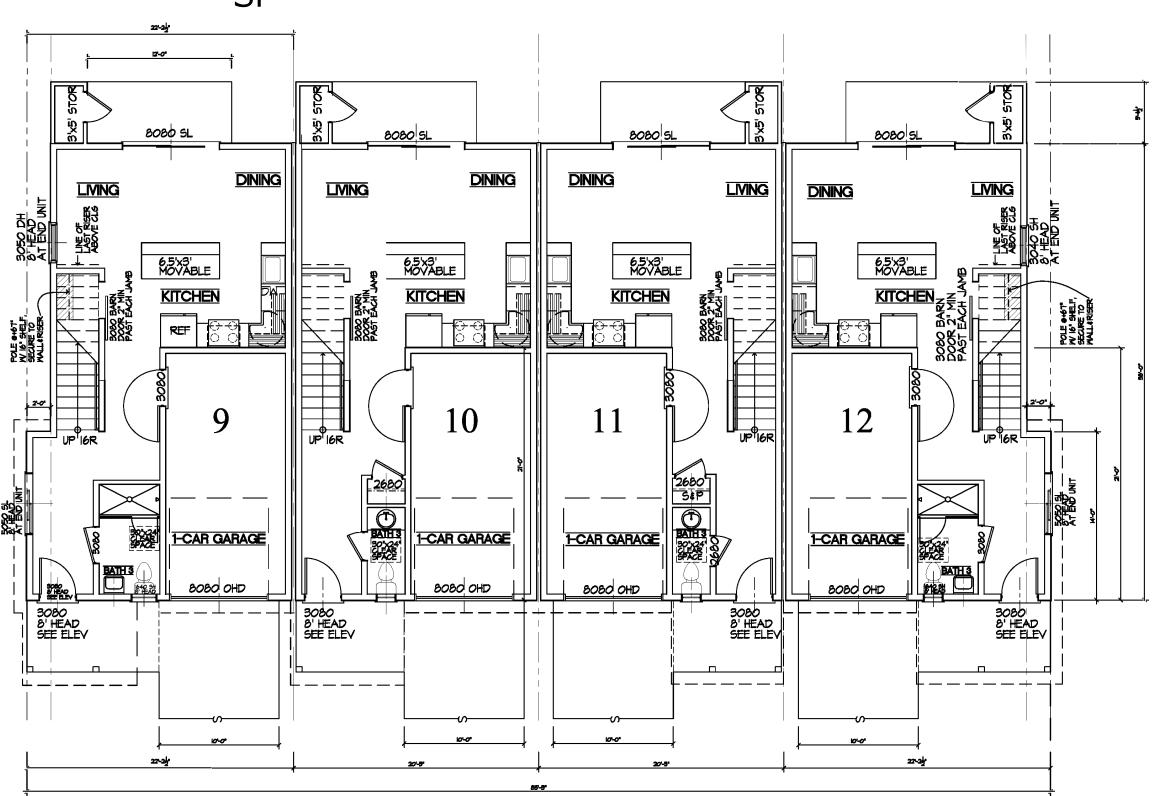
Town Home Elevations lots 5 through 8 NTS

City Council Meeting Packet of: November 5, 2024 Page 80 of 256



## 2nd FLOOR

Town Homes 9 & 12 = 1148 + /- SFTown Homes 10 & 11 = 1120 +/-



GROUND FLOOR

# Town Homes 9 - 12 Floor Plans

1/8"=1'0"

Scale As Noted





## North Elevation lot 9

Note: Drawings are not to scale. Maximum height at peak of ridge is 30', each unit steps with grade. First floor 9' plate, 12"+/- ceiling joists, second floor 8' plate with scissor trusses for vaulted ceilings. Foundations to be pier and grade beam around root zones and remain as low as possible to grade.



South Elevation lot 12

# West Elevation lots 9 through 12 left to right



East Elevation lots 12 through 9 left to right

Town Home Elevations lots 9 through 12 NTS

Sheet

or 10 sheet



Street View of Healdsburg Avenue Revised to show access drive on east



Street View of Murphy Avenue with proposed new private street entrance to Town Homes

8-13-2024 KA



Perspective of Apartments looking from North East Corner along Healdsburg Avenue, Revised to show access on East



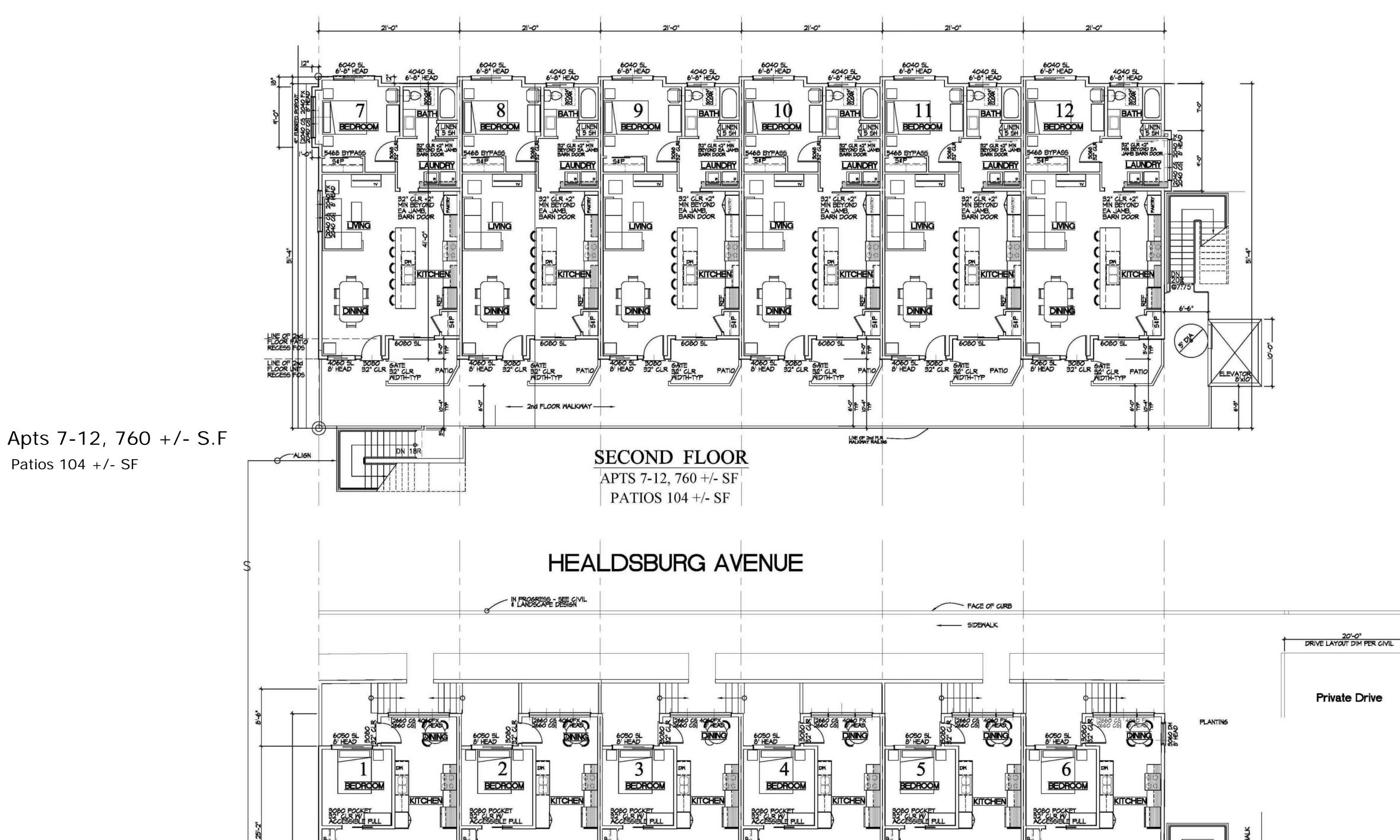
Perspective of the Apartments from the rear Parking Lot, Revised to show access on East

Agenda Item Number 6

8-13-2024 KA

Revisions

Proposed Apartments Healdsburg Ave Sebastopol, California **7.23.2024 APARTMENTS** Units 1 thru 12 Healdsburg Ave



Apts 1-6, 590 +/- SF

BIORETENTION

UP 18R

Porches 143 +/- SF

1/8"=1'-0"

**GROUND FLOOR** 

BIORETENTION

5'-0"

— SUPPORT COLUMN FOR WALKWAY ABOVE

BIORETENTION

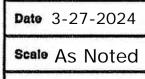
FACE OF CURB AT let PARKING STALL

LINE OF 2nd FLR MALKWAY RAILING

Trash/Recycle

APTS 1-6, 590 +/- SF PORCHES 143 +/- SF

Ground and Upper Floors SEBASTOPOL, CALIFORNIA KATHERINE AUSTIN, AIA, ARCHITECT SCALE 1/8"=1'-0"



Drawn K. Austi

Job

01 1 0 Sheet





East Elevation'k ]h\ 'Y`Yj Uhcf'hck Yf

# North Elevation along Healdsburg Avenue

Note: Drawings are not to scale. Maximum Height at middle parapet is 29' +/- Building steps 6" at each color change to work with slope to minimize height. At no point will the building exceed 30' in height. Floor to floor height is 10' at west end and 11' at east end. Parapet is 3' on east and west, 4' at center. Site slopes in both east and west and north and south direction. Maximum foundation height is 4' on north east and 3' on north west to provide ADA access on the south side.





West Elevation

South Elevation facing parking lot

Apartment Building Elevations NTS

8-13-2024 Revised to show access drive on east

PRINTED ON NO. 1000H CLEARPRINTS



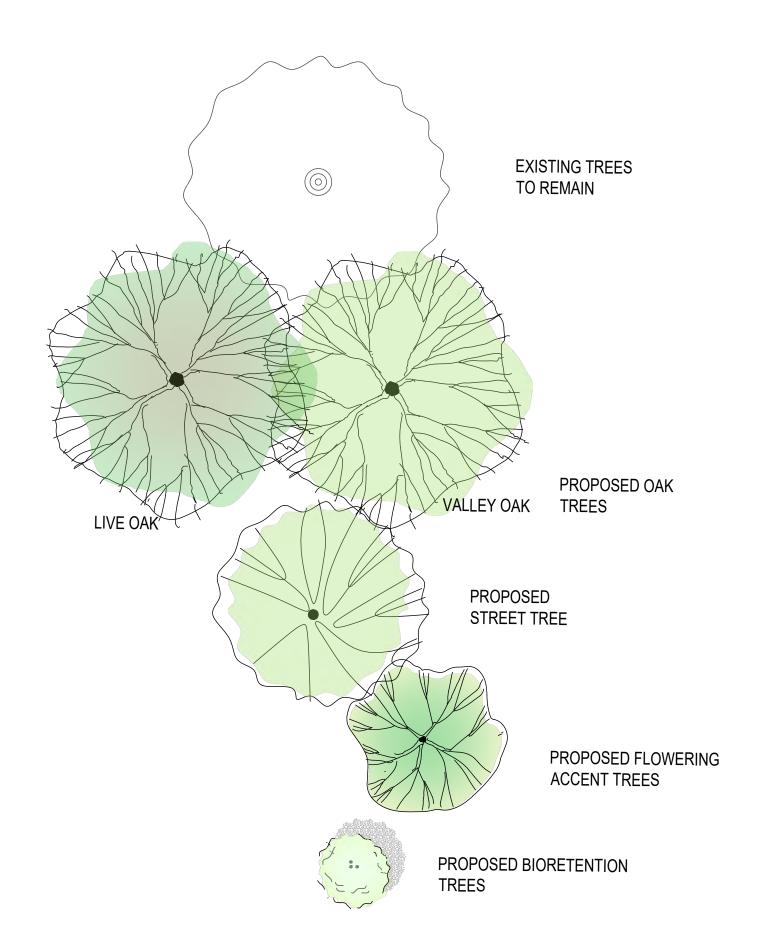
DATE 12-11-2023

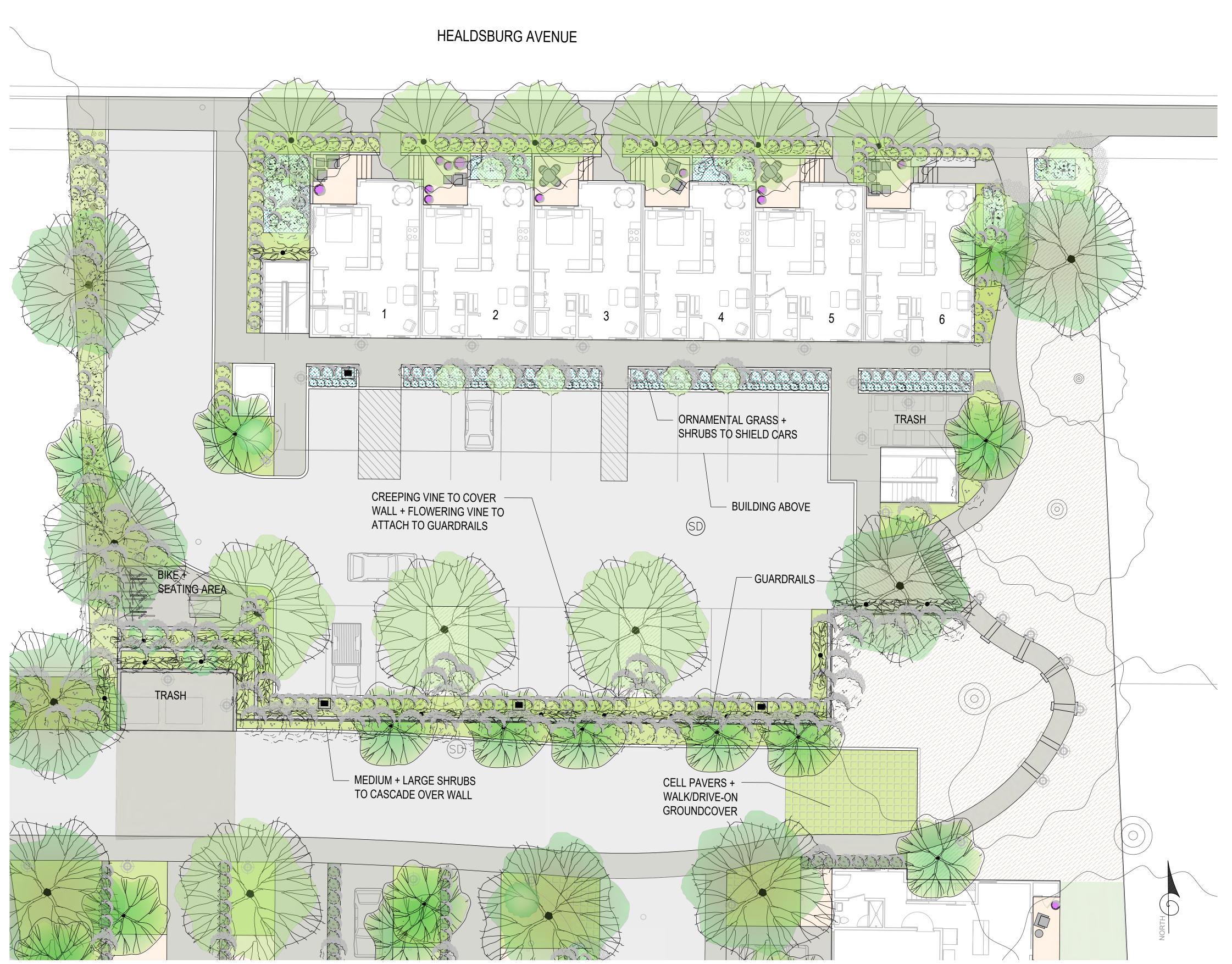
HEALDSBURG AVENUE
SEBASTOPOL CALIFORNIA

OVERALL PRELIMINARY LANDSCAPE PLAN L10`

ZAC Landscape Architects, Inc.
404 East D Street
Petaluma, California 94952
(707) 696-2967
.....sr@zaclandscapeitoomouncil Meeting

## TREE LEGEND







SHEET NUMBER

L11`

SCALE: 1"=10'

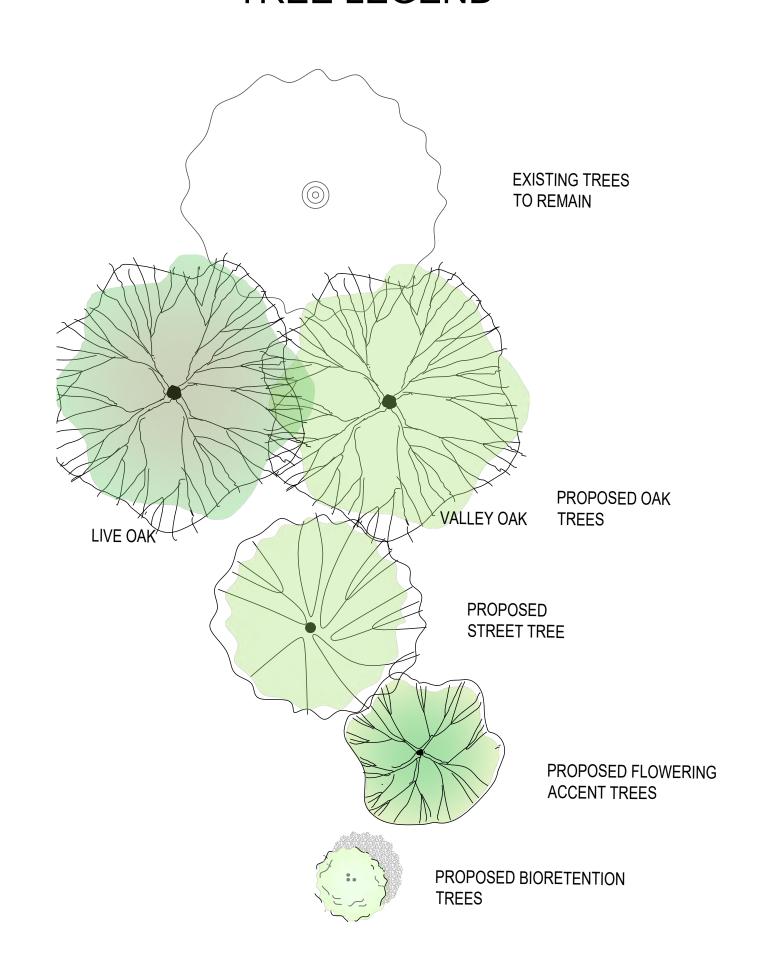
# TREE LEGEND EXISTING TREES TO REMAIN MEDIUM + LARGE SHRUBS TO CASCADE OVER WALL MURPHY AVENUE PROPOSED OAK TREES LIVE OAK PROPOSED STREET TREE PROPOSED FLOWERING ACCENT TREES PROPOSED BIORETENTION TREES



SHEET NUMBER

L12`

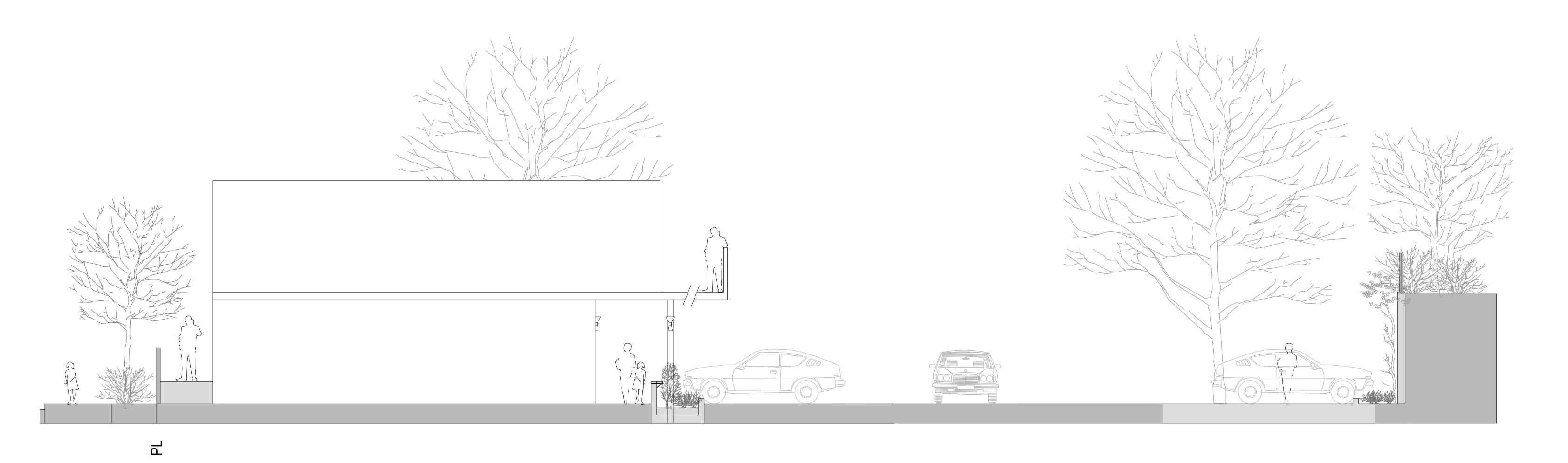
## TREE LEGEND



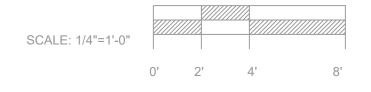


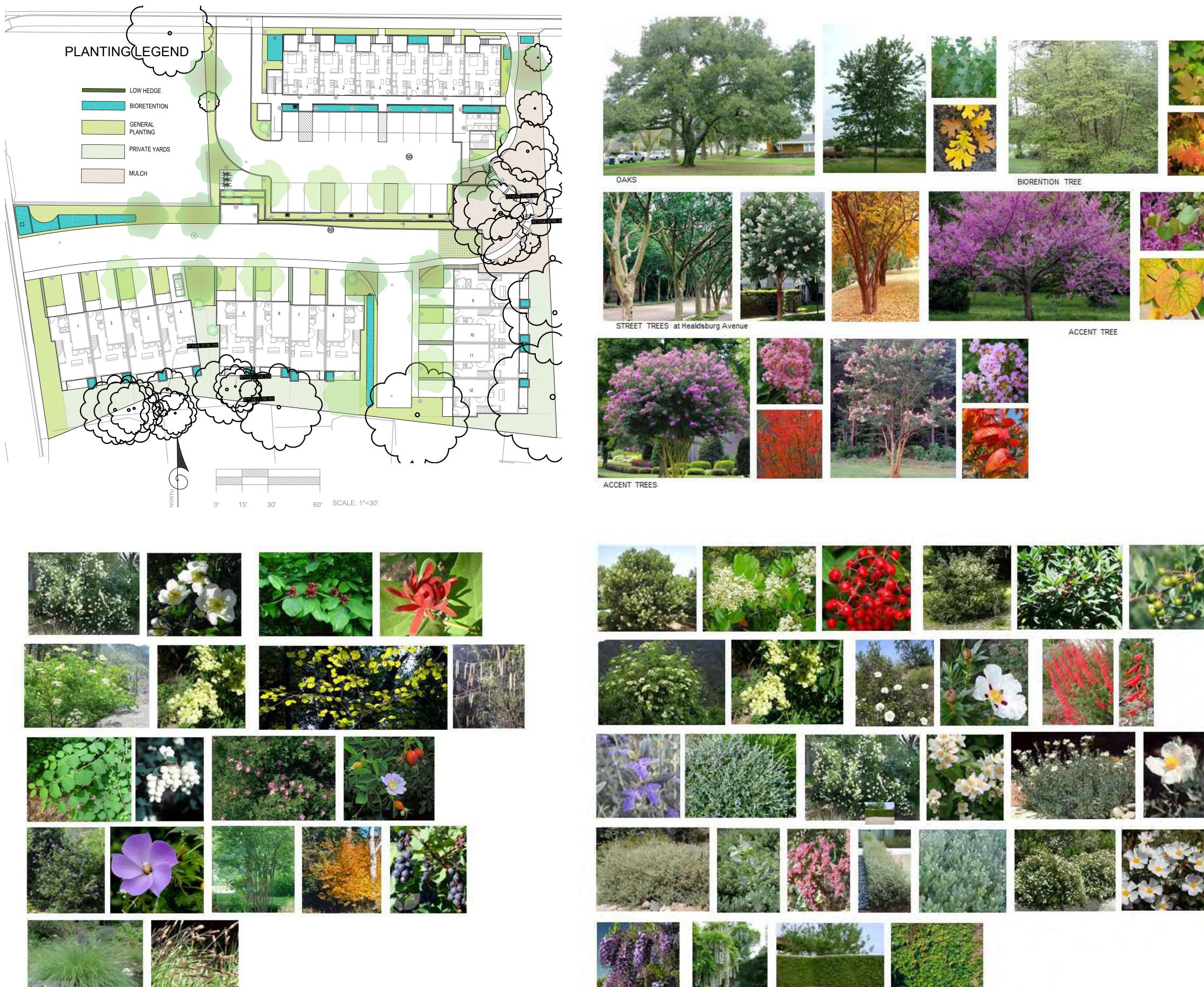
SHEET NUMBER

L1.3



SEAT WALL at BIORETENTION





TREES

TREES				DEER	EDIBLE	CA NATIVE	DROUGHT	WUCOLS	BIORETENTI	A R E
ODE	BOTANICAL NAME	COMMON NAME	SIZE	D	E	N	Dr			GENERAL DESCRIPTION
ER OCC	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX	D		Ν	Dr	۷L		DEC 10-18H1018W PT SHD MAG MULTI TRNK F SEED FC NO WET SOILS
AG BIL	LAGERSTROEMIA 'BILOXI'	PINK CRAPE MYRTLE	24" BOX	D			Dr	L		F DEC 20W12W PALE PINK RED FALL
AG MUS	LAGERSTROEMIA 'MUSKOGEE'	WHITE CRAPE MYRTLE	24" BOX	D			Dr	L		F DEC 25H12W LAVENDER RED FALL
AG NAT	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	D			Dr	L		F DEC 25H12W WHT ORG-RED FALL
QUE AGR	QUERCUS AGRIFOLIA	CALIF. LIVE OAK	36" BOX	D		Ν	Dr	٧L		F EV 50-70H 50-70W RIPARIAN HIGH & BIORENTION
QUE LOB	QUERCUS LOBATA	VALLEY OAK	36" BOX	D		Ν	Dr	L		F DEC 70H 70W YEL FALL CL RIPARIAN MID-HIGH & BIORETENTION

## GENERAL PLANTING

						_	WE			
ALY HUE	ALYOGYNE HUEGELII	BLUE HIBISCUS	5 GAL	D		Dr	L	В		EV 5-8H5-8W ROUGH GRN FOIL LILAC FLWR
AME ALN	AMELANCHIER ALNIFOLIA	WESTERN SERVICEBERRY	5 GAL	Е	Ν		L	В		DEC 10H10W TO THICKETS LIGHT GREEN WHT FLRS RED-YLW FAL EDIBLE BLUEBERRIES MECDICINAL BARK WOOD USED FOR ARROW
ARC EME	ARCTOSTAPHYLOS EMERALD CARPET	GROUND MANZANITA	1 GAL	D	Ν	Dr	L		F	EV8-14"H5W PINK BRGTH GREEN LVS
ART LEN	ARTIPLEX LENTIFORMIS	QUAIL BUSH	1 GAL	D	Ν	Dr	L		F	SEMI EV 4-10H4-12W CRM-WHT FLWR BLUE-SILVER LVS QUAIL, BIRD HEDGE WINDBREAK EROSION
CAL OCC	CALYCANTHUS OCCIDENTALIS	SPICEBUSH	5 GAL	D	N	Dr	L	В		DEC 4-12H 4-12W RED/BROWN FRAG brd
CAR NUD	CAREX NUDATA	CALIFORNIA BLACK SEDGE	1 GAL	D	Ν	l Dr	L	В		2H2W SOFT TEX ORANGE IN FROST SHOWY BLK FOWER SPIKES
CAR CAL	CARPENTERIA CALIFORNICA	BUSH ANEMONE	5 GAL	D	N	Dr	М	В	F	EV 4-6H 4-6W SNGL WHT SPR-SUM PART SHADE
CIS HYB	CISTUS HYBRIDUS	WHITE ROCKROSE	I GAL			Dr	L		F	EV 3H3W FRGNT GREY GRN CRINKLY 2" LVS WHT FLRW YLW CENTER
CIS LAD	CISTUS LADANIFER	ROCKROSE	I GAL	D		Dr	L		F	EV 4H 4W WHT RED SPOT DK GRN FOL
COR COR C	CORYLUS CORNUTA CALIFORNICA	WESTERN HAZELNUT	5 GAL		Ν		L	В	F	DEC 5-12H 5-12W YEL WITHSTANDS DAMP SOIL EDIBLE NUTS
COT DAM L	COTONEASTER DAMMERII LOWFAST	BEARBERRY	1 GAL			Dr	L		F	EV 12"H10"W GREY GRN LVS WHT FLRW RED FRUIT BRANCHES ROOT EV VINE CLINGS AND COVERS WOOD MASONRY METAL DEEP
FIC PUM	FICUS PUMILA	CREEPING FIG	5 GAL				M			GREEN
HET ARB	HETEROMELES ARBUTIFOLIA	TOYON	15 GAL	D	Ν	Dr	L		F	EV 6-18H 5-15W WHT PT SHD RED FRT BRD RIPARIAN
PEN EAT	PENSTEMON EATONII	EATONS PENSTEMON	I GAL	D	١	N DR	L			EV 2H1.5W RE ATTRACTS BUT & HUM
PHI MEX	PHILADELPHUS MEXICANUS	EVERGREEN MOCK ORANGE	5 GAL		N	Dr	L			EV 6-15H VINING PT SHD WHT FRAG BANK COVER
RHA CAL	RHAMNUS CALIFORNICA	COFFEEBERRY	15 GAL		N	Dr	L		F	EV 5-8H 8-10W SUN-SHD RED BLU FRT BUT BRD
ROM COU	ROMNEYA COULTERI	MATILIJA POPPY	5 GAL	D	٨	l Dr	٧L		F	8H 4W WHT FRA
ROS CAL	ROSA CALIFORNICA	CALIFORNIA ROSE	5 GAL		Ν	Dr	L	В	F	DEC 3-5H3-8W PIN RED FRT BRD DEC 10-25H8-20W LT GRN CRM WHT BLU/BLK FRUIT EDIBL
SAM MEX	SAMBUCUS CAERULEA N. MEXICANA	BLUE ELDERBERRY	5 GAL	D E	N	Dr	L	В	F	ALONG STREAMS PRUNE TO KEEP COMPACT
TEU FRU	TEUCRIUM FRUITICANS	BUSH GERMANDER	5 GAL	D		Dr	L		F	EV 4-8H 4-8W LAV/BLU FRAG LEAV
WES FRT M	WESTRINGIA FRUTICOSA MORNING LIGHT	VARIGATED COAST ROSEMARY	5 GAL	D		Dr	L		F	EV 3H 3W WHT, GREY FOL W. WHT MARGINS
WIS FLO H	WISTERIA FLORIBUNDA 'HONBENI'	PURPLE JAPANESE WISTERIA	5 GAL				М		F	DEC 60' FRAG WHT 2' LONG

## **BIORETENTION**

CODE	BOTANICAL NAME	COMMON NAME	SIZE	D	E	N	Dr	WELCO RATING			GENERAL DESCRIPTION
ACE CIR	ACER CIRCINATUM	VINE MAPLE	15 GAL	D		Ν		М	В	F	DE,5-35H ORG/RED FALL CLR SHADE RIPARIAN HIGH & BIORETENTION
ALY HUE	ALYOGYNE HUEGELII	BLUE HIBISCUS	5 GAL	D			Dr	L	В		EV 5-8H5-8W ROUGH GRN FOIL LILAC FLWR DEC 10H10W TO THICKETS LIGHT GREEN WHT FLRS RED-YLW FALL
AME ALN	AMELANCHIER ALNIFOLIA	WESTERN SERVICEBERRY	5 GAL		E	N		L	В		EDIBLE BLUEBERRIES MECDICINAL BARK WOOD USED FOR ARROWS TOOLS SHELTERS PROPGATE BY SEEDS HEGE-WINDBREAK
CAL OCC	CALYCANTHUS OCCIDENTALIS	SPICEBUSH	5 GAL	D		N	Dr	L	В		DEC 4-12H 4-12W RED/BROWN FRAG brd
CAR NUD	CAREX NUDATA	CALIFORNIA BLACK SEDGE	4" POT	D		١	N Dr	L	В		2H2W SOFT TEX ORANGE IN FROST SHOWY BLK FOWER SPIKES
CAR CAL	CARPENTERIA CALIFORNICA	BUSH ANEMONE	5 GAL	D		N	Dr	M	В	F	EV 4-6H 4-6W SNGL WHT SPR-SUM PART SHADE
COR COR C	CORYLUS CORNUTA CALIFORNICA	WESTERN HAZELNUT	5 GAL			Ν		L	В	F	DEC 5-12H 5-12W YEL WITHSTANDS DAMP SOIL EDIBLE NUTS
ROS CAL	ROSA CALIFORNICA	CALIFORNIA ROSE	5 GAL			N	Dr	L	В	F	DEC 3-5H3-8W PIN RED FRT BRD DEC 10-25H8-20W LT GRN CRM WHT BLU/BLK FRUIT EDIBL
SAM MEX	SAMBUCUS CAERULEA N. MEXICANA	BLUE ELDERBERRY	5 GAL	D	E	Ν	Dr	L	В	F	ALONG STREAMS PRUNE TO KEEP COMPACT
SYM RIV	SYMPHORICARPUS RIVULARIS	SNOWBERRY	5 GAL	D		N	Dr	L	В	F	DEC 2-6H 3W WHT BERRY RIPARIAN

## NOTES:

GENERAL PLANTING WILL ALSO INCLUDE PLANTS FROM BIORETENTION LIST PLANTING PLAN TO COMPLY WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLY THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN AND IN THE IRRIGATION DESIGN PLAN.

BIORETENTION PLANTING TO COMPLY WITH BASMAA POST CONSTRUCTION MANUAL APPENDIX E 2019 UPDATE.

L2.0

GENERAL PLANTING

ZAC Landscape Architects, Inc.

BIORENTION

OVERALL PLANTING CONCEPT PLAN

## FIXTURE TYPES



WAC Lighting Ledge Path Light



pemcolighting.com/product /enterprise-20-bollard/

FIXTURE TYPE C



PILOT LED Outdoor -

3000k

-BOLLARD

FIXTURE TYPE A



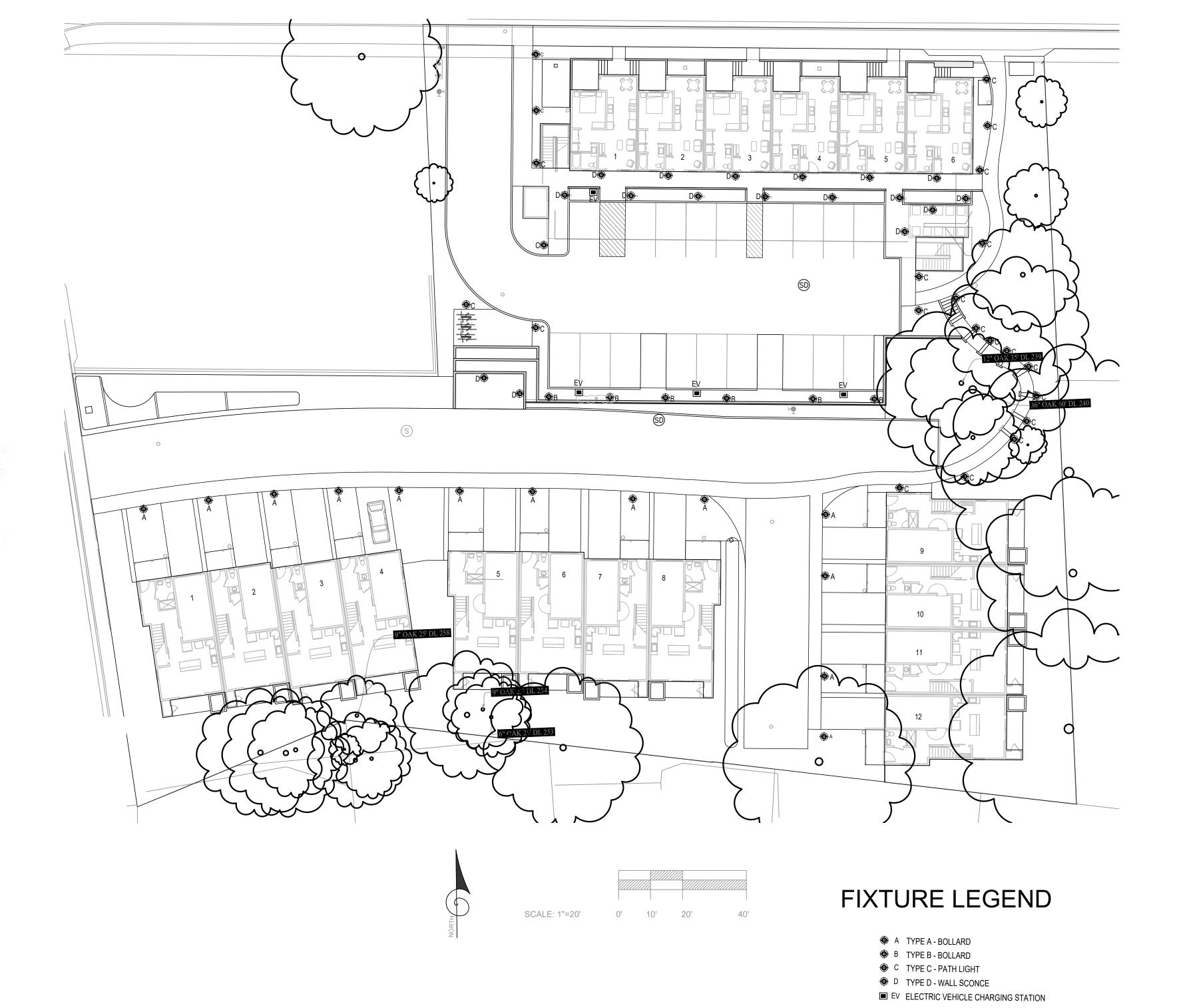
We-ef PSY-400 Bollard Series Wider Bollard Base Design: 40" High x 7" Wide

FIXTURE TYPE D -WALL SCONCE

FIXTURE TYPE B -BOLLARD



**ELECTRIC VEHICLE** CHARGING STATION -DOUBLE-SIDED



OVERALL PRELIINARY LIGHTING PLAN'



Consultants in Horticulture and Arboriculture

## TREE INVENTORY REPORT

7621 Healdsburg Avenue Sebastopol, CA

## Prepared for:

Kathy Austin AIA, Architect 179 SE Rice Way Bend, Oregon 97702

## Prepared by:

John C. Meserve ISA Certified Arborist, WE #0478A ISA Qualified Tree Risk Assessor/TRAQ ASCA Qualified Tree and Plant Appraiser/TPAQ

July 17, 2023



Consultants in Horticulture and Arboriculture P.O Box 1261, Glen Ellen, CA 95442

July 17, 2023

Kathy Austin Architect AIA 179 SE Rice Way Bend, Oregon 97702

Re: Completed Tree Inventory Report, 7621 Healdsburg Avenue, Sebastopol, California

Kathy,

Attached you will find our completed Tree Inventory Report for the above noted site in Sebastopol. A total of 59 trees were evaluated and this includes all trees that are present which are 6 inches or greater in trunk diameter measured at 4.5′ above grade and located within or overhanging the property boundaries.

All trees in this report were evaluated and documented for species, size, health, and structural condition. The Tree Inventory Chart also provides an assessment of expected impact for each tree based on the revised plan that was provided, as well as recommendations for preservation or removal. A Tree Location Plan shows the location and numbering sequence of all trees. Also included are a Fencing Detail, Pruning Guidelines, and Tree Preservation Guidelines.

This report is intended to be a basic inventory of trees present at this site, which includes a general review of tree health and structural condition. No in-depth evaluation has occurred on any tree, and assessment has included only external visual examination without probing, drilling, coring, root collar examination, root excavation, or dissecting any tree part. Failures, deficiencies, and problems may occur in these trees in the future, and this inventory in no way guarantees or provides a warranty for their condition. No other trees are included in this report. If other trees need to be included it your responsibility to provide that direction to us.

#### **EXISTING SITE CONDITION SUMMARY**

The project site consists of an infill property adjacent to a commercial building, apartments, and a residence.

## EXISTING TREE SUMMARY

Species that are native to the site include Coast Live Oak and Black Oak.

Ornamental species include Pears and Fruitless Mulberry.

### EXPECTED IMPACTS OF DEVELOPMENT

The following impacts are expected based on the tentative map that was reviewed:

- (29) Trees will be removed
- (18) Trees can be retained with a moderate or less impact
- (7) Trees can be retained with a significant impact
- (5) Fruit trees removed without requiring mitigation

This site poses significant constraints on the effective preservation of many trees. There are seven trees that will be significantly impacted, and there will be a serious effort to preserve and protect these trees to the greatest extent possible given site constraints. These efforts will include pre-construction enhancement of health and vitality as well as active post construction management to offset the impacts of construction.

Please feel free to contact me if you have questions regarding this report.

Regards,

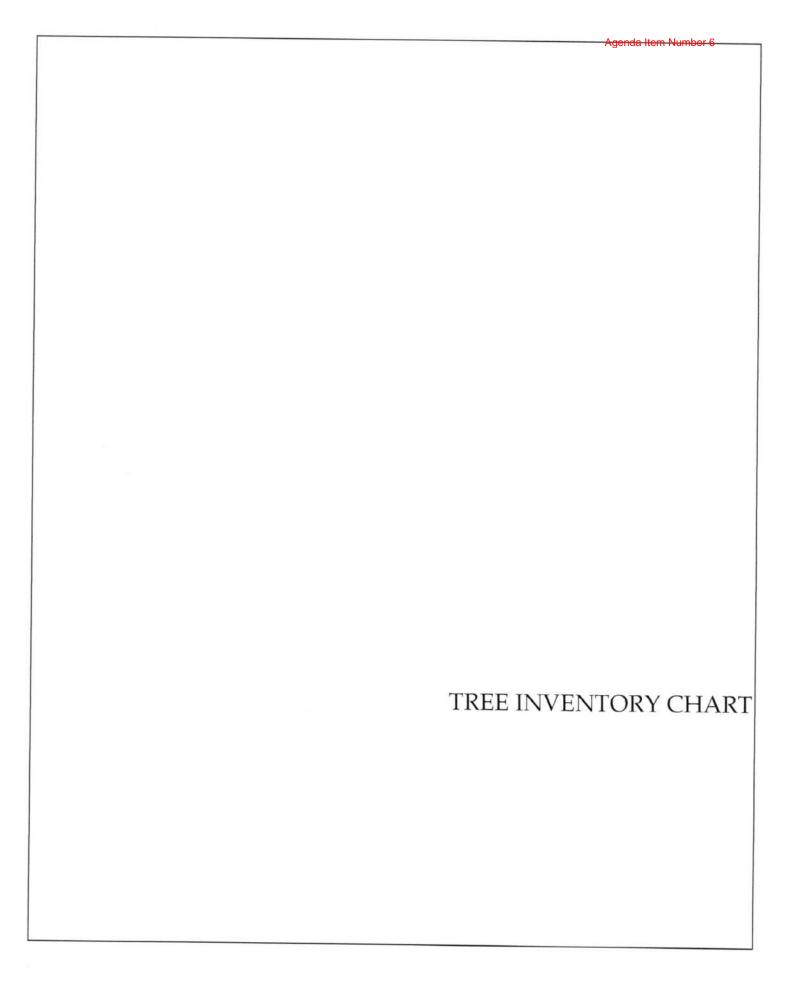
John C. Meserve

ISA Certified Arborist, WE #0478A

ISA Qualified Tree Risk Assessor/TRAQ

ASCA Qualified Tree and Plant Appraiser/TPAQ





Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected	Recommendations
220	Quercus agrifolia	Coast Live Oak	2+6+6+8	18	12	4	3	0	1, 6, 7, 8, 9,
221	Pyrus communis	Pear	4+5+6	12	×	2	2	3	2,3
222	Quercus agrifolia	Coast Live Oak	6	15	∞	Б	3	8	2
223	Quercus agrifolia	Coast Live Oak	14	20	16	4	3	ю	2
224	Quercus agrifolia	Coast Live Oak	25	40	24	4	6	33	2
225	Quercus agrifolia	Coast Live Oak	8+11	35	18	4	33	8	2
226	Quercus agrifolia	Coast Live Oak	3+15	45	30	4	2	3	2, 3
227	Quercus agrifolia	Coast Live Oak	12+29	45	30	4	ю	8	2
228	Quercus agrifolia	Coast Live Oak	27	40	30	4	8	3	2
229	Quercus agrifolia	Coast Live Oak	32	45	30	4	6	3	2
230	Quercus agrifolia	Coast Live Oak	20+30	45	30	4	8	8	7

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July 17, 2022

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected	Recommendations
231	Quercus agrifolia	Coast Live Oak	11+12+15	45	20	4	2	3	2
232	Quercus agrifolia	Coast Live Oak	10+21+26+26+3	45	35	4	3	8	2
233	Quercus agrifolia	Coast Live Oak	10+16	40	21	4	3	3	2
234	Quercus agrifolia	Coast Live Oak	6	40	15	4	3	3	2
235	Quercus agrifolia	Coast Live Oak	19	45	22	4	3	3	2
236	Quercus agrifolia	Coast Live Oak	18+21	45	30	4	2	33	2
237	Quercus agrifolia	Coast Live Oak	7+18	35	22	4	3	1	1, 6, 7, 8, 9, 10, 11, 12
238	Quercus agrifolia	Coast Live Oak	19	45	18	4	3	1	1, 6, 7, 8, 9
239	Quercus agrifolia	Coast Live Oak	13	30	18	2	2	2	8
240	Quercus agrifolia	Coast Live Oak	12+17+19	40	25	4	3	2	1, 6, 7, 8, 9
241	Quercus agrifolia	Coast Live Oak	7+7	22	12	4	3	2	1, 6, 7, 8, 9

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Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected	Recommendations
242	Quercus kelloggii	Black Oak	12	35	17	4	3	2	1, 6, 7, 8, 9
243	Quercus agrifolia	Coast Live Oak	5	14	10	3	3	3	1, 6, 7, 8, 9
244	Quercus kelloggii	Black Oak	30+36	50	40	4	2	2	1, 6, 7, 8, 9, 10, 11, 12
245	Quercus agrifolia	Coast Live Oak	24+26	50	35	4	2	3	1, 6, 7, 8, 9, 10, 11, 12
246	Quercus agrifolia	Coast Live Oak	44	50	35	4	3	ဇ	1, 6, 7, 8, 9, 10, 11, 12
247	Morus alba	Fruitless Mulberry	7	10	8	2	2	3	2, 3
248	Quercus kelloggii	Black Oak	19	40	22	4	3	3	2
249	Quercus kelloggii	Black Oak	12	35	20	4	3	3	2
250	Quercus kelloggii	Black Oak	14+14	35	24	3	3	3	1, 6, 7, 8, 9, 10, 11, 12
251	Quercus agrifolia	Coast Live Oak	30	50	30	4	3	2	1, 6, 7, 8, 9, 10, 11, 12
252	Quercus agrifolia	Coast Live Oak	24+24	45	28	3	3	-	1, 6, 7, 8, 9, 10, 11, 12

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July 17, 2022

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected	Recommendations
253	Quercus agrifolia	Coast Live Oak	9	18	10	3	3	3	1, 6, 7, 8, 9, 10, 11, 12
254	Quercus agrifolia	Coast Live Oak	11	40	16	4	3	3	1, 6, 7, 8, 9, 10, 11, 12
255	no tree 355	×	×	×	×	×	×	×	×
256	Quercus agrifolia	Coast Live Oak	21	50	26	4	2	3	1, 6, 7, 8, 9, 10, 11, 12
257	Quercus agrifolia	Coast Live Oak	16	40	20	4	3	3	1, 6, 7, 8, 9, 10, 11, 12
258	Quercus agrifolia	Coast Live Oak	8+9	35	16	4	3	3	1, 6, 7, 8, 9, 10, 11, 12
259	Quercus agrifolia	Coast Live Oak	12	40	14	4	3	-	1, 6, 7, 8, 9
260	Quercus agrifolia	Coast Live Oak	14	40	18	4	3	0	1, 6
261	Quercus agrifolia	Coast Live Oak	5	18	∞	2	2	-	1, 6, 7, 8, 9
262	Quercus agrifolia	Coast Live Oak	9	12	10	3	3	-	1, 6, 7, 8, 9
263	Quercus agrifolia	Coast Live Oak	16+16	40	30	4	3	1	1, 6, 7, 8, 9

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Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected	Recommendations
264	Quercus agrifolia	Coast Live Oak	7+22	45	22	3	3	1	1, 6, 7, 8, 9
265	Quercus agrifolia	Coast Live Oak	23	50	24	4	3	3	1, 6, 7, 8, 9, 10, 11, 12
266	Pyrus communis	Pear	5+5+6+7+12	15	10	2	3	3	3, 13
267	Quercus kelloggii	Black Oak	9	25	15	4	3	3	2
268	Quercus agrifolia	Coast Live Oak	14	35	16	4	3	3	2
269	Quercus kelloggii	Black Oak	6	35	16	4	3	3	2
270	Quercus agrifolia	Coast Live Oak	2+6	15	10	4	3	2	1, 6, 7, 8, 9, 10, 11, 12
27.1	Quercus agrifolia	Coast Live Oak	15	22	14	4	3	3	2
272	Pyrus communis	Pear	6+9+10+10+10	15	10	1	2	3	2, 3, 13
273	Pyrus communis	Pear	5+5+6+6+6	15	10	1	2	3	2, 3, 13
274	Quercus agrifolia	Coast Live Oak	30	22	35	3	1	3	2, 3

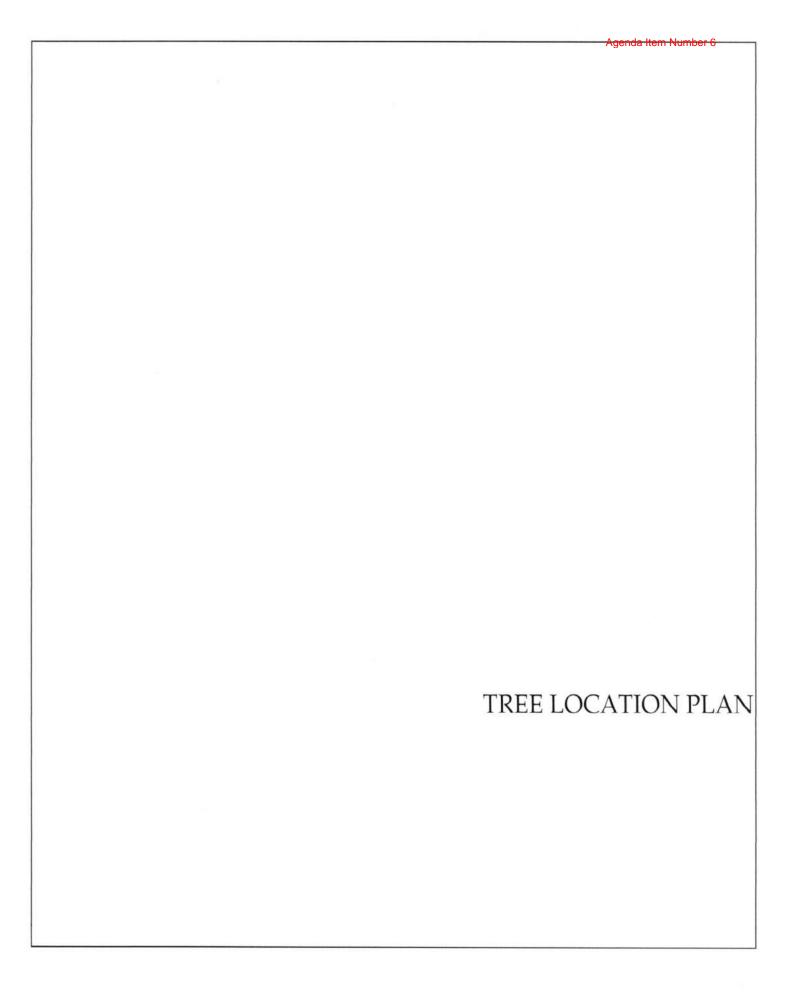
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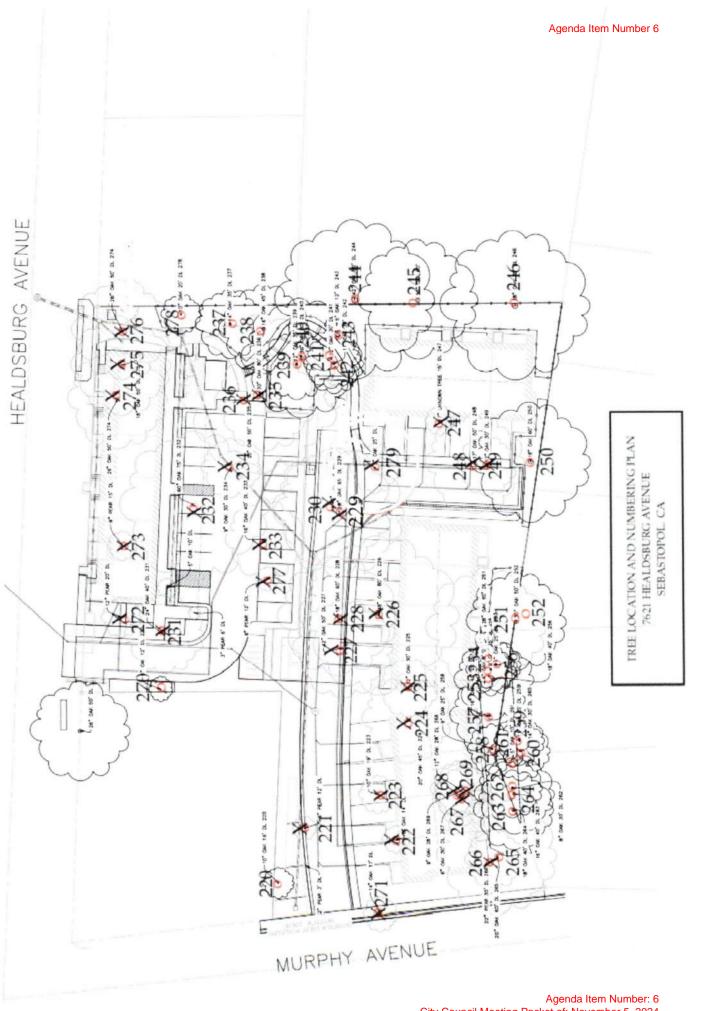
# July 17, 2022

# TREE INVENTORY 7621 Healdsburg Avenue Sebastopol, CA

Species Common Name	Соттол Name	0)	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Height Radius Health Structure Expected (± feet) (± feet) 1-5 1-4 Impact	Expected	Recommendations
Quercus agrifolia Coast Live Oak	Coast Live Oak		10+20	40	35	4	3	3	2
Quercus agrifolia Coast Live Oak	Coast Live Oak		23	40	35	4	1	3	1, 6, 7, 8, 9, 10, 11,
Pyrus communis Pear	Pear		3+4+5	12	9	4	3	8	2, 13
Quercus agrifolia Coast Live Oak	Coast Live Oak		11	24	12	2	2	0	1, 6
Quercus agrifolia Coast Live Oak	Coast Live Oak		∞	25	14	4	3	3	2

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Agenda Item Number 6
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-
VEV TO TREE
KEY TO TREE
INVENTORY CHART

#### KEY TO TREE INVENTORY CHART

#### 7621 Healdsburg Avenue Healdsburg, CA

#### Tree Number

Each tree has been identified in the field with an aluminum tag and reference number. Tags are attached to the trunk at approximately eye level. The *Tree Location Plan* illustrates the location of each numbered tree.

#### **Species**

Each tree has been identified by genus, species and common name. Many species have more than one common name.

#### Trunk

Each trunk has been measured or estimated, in inches, to document its diameter, at 4.5 feet above adjacent grade. Trunk diameter is a good indicator of age, and is commonly used to determine mitigation replacement requirements.

#### **Height**

Height is estimated in feet, using visual assessment.

#### Radius

Radius is estimated in feet, using visual assessment. Since many canopies are asymmetrical, it is not uncommon for a radius estimate to be an average of the canopy size.

#### Health

The following descriptions are used to rate the health of a tree. Trees with a rating of 4 or 5 are very good candidates for preservation and will tolerate more construction impacts than trees in poorer condition. Trees with a rating of 3 may or may not be good candidates for preservation, depending on the species and expected construction impacts. Trees with a rating of 1 or 2 are generally poor candidates for preservation.

- (5) Excellent health and vigor are exceptional, no pest, disease, or distress symptoms.
- (4) Good health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.
- (3) Fair health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.
- (2) Marginal health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is in question.
- (1) Poor decline has progressed beyond the point of being able to return to a healthy condition again. Long-term survival is not expected. This designation includes dead trees.

#### Structure

The following descriptions are used to rate the structural integrity of a tree. Trees with a rating of 3 or 4 are generally stable, sound trees which do not require significant pruning, although cleaning, thinning, or raising the canopy might be desirable. Trees with a rating of 2 are generally poor candidates for preservation unless they are preserved well away from improvements or active use areas. Significant time and effort would be required to reconstruct the canopy and improve structural integrity. Trees with a rating of 1 are hazardous and should be removed.

- (4) Good structure minor structural problems may be present which do not require corrective action.
- (3) Moderate structure normal, typical structural issues which can be corrected with pruning.
- (2) Marginal structure serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.
- Poor structure hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

#### **Development Impacts**

Considering the proximity of construction activities, type of activities, tree species, and tree condition - the following ratings are used to estimate the amount of impact on tree health and stability. Most trees will tolerate a (1) rating, many trees could tolerate a (2) rating with careful consideration and mitigation, but trees with a (3) rating are poor candidates for preservation due to their very close proximity to construction or because they are located within the footprint of construction and cannot be preserved.

- (3) A significant impact on long term tree integrity can be expected as a result of proposed development.
- (2) A moderate impact on long term tree integrity can be expected as a result of proposed development.
- (1) A minor impact on long term tree integrity can be expected as a result of proposed development.
- (0) No impact expected if protected per recommendations.

#### Suitability for Preservation

- (4) Excellent suitability for preservation based on existing condition
- (3) Good suitability for preservation based on existing condition
- (2) Fair suitability for preservation based on existing condition
- (1). Very poor suitability for preservation based on existing condition

#### Recommendations

Recommendations are provided for removal or preservation. For those being preserved, protection measures and mitigation procedures to offset impacts and improve tree health are provided.

- (1) Preservation appears to be possible.
- (2) Removal is required due to significant development impacts.
- (3) Removal is required due to poor health or hazardous structure.
- (4) Removal is required due to significant development impacts and poor existing condition.
- (5) Removal is recommended due to poor species characteristics.
- (6) Install temporary protective fencing at the edge of the dripline, or edge of approved construction, prior to beginning grading or construction. Maintain fencing in place for duration of all construction activity in the area.
- (7) Maintain existing grade within the fenced portion of the dripline. Route drainage swales and all underground work outside the dripline where possible.
- (8) Place a 4" layer of chipped bark mulch over the soil surface within the fenced dripline prior to installing temporary fencing. Maintain this layer of mulch throughout construction.
- (9) Prune to clean the canopy, per International Society of Arboriculture pruning standards.
- (10) The impacts of adjacent grading cannot be mitigated due to design constraints.
- (11) Excavation will be required within the TPZ and the dripline for development. Excavation within the TPZ of any type must adhere to the following guidelines:

All roots encountered that are 1 inch or larger in diameter must be cleanly cut as they are encountered by excavating equipment.

Roots may not be ripped from the ground and then trimmed. They must be trimmed as encountered and this will require the use of a ground man working with a suitable power tool.

Pruned and exposed roots greater than 1 inches in diameter must be protected from desiccation if left exposed for more than 24 hours. Cover cut roots with heavy cloth, burlap, used carpeting, or similar material that has been soaked in water, until trench or excavation has been backfilled.

If excavation impacts more than 20% of the defined TPZ then supplemental irrigation may be required to offset loss of roots. Excavation in this case should be directed by the project arborist who will determine whether mitigation is required, when, and how.

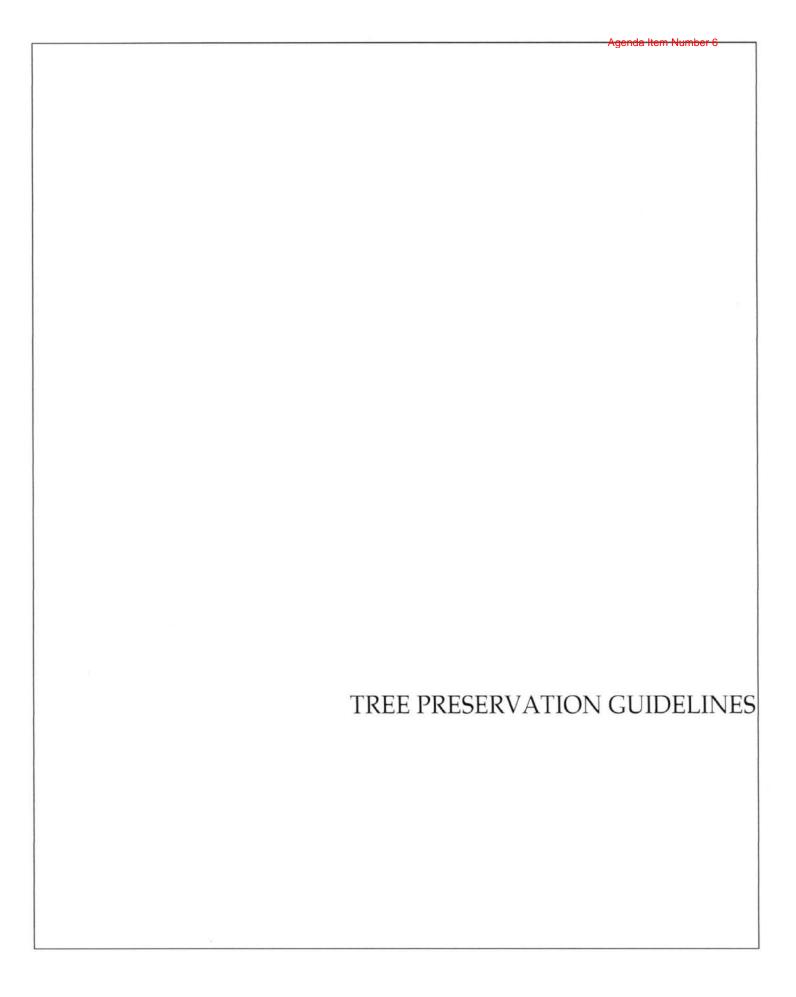
Any excavation within the defined TPZ will require that the tree be monitored on a monthly basis by the project arborist for the duration of construction and for two years beyond completion of construction. Monitoring may determine other mitigation measures that may be required to offset root loss or damage.

- (12) Post construction remediation will be required for any chance of survival including mulching and irrigation during the growing season.
- (13) Fruit tree exempt from preservation or mitigation



0'0

1,5,



#### TREE PRESERVATION GUIDELINES 7621 Healdsburg Avenue Sebastopol, CA

#### INTRODUCTION

Great care must be exercised when development is proposed in the vicinity of established trees of any type. The trees present at this site require specialized protection techniques during all construction activities to minimize negative impact on their long term health and vigor. The area immediately beneath and around canopy driplines is especially critical, and the specifications that follow are established to protect short and long term tree integrity. The purpose of this specification is therefore to define the procedures that must be followed during any and all phases of development in the immediate vicinity of designated protected trees.

Established, mature trees respond in a number of different ways to the disruption of their natural conditions. Change of grade within the root system area or near the root collar, damage to the bark of the trunk, soil compaction above the root system, root system reduction or damage, or alteration of summer soil moisture levels may individually or collectively cause physiological stress leading to tree decline and death. The individual impacts of these activities may cause trees to immediately exhibit symptoms and begin to decline, but more commonly the decline process takes many years, with symptoms appearing slowly and over a period of time. Trees may not begin to show obvious signs of decline from the negative impacts of construction until many years after construction is completed. It is not appropriate to wait for symptoms to appear, as this may be too late to correct the conditions at fault and to halt decline.

It is therefore critical to the long-term health of all protected trees that a defined protection program be established before beginning any construction activity where protected trees are found. Once incorporated at the design level, it is mandatory that developers, contractors, and construction personnel understand the critical importance of these guidelines, and the potential penalties that will be levied if they are not fully incorporated at every stage of development.

The following specifications are meant to be utilized by project managers and those supervising any construction in the vicinity of protected trees including grading contractors, underground contractors, all equipment operators, construction personnel, and landscape contractors. Questions which arise, or interpretation of specifications as they apply to specific site activities, must be referred to the project arborist as they occur.

#### TREE PROTECTION ZONE

- 1. The canopy dripline is illustrated on the Improvement Plans and represents the area around each tree, or group of trees, which must be protected at all times with tree protection fencing.
- 2. No encroachment into the dripline is allowed at any time without approval from the project arborist, and unauthorized entry may be subject to civil action and penalties.
- 3. The dripline will be designated by the project arborist at a location determined to be adequate to ensure long term tree viability and health. This is to occur prior to installation of fencing and in conjunction with the fencing contractor

#### TREE PROTECTION FENCING

- Prior to initiating any construction activity on a construction project, including demolition or grading, temporary protective fencing shall be installed at each site tree, or group of trees. Fencing shall be located at the dripline designated by the project arborist and generally illustrated on the Improvement Plans.
- 2. Fencing shall be minimum 4' height at all locations, and shall form a continuous barrier without entry points around all individual trees, or groups of trees. Barrier type fencing such as *Tensar* plastic fencing is recommended, but any fencing system that adequately prevents entry will be considered for approval by the project arborist. The use of post and cable fencing is not acceptable, however.
- 3. Fencing shall be installed tightly between steel fence posts (standard quality farm 'T' posts work well) placed no more than 8 feet on center. Fencing shall be attached to each post at 5 locations with plastic electrical ties, metal tie wire, or flip ties. See attached fencing detail.
- 4. Fencing shall serve as a barrier to prevent encroachment of any type by construction activities, equipment, materials storage, or personnel.
- 5. All encroachment into the fenced dripline must be approved and supervised by the project arborist. Approved dripline encroachment may require

- additional mitigation or protection measures that will be determined by the project arborist at the time of the request.
- Contractors and subcontractors shall direct all equipment and personnel to remain outside the fenced area at all times until project is complete, and shall instruct personnel and sub-contractors as to the purpose and importance of fencing and preservation.
- Fencing shall be upright and functional at all times from start to completion
  of project. Fencing shall remain in place and not be moved or removed until
  all construction activities at the site are completed.

#### TREE PRUNING AND TREATMENTS

- All recommendations for pruning or other treatments must be completed prior to acceptance of the project. It is strongly recommended that pruning be completed prior to the start of grading to facilitate optimum logistics and access.
- All pruning shall be conducted in conformance with International Society of Arboriculture pruning standards, and all pruning must occur by, or under the direct supervision of, an arborist certified by the International Society of Arboriculture.

#### GRADING AND TRENCHING

- Any construction activity that necessitates soil excavation in the vicinity of preserved trees shall be avoided where possible, or be appropriately mitigated under the guidance of the project arborist. All contractors must be aware at all times that specific protection measures are defined, and non conformance may generate stop-work orders.
- The designated dripline is defined around all site trees to be preserved.
   Fences protect the designated areas. No grading or trenching is to occur
   within this defined area unless so designated by the Improvement Plan, and
   where designated shall occur under the direct supervision of the project
   arborist.
- 3. Trenching should be routed around the dripline. Where trenching has been designated within the dripline, utilization of underground technology to bore, tunnel or excavate with high-pressure air or water will be specified. Hand digging will be generally discouraged unless site conditions restrict the use of alternate technology.

- 4. All roots greater than one inch in diameter shall be cleanly hand-cut as they are encountered in any trench or during any grading activity. The tearing of roots by equipment shall not be allowed. Mitigation treatment of pruned roots shall be specified by the project arborist as determined by the degree of root pruning, location of root pruning, and potential exposure to desiccation. No pruning paints or sealants shall be used on cut roots.
- 5. Where significant roots are encountered mitigation measures such as supplemental irrigation and/or organic mulches may be specified by the project arborist to offset the reduction of root system capacity.
- 6. Retaining walls are effective at holding grade changes outside the area of the dripline and are recommended where necessary. Retaining walls shall be constructed in post and beam or drilled pier construction styles where they are necessary near or within a dripline.
- 7. Grade changes outside the dripline, or those necessary in conjunction with retaining walls, shall be designed so that drainage water of any type or source is not diverted toward or around the root crown in any manner. Grade shall drain away from root crown at a minimum of 2%. If grading toward the root collar is unavoidable, appropriate surface and/or subsurface drain facilities shall be installed so that water is effectively diverted away from root collar area.
- 8. Grade reduction within the designated dripline shall be generally discouraged, and where approved, shall be conducted only after careful consideration and coordination with the project arborist.
- 9. Foundations of all types within the dripline shall be constructed using design techniques that eliminate the need for trenching into natural grade. These techniques might include drilled piers, grade beams, bridges, or cantilevered structures. Building footprints should generally be outside the dripline whenever possible.

#### DRAINAGE

The location and density of native trees may be directly associated with the presence of naturally occurring water, especially ephemeral waterways. Project design, especially drainage components, should take into consideration that these trees may begin a slow decline if this naturally present association with water is changed or eliminated.

#### TREE DAMAGE

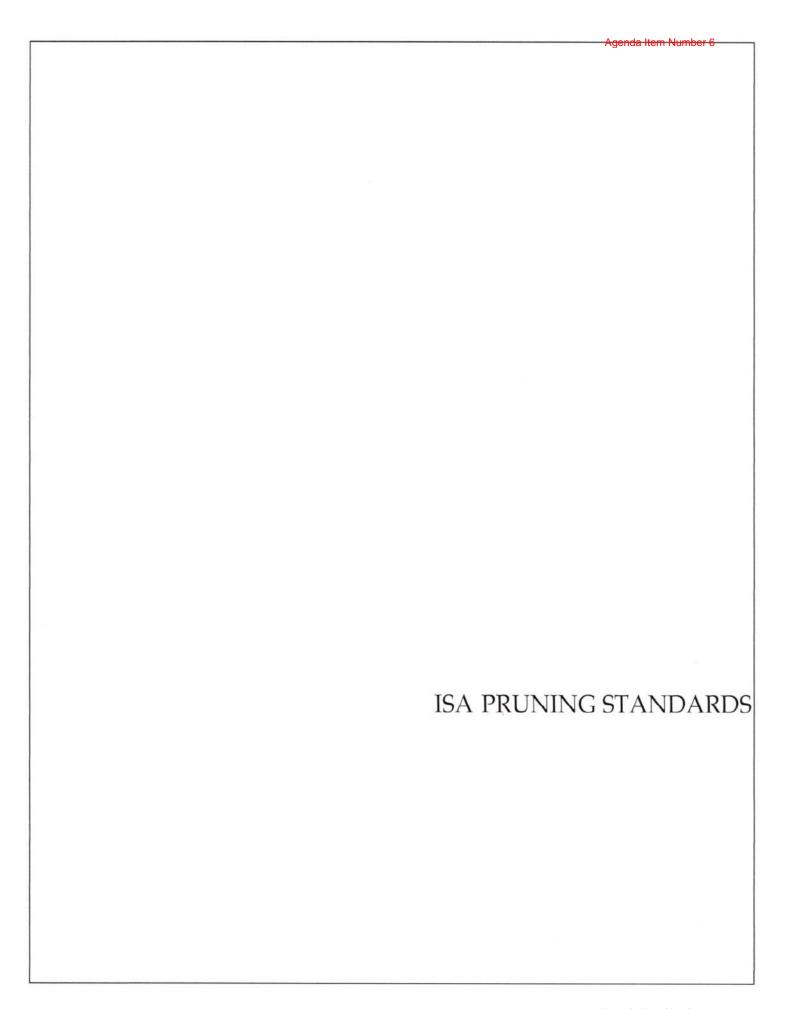
- 1. Any form of tree damage which occurs during the demolition, grading, or construction process shall be evaluated by the project arborist. Specific mitigation measures will be developed to compensate for or correct the damage. Fines and penalties may also be levied.
- 2. Measures may include, but are not limited to, the following:
- pruning to remove damaged limbs or wood
- · bark scoring to remove damaged bark and promote callous formation
- alleviation of compaction by lightly scarifying the soil surface
- installation of a specific mulching material
- supplemental irrigation during the growing season for up to 5 years
- treatment with specific amendments intended to promote health, vigor, or root growth
- vertical mulching or soil fracturing to promote root growth
- periodic post-construction monitoring at the developer's expense
- tree replacement, or payment of the established appraised value, if the damage is so severe that long term survival is not expected.
- 3. Any tree that is significantly damaged and whose survivability is threatened, due to negligence by any contractor, shall be appraised using the Trunk Formula Method provided in the 9th Edition of the Guide For Plant Appraisal. This appraisal value will be the basis for any fines levied on the offending contractor.

#### MULCHING

1. Trees will benefit from the application of a 4 inch layer of chipped bark mulch over the soil surface within the Tree Protection Zone. Ideal mulch material is a chipped bark containing a wide range of particle sizes. Bark mulches composed of shredded redwood, bark screened for uniformity of size, dyed bark, or chipped lumber will not function as beneficially. All trees that are expected to be

impacted in any way by project activities shall have mulch placed prior to the installation of protection fencing.

2. Mulch should be generated from existing site trees that are removed or pruned as part of the project. Much brought onto the site from an outside source must be from trees that are verified to be free of the Sudden Oak Death pathogen *Phytophtora ramorum*.



# ISA

#### PRUNING STANDARDS

#### Purpose:

Trees and other woody plants respond in specific and predictable ways to pruning and other maintenance practices. Careful study of these responses has led to pruning practices which best preserve and enhance the beauty, structural integrity, and functional value of trees.

In an effort to promote practices which encourage the preservation of tree structure and health, the W.C. ISA Certification Committee has established the following Standards of Pruning for Certified Arborists. The Standards are presented as working guidelines, recognizing that trees are individually unique in form and structure, and that their pruning needs may not always fit strict rules. The Certified Arborist must take responsibility for special pruning practices that vary greatly from these Standards.

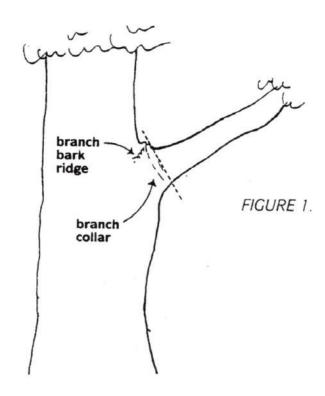
#### I. Pruning Techniques

A. A thinning cut removes a branch at its point of attachment or shortens it to a lateral large enough to assume the terminal role. Thinning opens up a tree, reduces weight on heavy limbs, can reduce a tree's height, distributes ensuing invigoration throughout a tree and helps retain the tree's natural shape. Thinning cuts are therefore preferred in tree pruning.

When shortening a branch or leader, the lateral to which it is cut should be at least one-half the diameter of the cut being made. Removal of a branch or leader back to a sufficiently large lateral is often called "drop crotching."

B. A heading cut removes a branch to a stub, a bud or a lateral branch not large enough to assume the terminal role. Heading cuts should seldom be used because vigorous, weakly attached upright sprouts are forced just below such cuts, and the tree's natural form is altered. In some situations, branch stubs die or produce only weak sprouts.

- C. When removing a live branch, pruning cuts should be made in branch tissue just outside the branch bark ridge and collar, which are trunk tissue. (Figure 1) If no collar is visible, the angle of the cut should approximate the angle formed by the branch bark ridge and the trunk. (Figure 2).
- D. When removing a dead branch, the final cut should be made outside the collar of live callus tissue. If the collar has grown out along the branch stub, only the dead stub should be removed, the live collar should remain intact, and uninjured. (Figure 3)
- E. When reducing the length of a branch or the height of a leader, the final cut should be made just beyond (without violating) the branch bark ridge of the branch being cut to. The cut should approximately bisect the angle formed by the branch bark ridge and an imaginary line perpendicular to the trunk or branch cut. (Figure 4)
- F. A goal of structural pruning is to maintain the size of lateral branches to less than three-fourths the diameter of the parent branch or trunk. If the branch is codominant or close to the size of the parent branch, thin the branch's foliage by 15% to 25%, particularly near the terminal. Thin the parent branch less, if at all. This will allow the parent branch to grow at a faster rate, will reduce the weight of the lateral branch, slow its total growth, and develop a stronger branch attachment. If this does not appear appropriate, the branch should be completely removed or shortened to a large lateral. (Figure 5)
- G. On large-growing trees, except whorl-branching conifers, branches that are more than one-third the diameter of the trunk should be spaced along the trunk at least 18 inches apart, on center. If this is not possible because of the present size of the tree, such branches should have their foliage thinned 15% to 25%, particularly near their terminals. (Figure 6)
- H. Pruning cuts should be clean and smooth with the bark at the edge of the cut firmly attached to the wood.
- Large or heavy branches that cannot be thrown clear, should be lowered on ropes to prevent injury to the tree or other property.
- J. Wound dressings and tree paints have not been shown to be effective in preventing or reducing decay. They are therefore not recommended for routine use when pruning.



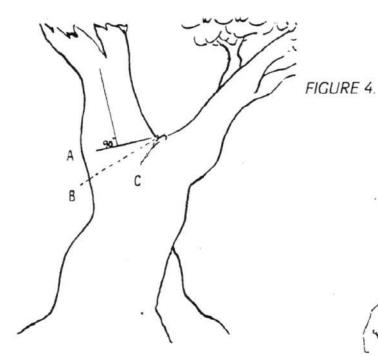
When removing a branch, the final cut should be just outside the branch bark ridge and collar.

FIGURE 2. In removing a limb without a branch collar, the angle of the final cut to the branch bark ridge should approximate the angle the branch bark ridge forms with the limb. Angle AB should equal Angle BC.

A C

FIGURE 3.

When removing a dead branch, cut outside the callus tissue that has begun to form around the branch.



In removing the end of a limb to a large lateral branch, the final cut is made along a line that bisects the angle between the branch bark ridge and a line perpendicular to the limb being removed. Angle AB is equal to Angle BC.

FIGURE 5. A tree with limbs tending to be equal-sized, or codominant. Limbs marked B are greater than 34 the size of the parent limb A. Thin the foliage of branch B more than branch A to slow its growth and develop a stronger branch attachment.

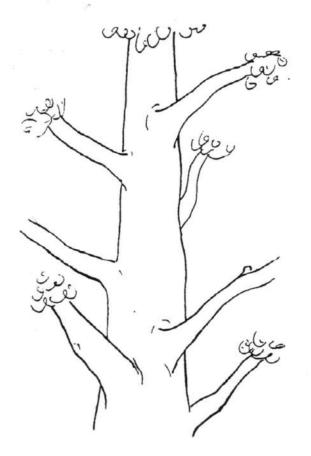




FIGURE 6. Major branches should be well spaced both along and around the stem.

#### II. Types of Pruning — Mature Trees

#### A. CROWN CLEANING

Crown cleaning or cleaning out is the removal of dead, dying, diseased, crowded, weakly attached, and low-vigor branches and watersprouts from a tree crown.

#### B. CROWN THINNING

Crown thinning includes crown cleaning and the selective removal of branches to increase light penetration and air movement into the crown. Increased light and air stimulates and maintains interior foliage, which in turn improves branch taper and strength. Thinning reduces the wind-sail effect of the crown and the weight of heavy limbs. Thinning the crown can emphasize the structural beauty of trunk and branches as well as improve the growth of plants beneath the tree by increasing light penetration. When thinning the crown of mature trees, seldom should more than one-third of the live foliage be removed.

At least one-half of the foliage should be on branches that arise in the lower two-thirds of the trees. Likewise, when thinning laterals from a limb, an effort should be made to retain inner lateral branches and leave the same distribution of foliage along the branch. Trees and branches so pruned will have stress more evenly distributed throughout the tree or along a branch.

An effect known as "lion's-tailing" results from pruning out the inside lateral branches. Lion's-tailing, by removing all the inner foliage, displaces the weight to the ends of the branches and may result in sunburned branches, watersprouts, weakened branch structure and limb breakage.

#### C. CROWN REDUCTION

Crown reduction is used to reduce the height and/or spread of a tree. Thinning cuts are most effective in maintaining the structural integrity and natural form of a tree and in delaying the time when it will need to be pruned again. The lateral to which a branch or trunk is cut should be at least one-half the diameter of the cut being made.

#### D. CROWN RESTORATION

Crown restoration can improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One to three sprouts on main branch stubs should be selected to reform a more natural appearing crown. Selected vigorous sprouts may need to be thinned to a lateral, or even headed, to control length growth in order to ensure adequate attachment for the size of the sprout. Restoration may require several prunings over a number of years.

#### II. Types of Pruning — Mature Trees (continued)

#### E. CROWN RAISING

Crown raising removes the lower branches of a tree in order to provide clearance for buildings, vehicles, pedestrians, and vistas. It is important that a tree have at least one-half of its foliage on branches that originate in the lower two-thirds of its crown to ensure a well-formed, tapered structure and to uniformly distribute stress within a tree.

When pruning for view, it is preferable to develop "windows" through the foliage of the tree, rather than to severely raise or reduce the crown.

#### III. Size of Pruning Cuts

Each of the Pruning Techniques (Section I) and Types of Pruning (Section II) can be done to different levels of detail or refinement. The removal of many small branches rather than a few large branches will require more time, but will produce a less-pruned appearance, will force fewer watersprouts and will help to maintain the vitality and structure of the tree. Designating the maximum size (base diameter) that any occasional undesirable branch may be left within the tree crown, such as ½, 1° or 2° branch diameter, will establish the degree of pruning desired.

#### IV. Climbing Techniques

- A. Climbing and pruning practices should not injure the tree except for the pruning cuts.
- B. Climbing spurs or gaffs should not be used when pruning a tree, unless the branches are more than throw-line distance apart. In such cases, the spurs should be removed once the climber is tied in.
- C. Spurs may be used to reach an injured climber and when removing a tree.
- D. Rope injury to thin barked trees from loading out heavy limbs should be avoided by installing a block in the tree to carry the load. This technique may also be used to reduce injury to a crotch from the climber's line.

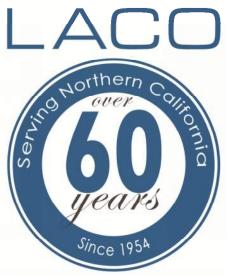
# Pacific Knolls Storm Water Low Impact Development Report

**Prepared For** 

#### **Pacific Realty Development LLC**

7261 Healdsburg Ave Sebastopol, CA 95472 405-686-0772 LACO Job No. 9272.02 APN: 164-150-054

#### PREPARED BY



LACO ASSOCIATES 1550 Airport Blvd, Suite 120 Santa Rosa, Ca 95403 (707) 525-1222

March, 2024

Prepared under the supervision of Paul Peck, PE



#### **Project Description:**

The project involves the construction of six new townhomes, twelve new single-family duplexes, construction of two residential driveways including grading and drainage, and associated site improvements.

#### **Existing Site Description:**

The site is located at 4245 Hargrave Ave. Sebastopol, CA. The total project area contained within parcel 164-150-054 encompasses 1.28 acres and consists primarily of oak woodland, tall grass, and scattered shrubs. The site includes a one-story dilapidated house with minimal concrete walkways around it. All existing structures and concrete will be demolished and removed. Pre-development on-site runoff consists of sheet flow from the southeast corner of the site flowing both north and west toward Healdsburg Ave and Murphy Ave, where it then collects into the city storm drain system. Once in the storm drain system, runoff eventually exits at the Morris St outfall into the Laguna de Santa Rosa. Of the 68 existing trees on the site, 27 will be preserved and remain and there are no other sensitive features. See Tree Preservation Plan.

#### **Project Triggers:**

The project will involve the construction of 37,192 SF (0.85 acres) of new or replaced impervious areas. According to Chapter 2, of the 2020 Storm Water LID Technical Design Manual (LIDTDM), project sites that create or replace more than 10,000 SF and less than 1.0 acres of impervious surface are required to incorporate permanent Storm Water BMPs to achieve 100% delta volume Capture as required by the NPDES MS4 Permit. There are no creek outfalls and therefore the size of the impervious area is the only project trigger.

#### **Runoff Reduction Measures:**

Downspouts from roof gutters will be disconnected from the storm drain system and discharge into landscape areas and swales. Drainage Management Area (DMA) 7 is the only DMA that takes credit for impervious area disconnection and trees. The total tributary area used for BMP sizing calculations has been reduced by 2,210 SF in the by taking credit for these measures.

Because it is a residential project, the only pollution prevention measures that will be required is that trash be kept inside a covered trash enclosure. There are no other pollution prevention requirements.

#### Types of BMPs

The selected BMPs for the developed site will include the following:

#### **Universal LID Features**

<u>Impervious area disconnection:</u> Allows stormwater coming from impervious areas to pervious areas that more effectively treat storm water and allow for infiltration. Paved area disconnection is used on the site to disconnect direct discharge.

Interceptor Trees: Existing trees that intercept rain water on their leaves and branches, allowing rain water to evaporate or run down the branches and trunk of the tree where it readily infiltrates into the soil. Tree roots also increase infiltration. Trees also provide shade over impervious surfaces which reduce peak flow in streams and provide shade which reduces the heat island effects of urban areas.

#### **Priority 2 BMPs**

<u>Roadside Bio-retention – No Curb and Gutter (P2-05):</u> Priority two bioretention facilities are designed with perforated pipe beneath the engineered treatment material that allows gradual drainage after the runoff is treated. (See attached detail)

#### **Pre & Post Development Runoff Conditions:**

We have analyzed the pre and post development condition by using the Santa Rosa LID runoff curve number worksheet. We compared the pre and post development worksheets and determined the following composite curve numbers (CN) and runoff coefficients (C).

DMA #	Curve Number (CN)	Runoff Coefficient (C)
1	90.0	0.80
2	89.6	0.80
3	90.0	0.80
4	89.3	0.80
5	89.5	0.80
6	89.4	0.80
7	83.1	0.36
8	87.4	0.46
9	85.1	0.49
10	87.3	0.63

For the CN calculations, it was assumed that the native soil type had an infiltration rate of 0.05 in/hr and a cover description of 50% woods, 50% grass and curve number of 76. See attached for the composite curve numbers (CN) and runoff coefficients (C) calculations.

By utilizing the City of Santa Rosa Storm Water Calculator we modeled the pre vs. post condition. The imported BMP fill material (Soiland BASMAA Bioswale Mix) for the priority one bioretention facility will have an infiltration rate of 5 in/hr. Additionally, porosity of the imported BMP soil was assumed to be 0.30 or better.

The results show that, with the designed bioretention areas, the 100% volume capture requirement is achieved. Furthermore, the bioretention facilities effectively meet the 100% treatment requirement. The bioretention facilities are designed and will be constructed to effectively treat trash debris. The mechanism for this is the flora and engineered soil that filters and intercept particles down to 100 microns in size, before entering the downstream waterways. Trash capture will not be an issue on this site given the nature of the project such as site use and location.

See all calculations in attached documents. As a result, this project conforms to County standards and post construction water quality impacts are not anticipated.

#### Maintenance and Funding

BMPs shall be inspected and maintained as described in the Storm Water Low Impact Development Technical Design Manual. All BMPs are located on private land throughout the entire property. Furthermore, BMPs will be the sole responsibility of and funded by the owner. All legal documents and agreements have been provided within this Report.

#### Maintenance of BMPs

The maintenance of selected BMPs is recommended as follows:

#### Impervious Area Disconnection

At a minimum inspection and maintenance shall include the following:

- Routinely inspect for ponding water near building foundation
- Annually inspect for undercutting/washouts at the outlet of pipe
- Annually inspect for splash blocks or rain chain damage
- Annually inspect for vegetation or debris blocking outlet of pipe

#### Roadside Bio-retention – No Curb and Gutter (P2-05)

At a minimum maintenance shall include the following:

- Dry street sweeping upon completion of construction
- Dry street sweeping annually, and
  - o When water is observed flowing in the gutter during a low intensity storm.
  - o Algae is observed in the gutter.
  - o Sediment/debris covers 1/3 of the gutter width or more.
- Inspect twice during the rainy season for ponded water.
- Obstructions and trash shall be removed and properly disposed of.
- Pesticides and fertilizers shall not be used in the bioretention area.
- Plants should be pruned, weeds pulled, and dead plants replaced as needed.
- Inspection \$100
- Annual Maintenance \$300
- Replacement (30 years) \$5000

Inspections of all BMPs will be recorded using the checklists attached at the end of this document. The property owner is responsible for following all county inspection and maintenance requirements. BMP inspection record keeping requirements, provisions for unscheduled maintenance, estimated costs associated with inspection & maintenance, design life and estimated replacement costs can be found in the operations and maintenance agreement.

#### Attachments:

- 1. Preliminary SUSMP Submittal Guide
- 2. Determination Worksheet
- 3. BMP Selection Tables
- 4. Calculations (CN Composite Worksheet, Storm Water Calculator, and BMP Sizing Calculations)
- 4. BMP Details
- 5. Fact Sheets
- 6. Inspection & Maintenance Checklists
- 7. Soils Data
- 8. Pre and Post development Conditions & BMP Location Exhibits

\_3/22/2024\_\_\_

Agenda Item Number 6



#### Storm Water Low Impact Development Submittal Coversheet

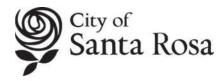
#### To be submitted with all SW LID submittals

1. <u>S</u>	ubmittal Information:
S	ubmittal Date:
lı	nitial SW LIDS Final SW LIDS
<u> </u>	Design Manual Used for design:
2	2005 Standard Urban Storm Water Mitigation Plan
2	2011 Storm Water Low Impact Development Technical Design Manual
<b>√</b> 2	2017 Storm Water Low Impact Development Technical Design Manual
2. <u>Ap</u>	pplicant Information:
Annlicant	Name (Owner or Developer): Pacific Realty Development LLC
Applicant	1555 Grant Ave
Mailing A	ddress:
City/State	Novato, CA 94945
Phone/En	nail/Fax: 405-686-0772

Pacific Knolls Agenda Item Number 6

Date: 3/22/2024\_\_\_

Project Name:



# Storm Water Low Impact Development Submittal Coversheet To be submitted with all SW LID submittals

3. Project Info	ormation:			
Project Name:	Pacific Knolls			
Site Address:	7261 Healsburg Ave.			
City/State/Zip:	Sebastopol, CA			
<b>APN (s):</b> 164-	150-054			
Permit # (s):				
Subdivision	Grading Permit	Building Permit	Design Review	$\checkmark$
Use Permit	Hillside Development	Encroachment	Time Extension	
Other:				

Page 133 of 256

Date:

3/22/2024\_\_\_\_



#### Storm Water Low Impact Development Submittal Coversheet

#### To be submitted with all SW LID submittals

#### 4. Design Information:

<u>Narra</u>	tive:
Projec	t Description
$\checkmark$	Description of proposed project type, size, location, and any specific uses or features.
	Description of any sensitive features (creeks, wetlands, trees, etc.) and whether they are going to be preserved, removed or altered.
<b>√</b>	Description of the existing site.
$\checkmark$	Description of how this project triggers these requirements (impervious area, CALGreen, 401 Permit, etc.).
	Describe any "on-site offset" used.
Polluti	ion Prevention and Runoff Reduction Measures
	Description of all proposed pollution prevention measures (street sweeping, covered trash enclosures, indoor use etc).
	Description of all Runoff Reduction Measures (Interceptor Trees, Impervious Area Disconnection, and/or Alternat Driveway Design).
Туре с	of BMPs Proposed
$\checkmark$	Description of the types of BMPs selected including priority group that each is in.
$\checkmark$	Description of level of treatment and volume capture achieved for each BMP.
Maint	tence
<b>√</b>	Description of maintenance for each type of BMP.
<b>V</b>	Description of funding mechanism.
<b>√</b>	Designation of Responsible Party.

Date: 3/22/2024



Agenda Item Number 6

## Storm Water Low Impact Development Submittal Coversheet To be submitted with all SW LID submittals

Exhibits:
Proposed SW LID Exhibit:
Exhibit should include: street names, property lines, strom drainage system, waterways, title block, scale and north arrow.
✓ Tributary areas shown for all inlets (including off-site drainage areas).
✓ C value for each tributary area.
Soil Type of existing site.
New or replaced impervious area shown.
✓ All inlets and BMP, shown (including unique identifier).
All interceptor trees shown.
All proposed BMPs shown including dimensions.
Existing Condition Exhibit
Exhibit should include: street names, property lines, proposed storm drainage system, waterways, title block, scale, and north arrow.
Soil Type of existing site.
Proposed tributary areas shown for all proposed inlets (including offsite drainage areas). Existing impervious areas.
Existing impervious area.
BMP Details:
Detail for each type of BMP selected- provide a preliminary 8.5"x11" detail for each BMP type or include on submitted drawings. These can be taken straight from the Fact Sheets if no significant changes are proposed.
On Plans:
Show all applicable elements of the selected BMPs on the appropriate plan sheets.
<u>Calculations:</u>
Calculations, for each inlet, and summary sheet using the Storm Water Calculator found at www.srcity.org/stormwaterLID
Supplemental or supporting calculation if applicable.



**Part 1: Project Information** 

### Santa Rosa 2017 Storm Water LID Determination Worksheet



PURPOSE AND APPLICABILITY: This determination worksheet is intended to satisfy the specific requirements of "ORDER NO. R1-2015-0030, NPDES NO. CA0025054 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS." Additional design requirements imposed by Governing Agencies, such as local grading ordinances, CAL Green, CEQA, 401 permitting, and hydraulic design for flood control still apply as appropriate. Additionally, coverage under another regulation may trigger the requirement to design in accordance with the Storm Water LID Technical Design Manual.

Pacific Knolls	Pacific Realty Development LLC
Project Name	Applicant (owner or developer) Name
7261 Healsburg Ave	1555 Grant Ave
Project Site Address	Applicant Mailing Address
Sebastopol, California, 95472	Novato, California
Project City/State/Zip	Applicant City/State/Zip
	707-236-7624
Permit Number(s) - (if applicable)	1550 Airport Blvd., Ste 120 Santa Rosa, CA 95
David Thiessen	Designer Mailing Address
Designer Name	707-525-1222 thiessend@lacoassociates.con
Santa Rosa, CA 95403	Designer Phone/Email
Designer City/State/Zip	
Type of Application/Project:	
Subdivison Grading Permit	Building Permit Hillside Development
DesignReview Use Permit	Encroachment Time Extensions Other :
PART 2: Project Exemptions	
1. Is this a project that creates or replace	es <i>less than</i> 10,000 square feet of impervious surface <sup>1</sup> , including all project
phases and off-site improvements?	
Yes Vo	
	<del></del>

1 Impervious surface replacement, such as the reconstruction of parking lots or excavation to roadway subgrades, is not a routine maintenance activity. Reconstruction is defined as work that replaces surfaces down to the subgrade. Overlays, resurfacing, trenching and patching are defined as maintenance activities per section VI.D.2.b.

#### 2017 Storm Water LID Determination Worksheet

7261 Healdsburg Ave.

2. Is this project a routine maintenance activity? that is being conducted to maintain original line and grade, hydraulic capacity, and original purpose of facility such as resurfacing existing roads and parking lots? Yes  No
3. Is this project a stand alone pedestrian pathway, trail or off-street bike lane?  Yes No
4. Did you answer "YES" to any of the questions in Part 2?
YES: This project will <i>not</i> need to incorporate permanent Storm Water BMP's as required by the NPDES MS4 Permit. Please complete the "Exemption Signature Section" on Page 4.
NO: Please complete the remainder of this worksheet.
Part 3: Project Triggers
<b>Projects that Trigger Requirements:</b> Please answer the following questions to determine whether this project requires permanent Storm Water BMP's and the submittal of a SW LIDs as required by the NPDES MS4 Permit order No. R1-2015-0030.
<ol> <li>Does this project create or replace a combined total of 10,000 square feet or more of impervious surface<sup>1</sup> including all project phases and off-site improvements?</li> <li>Yes</li> <li>No</li> </ol>
<ol> <li>Does this project create or replace a combined total or 10,000 square feet or more of impervious streets, roads, highways, or freeway construction or reconstruction<sup>3</sup>?</li> </ol> Yes No
3. Does this project create or replace a combined total of 1.0 acre or more of impervious surface¹ including all project phases and off-site improvements? Yes VN o
4. Did you answer "YES" to any of the above questions in Part 3?
YES: This project will need to incorporate permanent Storm Water BMP's as required by the NPDES MS4 Permit. Please complete remainder of worksheet and sign the "Acknowledgement Signature Section" on Page 4.
NO: This project will <i>not</i> need to incorporate permanent Storm Water BMP's as required by the NPDES MS4 permit. Please complete the "Exemption Signature Section" on Page 4.

<sup>1</sup> Imprevious surface replacement, such as the reconstruction of parking lots or excavation to roadway subgrades, is not a routine maintence activity. Reconstruction is defined as work that replaces surfaces down to the subgrade. Overlays, resurfacint, trenching and patching are defined as maintenance activities per section VI.D.2.b.

<sup>2 &</sup>quot;Rountine Maintenance Activity" includes activities such as overlays and/or resurfacing of existing roads or parking lots as well as trenching and patching activities and reroofing activities per section VI.D.2.b.

<sup>3 &</sup>quot;Reconstruction" is defined as work that extends into the subgrade of a pavement per section VI.D.2.b.

#### **Part 4: Project Description**

1. Total Project area: 1.28 square feet acres
2. Existing land use(s): (check all that apply)
Commercial Industrial Residential Public Other
Description of buildings, creeks, wetlands, heritage trees, etc on the site.
There are is one existing building that will be demolished, but there are no creeks, wetlands, heritage trees, etc on the site.
3. Existing impervious surface area: 0.03 square feet  4. Proposed Land Use(s): (check all that apply)
Commercial Industrial Residential Public Other
Description of buildings, creeks, wetlands, heritage trees, etc on the site.
The project involves the construction of six new townhomes, twelve new single-family duplexes, construction of two residential driveways including grading and drainage, and associated site improvements.
Proposed 5. Existing impervious surface area: 0.85 square feet

Project	Name
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2017 Storm Water LID Determination Worksheet

Pacific Knolls

genda Item Number (

Acknowledgment Signature Section:  As the property owner or developer, I understand that this project is required to implement permanent Storm Water Best Management Practices and provide a Storm Water Low Impact Development Submittal (SW LIDS) as required by the City's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) Permit Order No. R1-2015-0030. *Any unknown responses must be resolved to determine if the project is subject to these rec
Applicant Signature Date '
Exemption Signature Section:
As the property owner or developer, I understand that this project as currently designed does not require permanent Storm Water BMP's nor the submittal of a Storm Water Low Impact Development Submittal (SW LIDS) as required by the City's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) Permit*. I understand that redesign may require submittal of a new Determination Worksheet and may require permanent Storm Water BMP's.

\* This determination worksheet is intended to satisfy the specific requirements of "ORDER NO. R1-2015-0030, NPDES NO. CA0025054 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS." Additional design requirements imposed by Governing Agencies, such as local grading ordinances, CAL Green, CEQA, 401 permitting, and hydraulic design for flood control still apply as appropriate. Additionally, coverage under another regulation may trigger the requirement to design in accordance with the Storm Water LID Technical Design Manual.

Date

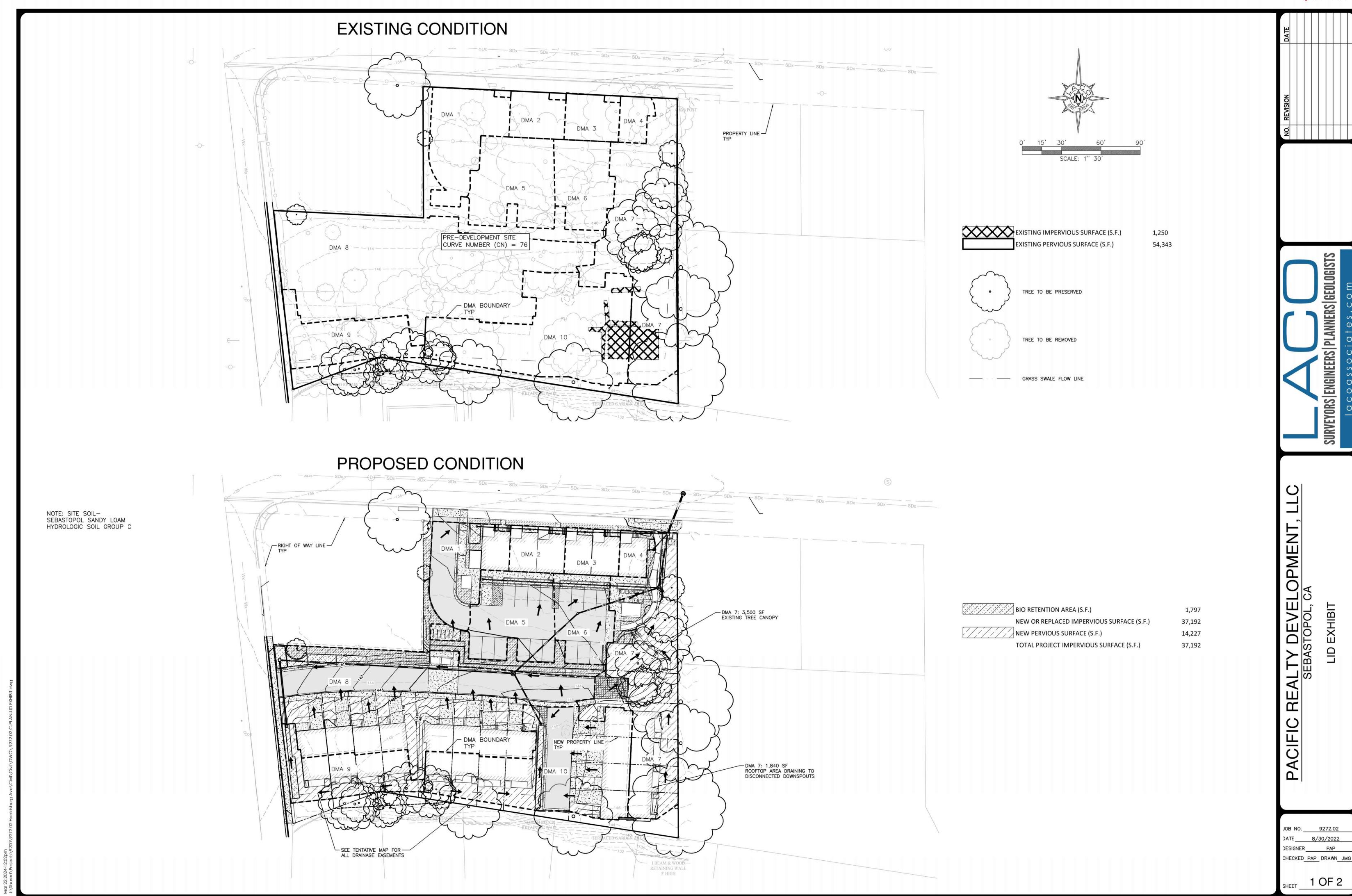
Implementation Requirements: All calculations shall be completed using the "Storm Water Calculator" available at: <a href="https://www.srcity.org/stormwaterLID">www.srcity.org/stormwaterLID</a>

Applicant Signature

**Hydromodification Control/100% Volume Capture**: Capture (infiltration and/or reuse) of 100% of the volume of runoff generated by a 1.0" 24-hour storm event, as calculated using the "Urban Hydrology for Small Watersheds" TR-55 Manual method. This is a retention requirement.

**Treatment Requirement:** Treatment of 100% of the flow calculated using the modified Rational Method and a known intensity of 0.20 inches per hour.

**Delta Volume Capture Requirement**: Capture (infiltration and/or reuse) of the increase in volume of storm water due to development generated by a 1.0" 24-hour storm event, as calculated using the "Urban Hydrology for Small Watersheds" TR-55 Manual method. This is a retention requirement.



Agenda Item Number: 6 City Council Meeting Packet of: November 5, 2024 Page 140 of 256

Agenda Item Number: 6 City Council Meeting Packet of: November 5, 2024 Page 141 of 256



	LID BMI	P Summar	y Page &	Site Global Values									
F	Project Inf	formation:				Site Information:			_			nd post deve	
			ject Name: 9272.02 Pacific Realty Mean Seasonal Precipitation (MSP) of Project Site: 35.00 (inch		(inches)			ost construc	ction BMP				
	Addr	ess/Location:	7261 Healds	sburg Ave		K=MSP/30	K=	1.17		requiremen	it is:		
		Designer:	David Thies	sen					•				
		Date:	3/1/2024			Impervious area - pre development:		1,250.3	ft <sup>2</sup>	Delta	Volume	& Trea	tment
						Impervious area - post development:		36,805.0	ft <sup>2</sup>				
					Su	mmary of Saved BMP Results:							
		Tuibusta			Dominon				ВМР	Design Re	sults		
	Tributary Area		Requireme	ents			dification	Flow Base	Treatment	Delta Volun	ne Capture		
			Runoff										
	BMP ID:		Reduction					Required		Required Q			
	DIVIP ID.	Tributary	Measures				Percent	$V_{\text{Hydromod}}$	Achieved	Treatment	Achieved	Required	Achieved
		Area (ft <sup>2</sup> .)	(Y/N)	Type of Requirement Met		Type of BMP Design	Achieved	(ft <sup>3</sup> )	(ft <sup>3</sup> )	(cfs)	(ft <sup>3</sup> )	Vdelta (ft <sup>3</sup> )	(ft <sup>3</sup> )
1_	DMA 1	3,588	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	101.3					106.7071	360.4500
2	DMA 2	1,411	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	112.7					39.9454	150.0000
3	DMA 3	1,405	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	113.1					39.7756	150.0000
4	DMA 4	807	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	109.3					21.9504	80.0000
5	DMA 5	4,081	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	104.4					114.3496	397.9000
6	DMA 6	2,776	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	110.9					76.2567	282.0000
7	DMA 8	15,465	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	111.8					329.4045	1227.5000
8	DMA 9	3,339	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	141.9					50.7528	240.0000
9	DMA 10	8,873	No	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	104.3					187.0428	650.0000
10	DMA 7	9,405	Yes	Delta Volume Capture	Priority 2: P2-05 Roa	adside Bioretention - No Curb AND Gutter	105.3					77.9219	273.6000
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
55													



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 1			
BMP Design Criteria:	Delta Volume & Treatment		•	
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	3,588.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 106.71 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (	transmission) rate		<u> </u>
Predevelopment ground cover description:			ee farm) - Fair	
Post development ground cover description:			,	
CN <sub>PRE:</sub>	76			<u>.</u>
CN <sub>POST:</sub>	90			
User Composite Predevelopment CN:				
User Composite Post development CN:	0.0			
BMP Sizing Tool Delta Volume Capture F	Requirement		Percent of Goal Ad	chieved = 101.34 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	1
Depth below perforated pipe if present:			Depth: 0.00	
Width:	9.00 ft			ft
Length: Area:	15.00 ft 0.00 ft <sup>2</sup>		Length: 0.00  Area: 0.00	
Alea.	0.00		Alea. 0.00	ļιι



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 2			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	1,411.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 39.95 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (	transmission) rate		
Predevelopment ground cover description:	Woods (50%), grass (50%) com	bination (orchard or tre	ee farm) - Fair	
Post development ground cover description:				
CN <sub>PRE:</sub>				
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	89.6			
<b>BMP Sizing Tool Delta Volume Capture F</b>	Requirement		Percent of Goal A	chieved = 112.65 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	
Depth below perforated pipe if present:			Depth: 0.00	ft
Width:	5.00 ft		Width: 0.00	tt
Length:			Length: 0.00	
Area:	<b>0.00</b> ft <sup>2</sup>		Area: <b>0.00</b>	π-

BMP Tributary Parameters		Project Name: 9272.02	Pacific Realty	
BMP ID:	DMA 3			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb AND Gutte	r	
BMP's Physical Tributary Area:	1,405.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>			V <sub>DELTA</sub> =	39.78 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (1	ransmission) rate		
Predevelopment ground cover description:			- Fair	
Post development ground cover description:	Impervious - Paved Parking, Ro	oftop, Driveways		
CN <sub>PRE:</sub>	76			
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	89.6		<u> </u>	
BMP Sizing Tool Delta Volume Capture I	Requirement	Per	rcent of Goal Achieved =	113.13 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	
Depth below perforated pipe if present:		Depth		
Width:	5.00 ft	Width		
Length:		Length		
Area:	0.00 ft <sup>2</sup>	Area	o.00 ft <sup>2</sup>	

BMP Tributary Parameters		Project Name: 9	272.02 Pacific Realty	
BMP ID:	DMA 4			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb ANI	D Gutter	
BMP's Physical Tributary Area:	807.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>			$V_{DELTA}$	= 21.95 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (1	ransmission) rate		
Predevelopment ground cover description:			e farm) - Fair	
Post development ground cover description:	Impervious - Paved Parking, Ro	oftop, Driveways		
CN <sub>PRE:</sub>	76			
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	89.3			
BMP Sizing Tool Delta Volume Capture	Requirement		Percent of Goal Achieved	= 109.34 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	
Depth below perforated pipe if present:			Depth: 0.00 ft	
Width:	4.00 ft		Width: 0.00 ft	
Length:			Length: 0.00 ft	
Area:	0.00 ft <sup>2</sup>		Area: 0.00 ft <sup>2</sup>	



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 5			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb A	ND Gutter	
BMP's Physical Tributary Area:	4,081.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 114.35 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (1	ransmission) rate		]
Predevelopment ground cover description:			ee farm) - Fair	
Post development ground cover description:	Impervious - Paved Parking, Ro	oftop, Driveways		
$CN_PRE$ :				
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	<u> </u>			
BMP Sizing Tool Delta Volume Capture	Requirement		Percent of Goal A	chieved = 104.39 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	1
Depth below perforated pipe if present:	<del></del>		Depth: 0.00	
Width:			Width: 0.00  Length: 0.00	Π ff
Length: Area:			Length: 0.00 Area: 0.00	11. 14.2
Alea.	170.00		Alca. 0.00	Jir.



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 6			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb AN	ID Gutter	
BMP's Physical Tributary Area:	2,776.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 76.26 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (1	ransmission) rate		
Predevelopment ground cover description:			e farm) - Fair	
Post development ground cover description:	Impervious - Paved Parking, Ro	oftop, Driveways		
CN <sub>PRE:</sub>				
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	89.4			
BMP Sizing Tool Delta Volume Capture I	Requirement		Percent of Goal Act	hieved = 110.94 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	
Depth below perforated pipe if present:	<del></del>		Depth: 0.00 ft	
Width:	0.00 ft 0.00 ft		Width: 0.00 ft Length: 0.00 ft	
Length: Area:	141.00 ft <sup>2</sup>		Length: 0.00 ft Area: 0.00 ft	
Alea.	141.00		7.6a. 0.00	



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 7			
BMP Design Criteria:	Delta Volume & Treatment	•		
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	9,405.0 ft <sup>2</sup>			
Description/Notes:				
Runoff Reduction Measures	Resu	-	try Area used for BMP sizing = 7,195.0 ft <sup>2</sup> al Runoff Reduction Measures = 2,210.0 ft <sup>2</sup>	
Interceptor Trees				
Number of <b>new</b> interceptor <b>Evergreen Trees</b> : Number of <b>new</b> interceptor <b>Deciduous Trees</b> : Square footage of qualifying <b>existing tree canopy</b> :	0 0 3,500.0 ft <sup>2</sup>	Fotal Number of <u>New</u> tree	s in BMP Tributary Area: 0	
Disconnected Roof Drains				
Select disconnection condition:	Runoff is directed across land	scape: Width of area:	5' to 9'	
Disconnected Roof Drains Method 1		Disconnected Roof Dr		
Roof area of disconnected downspouts:	1,840 ft <sup>2</sup>	Percent of roo		
		Selec	ct Density: 1 Units per Acre	
Paved Area Disconnection				
Paved Area Type:	Select paved area type			
Alternatively designed paved area:	<b>0.0</b> ft <sup>2</sup>			
Buffer Strips & Bovine Terraces				
Area draining to a Buffer Strip or Bovine Terrace:	<b>0.0</b> ft <sup>2</sup>			
Delta Volume Capture; V <sub>Delta</sub>			V <sub>DELTA</sub> = 77.92 ft	3
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration	(transmission) rate		
Predevelopment ground cover description:			ee farm) - Fair	
Post development ground cover description:		ooftop, Driveways		
CN <sub>PRE:</sub> CN <sub>POST:</sub>	76			
User Composite Predevelopment CN:	0.0			
User Composite Post development CN:	83.1			
BMP Sizing Tool Delta Volume Capture R	Requirement		Percent of Goal Achieved = 105.34 %	,
	BMP Volume		Ponded Water	
Porosity:	Below Ground		Above Ground	
Depth below perforated pipe if present:	1.80 ft		Depth: 0.00 ft	
Width:	0.00 ft		Width: 0.00 ft	
Length:	0.00 ft		Length: 0.00 ft	
Area:	<b>152.00</b> ft <sup>2</sup>		Area: 0.00 ft <sup>2</sup>	



BMP Tributary Parameters		Project Name: 9272.02 Pacific R	ealty
BMP ID:	DMA 8		
BMP Design Criteria:	Delta Volume & Treatment		
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb AND Gutter	
BMP's Physical Tributary Area:	15,465.0 ft <sup>2</sup>		
Description/Notes:			
Delta Volume Capture; V <sub>Delta</sub>			V <sub>DELTA</sub> = 329.40 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (	transmission) rate	
Predevelopment ground cover description:	-	•	
Post development ground cover description:			75% grass cover)
CN <sub>PRE:</sub>	76		
CN <sub>POST:</sub>			
User Composite Predevelopment CN:			
User Composite Post development CN:	87.4		
BMP Sizing Tool Delta Volume Capture I	Requirement	Percent of G	Goal Achieved = 111.79 %
	BMP Volume	Ponded	Water
	Below Ground	Abo	ve
Porosity:		Grou	
Depth below perforated pipe if present:		Depth:	0.00 ft
Width:	0.00 ft	Width:	0.00 ft
Length: Area:	0.00 ft 491.00 ft <sup>2</sup>	Length: Area:	0.00 ft ft <sup>2</sup>
Alea.	401.00	Alea.	1.00 II



BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 9			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	retention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	3,339.0 ft <sup>2</sup>			
Description/Notes:	•			
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 50.75 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (	transmission) rate		
Predevelopment ground cover description:			ee farm) - Fair	
Post development ground cover description:	Impervious - Paved Parking, Ro	ooftop, Driveways		
CN <sub>PRE:</sub>				
$CN_{POST:}$				
User Composite Predevelopment CN:				
User Composite Post development CN:	85.1			
BMP Sizing Tool Delta Volume Capture F	Requirement		Percent of Goal A	chieved = 141.86 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	1_
Depth below perforated pipe if present:			Depth: 0.00	ft o
Width:	0.00 ft		Width: 0.00	π
Length:			Length: 0.00	
Area:	<b>240.00</b> ft <sup>2</sup>		Area: <b>0.00</b>	π-

BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 10			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Biore	etention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	8,873.0 ft <sup>2</sup>			
Description/Notes:				
Delta Volume Capture; V <sub>Delta</sub>				V <sub>DELTA</sub> = 187.04 ft <sup>3</sup>
Hydrologic soil type within tributary area:	C: 0.05 - 0.15 in/hr infiltration (tr	ansmission) rate		
Predevelopment ground cover description:			ee farm) - Fair	
Post development ground cover description:	Impervious - Paved Parking, Roo	ftop, Driveways		
CN <sub>PRE:</sub>	76			
CN <sub>POST:</sub>				
User Composite Predevelopment CN:				
User Composite Post development CN:	<u> </u>			
BMP Sizing Tool Delta Volume Capture I	Requirement		Percent of Goal Ac	hieved = 104.25 %
	BMP Volume		Ponded Water	
	Below Ground		Above	
Porosity:			Ground	
Depth below perforated pipe if present:			Depth: 0.00 1	
Width:	4.00 ft		Width: 0.00 1	
Length:	65.00 ft		Length: 0.00 1	
Area:	<b>0.00</b> ft <sup>2</sup>		AIEa. 0.00	l



_				Site Global Values						lo i			
Pro	•	ormation:				Site Information:			1			nd post deve	
	Project Name				Mean Seasonal Precipitation (MSP) of Project Site: 35.00 (inches)		(inches)	impervious area, the post construction BMP requirement is:					
					K=MSP/30	K=	1.17						
		Designer:	David Thies	sen					1 ,	D-14-	\	0 T	44
		Date:	3/1/2024			Impervious area - pre development:		1,250.3	ft²	Delta	volume	& Trea	tment
					0	Impervious area - post development:		36,805.0	ft <sup>2</sup>				
	Ī				Su	mmary of Saved BMP Results:			DMD	Danies Da	14		
		Tributa	ry Area		Requireme	ents	ı			Design Re	SuitS	I	
					•			•	dification ntrol	Flow Base	Treatment	Delta Volun	ne Capture
В	BMP ID:		Runoff Reduction					Required		Required Q			
		Tributary Area (ft <sup>2</sup> .)	Measures (Y/N)	Type of Requirement Met		Type of BMP Design	Percent Achieved	V <sub>Hydromod</sub> (ft <sup>3</sup> )	Achieved (ft <sup>3</sup> )	Treatment (cfs)	Achieved (ft <sup>3</sup> )	Required Vdelta (ft <sup>3</sup> )	Achieve (ft <sup>3</sup> )
	DMA 1	3,588	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	101.6			0.0154	0.0156		
	DMA 2	1,411	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	114.9			0.0060	0.0069		
	DMA 3	1,405	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	115.3			0.0060	0.0069		
	DMA 4	807	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	107.1			0.0035	0.0037		
	DMA 5	4,081	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	143.1			0.0175	0.0250		
	DMA 6	2,776	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	136.8			0.0119	0.0163		
	DMA 8	15,465	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	161.6			0.0381	0.0616		
	DMA 9	3,339	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	330.2			0.0088	0.0289		
	DMA 10	8,873	No	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	100.5			0.0299	0.0301		
	DMA 7	9,405	Yes	100% Vertical Flow Treatment	Priority 2: P2-05 Ro	adside Bioretention - No Curb AND Gutter	100.7			0.0139	0.0140		

BMP Tributary Parameters		Project Name:	9272.02 Pacific Rea	ılty	
BMP ID:	DMA 1				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb A	ND Gutter		
BMP's Physical Tributary Area:	3,588.0 ft <sup>2</sup>			-	
Description/Notes:	·				
l l					
100% Treatment				Q <sub>TREATMENT</sub> =	0.0154 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :					
User Composite post development C <sub>POST</sub> :		Treatment F	. ` ` `	1 Calculated	
User Input I <sub>Historical</sub> :	<b>0.00</b> in./hr.		Design Storm:	.20 in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Go	al Achieved =	101.62 %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.				
Depth of drainage pipe:	<b>1.50</b> ft				
BMP Length:	<b>15.00</b> ft				
BMP Width:	9.00 ft				

BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	/	
BMP ID:	DMA 2				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bi	oretention - No Curb A	ND Gutter		
BMP's Physical Tributary Area:	1,411.0 ft <sup>2</sup>				
Description/Notes:					
l					
100% Treatment			Q	TREATMENT =	0.0060 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :				_	
User Composite post development C <sub>POST</sub> :	0.00	Treatment F	. ` '	Calculated	
User Input I <sub>Historical</sub> :	<b>0.00</b> in./hr.		Design Storm: 0.20	in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Goal	Achieved =	114.85 %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.				
Depth of drainage pipe:	1.50 ft				
BMP Length:	<b>12.00</b> ft				
BMP Width:	<b>5.00</b> ft				

BMP Tributary Parameters		Project Name:	9272.02 Pacific R	ealty	
BMP ID:	DMA 3				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bi	oretention - No Curb A	ND Gutter		
BMP's Physical Tributary Area:	1,405.0 ft <sup>2</sup>			•	
Description/Notes:					
100% Treatment				Q <sub>TREATMENT</sub> =	0.0060 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :					
User Composite post development C <sub>POST</sub> :		Treatment F	` '	1 Calculated	
User Input I <sub>Historical</sub> :	<b>0.00</b> in./hr.		Design Storm:	<b>0.20</b> in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of G	Soal Achieved =	115.34 %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.				
Depth of drainage pipe:					
BMP Length:					
BMP Width:	<b>5.00</b> ft				

BMP Tributary Parameters		Project Name:	9272.02 Pacific Rea	lty	
BMP ID:	DMA 4				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb Al	ND Gutter		
BMP's Physical Tributary Area:	807.0 ft <sup>2</sup>			-	
Description/Notes:	•				
100% Treatment				Q <sub>TREATMENT</sub> =	0.0035 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :	0.80				
User Composite post development C <sub>POST</sub> :	0.00	Treatment F	, ,	1 Calculated	
User Input I <sub>Historical</sub> :	0.00 in./hr.		Design Storm: 0.	<mark>20</mark> in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Goa	I Achieved =	107.10 %
Infiltration rate of the specified BMP soil:	5.00 in./hr.				
Depth of drainage pipe:	2.50 ft				
BMP Length:	8.00 ft				
BMP Width:	4.00 ft				

BMP Tributary Parameters		Project Name:	9272.02 Pacific Re	ealty	
BMP ID:	DMA 5				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb A	ND Gutter		
BMP's Physical Tributary Area:	4,081.0 ft <sup>2</sup>			<del>,</del>	
Description/Notes:					
100% Treatment				Q <sub>TREATMENT</sub> =	0.0175 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :	0.80	<u> </u>			
User Composite post development C <sub>POST</sub> :	0.00	Treatment F		1 Calculated	
User Input I <sub>Historical</sub> :	0.00 in./hr.		Design Storm	0.20 in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of G	oal Achieved =	143.09 %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.				
D 11 (1 · · · ·	2 20 #				
Depth of drainage pipe: BMP Length:	2.30 ft 46.00 ft				
BMP Width:	4.70 ft				
Divil Width.					

BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty		
BMP ID:	DMA 6				
BMP Design Criteria:	Delta Volume & Treatment				
Type of BMP Design:	Priority 2: P2-05 Roadside Bi	oretention - No Curb A	ND Gutter		
BMP's Physical Tributary Area:	2,776.0 ft <sup>2</sup>			-	
Description/Notes:					
100% Treatment			$\mathbf{Q}_{T}$	REATMENT = 0.0	119 cfs
Post surface type:	Concrete				
C <sub>POST</sub> :				•	
User Composite post development C <sub>POST</sub> :	0.00	Treatment F	. ` '	Calculated	
User Input I <sub>Historical</sub> :	<b>0.00</b> in./hr.		Design Storm: 0.20	in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Goal A	chieved = 13	<b>6.80</b> %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.				
Depth of drainage pipe:	<b>1.50</b> ft				
BMP Length:	<b>38.00</b> ft				
BMP Width:	<b>3.70</b> ft				



BMP Tributary Parameters	Project Name: 9272.02 Pacific Realty
BMP ID:	DMA 7
BMP Design Criteria:	Delta Volume & Treatment
Type of BMP Design:	Priority 2: P2-05 Roadside Bioretention - No Curb AND Gutter
BMP's Physical Tributary Area:	9,405.0 ft <sup>2</sup>
Description/Notes:	
Runoff Reduction Measures	Desulting and read Tributers Area used for DMD siring - 7.405.0 4.2
Runon Reduction Measures	Resulting reduced Tributary Area used for BMP sizing = 7,195.0 ft <sup>2</sup> Total Runoff Reduction Measures = 2,210.0 ft <sup>2</sup>
	Total Rulloll Reduction Measures - 2,210.0 It
Interceptor Trees	
Number of <b>new</b> interceptor <b>Evergreen Trees</b> :	Total Number of New trees in BMP Tributary Area: 0
Number of new interceptor Deciduous Trees: Square footage of qualifying existing tree canopy:	0 3,500.0 ft <sup>2</sup>
Disconnected Roof Drains	0,000.0 nt
	Runoff is directed across landscape; Width of area: 5' to 9'
Disconnected Roof Drains Method 1	Disconnected Roof Drains Method 2
Roof area of disconnected downspouts:	1,840 ft <sup>2</sup> Percent of rooftop area: 0 % Select Density: 1 Units per Acre
Paved Area Disconnection	
Paved Area Type:	Select paved area type
Alternatively designed paved area:	0.0 ft <sup>2</sup>
Buffer Strips & Bovine Terraces	
Area draining to a Buffer Strip or Bovine Terrace:	0.0 ft <sup>2</sup>
100% Treatment	Q <sub>TREATMENT</sub> = 0.0139 cfs
Post surface type:	Concrete
$C_{POST}$ : User Composite post development $C_{POST}$ :	7
User Input I <sub>Historica</sub> :	0.36         Treatment Factor (Tf):         1         Calculated           0.00         in./hr.         I <sub>Design Storm</sub> :         0.20         in./hr.
BMP Sizing 100% Treatment Vertical	Percent of Goal Achieved = 100.73 %
Infiltration rate of the specified BMP soil:	5.00 in./hr.
Depth of drainage pipe:	1.50 ft
BMP Length:	34.50 ft
BMP Width:	3.50 ft

BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 8			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside Bio	oretention - No Curb Al	ND Gutter	
BMP's Physical Tributary Area:	15,465.0 ft <sup>2</sup>			
Description/Notes:				
100% Treatment			Q <sub>TREATMENT</sub>	= 0.0381 cfs
Post surface type:	Concrete			
C <sub>POST</sub> :				
User Composite post development C <sub>POST</sub> :	0.46	Treatment F	` '	ed
User Input I <sub>Historical</sub> :	0.00 in./hr.		I <sub>Design Storm</sub> : 0.20 in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Goal Achieved	= 161.59 %
Infiltration rate of the specified BMP soil:	5.00 in./hr.			
Depth of drainage pipe:	1.50 ft			
BMP Length:	66.50 ft			
BMP Width:	8.00 ft			

BMP Tributary Parameters		Project Name:	9272.02 Pacific Realty	
BMP ID:	DMA 9			
BMP Design Criteria:	Delta Volume & Treatment			
Type of BMP Design:	Priority 2: P2-05 Roadside B	oretention - No Curb AN	ND Gutter	
BMP's Physical Tributary Area:	3,339.0 ft <sup>2</sup>			
Description/Notes:				
100% Treatment			Q <sub>TREATME</sub>	<sub>NT</sub> = 0.0088 cfs
Post surface type:	Asphalt			
C <sub>POST</sub> :				
User Composite post development C <sub>POST</sub> :		Treatment Fa	` ′	
User Input I <sub>Historical</sub> :	0.00 in./hr.	ID	Design Storm: 0.20 in./hr.	
BMP Sizing 100% Treatment Vertical			Percent of Goal Achieve	ed = 330.16 %
Infiltration rate of the specified BMP soil:	<b>5.00</b> in./hr.			
Depth of drainage pipe:	1			
BMP Length:				
BMP Width:	<b>5.00</b> ft			

BMP Tributary Parameters			Project Name:	9272.02 Pacific I	Realty		
BMP ID:	DMA 10			_			
BMP Design Criteria:	Delta Volume &	Treatment					
Type of BMP Design:	Priority 2: P2-05	5 Roadside Bio	retention - No Curb Al	ND Gutter			
BMP's Physical Tributary Area:	8,873.0 ft	t <sup>2</sup>			<del>,</del>		
Description/Notes:	<u>.</u>						
L							
100% Treatment					Q <sub>TREATMENT</sub> =	0.0299	cfs
Post surface type:	Concrete						
C <sub>POST</sub> :							
User Composite post development C <sub>POST</sub> :	0.63		Treatment F	actor (Tf):	1 Calculated		
User Input I <sub>Historical</sub> :	<b>0.00</b> ir	n./hr.		Design Storm:	<b>0.20</b> in./hr.		
BMP Sizing 100% Treatment Vertical				Percent of	Goal Achieved =	100.50	%
Infiltration rate of the specified BMP soil:	<b>5.00</b> ir	n./hr.					
Depth of drainage pipe:	<b>1.50</b> ft	t					
BMP Length:	<b>65.00</b> ft	t					
BMP Width:	<b>4.00</b> ft	t					



Project Name:	4245 Hargra	ve Ave.														
	Best Management Practice (BMP)	Detail Sheet	Detail Title		(313°	ised .	witti	ine se			ST S	A Light of	I NE BY	se tride	service toporation diselection	dite nate:
Universal BMP- to be	Living Roof	N/A	N/A		х	х		Х	Х				Х			
considered on all projects.	Rainwater Harvesting	N/A	N/A		х	х	Х		Х				Х			
	Interceptor Trees	N/A	N/A		Х	х	Х			х		X				
Runoff Reduction	Bovine Terrace	RRM-01	Bovine Terrace		х					Х			Х			
Measures	Vegetated Buffer Strip	RRM-02	Vegetated Buffer Strip							Х			Х			
	Impervious Area Disconnection	N/A	N/A		Х	Х	Х			Х		Х				
Priority 1- to be installed with no	Bioretention	P1-02	Roadside Bioretention - no C & G					х	х				Х			
underdrains or liners. Must drain all stading water within 72	Vegetated Swale- with Bioretention	P1-06	Swale with Bioretention					х	Х				Х			
hours.	Constructed Wetlands	N/A	N/A					Х	Х				Х			
		P2-02	Roadside Bioretinton - Flush Design Roadside					х	Х				Х			
Priority 2 BMPs- with subsurface drains	Bioretention	P2-03	Roadside Bioretenion- Contiguous SW					х	Х				Х			
installed above the capture volume.		P2-04	Roadside Bioretenion- Curb Opening					х	Х				Х			
		P2-05	Roadside Bioretenion- No C & G	)				х	Х			X				
	Constructed Wetlands	N/A	N/A					Х	Χ				Χ			

Page \_\_\_\_\_ of \_\_\_\_

Date: \_\_\_\_\_



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					/	with	, W2				//		ion	ight of	rected?	iffer of But	S. V. Josephil	ion		
	Best Management Practice (BMP)	Detail Sheet	Detail Title	<u></u>	d de us		Solding Solding	el godin	, <b>1</b>	Jeji Jejir	Sign of	Sur Sur	In Diff		e de la	entitled de the	R De Land of Selecti		ditte rates.	
		P3-02	Roadside Bioretinton - Flush Design Roadside				x	x					>							
Priority 3 BMPs- installed with subdrains and/or	Bioretention	P3-03	Roadside Bioretenion- Contiguous SW		х	x	x	х					>	<						
impermeable liner.  Does not achieve volume capture and		P3-04	Roadside Bioretenion- Curb Opening		х	x	x	х					>	<						
must be used as part of a treatment train.	Flow Through Planters	P3-05	Flow Through Planters		х	х	х	х					>	<						
	Vegetated Swale	P3-06	With Bioretention		х	Х	х	х	х				>	<						
		P3-07	Vegetated Swale		х	x	х	х					>	<						
Priority 4 BMPs- does not achieve volume	Tree Filter Unit				х	X	х	х					>	<						
capture and must be used as part of a	Modular Bioretention				х	х	х	х					>	<						
used as part or a									-				-			1				
Priority 5 BMPs- does	Chambered Separator Units				Х	X	x	х					>	<						
not achieve volume	Centrifugal Separator Units				х	x	x	х					>	(						
capture and must be used as part of a	Trash Excluders				х	X	х	х					>	<b>(</b>						
treatment train.	Filter Inserts				х	х	х	х					>	_ h						
																1				
<b>Priority 6 BMPs</b> - see the "Offset Program" chapter for details.	Offset Program							N/	A N/A	A N/	'A		>	<	_					 
Other	Detention				х								>	<u> </u>						 

# FACT SHEET- IMPERVIOUS AREA DISCONNECTION

### IMPERVIOUS AREA DISCONNECTION

Including: splash blocks, rain chains, bubble up emitters, and pavement disconnection.









#### **OVERVIEW**

Impervious area disconnection allows storm water from impervious areas, such as rooftops and pavement, to be directed to pervious natural or landscaped areas and infiltrate into the soil. Impervious surfaces that drain directly to catch basins or storm drains are a directly connected impervious area. These areas prevent storm water infiltration into the soil or filtering through vegetation and soil. Impervious areas also increase the speed and amount of runoff from a site, which may contribute to peak flows and scour in downstream creeks and waterways. This BMP addresses these issues by disconnecting direct discharges by using: splash blocks, bubble-up emitter, and paved area disconnection.



#### SPLASH BLOCK DESCRIPTION

Splash blocks are a low tech option to hard piped downspout systems. Existing downspouts can be retrofitted using splash blocks.

### **ADVANTAGES**

- Can be used as part of a treatment train with volume capture BMPs.
- Can reduce the size of downstream water quality treatment and volume capture BMPs by increasing the potential for infiltration.



# FACT SHEET- IMPERVIOUS AREA DISCONNECTION

- Can be used as a retrofit BMP.
- Can be used to direct storm water to other BMPs

#### LIMITATIONS

- Adjacent buildings and overflow requirements need to be considered in design.
- May not be appropriate on all sites due to space constraints.

#### **KEY DESIGN FEATURES**

- Sites should be evaluated to ensure that splash blocks won't have negative impacts.
- Rain water must be directed away from foundations and footings.
- Downspouts should not be directed to paved areas or across sidewalks.
- Landscaped areas receiving roof water should be adequately sized to prevent runoff or erosion.

#### **BUBBLE-UP EMITTER DESCRIPTION**

Bubble-up emitters work very much like splash blocks, but allow for storm water to be released further from the building and even in landscape areas that are not directly adjacent to the building.

#### **ADVANTAGES**

- Can be used as part of a treatment train with volume capture BMPs.
- Can reduce the size of downstream water quality treatment and volume capture BMPs by increasing the potential for infiltration.
- Can be used as a retrofit BMP.
- Can be used to direct storm water to other BMPs

#### **LIMITATIONS**

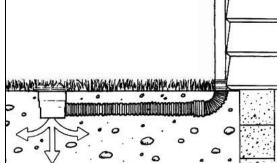
- Adjacent buildings and overflow requirements need to be considered in design.
- May not be appropriate on all sites due to space constraints.

#### **KEY DESIGN FEATURES**

- Rain water must be directed away from foundations and footings.
- Downspouts should not be directed to paved areas or across sidewalks.
- 4" diameter SDR-35 pipe required as a minimum.

# FACT SHEET- IMPERVIOUS AREA DISCONNECTION

- Distance and location of emitter relative to the building must be approved by a Licensed Geotechnical Engineer.
- Landscaped areas receiving roof water should be adequately sized to prevent runoff or erosion.
- Landscaped areas receiving roof water need to be designed to ensure proper drainage and to prevent ponding water.
- May be installed with a bottomless emitter to allow for infiltration. Bottom of emitter should be placed over drain rock to prevent sedimentation of pipe.
- Emitter should be equipped with "pop up" cover to prevent mosquito breeding.



#### PAVED AREA DISCONNECTION DESCRIPTION

Paved areas that can be graded so that they drain onto pervious area, such as landscape or natural area can increase the opportunity for infiltration and minimize the size of downstream treatment.

#### **ADVANTAGES**

- Can be used as part of a treatment train with other BMPs.
- Can reduce the size of downstream treatment and volume capture BMPs by increasing the potential for infiltration.

### **LIMITATIONS**

- Areas receiving flow need to be adequately sized and stabilized.
- May be limited by site slopes.
- Overflow drainage must be provided.
- May not be appropriate on all sites.



### **KEY DESIGN FEATURES**

- Rain water must be directed away from foundations and footings.
- Landscaped areas receiving storm water should be adequately sized to prevent runoff or erosion.
- Landscaped areas receiving roof water need to be designed to ensure proper drainage and to prevent ponding water.

Impervious Area Disconnection	Date of Inspection:
Inspection and Maintenance Checklist	Inspector(s):
(aka: splash blocks, rain chains, bubble up emitters and pavement disconnection)	BMP ID #:
	Property Owner:
Location Description:	

Type of Inspection: Pre-rainy Season (PRS) Rainy Season (RS) After-rainy Season (ARS)

This Inspection and Maintenance Checklist is to be usde in conjunction with its corresponding LID Factsheet and Maintenance Plan. Please review these documents before performing the field inspection.

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	RS	Is there standing or pooling of water after 3 days of dry weather?		<ul><li>Regrade drainage area.</li><li>Reposition splash block.</li><li>Clean inlets/outlets of obstructions.</li></ul>	
age	RS	Is there excessive splashing/spray?		Reposition splash block or dissipater to reduce or eliminate splash/spray.	
Drainage	RS	Are the house/building gutters overflowing during a rain event?		<ul> <li>Flush bubble up pipe to remove any obstructions.</li> <li>Check gutter down spout and gutter for obstructions. Clean if necessary.</li> </ul>	

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	RS ARS	Is there evidence of under cutting or washouts around splash block/dissipater?		<ul><li>Reposition the inlet splash block or dissipater.</li><li>Fill in eroded areas and regrade.</li></ul>	
uo	RS ARS	Is there channelization (gully) forming around the bubble ups?		Fill in eroded areas and regrade.	
Erosion	RS ARS	Is there accumulation of sediment (sand, dirt, mud) in the inlets/outlets areas?		Remove sediment and check the grading.	
	RS ARS	Are there voids or holes along the path of the bubble up pipe or excess sediment in and around the bubble up outlet?		<ul> <li>Flush and inspect pipe for damage.</li> <li>Replace damage pipe, fill in voids, and regrade.</li> </ul>	

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
c	PRS RS ARS	Is the vegetation clogging the Inlet/outlet areas?		<ul> <li>Trim and/or remove the excess vegetation around the inlet/outlet areas.</li> </ul>	
Vegetation	PRS RS ARS	Is the mulch spread evenly throughout the vegetation area?		<ul> <li>Redistribute and add additional mulch if needed.</li> <li>Regrade vegetation area.</li> </ul>	
Veg	PRS RS ARS	Are there dead or dry plants/weeds?		<ul> <li>Remove dead and/or dry vegetation. Replace as needed.</li> <li>Remove or trim any vegetation that is causing a visual barrier hazard.</li> </ul>	

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	PRS RS ARS	Is there debris/trash in the area?		Remove all trash and debris.	
	PRS RS ARS	Is the surrounding area marked with graffiti?		Remove all graffiti from the area.	
General	PRS RS ARS	Are there missing or disturbed aesthetics features?		<ul> <li>Replace and/or reposition aesthetic features to original placement.</li> <li>Placement should not disrupt flow characteristics/design.</li> </ul>	
BMP G	PRS RS ARS	Check for broken or damage drain inlets/outlets, splash blocks, bubble ups, and grates.		<ul> <li>Replace or repair all damaged features.</li> </ul>	
_	PRS RS ARS	Is the vegetation irrigation functional?		<ul> <li>Repaired broken missing spray/drip emitters.</li> <li>Reposition to eliminate over spray and/or over watering.</li> </ul>	
	PRS RS ARS	Are the aesthetic features firmly secured in placed?		Repair and/or replace loose or damaged features.	

# **FACT SHEET- BIORETENTION**

### **BIORETENTION**

Also know as: Street rain garden, roadside bioretention, and bioretention cell







#### **DESCRIPTION**

The bioretention area best management practice (BMP) functions as a soil and plant-based filtration and infiltration feature that removes pollutants through a variety of natural physical, biological, and chemical treatment processes.

#### **ADVANTAGES**

- Achieves both water quality and volume capture objectives.
- Bioretention areas provide storm water treatment that enhances the quality of downstream water bodies by using natural processes.
- The vegetation provides shade and wind breaks, absorbs noise, reduces heat island effects and improves an area's landscape.
- Bioretention provides habitat for birds and attracts other pollinators like butterflies and bees.
- Does not interrupt utility installation.
- Does not interfere with tree planting.

# **FACT SHEET- BIORETENTION**

#### **LIMITATIONS**

- Bioretention is not recommended for areas where street slopes exceed 10%.
- Should not be used in areas of known contamination. If soil and/or groundwater contamination is present on the site or within a 100' radius of the proposed BMP location, the North Coast Regional Water Quality Control Board will need to be contacted and the site reviewed.
- Should not be used in areas of high groundwater. In general a minimum of 2' of clearance should be provided between the bottom of the bioretention cell and seasonal high groundwater.
- Should not be used in areas of slope instability where infiltrated storm water may cause failure. Slope stability should be determined by a licensed geotechnical engineer.
- Do not use in locations that can negatively impact building foundation or footings. Location shall be approved by a licensed Geotechnical Engineer.

#### **KEY DESIGN FEATURES**

#### **ALL BIORETENTION**

- Structural soil should be used within the bioretention area requiring load bearing capacity (adjacent to roadways and/or buildings.)
- Structural soil shall be installed as described in Reference Document E.
- Some BMPs may not require the use of structural soil and a more organic type planting soil and/or treatment media may be used in its place. It may be possible in some cases to use native soil or to amend the native soil so that it is suitable. Use of non-structural soil will depend on evaluation of the criteria in "Chapter 4-Site Assessment" as well as consideration of structural needs and may require evaluation by a licensed Geotechnical Engineer.
- Native soil should remain uncompacted to preserve infiltration capacity. Fence off the area during construction to protect it from compaction.
- Bottom of bioretention should be unlined to allow infiltration into native soil.
- Moisture barrier must be installed to protect road sub-base and any trenches adjacent to the bioretention area.
- If used, pervious concrete shall be designed and installed as described in Appendix G.
- If used, porous gutter must be protected during construction to prevent sediment loading.
- If the porous gutter design option is used additional trash and sediment capture BMPs may be required
- A curb opening type design may be used in place of a porous gutter if appropriate for the project.
- Bioretention areas shall be planted with plants from the approved plant and tree list included in Appendix F and shall be planted to achieve 51% cover.

## **FACT SHEET- BIORETENTION**

- All bioretention areas shall be designed with a designated high flow bypass inlet for storms larger than the design storm.
- 6" perforated pipe to be installed at a depth of 6" below road structural section.
- Perforated pipe shall be installed in straight runs.
- The volume below the perforated pipe must be sufficient to hold and infiltrate the design volume.

#### SIZING DESIGN- GOAL AND REQUIREMENTS

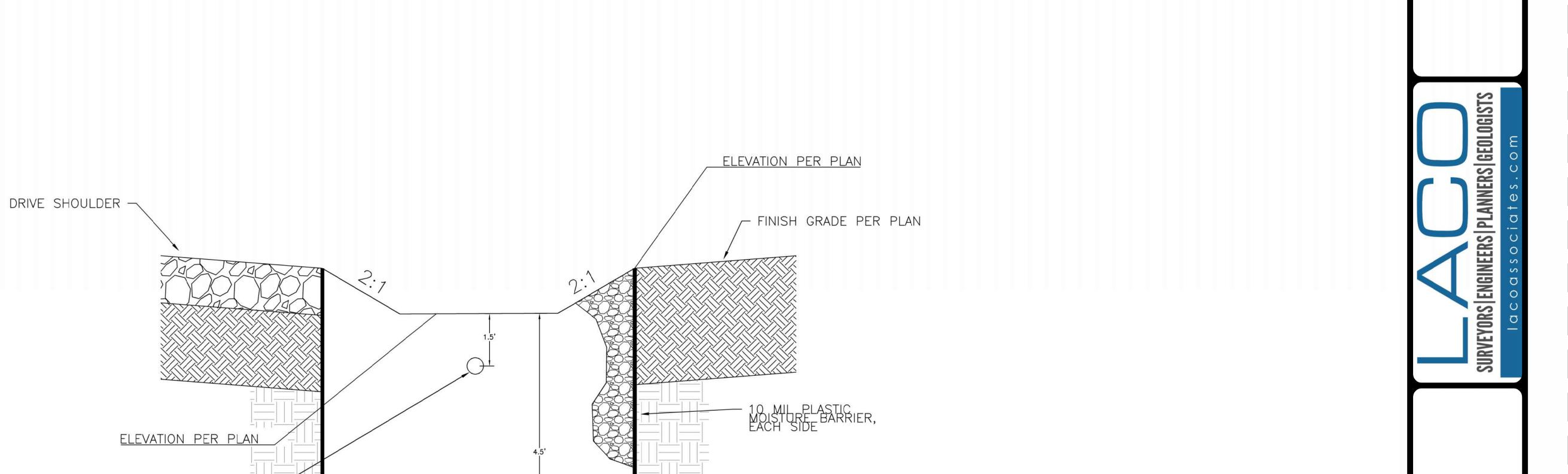
- The **design goal** for all bioretention areas is to capture (infiltration and/or reuse) 100% of the volume of runoff generated by the 85<sup>th</sup> percentile 24 hour storm event. This is a retention requirement. If 100% volume capture is achieved than no additional treatment is required.
- If the design goal is not achievable, then the bioretention area sizing requirement is:
  - Water Quality Treatment of 100% of the flow generated by the 85th percentile 24 hour storm event, as calculated using the Rational Method and a known intensity of 0.20 inches per hour, <u>and</u>
  - Volume Capture (infiltration and/or reuse) of the increase in volume of storm water due to development generated by the 85th percentile 24 hour storm event. This is a retention requirement.
- All calculations shall be completed using the "Storm Water Calculator" available at www.srcity.org/stormwaterLID.

## **INSPECTION AND MAINTENANCE REQUIREMENTS**

A maintenance plan shall be provided with the Final SUSMP. The maintenance plan shall include recommended maintenance practices, state the parties responsible for maintenance and upkeep, specify the funding source for ongoing maintenance with provisions for full replacement when necessary and provide site specific inspection checklist.

At a minimum maintenance shall include the following:

- Dry street sweeping upon completion of construction
- Dry street sweeping annually, and
  - When water is observed flowing in the gutter during a low intensity storm.
  - o Algae is observed in the gutter.
  - o Sediment/debris covers 1/3 of the gutter width or more.
- Inspect twice annually for sedimentation and trash accumulation in the gutter.
   Obstructions and trash shall be removed and properly disposed of.
- Inspect twice during the rainy season for ponded water.
- Pesticides and fertilizers shall not be used in the bioretention area.
- Plants should be pruned, weeds pulled and dead plants replaced as needed.



- STRUCTURAL SOIL WITH MIN POROSITY 0.26 (TYP.)

ROADSIDE BIORETENTION

ENDER DE LA CONTRETA DEL CONTRETA DE LA CONTRETA DEL CONTRETA DE LA CONTRETA DEL CONTRETA DEL CONTRETA DE LA CONTRETA DEL CONTRETA DEL CONTRETA DE LA CONTRETA DEL CONTRETA DE LA CONTRETA

6" PERFORATED PIPE

PACIFIC KNOLLS SEBASTOPOL, CA

JOB NO. 9272.02

DATE 3/14/2024

DESIGNER CHECKED DRAWN

SHEET 1 OF 1

Planter Strip Bioretention	Date of Inspection:
Inspection and Maintenance Checklist	Inspector(s):
(aka: Street Rain Garden, Roadside Bioretention, Bioretention Cell)	BMP ID #:
	Property Owner:
Location Description:	
Type of Inspection: 2 Pre-rainy Season (PRS) 2 Rainy Season (RS) 2 After-rainy Season (ARS)	

This Inspection and Maintenance Checklist is to be used in conjunction with its corresponding LID Factsheet and Maintenance Plan. Please review these documents before performing the field inspection.

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
Drainage	RS	Is there standing or pooling of water in the Bioretention area after 3 days of dry weather?		<ul> <li>Check perforated pipe outlet for obstruction or damage. *</li> <li>Flush perforated pipe to remove obstructions/sediment. *</li> </ul>	
		Is water not draining into catch basin from the overflow pipe during a high intensity storm? *		<ul> <li>Remove and replace the first few inches of topsoil.</li> <li>Remove soil and inspect perforated pipe. Repair or replace perforated pipe, replace with new soil and regrade.</li> </ul>	
Drai	PRS RS ARS	Is there sediment visible in the gutter?		In dry weather, use a mechanical sweeper or a Vactor truck to clean gutter pan.	
	RS	Is there water flowing in the pervious concrete gutter section during a low intensity storm? *		In wet weather, use a Vactor truck to clean gutter pan.	

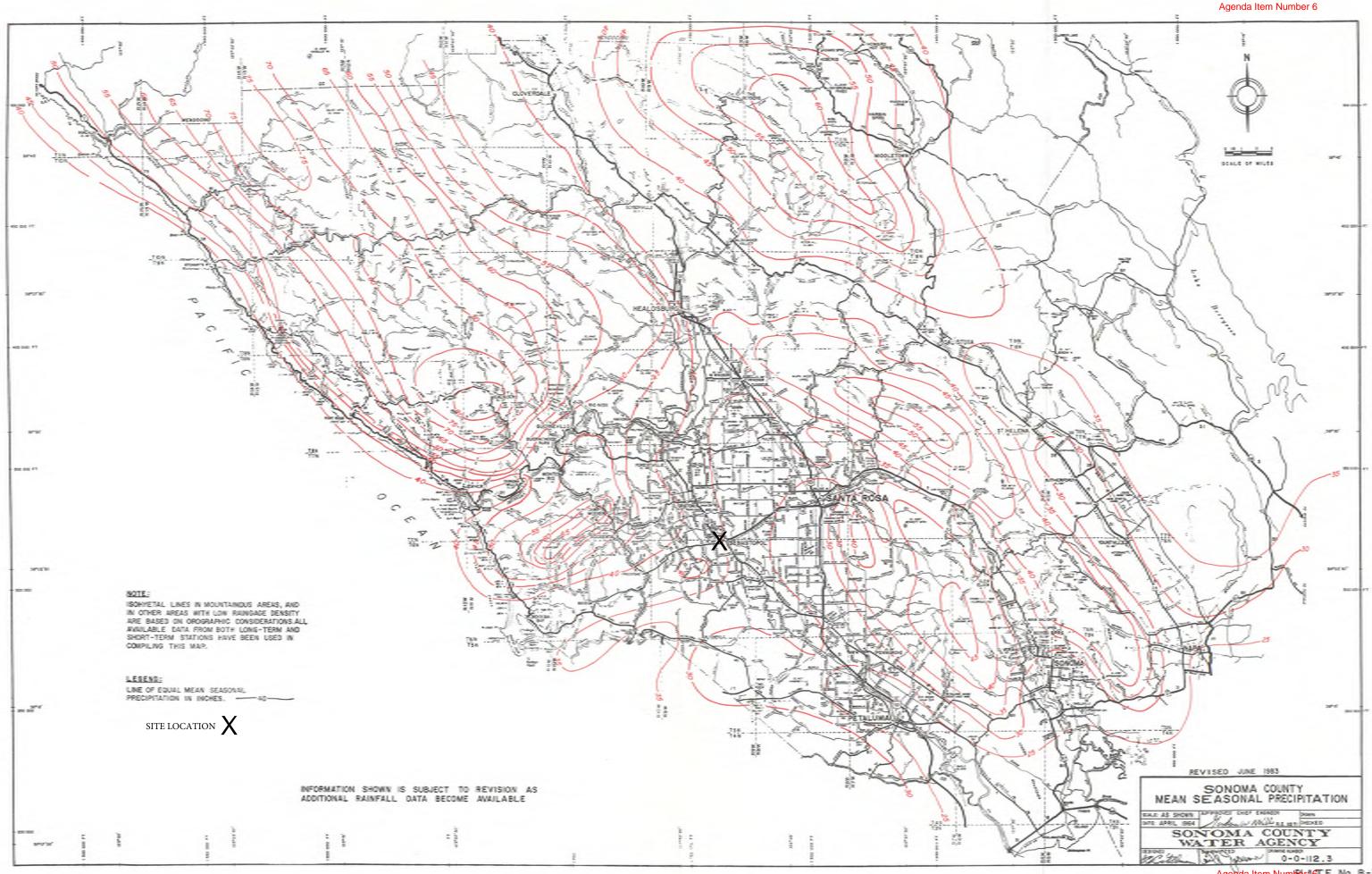
<sup>\*</sup> If perforated pipe is present.

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	RS ARS	Is there under cutting or washouts along the sidewalks and/or curbs abutting the planter strip?		• Fill in eroded areas and regrade.	
	RS ARS	Is there channelization (gully) forming along the length of the planter area?		Fill in eroded areas and regrade.	
	RS ARS	Is there accumulation of sediment (sand, dirt, mud) in the planter?		Remove sediment and check the grading. Add replacement soil and/or mulch.	
Erosion	PRS RS ARS	Is the mulch unevenly distributed in the planter area?		<ul> <li>Redistribute and add additional mulch if needed.</li> <li>Regrade planter area.</li> </ul>	
	PRS RS ARS	Are there voids or deep holes present?  Is there sediment present in the catch basin and in the overflow pipe?		Check the perforated pipe for damage.*	
	PRS RS ARS	Is there evidence of animal activity such as holes or dirt mounds from digging or borrowing?		<ul> <li>Repair and fill in damage areas.</li> <li>Rodent control activities must be in accordance with applicable laws and do not affect any protected species.</li> </ul>	

<sup>\*</sup> If perforated pipe is present.

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	PRS RS ARS	Is the vegetation clogging the inlet flow areas?		• Trim and/or remove the excess vegetation.	
Vegetation	PRS RS ARS	Is the mulch distributed evenly throughout the planter area?		<ul> <li>Redistribute and add additional mulch if needed.</li> <li>Regrade planter area.</li> </ul>	
Vege	PRS RS ARS	Are there dead or dry plants/weeds? Is the vegetation over grown?		<ul> <li>Remove dead and/or dry vegetation. Replace as needed.</li> <li>Remove or trim any vegetation that is causing a visual barrier, trip, and or obstruction hazard.</li> </ul>	

Inspection Category	When to Inspect	Maintenance Issue	Is the Issue Present?	Require Maintenance	Comments (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)
	PRS RS ARS	Is there debris/trash in the planter area?		Remove all trash and debris.	
	PRS RS ARS	Is graffiti present?		Remove all graffiti from the area.	
General	PRS RS ARS	Are there missing or disturbed aesthetics features?		<ul> <li>Replace and/or reposition         aesthetics features to original         placement.</li> <li>Placement should not disrupt flow         characteristics/design.</li> </ul>	
BMP G	PRS RS ARS	Is the vegetation irrigation functional?		<ul> <li>Repaired broken missing spray/drip emitters.</li> <li>Reposition and/or adjust to eliminate over spray and/or over watering.</li> </ul>	
	PRS RS ARS	Are the aesthetic features firmly secured in placed?		Repair and/or replace loose or damage features.	
	PRS RS ARS	Check for damage sidewalk, curb, gutter, and catch basin including uplift and settling.		Remove and replace damaged areas.	





# MAP LEGEND

С

C/D

D

Rails

**US Routes** 

Major Roads

Local Roads

**Water Features** 

Transportation

+++

Background

Not rated or not available

Streams and Canals

Interstate Highways

Aerial Photography

# Area of Interest (AOI) Area of Interest (AOI)

#### Soils

#### Soil Rating Polygons

A

A/D B

\_\_\_\_ -\_\_\_\_ B/D

С

C/D D

Not rated or not available

#### Soil Rating Lines

A/D

, v=

B/D

- c

C/D

p D

Not rated or not available

#### **Soil Rating Points**

A

■ A/D

**п** В

B/D

## D MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sonoma County, California Survey Area Data: Version 17, Sep 11, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GdC	Goldridge fine sandy loam, 2 to 9 percent slopes	С	0.0	1.2%
SbD2	Sebastopol sandy loam, 9 to 15 percent slopes, eroded	С	1.7	98.8%
Totals for Area of Intere	est	1.8	100.0%	

## **Description**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# **Rating Options**

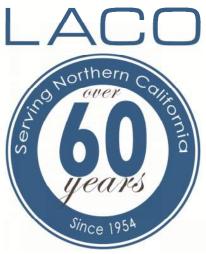
Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified

Tie-break Rule: Higher

# Hydrology & Hydraulics Report Prepared For Pacific Realty Development LLC

7261 Healdsburg Ave Sebastopol, CA 95472 405-686-0772 LACO Job No. 9272.02 APN: 164-150-054

PREPARED BY



LACO ASSOCIATES 2561 California Park Dr #200 Chico, Ca 95928 (530) 801-6170

March, 2024

Prepared under the supervision of Paul Peck, PE



#### **Project Description:**

The project involves the development of a mixed-use subdivision, which will include the construction of townhomes, apartment and commercial buildings, a drive aisle, and a parking structure. The project will include grading & earthwork fill, storm drainage, and associated site improvements.

## **Pre & Post Development Runoff Conditions:**

The total project area contained within parcel 004-291-019 encompasses 1.28 acres.

Pre-development on-site runoff primarily consists of sheet flow that begins at the southeast corner of the site and flows both north and west toward Healdsburg Ave and Murphy Ave, where it then collects into the city storm drain system. Once in the storm drain system, runoff eventually exits at the Morris St outfall into the Laguna de Santa Rosa. Refer to the attached Existing Conditions Exhibit for Pre-Development conditions which also shows an outline of impervious areas.

Post-development on-site runoff will generally flow through proposed gutters and collect into the various proposed bioretention areas. Tributary Areas 7, 9, 10, and 12 will drain through grass swales behind the townhomes before entering bioretention areas. When bioretention areas are at capacity, overflow will enter the proposed storm drain system and be conveyed to the city storm drain system at Healdsburg Ave, or overland flow to Healdsburg and Murphy Ave where it will collect into the city storm drain system.

#### **Potential Impacts**

Industrial operations occur on highly impervious surfaces such as gravel equipment parking areas, concrete, and asphalt paving. In addition to the high rate of runoff from these types of surfaces, non-visible pollutants such as sediment and sand, hydrocarbon emissions from vehicles and equipment, oils and greases, and particulate matter all pose potential environmental impacts. In accordance with CASQA and the USEPA, the project is being designed with Low Impact Development (LID) features to capture and treat stormwater runoff which may contain sediment and pollutants. Please see the document entitled "Pacific Knolls Storm Water Low Impact Development Report."

Concentrating and channelizing stormwater runoff increases the chance of erosion and sedimentary deposit, and increasing the impervious area will increase the flow rate of runoff. Design elements included in this project include bioretention areas and drop inlets set above grade to allow for settling and infiltration as a primary means of stormwater flood control.

## Flood Control Hydrology

The project existing site consists of an old building, a concrete walkway, a gravel driveway, dirt, grass, and trees. The existing site drainage consists generally of sheet flow from south to north and east to west over grass, dirt, and gravel.

The proposed drainage will route runoff to landscaped areas and then to bioretention areas that will eventually overflow into storm drain inlets. Overflow inlets are set 6" over grade.

Websoil survey has identified one soil type for this site: Sebastopol sandy loam, which belongs to hydrologic soil group C.

For the purposes of the flood control portion of this drainage report we used the Flood Management Design Manual (FMDM) as a guideline for estimating runoff.

In accordance with the FMDM, the rational method was used to estimate flow rates. The FMDM also provides the following mathematical models and constant values used in the hydraulic analysis:

Design Storm Event 10 Year Runoff Coefficient: C = 0.85

(FMDM, Table C-1)

Time of Concentration 7 min

Rainfall Intensity (NOAA Atlas 14)

Table C-1 of the FMDM was used to calculate the composite runoff coefficient. Per the FMDM, a runoff coefficient value of 0.47 was used for the pervious area and 0.90 for impervious area. A slope greater than twelve percent was assumed for the future landscaped area to make the design conservative. See attached spreadsheet calculation and tabulation called "Pre and Post Development Flow Calculations" for each tributary area (includes 10 and 100 year flows). Attached Hydrology exhibit shows the tributary areas. Predevelopment and Post-development overall flows were calculated. The project design includes closed pipe systems which were designed to convey the 10 year storm; see attached Channel report.

Associated design elements from Storm Water Low Impact Development have been sized to capture and treat the increase in runoff from the predevelopment to post-development. More detailed information can be found in the document titled "Pacific Knolls Storm Water Low Impact Development Report."

100 year storm overland release route is shown on the 100 Year Overland Flow Exhibit. Note that site design features and slopes mimic existing patterns, especially in terms of outfall locations from the project, and proposed grading maintains a general south to north and east to west drainage pattern. Should the proposed on-site storm drain system become inundated, overland flow release

from the project site will remain at the existing north and west locations for the vast majority of the project area. Grades at the northern overland release locations are 132.29 and 129.59, and grades at the western overland release locations are 140.25 and 139.95.

Table 1: C-Values

Soil Type C	345		200			
Residential <sup>1</sup>	-					
Rural		0.03	0.33	0.38	0.43	0.47
Very low density	2	0.11	0.38	0.42	0.47	0.51
	1	0.24	0.45	0.49	0.53	0.57
Low density	1/2	0.32	0.50	0.53	0.57	0.60

Land Use	Lot Size	Impervious		Average	Slope (%)	
III I SA III SA	(acres)	Fraction	0-2	>2-6	>6-12	>12 0.64
	1/3	0.41	0.56	0.59	0.62	
Medium-low density	1/4	0.49	0.60	0.63	0.65	0.68
Medium density	1/8	0.70	0.73	0.74	0.76	0.77
Medium-high density	1/18	1	0.90	0.90	0.90	0.90
Business, commercial, etc.		1	0.90	0.90	0.90	0.90
General industrial		1	0.90	0.90	0.90	0.90
Parks and recreation		0.05	0.34	0.39	0.44	0.48
Ag and open space		0.02	0.33	0.38	0.43	0.47

C value taken as 0.9 for post-development impervious areas. C value taken as 0.47 for pervious areas given the soil Hydrologic group C and Ag and open space land use with average slopes of >12% coupled with Table 1 above, per FMDM.

## Table 2: Manning's n

Table D.2-1. Manning's Roughness Coefficients for Channels

Channel Material	Manning's Roughness (n)
Concrete, steel troweled, or smooth-form finish	0.014
Concrete, wood float or broomed finish, including pneumatically applied mortar	0.015
Asphaltic concrete	0.017
Sack concrete riprap	0.030
Grouted rock riprap	0.030
Loose rock riprap	0.035
Grass channels	0.035
Constructed natural waterways	0.050 minimum, under typical conditions*
Other natural channels	See references:  Arcement, G. J., and V. R. Schneider. 1989. Guide for selecting Manning's roughness coefficients for natural channels and flood plains. U.S. Department of the Interior, US Geological Survey, 67 pp. Available at: pubs.er.usgs.gov/publication/wsp2339.  Barnes, H. H. 1967. Roughness characteristics of natural channels. U.S. Government Printing Office, 213 pp. Available at: pubs.usgs.gov/wsp/wsp_1849/pdf/wsp_1849 h.pdf.

Sonoma Water may be willing to allow values as low as 0.035 for channels that are well maintained and hydraulically smooth.

Manning's roughness coefficient is selected as 0.012 for storm drain HDPE pipe. A value of 0.035 was used for grass swales and channels.

#### **Hydraulics**

Hydraflow Express Civil 3D extension was used to model proposed storm drain pipes and swales using the calculated flow for a 10 year storm. The proposed storm drain system outfalls into the city storm drain system at the northeast corner of the site through a 12" HDPE pipe. A 12" HDPE pipe was modeled with the flow from the entire site to ensure it had the capacity for a 10 year storm. The three proposed swales that will transport the water from Tributary Areas 7, 9,10, and 12 will be 6" deep with 2:1 side slopes and have the capacity to carry the flows from each of the respective areas. See attached for full calculations and channel models.

## <u>Conclusio</u>n

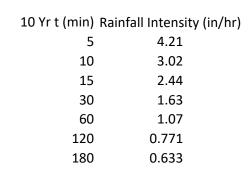
In accordance with Sonoma County Code sections 11.14.040, this project's drainage system has been designed for the 10 year design discharge. The project has been analyzed in accordance with FMDM section 3.3.1 in utilizing the rational method for hydrology to calculate peak flow rates.

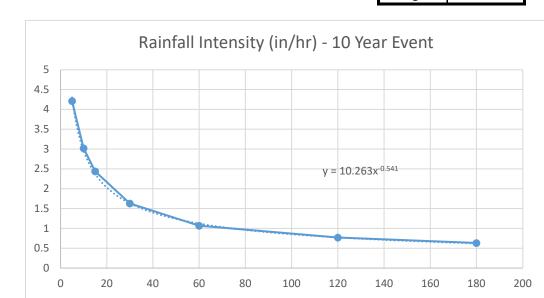
## Attachments:

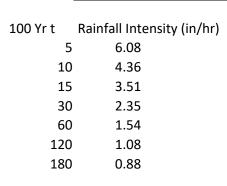
- 1. Pre and Post Development Flow Calculations
- 2. Existing Conditions Exhibit
- 3. Hydrology Exhibit
- 4. 100 Year Overland Flow Exhibit
- 5. Hydraflow Express Storm Drain Pipe Model
- 6. Hydraflow Express Swale Model Tributary Area 9
- 7. Hydraflow Express Swale Model Tributary Area 10
- 8. Hydraflow Express Swale Model Tributary Area 12
- 9. Hydraflow Express Swale Model Tributary Area 7 & 12
- 10. NOAA Point Precipitation Frequency Estimates
- 11. NOAA PDS-Based Intensity-Duration-Frequency (IDF) Curves
- 12. NOAA Maps and Aerials
- 13. Websoilsurvey Soil Map and Map Unit Descriptions

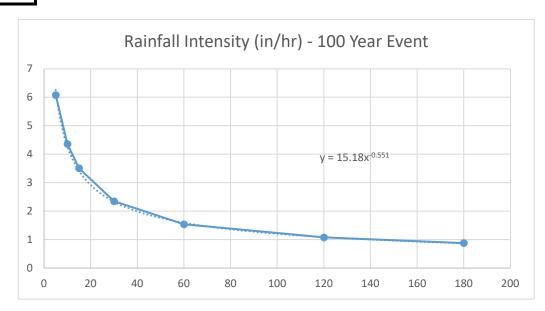
				Pre-Dev	elopment							
Tributary Area	Area (SF)	Pervious Area (SF)	Impervious Area (SF)	Trib Area (ac.)	C <sub>pervious</sub>	C <sub>impervious</sub>	$C_{weighted}$	t <sub>c</sub> (min)	i <sub>10</sub> (in/hr)	i <sub>100</sub> (in/hr)	Q <sub>10</sub> (cfs)	Q <sub>100</sub> (cfs)
1	55593	54343	1250	1.28	0.47	0.9	0.48	7	3.58	5.20	2.19	3.18

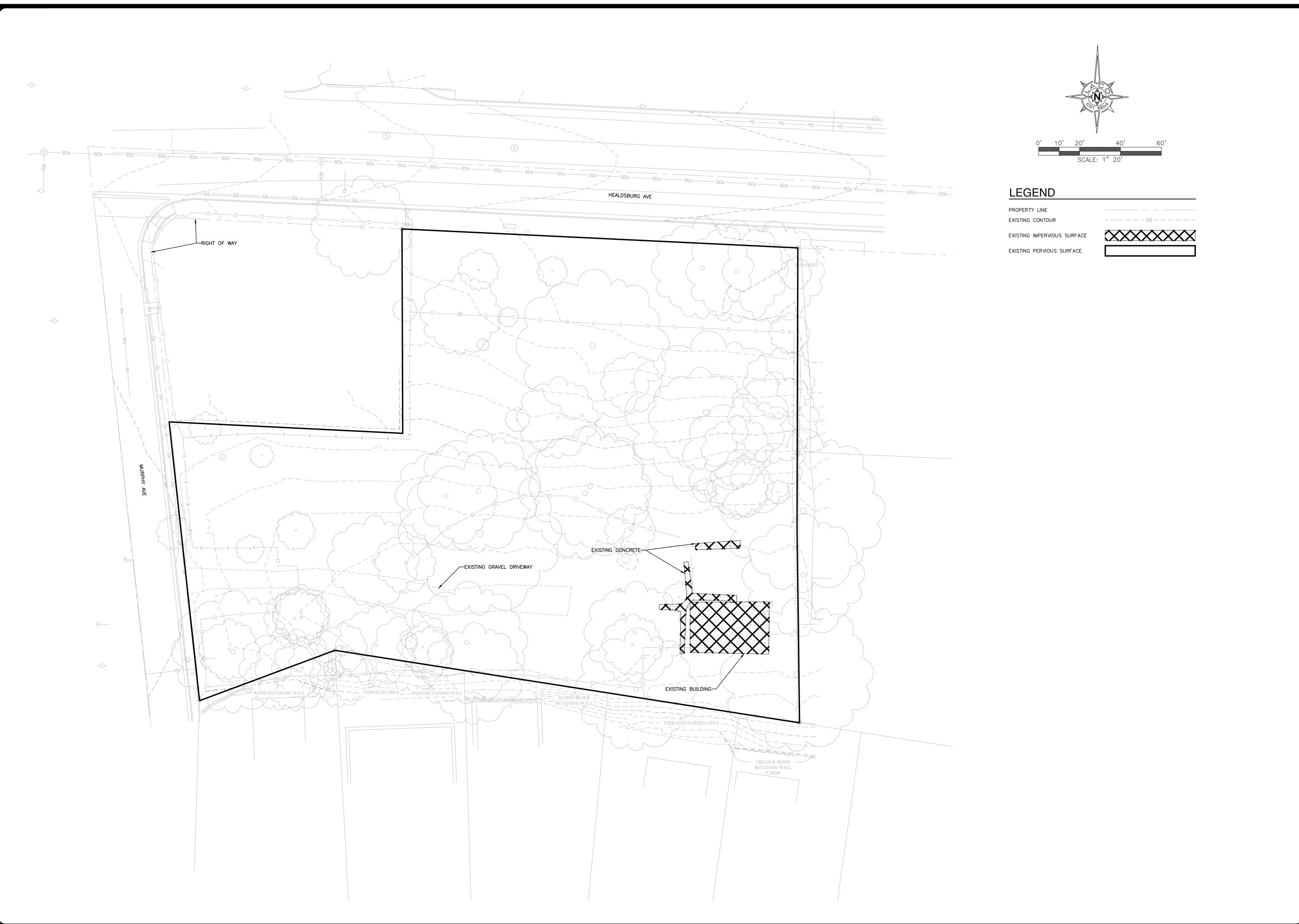
				Post-Dev	elopment							
Tributary Area	Area (SF)	Pervious Area (SF)	Impervious Area (SF)	Trib Area (ac.)	$C_{pervious}$	$C_{impervious}$	$C_{weighted}$	t <sub>c</sub> (min)	i <sub>10</sub> (in/hr)	i <sub>100</sub> (in/hr)	Q <sub>10</sub> (cfs)	Q <sub>100</sub> (cfs
1	4697	1452	3245	0.11	0.47	0.9	0.77	7	3.58	5.20	0.30	0.43
2	1411	58	1353	0.03	0.47	0.9	0.88	7	3.58	5.20	0.10	0.15
3	1405	52	1353	0.03	0.47	0.9	0.88	7	3.58	5.20	0.10	0.15
4	807	48	759	0.02	0.47	0.9	0.87	7	3.58	5.20	0.06	0.08
5	4467	604	3863	0.10	0.47	0.9	0.84	7	3.58	5.20	0.31	0.45
6	3054	461	2593	0.07	0.47	0.9	0.84	7	3.58	5.20	0.21	0.30
7	6533	4792	1741	0.15	0.47	0.9	0.58	7	3.58	5.20	0.31	0.46
8	16009	4012	11997	0.37	0.47	0.9	0.79	7	3.58	5.20	1.04	1.51
9	4397	2624	1773	0.10	0.47	0.9	0.64	7	3.58	5.20	0.23	0.34
10	3358	1584	1774	0.08	0.47	0.9	0.70	7	3.58	5.20	0.19	0.28
11	6456	1717	4739	0.15	0.47	0.9	0.79	7	3.58	5.20	0.42	0.60
12	3413	1662	1751	0.08	0.47	0.9	0.69	7	3.58	5.20	0.19	0.28
						Avg C	0.77			<b>Total Post</b>	3.47	5.03













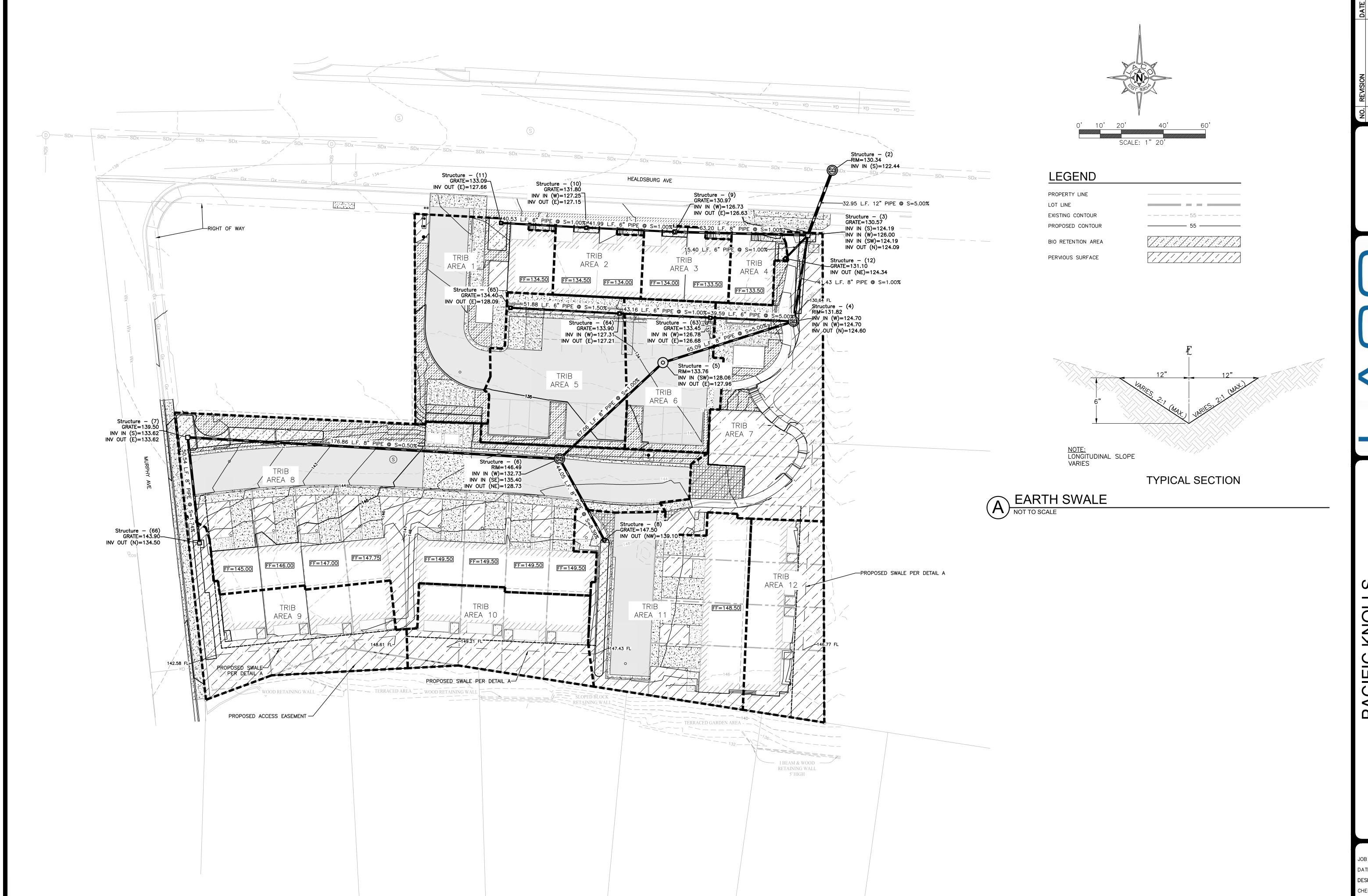
SEBASTOPOL, CA

JOB NO. 9272.02

DATE 3/14/2024

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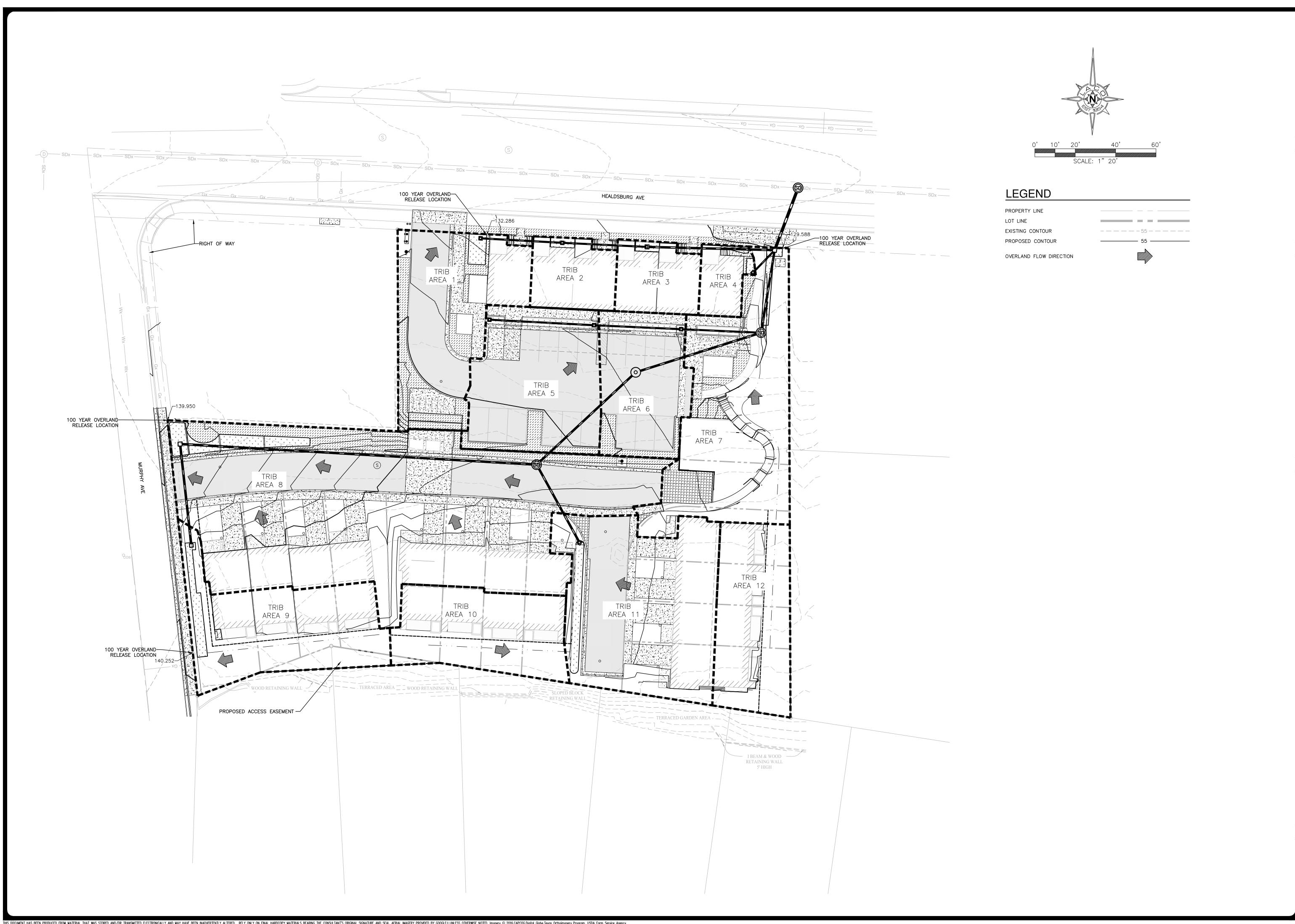
SHEET 1 OF



PACIFIC KNOLLS SEBASTOPOL, CA

JOB NO. \_ 9272.02 3/14/2024 DESIGNER CHECKED\_\_\_\_\_ DRAWN\_\_

SHEET 2 OF 3



PACIFIC KNOLLS
SEBASTOPOL, CA
SURVEYORS | ENGINEERS | PLANNERS | GRANT WRITERS

Agenda Item Number: 6 City Council Meeting Packet of: November 5, 2024 Page 196 of 256

DESIGNER\_

<sub>JOB NO.</sub> 9272.02

CHECKED\_\_\_\_ DRAWN\_\_\_

SHEET \_\_ 3 OF 3

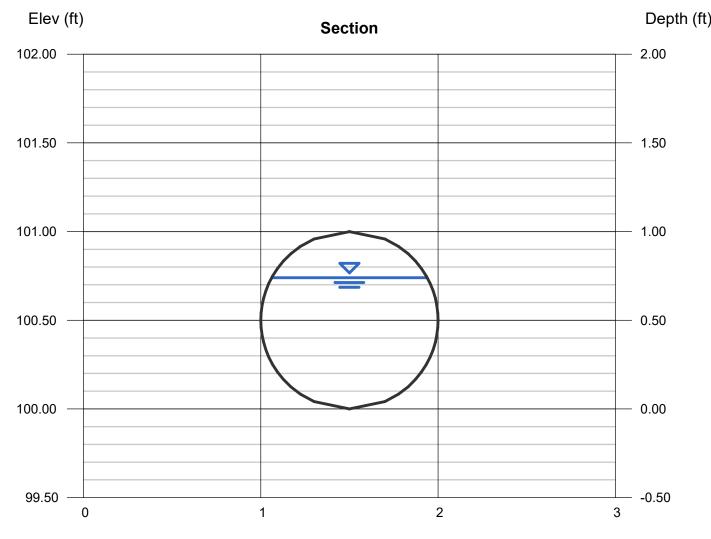
3/14/2024

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Thursday, Mar 14 2024

# **Storm Drain Pipe**

Circular		Highlighted	
Diameter (ft)	= 1.00	Depth (ft)	= 0.74
		Q (cfs)	= 3.470
		Area (sqft)	= 0.62
Invert Elev (ft)	= 100.00	Velocity (ft/s)	= 5.56
Slope (%)	= 1.00	Wetted Perim (ft)	= 2.08
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.80
		Top Width (ft)	= 0.88
Calculations		EGL (ft)	= 1.22
Compute by:	Known Q		
Known Q (cfs)	= 3.47		



Agenda Item Number: 6
Reach (ft) ity Council Meeting Packet of: November 5, 2024
Page 197 of 256

= 0.21= 0.230= 0.09

= 2.61

= 0.94

= 0.25

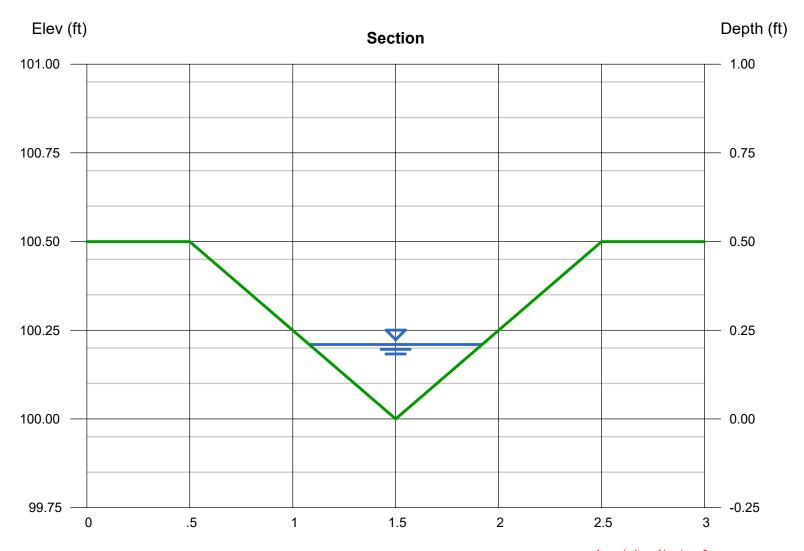
= 0.84= 0.32

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Thursday, Mar 14 2024

# Typical Swale - Trib Area 9

Triangular		Highlighted
Side Slopes (z:1)	= 2.00, 2.00	Depth (ft)
Total Depth (ft)	= 0.50	Q (cfs)
, , ,		Area (sqft)
Invert Elev (ft)	= 100.00	Velocity (ft/s)
Slope (%)	= 9.50	Wetted Perim (ft)
N-Value	= 0.035	Crit Depth, Yc (ft)
		Top Width (ft)
Calculations		EGL (ft)
Compute by:	Known Q	. ,
Known Q (cfs)	= 0.23	



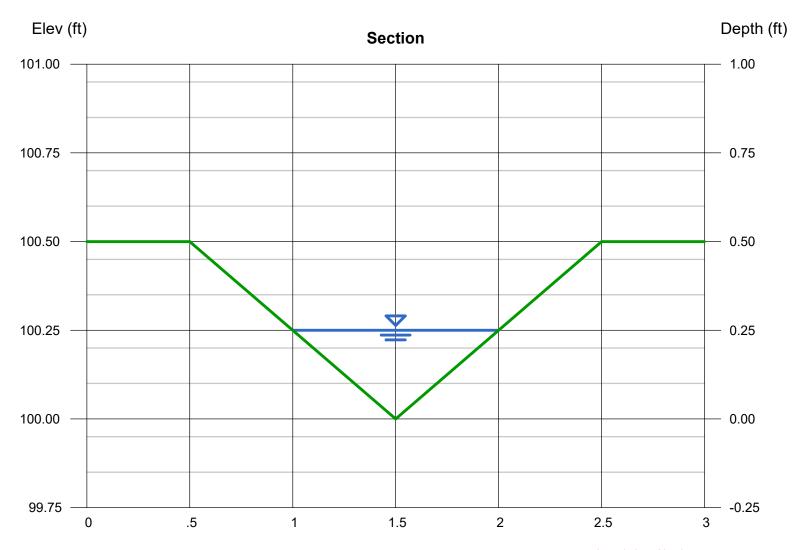
Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Thursday, Mar 14 2024

# Typical Swale - Trib Area 10

Triangular Side Slopes (z:1) Total Depth (ft)	= 2.00, 2.00 = 0.50
Invert Elev (ft) Slope (%) N-Value	= 100.00 = 2.70 = 0.035
Calculations Compute by: Known Q (cfs)	Known Q = 0.19

Highlighted		
Depth (ft)	=	0.25
Q (cfs)	=	0.190
Area (sqft)	=	0.13
Velocity (ft/s)	=	1.52
Wetted Perim (ft)	=	1.12
Crit Depth, Yc (ft)	=	0.23
Top Width (ft)	=	1.00
EGL (ft)	=	0.29

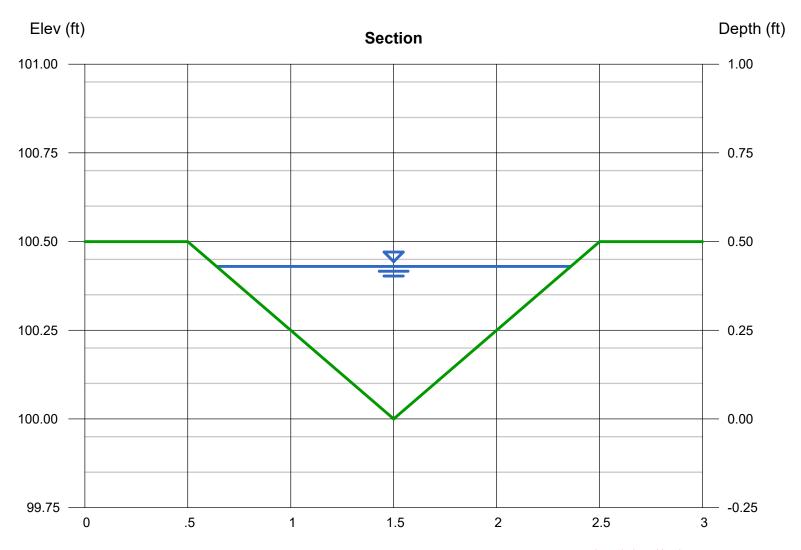


Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Friday, Mar 22 2024

## **DMA 7 & 12 Swale**

Triangular		Highlighted	
Side Slopes (z:1)	= 2.00, 2.00	Depth (ft)	= 0.43
Total Depth (ft)	= 0.50	Q (cfs)	= 0.500
		Area (sqft)	= 0.37
Invert Elev (ft)	= 100.00	Velocity (ft/s)	= 1.35
Slope (%)	= 1.00	Wetted Perim (ft)	= 1.92
N-Value	= 0.035	Crit Depth, Yc (ft)	= 0.33
		Top Width (ft)	= 1.72
Calculations		EGL (ft)	= 0.46
Compute by:	Known Q		
Known Q (cfs)	= 0.50		





NOAA Atlas 14, Volume 6, Version 2 SEBASTOPOL Station ID: 04-8072

Location name: Sebastopol, California, USA\* Latitude: 38.4086°, Longitude: -122.8211° Elevation:

> Elevation (station metadata): 68 ft\*\* source: ESRI Maps
> \*\* source: USGS



#### POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF tabular | PF graphical | Maps & aerials

#### PF tabular

D	Average recurrence interval (years)									
Duration	1	2	5	10	25	50	100	200	500	1000
5-min	<b>2.42</b> (2.16-2.76)	<b>2.96</b> (2.64-3.37)	<b>3.66</b> (3.24-4.18)	<b>4.21</b> (3.70-4.86)	<b>4.96</b> (4.18-5.94)	<b>5.52</b> (4.54-6.78)	<b>6.08</b> (4.85-7.69)	<b>6.65</b> (5.14-8.70)	<b>7.40</b> (5.45-10.2)	<b>7.98</b> (5.64-11.4)
10-min	<b>1.74</b> (1.55-1.97)	<b>2.13</b> (1.89-2.42)	<b>2.62</b> (2.32-2.99)	<b>3.02</b> (2.65-3.48)	<b>3.55</b> (2.99-4.26)	<b>3.95</b> (3.25-4.86)	<b>4.36</b> (3.48-5.51)	<b>4.76</b> (3.68-6.23)	<b>5.30</b> (3.90-7.29)	<b>5.72</b> (4.04-8.18)
15-min	<b>1.40</b> (1.25-1.59)	<b>1.72</b> (1.52-1.95)	<b>2.12</b> (1.87-2.41)	<b>2.44</b> (2.14-2.81)	<b>2.86</b> (2.41-3.44)	<b>3.19</b> (2.62-3.92)	<b>3.51</b> (2.80-4.44)	<b>3.84</b> (2.96-5.02)	<b>4.28</b> (3.15-5.88)	<b>4.61</b> (3.26-6.59)
30-min	<b>0.938</b> (0.834-1.07)	<b>1.15</b> (1.02-1.30)	<b>1.41</b> (1.25-1.61)	<b>1.63</b> (1.43-1.88)	<b>1.92</b> (1.61-2.30)	<b>2.13</b> (1.75-2.62)	<b>2.35</b> (1.87-2.97)	<b>2.57</b> (1.98-3.36)	<b>2.86</b> (2.10-3.93)	<b>3.08</b> (2.18-4.41)
60-min	<b>0.616</b> (0.548-0.699)	<b>0.752</b> (0.668-0.855)	<b>0.928</b> (0.822-1.06)	<b>1.07</b> (0.937-1.23)	<b>1.26</b> (1.06-1.51)	<b>1.40</b> (1.15-1.72)	<b>1.54</b> (1.23-1.95)	<b>1.68</b> (1.30-2.20)	<b>1.88</b> (1.38-2.58)	<b>2.02</b> (1.43-2.89)
2-hr	<b>0.452</b> (0.402-0.513)	<b>0.550</b> (0.489-0.625)	<b>0.674</b> (0.597-0.768)	<b>0.771</b> (0.676-0.888)	<b>0.897</b> (0.756-1.08)	<b>0.991</b> (0.814-1.22)	<b>1.08</b> (0.864-1.37)	<b>1.17</b> (0.907-1.54)	<b>1.29</b> (0.950-1.78)	<b>1.38</b> (0.975-1.97)
3-hr	<b>0.373</b> (0.332-0.424)	<b>0.454</b> (0.403-0.516)	<b>0.554</b> (0.491-0.633)	<b>0.633</b> (0.555-0.729)	<b>0.734</b> (0.618-0.880)	<b>0.808</b> (0.664-0.994)	<b>0.880</b> (0.702-1.11)	<b>0.951</b> (0.734-1.24)	<b>1.04</b> (0.766-1.43)	<b>1.11</b> (0.782-1.58)
6-hr	<b>0.276</b> (0.245-0.313)	<b>0.337</b> (0.300-0.384)	<b>0.412</b> (0.365-0.471)	<b>0.470</b> (0.412-0.542)	<b>0.544</b> (0.458-0.652)	<b>0.596</b> (0.490-0.733)	<b>0.647</b> (0.516-0.819)	<b>0.696</b> (0.538-0.911)	<b>0.759</b> (0.558-1.04)	<b>0.803</b> (0.567-1.15)
12-hr	<b>0.189</b> (0.168-0.215)	<b>0.237</b> (0.211-0.270)	<b>0.295</b> (0.261-0.336)	<b>0.338</b> (0.297-0.390)	<b>0.393</b> (0.331-0.471)	<b>0.432</b> (0.355-0.531)	<b>0.468</b> (0.374-0.593)	<b>0.504</b> (0.389-0.659)	<b>0.548</b> (0.403-0.752)	<b>0.579</b> (0.409-0.828
24-hr	<b>0.123</b> (0.111-0.140)	<b>0.158</b> (0.142-0.180)	<b>0.200</b> (0.179-0.228)	<b>0.232</b> (0.206-0.266)	<b>0.270</b> (0.233-0.320)	<b>0.298</b> (0.252-0.359)	<b>0.323</b> (0.268-0.398)	<b>0.348</b> (0.281-0.439)	<b>0.378</b> (0.294-0.496)	<b>0.399</b> (0.301-0.540
2-day	<b>0.088</b> (0.079-0.099)	<b>0.113</b> (0.101-0.128)	<b>0.142</b> (0.127-0.162)	<b>0.164</b> (0.146-0.188)	<b>0.191</b> (0.165-0.226)	<b>0.210</b> (0.178-0.253)	<b>0.228</b> (0.189-0.281)	<b>0.245</b> (0.198-0.310)	<b>0.266</b> (0.207-0.349)	<b>0.281</b> (0.211-0.380)
3-day	<b>0.067</b> (0.061-0.077)	<b>0.086</b> (0.078-0.098)	<b>0.109</b> (0.098-0.124)	<b>0.126</b> (0.112-0.144)	<b>0.146</b> (0.126-0.173)	<b>0.161</b> (0.136-0.194)	<b>0.174</b> (0.144-0.215)	<b>0.187</b> (0.151-0.236)	<b>0.202</b> (0.157-0.266)	<b>0.214</b> (0.161-0.289
4-day	<b>0.056</b> (0.051-0.064)	<b>0.072</b> (0.065-0.082)	<b>0.091</b> (0.081-0.104)	<b>0.105</b> (0.093-0.120)	<b>0.122</b> (0.105-0.144)	<b>0.134</b> (0.113-0.161)	<b>0.145</b> (0.120-0.179)	<b>0.156</b> (0.126-0.197)	<b>0.169</b> (0.131-0.221)	<b>0.178</b> (0.134-0.241
7-day	<b>0.040</b> (0.036-0.046)	<b>0.051</b> (0.046-0.058)	<b>0.065</b> (0.058-0.074)	<b>0.074</b> (0.066-0.085)	<b>0.086</b> (0.075-0.102)	<b>0.095</b> (0.080-0.114)	<b>0.103</b> (0.085-0.127)	<b>0.110</b> (0.089-0.139)	<b>0.119</b> (0.093-0.157)	<b>0.126</b> (0.095-0.170
10-day	<b>0.032</b> (0.029-0.036)	<b>0.041</b> (0.037-0.046)	<b>0.051</b> (0.046-0.058)	<b>0.059</b> (0.052-0.068)	<b>0.069</b> (0.059-0.081)	<b>0.075</b> (0.064-0.091)	<b>0.081</b> (0.067-0.100)	<b>0.087</b> (0.070-0.110)	<b>0.094</b> (0.073-0.124)	<b>0.099</b> (0.075-0.135
20-day	<b>0.021</b> (0.019-0.024)	<b>0.027</b> (0.024-0.031)	<b>0.034</b> (0.030-0.039)	<b>0.039</b> (0.035-0.045)	<b>0.045</b> (0.039-0.054)	<b>0.050</b> (0.042-0.060)	<b>0.054</b> (0.044-0.066)	<b>0.057</b> (0.046-0.073)	<b>0.062</b> (0.048-0.081)	<b>0.065</b> (0.049-0.088
30-day	<b>0.017</b> (0.015-0.019)	<b>0.022</b> (0.019-0.025)	<b>0.027</b> (0.024-0.031)	<b>0.031</b> (0.028-0.036)	<b>0.036</b> (0.031-0.043)	<b>0.039</b> (0.033-0.047)	<b>0.042</b> (0.035-0.052)	<b>0.045</b> (0.037-0.057)	<b>0.049</b> (0.038-0.064)	<b>0.051</b> (0.039-0.070
45-day	<b>0.014</b> (0.012-0.016)	<b>0.018</b> (0.016-0.020)	<b>0.022</b> (0.020-0.025)	<b>0.025</b> (0.022-0.029)	<b>0.029</b> (0.025-0.034)	<b>0.032</b> (0.027-0.038)	<b>0.034</b> (0.028-0.042)	<b>0.036</b> (0.029-0.046)	<b>0.039</b> (0.030-0.052)	<b>0.041</b> (0.031-0.056
60-day	0.012	0.015	0.019	0.022	0.025	0.028	0.030 (0.025-0.037)	0.032	0.034	0.036

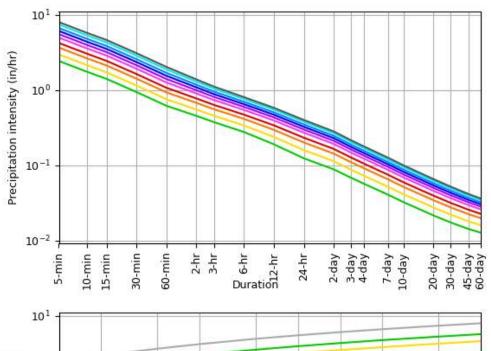
Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

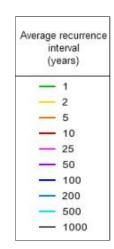
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

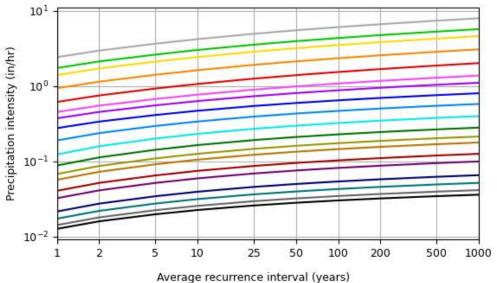
Back to Top

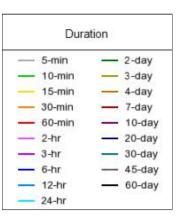
## PF graphical

#### PDS-based intensity-duration-frequency (IDF) curves Latitude: 38.4086°, Longitude: -122.8211°









NOAA Atlas 14, Volume 6, Version 2

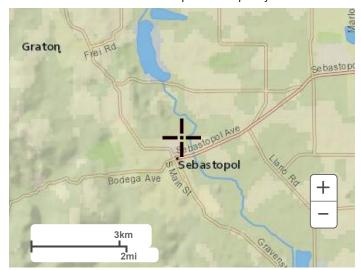
Created (GMT): Wed Mar 13 21:17:08 2024

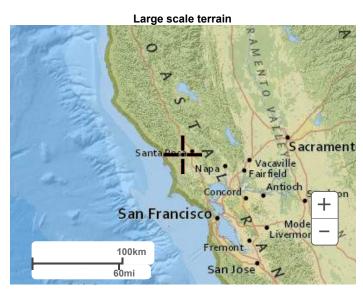
Back to Top

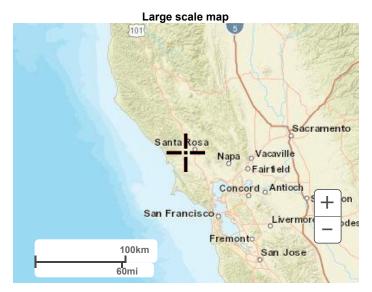
## Maps & aerials

Small scale terrain

2/4







Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

**Disclaimer** 



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons

-

Soil Map Unit Lines

Soil Map Unit Points

#### Special Point Features

(O)

Blowout

 $\boxtimes$ 

Borrow Pit

366

Clay Spot

380

 $\Diamond$ 

Closed Depression

×

Gravel Pit

.

**Gravelly Spot** 

0

Landfill Lava Flow

٨

Marsh or swamp

2

Mine or Quarry

W.

Miscellaneous Water

0

Perennial Water

0

Rock Outcrop

+

Saline Spot

. .

Sandy Spot

Severely Eroded Spot

**=** 

Sinkhole

8

Slide or Slip

Ø

Sodic Spot

#### **U**\_..\_

8

Spoil Area

٥

Stony Spot
Very Stony Spot

3

Wet Spot

Δ

Special Line Features

#### Water Features

\_

Streams and Canals

#### Transportation

ransp

Rails

~

Interstate Highways

US Routes

 $\sim$ 

Major Roads

~

Local Roads

#### Background

300

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sonoma County, California Survey Area Data: Version 17, Sep 11, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
GdC	Goldridge fine sandy loam, 2 to 9 percent slopes	0.0	0.1%			
SbD2	Sebastopol sandy loam, 9 to 15 percent slopes, eroded	1.5	99.9%			
Totals for Area of Interest		1.5	100.0%			

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

#### Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Sonoma County, California

## GdC—Goldridge fine sandy loam, 2 to 9 percent slopes

#### **Map Unit Setting**

National map unit symbol: hfcy Elevation: 200 to 2,000 feet

Mean annual precipitation: 40 inches Mean annual air temperature: 57 degrees F

Frost-free period: 225 to 240 days

Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Goldridge and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Goldridge**

#### Setting

Landform: Hills

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Residuum weathered from sandstone

#### **Typical profile**

H1 - 0 to 24 inches: fine sandy loam H2 - 24 to 28 inches: sandy clay loam H3 - 28 to 72 inches: sandy clay loam

#### Properties and qualities

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F004BK103CA - Upper slopes and higher elevation mountains

Hydric soil rating: No

#### **Minor Components**

#### Cotati

Percent of map unit: 4 percent Hydric soil rating: No

#### **Blucher**

Percent of map unit: 4 percent Hydric soil rating: No

#### Sebastopol

Percent of map unit: 3 percent Hydric soil rating: No

#### Steinbeck

Percent of map unit: 3 percent Hydric soil rating: No

#### Unnamed

Percent of map unit: 1 percent

Landform: Swales Hydric soil rating: Yes

## SbD2—Sebastopol sandy loam, 9 to 15 percent slopes, eroded

#### **Map Unit Setting**

National map unit symbol: hfjf Elevation: 100 to 1,000 feet

Mean annual precipitation: 40 inches Mean annual air temperature: 55 degrees F

Frost-free period: 200 to 240 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Sebastopol and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Sebastopol**

#### Setting

Landform: Terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Alluvium derived from sedimentary rock

#### Typical profile

H1 - 0 to 8 inches: sandy loam H2 - 8 to 12 inches: sandy clay loam

H3 - 12 to 43 inches: clay
H4 - 43 to 62 inches: clay loam
H5 - 62 to 72 inches: sandy clay loam

## Properties and qualities

Slope: 9 to 15 percent

#### Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: R004BY066CA - CLAYPAN

Hydric soil rating: No

#### **Minor Components**

#### Cotati

Percent of map unit: 8 percent

Hydric soil rating: No

#### Goldridge

Percent of map unit: 7 percent

Hydric soil rating: No



#### 600 Bicentennial Way Santa Rosa, CA 95403 PH: (707) 578-5271 FX: (707) 578-1163

#### **UPDATED PRELIMINARY REPORT NO. 1**

Mark Hanf Pacific Private Money, Inc. 1555 Grant Ave. Novato, CA 94945 Phone No: 415 926-4444

Escrow Officer: Lisa L. Witt Email: lisa.witt@cstitleco.com Assistant: Team Santa Rosa

Email: teamsantarosa@cstitleco.com Escrow Number: 3675124-00211

Owner:	Pacific Realty Development 1, Llc, A California Limited Liability Company
Property:	7621 Healdsburg Avenue Sebastopol, Ca 95472

#### PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit B attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit B. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit B of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Page Number: 3

Dated as of February 22, 2024 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA/CLTA Homeowner's Policy of Title Insurance (2013), if applicable, or CLTA/ALTA Standard Owner's Policy 1990; and/or ALTA Loan Policy (2006).

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

#### Pacific Realty Development I, LLC, a California limited liability company

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A Fee

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

- 1. General and special taxes and/or assessments for the fiscal year 2024-2025, a lien, but not yet due or payable.
- 2. General and special taxes and/or assessments for the fiscal year 2023-2024, as follows:

Assessor's Parcel Number: 004-291-019-000

TRA: 005014

1st Installment: \$11,198.36 DELINQUENT

2nd Installment: \$10,180.33 OPEN, Due on or before April 10, 2024

3. Said property has been declared tax defaulted for non-payment of delinquent taxes for the fiscal year 2020-2021, and subsequent years thereafter, if any.

Amount To Redeem: \$76,538.22

If Paid By: March 31, 2024

Default Number: DEF210000060

Assessor's Parcel Number: 004-291-019-000

The Tax Collector must be contacted to verify payment information about taxes and assessments owing for prior years, and amounts necessary to redeem.

- 4. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq. of the Revenue and Taxation Code of the State of California.
- 5. The taxes, lien and assessments, if any, pursuant to Chapter 29, Part of 3 of Division 7 of the California Streets and Highway Code.
- 6. Water rights, claims or title to water, whether or not shown by the public records.

Page Number: 4

- 7. Easements, servitudes, lesser rights, and other matters that would be apparent from an inspection and/or survey of said land.
- 8. Easements, recitals, setbacks, and other matters affecting that portion of said land for the purposes stated thereon and incidental purposes as shown upon a filed map
  - Filed: Book 806 of Record of Surveys, Page 43
- 9. Our examination of record title to the herein described land does not disclose any existing loans. We therefore require the Owners Declaration attached hereto be signed, notarized, and returned to us before recording.
- 10. Rights of parties in possession.

Page 215 of 256

#### REQUIREMENTS

- 1. The requirement that the owner's property statement be executed and upon review further requirements may be requested prior to the issuance of any policy of insurance.
- 2. The requirement that underwriting approval be obtained if any policy of title insurance is requested other than a standard owners policy.
- The requirement that High Liability approval be obtained prior to the close and issuance of any policy of title insurance. The High Liability process must be completed according to the Policy Underwriter's requirements.
- 4. Should this report be used to facilitate your transaction, we must be provided with the following prior to the issuance of the policy:

A copy of its operating agreement and any amendments thereto; If it is a California limited liability company, a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) to be recorded in the public records; If it is a foreign limited liability company, a certified copy of its application for registration (LLC-5) to be recorded in the public records; With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, such document or instrument must be executed in accordance with one of the following, as appropriate: If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such documents must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer; If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

#### **INFORMATIONAL NOTES**

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

- 1. If this report is preparatory to the issuance of an ALTA Loan Policy we have no knowledge of any fact which would preclude the issuance of the policy with CLTA endorsement forms 100 and 116 and if applicable, 115 and 116.2 attached.
  - When issued, the CLTA endorsement form 116 or 116.2, if applicable will reference Vacant Land known as 7621 Healdsburg Avenue, Sebastopol, CA 95472.
- 2. There are no conveyances affecting said land within two (2) years of the date of this report, except the following:

None

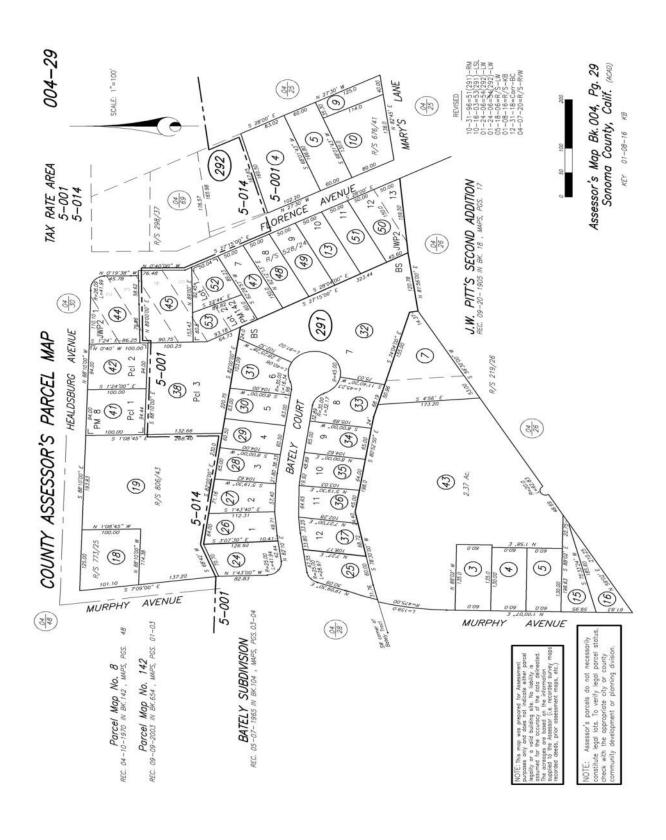
3. The map attached, if any, may or may not be a survey of the land depicted hereon. Cornerstone Title Company expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

#### LEGAL DESCRIPTION

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE CITY OF SEBASTOPOL, COUNTY OF SONOMA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 1. AS SAID LOT IS NUMBERED AND DELINEATED UPON THE MAP ENTITLED MAP OF BATELY SUBDIVISION FILED MAY 7, 1965, IN BOOK 104 OF MAPS, AT PAGES 3 AND 4, SONOMA COUNTY RECORDS; THENCE FROM SAID POINT OF BEGINNING SOUTH 68°42' EAST 70.70 FEET TO THE EAST LINE OF MURPHY AVENUE; THENCE NORTH 7°09' WEST AND ALONG THE EAST LINE OF MURPHY AVENUE TO THE SOUTHWEST CORNER OF THE PARCEL OF LAND DEEDED TO SONOMA COUNTY LAND TITLE COMPANY BY DEED RECORDED APRIL 23, 1959, BOOK 1663 PAGE 638, UNDER SONOMA COUNTY RECORDER'S SERIAL NO. F-71749; THENCE NORTH 88°10' EAST AND ALONG SAID SONOMA COUNTY LAND TITLE COMPANY SOUTH LINE 144.38 FEET; THENCE NORTH 1°08'45" WEST AND ALONG SONOMA COUNTY LAND TITLE COMPANY SAID WEST LINE 100.00 FEET TO THE SOUTH LINE OF HEALDSBURG AVENUE: THENCE NORTH 89°00' WEST AND ALONG THE SOUTH LINE OF HEALDSBURG AVENUE TO THE NORTHEAST CORNER OF THE PARCEL DEEDED TO CLARA A. BATELY BY DEED RECORDED SEPTEMBER 24, 1954, BOOK 1297 PAGE 271, UNDER SONOMA COUNTY RECORDER'S SERIAL NO. E-30768; THENCE SOUTH 1°08'45" EAST AND ALONG THE EAST LINE OF THE SAID CLARA A. BATELY PARCEL TO THE NORTH LINE OF BATELY SUBDIVISION AFORESAID; THENCE NORTH 82°00' WEST 230.0 FEET TO THE POINT OF BEGINNING.

APN: 004-291-019-000



THIS MAP IS FOR YOUR AID IN LOCATING YOUR LAND IN REFERENCE TO STREETS AND OTHER PARCELS. WHILE THIS MAP IS BELIEVED TO BE CORRECT, THE COMPANY ASSUMES NO LIABILITY FOR ANY LOSS OCCURRING BY REASON OF RELIANCE THEREON.

Order Number: 3675124-00211 Agenda Item Plage Number: 9

#### **NOTICE**

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

If you have any questions about the effect of this new law, please contact your escrow office for more details.



## Protect What You Have From Cyber-Criminals

CYBER-CRIMINALS are constantly looking for new victims to wire them commissions, sales proceeds or deposits. Real estate transactions are especially vulnerable. Here's how you can help guard your money:

#### **CALL BEFORE SENDING**

**Call us initially.** Before sending funds, call us at a number you know is accurate to verify the instructions. Do not use the phone number in an email – even if the email looks like it is from us.

**Call us if you are suspicious.** Be wary of any email asking for money early or asking for part of the money needed to close. Don't trust an email that change, updates or is "re-sending" wire instructions – call us at a number you know is accurate if you are suspicious.

Call your bank. After talking to us, talk to your bank to confirm it has the correct information.

#### **CALL AFTER SENDING**

**Call us after sending us your money.** Call us to make sure we got it. It may take some time but staying in touch is the best way to be sure there is not a problem.

#### **ACT QUICKLY IF SOMETHING SEEMS WRONG**

**Call the bank and the authorities.** If you think your money was sent to a criminal, you might be able to get it back but time is not your friend. You should immediately:

- Contact your bank.
- Ask your bank to contact the bank where the fraudulent wire was sent.
- Contact your local Federal Bureau of Investigation (FBI) office the FBI can work with other agencies and might be able to help return or freeze the funds.
- File a complaint online with the FBI at bec.ic3.gov.

For more information about preventing fraud in the home closing process, please visit: TRGC.com/Wire-Fraud-Warning

## Cornerstone Title Company Privacy Statement

Rev 5-10-2023

FACTS	WHAT DOES CORNERSTONE INFORMATION?	TITLE COMPANY DO WIT	H YOUR PERSONAL			
Why?	consumers the right to limit some b	they share your personal information. Federal law gives out not all sharing. Federal law also requires us to tell you your personal information. Please read this notice carefully to				
What?	have with us. This information can  Social Security number and a  payment history and credit ca  checking account information	account balances ard or other debt				
How?	All financial companies need to sha business. In the section below, we customers' personal information; the whether you can limit this sharing.	list the reasons financial compa	nies can share their			
Reasons we can s	share your personal information	Does Cornerstone Title Company share?	Can you limit this sharing?			
such as to process your account(s), re-	business purposes— your transactions, maintain spond to court orders and legal eport to credit bureaus	Yes No				
For our marketing to offer our product	purposes— s and services to you	No	We don't share			
For joint marketin	g with other financial companies	No	We don't share			
	everyday business purposes— rour transactions and experiences	Yes	No			
	everyday business purposes— our creditworthiness	No	We don't share			
For our affiliates t	o market to you	No	We don't share			
For nonoffiliates t		No We don't share				
For nonamilates t	o market to you	No	We don't share			

## Cornerstone Title Company Privacy Statement

Rev. 5-10-2023

	Rev. 5-10-2023					
Who we are						
Who is providing this notice?	Cornerstone Title Company					
What we do						
How does Cornerstone Title Company protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings.					
How does Cornerstone Title Company	We collect your personal information, for example, when you					
collect my personal information?	<ul> <li>Apply for insurance or pay insurance premiums</li> <li>Provide your mortgage information or show your driver's license</li> <li>Give us your contact information</li> </ul>					
	We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.					
Why can't I limit all sharing?	Federal law gives you the right to limit only					
	<ul> <li>Sharing for affiliates' everyday business purposes—information about your creditworthiness</li> </ul>					
	Affiliates from using your information to market to you					
	■ Sharing for nonaffiliates to market to you					
	State laws and individual companies may give you additional rights to limit sharing.					
Definitions						
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies.					
	Our affiliates include companies that are owned in whole or in part by Anywhere Real Estate Inc., such as Better Homes and Gardens® Real Estate, CENTURY 21®, Coldwell Banker®, Coldwell Banker Commercial®, The Corcoran Group®, ERA®, Sotheby's International Realty®, Anywhere Advisors LLC, Cartus, Anywhere Leads Inc. and Anywhere Integrated Services LLC.					
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies.					
	<ul> <li>Cornerstone Title Company does not share with nonaffiliates so they can market to you</li> </ul>					
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you.					
	<ul> <li>Cornerstone Title Company does not share with nonaffiliated financial companies for joint marketing purposes</li> </ul>					
Other Important Information						
For European Union Customers	Please see our Privacy Policy located at <a href="http://www.anywhere.re/privacypolicy">http://www.anywhere.re/privacypolicy</a>					
For our California Customers	Please see our notice about the California Consumer Protection Act located at <a href="http://www.anywhere.re/privacypolicy">http://www.anywhere.re/privacypolicy</a>					

#### Exhibit B (Revised 11-04-22) LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (By Policy Type)

#### CALIFORNIA LAND TITLE ASSOCATION STANDARD COVERAGE POLICY - 1990 (11-09-18)

#### **EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws,

- ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement
  - thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy. Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

    Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has
- 2. occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
- 3
- Defects, liens, encumbrances, adverse claims or other matters:
  (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
  - not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
  - resulting in no loss or damage to the insured claimant; (c)
  - attaching or created subsequent to Date of Policy; or
  - resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this
- Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable "doing business" laws of the state in which the land is situated. 4.
- Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or 5. any consumer credit protection or truth in lending law.
- Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws

#### **EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses)

which arise by reason of:

- Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public
- 2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

- Easements, liens or encumbrances, or claims thereof, not shown by the public records.

  Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

  (a)Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters
- excepted under (a), (b) or (c) are shown by the public records.

  Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy

#### **EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART II**

(Variable exceptions such as taxes, easements, CC&R's, etc., are inserted here)]

#### CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE OWNER'S POLICY (02-04-22) **EXCLUSIONS FROM COVERAGE**

The following matters are excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

- any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to the occupancy, use, or enjoyment of the Land;

  - the character, dimensions, or location of any improvement on the Land; the subdivision of land; or ii
  - iii.
  - environmental remediation or protection.
  - any governmental forfeiture, police, regulatory, or national security power. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b. b.
- Exclusion 1 does not modify or limit the coverage provided under Covered Risk 5 or 6.

  2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
- Any defect, lien, encumbrance, adverse claim, or other matter:

  - created, suffered, assumed, or agreed to by the Insured Claimant;
    not Known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the b. Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - resulting in no loss or damage to the Insured Claimant;
  - attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 9 or 10); or
  - resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser had been given for the Title at the Date of Policy.
- Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights law, that the transaction vesting the Title as shown in Schedule A is a:
  - fraudulent conveyance or fraudulent transfer; voidable transfer under the Uniform Voidable Transactions Act; or
  - preferential transfer:
    - to the extent the instrument of transfer vesting the Title as shown in Schedule A is not a transfer made as a contemporaneous exchange for new value; or
    - for any other reason not stated in Covered Risk 9.b.
- Any claim of a PACA-PSA Trust. Exclusion 5 does not modify or limit the coverage provided under Covered Risk 8.
- Any lien on the Title for real estate taxes or assessments imposed or collected by a governmental authority that becomes due and payable after the Date of Policy. Exclusion 6 does not 6. modify or limit the coverage provided under Covered Risk 2.b.
- Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land. **EXCEPTIONS FROM COVERAGE**

Some historical land records contain Discriminatory Covenants that are illegal and unenforceable by law. This policy treats any Discriminatory Covenant in a document referenced in Schedule B as if each Discriminatory Covenant is redacted, repudiated, removed, and not republished or recirculated. Only the remaining provisions of the document are

This policy does not insure against loss or damage and the Company will not pay costs, attorneys' fees, or expenses resulting from the terms and conditions of any lease or easement identified in Schedule A, and the following matters:

#### PART I

- 1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings
- by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.

  2. Any facts, rights, interests, or claims that are not shown by the Public Records at Date of Policy but that could be (a) ascertained by an inspection of the Land, or (b) asserted by persons or parties in possession of the Land.
- 3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records at Date of Policy.
  4. Any encroachment, encumbrance, violation, variation, easement, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land
- and not shown by the Public Records at Date of Policy.

  5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

- 6. Any lien or right to a lien for services, labor, material or equipment unless such lien is shown by the Public Records at Date of Policy.
- 7. Any claim to (a) ownership of or rights to minerals and similar substances, including but not limited to ores, metals, coal, lignite, oil, gas, uranium, clay, rock, sand, and gravel located in, on, or under the Land or produced from the Land, whether such ownership or rights arise by lease, grant, exception, conveyance, reservation, or otherwise; and (b) any rights, privilege, immunities, rights of way, and easements associated therewith or appurtenant thereto, whether or not the interests or rights excepted in (a) or (b) appear in the Public Records or are shown in Schedule B

#### PART II

(Variable exceptions such as taxes, easements, CC&R's, etc., are inserted here)

#### CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (07-01-2021)

#### **EXCLUSIONS FROM COVERAGE**

The following matters are excluded from the coverage of this policy and We will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

- any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to:
  - the occupancy, use, or enjoyment of the Land: the character, dimensions, or location of any improvement on the Land;
  - iii the subdivision of land: or
  - environmental remediation or protection.

  - any governmental forfeiture, police, or regulatory, or national security power. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b.
- Exclusion 1 does not modify or limit the coverage provided under Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23, or 27.
- Any power to take the Land by condemnation. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 17.

  Any defect, lien, encumbrance, adverse claim, or other matter: 3.
- - created, suffered, assumed, or agreed to by You;
  - not Known to Us, not recorded in the Public Records at the Date of Policy, but Known to You and not disclosed in writing to Us by You prior to the date You became an b. Insured under this policy;
  - resulting in no loss or damage to You;
  - attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 5, 8.f., 25, 26, 27, 28, or 32); or resulting in loss or damage that would not have been sustained if You paid consideration sufficient to qualify You as a bona fide purchaser of the Title at the Date of Policy. d.
- 4. Lack of a right:
  - to any land outside the area specifically described and referred to in Item 3 of Schedule A; and
  - in any street, road, avenue, alley, lane, right-of-way, body of water, or waterway that abut the Land.
- Exclusion 4 does not modify or limit the coverage provided under Covered Risk 11 or 21.

  The failure of Your existing structures, or any portion of Your existing structures, to have been constructed before, on, or after the Date of Policy in accordance with applicable building 5. codes. Exclusion 5 does not modify or limit the coverage provided under Covered Risk 14 or 15.

  Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights law, that the transfer of the Title to You is a:
- 6.
  - fraudulent conveyance or fraudulent transfer;
  - b. voidable transfer under the Uniform Voidable Transactions Act; or
  - preferential transfer: C.
    - to the extent the instrument of transfer vesting the Title as shown in Schedule A is not a transfer made as a contemporaneous exchange for new value; or for any other reason not stated in Covered Risk 30.
- Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
- 8.
- Negligence by a person or an entity exercising a right to extract or develop oil, gas, minerals, groundwater, or any other subsurface substance.

  Any lien on Your Title for real estate taxes or assessments imposed or collected by a governmental authority that becomes due and payable after the Date of Policy. Exclusion 9 9. does not modify or limit the coverage provided under Covered Risk 8.a. or 27.
- Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land. 10.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

1. For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is less)	\$ 10,000.00
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is	\$ 25,000.00
Covered Risk 19:	less) 1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is	\$ 25,000.00
Covered Risk 21:	less) 1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is	\$ 5,000.00
	less)	

Page 225 of 256

#### CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13) **FXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

- Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
  - buildina:
  - zoning h
  - land use;
  - d. improvements on the Land;
  - land division: and
  - environmental protection.
  - This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
- The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in 2.
- 3 The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
- Risks:
  - that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
  - that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date; b.
  - that result in no loss to You; or
  - that first occur after the Policy Date this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
- Failure to pay value for Your Title.
- Lack of a right:
  - to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and in streets, alleys, or waterways that touch the Land.

- This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

  The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake or subsidence.
- Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

  LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

2. For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is	\$ 10,000.00
	less)	
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is	\$ 25,000.00
	less)	
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is	\$ 25,000.00
	less)	
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is	\$ 5,000.00
	less)	

#### ALTA OWNER'S POLICY (07-01-2021) EXCLUSIONS FROM COVERAGE

The following matters are excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

- any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to i. the occupancy, use, or enjoyment of the Land;

  - the character, dimensions, or location of any improvement on the Land;
  - the subdivision of land: or iii.
  - environmental remediation or protection.
- any governmental forfeiture, police, regulatory, or national security power. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b. h

- Exclusion 1 does not modify or limit the coverage provided under Covered Risk 5 or 6.

  2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
  - Any defect, lien, encumbrance, adverse claim, or other matter:

    - created, suffered, assumed, or agreed to by the Insured Claimant; not Known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the b. Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
    - resulting in no loss or damage to the Insured Claimant; C
    - d. attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 9 or 10); or
  - resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser had been given for the Title at the Date of Policy.
- Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights law, that the transaction vesting the Title as shown in Schedule A is a:
  - fraudulent conveyance or fraudulent transfer; voidable transfer under the Uniform Voidable Transactions Act; or b.
  - preferential transfer
    - to the extent the instrument of transfer vesting the Title as shown in Schedule A is not a transfer made as a contemporaneous exchange for new value; or
  - for any other reason not stated in Covered Risk 9.b.
- Any claim of a PACA-PSA Trust. Exclusion 5 does not modify or limit the coverage provided under Covered Risk 8.

  Any lien on the Title for real estate taxes or assessments imposed or collected by a governmental authority that becomes due and payable after the Date of Policy. Exclusion 6 does not 5. 6. modify or limit the coverage provided under Covered Risk 2.b.
- Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land.

#### EXCEPTIONS FROM COVERAGE

Some historical land records contain Discriminatory Covenants that are illegal and unenforceable by law. This policy treats any Discriminatory Covenant in a document referenced in Schedule B as if each Discriminatory Covenant is redacted, repudiated, removed, and not republished or recirculated. Only the remaining provisions of the document are

This policy does not insure against loss or damage and the Company will not pay costs, attorneys' fees, or expenses resulting from the terms and conditions of any lease or easement identified in Schedule A, and the following matters:

NOTE: The 2021 ALTA Owner's Policy may be issued to afford either Standard Coverage or Extended Coverage. In addition to variable exceptions such as taxes, easements, CC&R's, etc.,

the Exceptions from Coverage in a Standard Coverage policy will also include the Western Regional Standard Coverage Exceptions listed as 1 through 7 below:

- (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records. Any facts, rights, interests, or claims that are not shown by the Public Records at Date of Policy but that could be (a) ascertained by an inspection of the Land or (b) asserted by persons or parties in possession of the Land. 2.
- Easements, liens or encumbrances, or claims thereof, not shown by the Public Records at Date of Policy.

  Any encroachment, encumbrance, violation, variation, easement, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records at Date of Policy. 4
- (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

  Any lien or right to a lien for services, labor, material or equipment unless such lien is shown by the Public Records at Date of Policy.
- Any claim to (a) ownership of or rights to minerals and similar substances, including but not limited to ores, metals, coal, lignite, oil, gas, uranium, clay, rock, sand, and gravel located in, on, or under the Land or produced from the Land, whether such ownership or rights arise by lease, grant, exception, conveyance, reservation, or otherwise; and (b) any rights, privileges, immunities, rights of way, and easements associated therewith or appurtenant thereto, whether or not the interests or rights excepted in (a) or (b) appear in the Public Records or are shown in Schedule B

#### 2006 ALTA OWNER'S POLICY (06-17-06) EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

(a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

- the occupancy, use, or enjoyment of the Land;
- the character, dimensions, or location of any improvement erected on the Land;
- (iii) the subdivision of land: or
- environmental protection; (iv)
- or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
- - Defects, liens, encumbrances, adverse claims, or other matters
    (a) created, suffered, assumed, or agreed to by the Insured Claimant;
    - not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - resulting in no loss or damage to the Insured Claimant;
  - attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
- Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is

  - a fraudulent conveyance or fraudulent transfer; or a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
- Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or 5. other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

#### **EXCEPTIONS FROM COVERAGE**

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

NOTE: The 2006 ALTA Owner's Policy may be issued to afford either Standard Coverage or Extended Coverage. In addition to variable exceptions such as taxes, easements, CC&R's, etc., the Exceptions from Coverage in a Standard Coverage policy will also include the Western Regional Standard Coverage Exceptions listed below as 1 through 7 below:

- (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) 1. proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- 2. Any facts, rights, interests, or claims that are not shown by the Public Records at Date of Policy but that could be (a) ascertained by an inspection of the Land, or (b) asserted by persons or parties in possession of the Land.
- Easements, liens or encumbrances, or claims thereof, not shown by the Public Records at Date of Policy.

  Any encroachment, encumbrance, violation, variation, easement, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the 4. Land and not shown by the Public Records at Date of Policy.
- (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records. 5.
- Any lien or right to a lien for services, labor, material or equipment unless such lien is shown by the Public Records at Date of Policy.
- Any claim to (a) ownership of or rights to minerals and similar substances, including but not limited to ores, metals, coal, lignite, oil, gas, uranium, clay, rock, sand, and gravel located in, on, or under the Land or produced from the Land, whether such ownership or rights arise by lease, grant, exception, conveyance, reservation, or otherwise; and (b) any rights, privileges, immunities, rights of way, and easements associated therewith or appurtenant thereto, whether or not the interests or rights excepted in (a) or (b) appear in the Public Records or are shown in Schedule B.

#### **Exhibit A**

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE CITY OF SEBASTOPOL, COUNTY OF SONOMA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 1. AS SAID LOT IS NUMBERED AND DELINEATED UPON THE MAP ENTITLED MAP OF BATELY SUBDIVISION FILED MAY 7, 1965. IN BOOK 104 OF MAPS, AT PAGES 3 AND 4, SONOMA COUNTY RECORDS; THENCE FROM SAID POINT OF BEGINNING SOUTH 68°42' EAST 70.70 FEET TO THE EAST LINE OF MURPHY AVENUE: THENCE NORTH 7°09' WEST AND ALONG THE EAST LINE OF MURPHY AVENUE TO THE SOUTHWEST CORNER OF THE PARCEL OF LAND DEEDED TO SONOMA COUNTY LAND TITLE COMPANY BY DEED RECORDED APRIL 23, 1959, BOOK 1663 PAGE 638, UNDER SONOMA COUNTY RECORDER'S SERIAL NO. F-71749; THENCE NORTH 88°10' EAST AND ALONG SAID SONOMA COUNTY LAND TITLE COMPANY SOUTH LINE 144.38 FEET; THENCE NORTH 1°08'45" WEST AND ALONG SONOMA COUNTY LAND TITLE COMPANY SAID WEST LINE 100.00 FEET TO THE SOUTH LINE OF HEALDSBURG AVENUE; THENCE NORTH 89°00' WEST AND ALONG THE SOUTH LINE OF HEALDSBURG AVENUE TO THE NORTHEAST CORNER OF THE PARCEL DEEDED TO CLARA A. BATELY BY DEED RECORDED SEPTEMBER 24, 1954, BOOK 1297 PAGE 271, UNDER SONOMA COUNTY RECORDER'S SERIAL NO. E-30768; THENCE SOUTH 1°08'45" EAST AND ALONG THE EAST LINE OF THE SAID CLARA A. BATELY PARCEL TO THE NORTH LINE OF BATELY SUBDIVISION AFORESAID: THENCE NORTH 82°00' WEST 230.0 FEET TO THE POINT OF BEGINNING.

APN: 004-291-019-000



## City of Sebastopol

# ENVIRONMENTAL INFORMATION/ASSESSMENT FORM

(To be completed by applicant)

Dan	e Filed:
Gen	eral Information:
1.	Name of developer or project sponsor: Pacific Development LLC. attn: Mark Hanf Address of developer or project 1555 Grant Ave. Novato, CA 94945, 415-926-4444 sponsor: Katherine Austin, Project Architect
2.	Address of project: 7621 Healdsburg Ave. (Pacific Knolls)
	Assessor's Block and Lot Number: 004-291-019
3.	Name of person to be contacted concerning this project: <u>Katherine Austin</u> Address of person to be contacted concerning this project: <u>179 SE Rice Way, Bend OR 97</u> 702 Telephone Number of person to be contacted concerning this project: <u>707-529-5565</u>
4.	email: kaaustin@pacbell.net Indicate number of the permit application for the project to which this form pertains:
5.	List and describe any other related permits and other public approvals required for this project, including those required by City, Regional, State and Federal Agencies:
Sm	nall Lot Subdivision Tentative Map, Use Permit for 100% Residential in CO, Design Review
Po	ossible Tree Removal Permit if not part of Subdivision Approval
6.	Existing Zoning District: CO & R7 Existing General Plan Designation: Office Comm/Multifan
7.	Propose Use of Site (Project for which this form is filed): (12) 2-BR Town Homes on R7

#### **PROJECT DESCRIPTION:**

Sita Siza.

0.	Site Size.	<u> </u>
9.	Square Footage:	21600 SF conditioned space
10.	Number of floors of construction:	two
11.	Amount of off-street parking:	18 for Apts. 24 for Town Homes
12.	Attach plans	

55,741 SF or 1.28 AC

- 13. Proposed scheduling: assume construction spring 2025 dependent on entitlements and permitting
- 14. Associated project none, other than demolition of existing abandoned structure on site
- 15. Anticipated incremental development: No phasing is proposed
- 16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. (6) 590 SF 1-BR apts, (6) 760 SF 1-BR apts, (7) 1120 SF 2-BR 2.5 BA (5) 1148 SF 2-BR 3 BA Town Homes. All proposed to be rentals. Unknown rents at this time
- 17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities. N/A
- 18. If industrial, indicate type, estimated employment per shift, and loading facilities. N/A
- 19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project. N/A
- 20. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required. Use Permit to allow 100% residential in CO Zone

## Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

21.	Change in existing features of any bays, tidelands, beaches or hills, or	Yes	No
	substantial alternation of ground contour.	×	
	Steep lot requires retaining wall between upper and lower uses		
22.	Change in scenic views or vistas from existing residential areas or	Yes	No
	public lands or roads.		
23.	Change in pattern, scale or character of general area of project.	Yes	No
		₫*	
	100% Residential in CO zone, but R7 is consistant		
24.	Significant amounts of solid waste or litter.	Yes	No
25.	Change in dust, ash, smoke, fumes or odors in vicinity.	Yes	No
			ď
26.	Change in ocean, bay, lake, stream or ground water quality or	Yes	No

	quantity, or alteration of existing drainage patterns.		
27.	Substantial change in existing noise or vibration levels in the vicinity.	Yes	No
			_₩
90	Cite on Cilled land on an alone of 10 necessary and an analysis	Vac	Nie
28.	Site on filled land or on slope of 10 percent or more.	Yes	No
	Some portion of the side may exceed 10%		
30.	Substantial change in demand for municipal services (police, fire,	Yes	No
	water, sewage, etc).		•
31.	Substantially increase fossil fuel consumption (electricity, oil, natural	Yes	No
	gas, etc).		<b>₫</b>
	All electric development and EV charging stations and PV provided		
32.	Relationship to a larger project or series of projects.	Yes	No
			ď
		-	

#### **Environmental Setting:**

- 33. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted.

  See Arborist Report. One abandoned structure on site with gravel driveway,
- 34. Describe the surrounding properties, including information on plant and animals and any cultural historical, or scenic aspects. Indicate the type of land use (residential, commercial, etc), intensity of land use (one-family, apartment houses, shops, department stores, etc), and scale of development (height, frontage, set-back, rear yard, etc). Attach photographs of the site. Snapshots or Polaroid photos will be accepted.

South is R7 with multifamily residences. East is a Commercial bldg and Restaurant, West is a Church, North are a mix of commercial and residential properties.

Charles, 1 total are a mix of commercial and restaches properties.	YES	NO
	IES	NO
A. Does the Project involve any of the following?		
1. No change in the square footage to the existing structure?	X	
2. An addition of more than 50% of square footage to the existing		X
structure?		,,,
3. An addition of more than 2500 square feet to the existing		X
structure?		<b>X</b>
4. An addition of more than 10,000 square feet to the existing		X
structure?		
5. Demolition of the existing structure?	X	
	YES	NO
B. Does the Project involve the replacement or reconstruction of		
existing structures or facilities at the site which:		
1. Will have substantially the same purpose and capacity as		X
existing structures at the site?		^
2. Will result in an increase in square footage or capacity as	X	
compared to the existing structure?		

	YES	NO
C. Does the Project involve new construction of:		
1. 35 or more dwelling units?		X
2. More than 15,000 square feet of commercial, industrial,		X
governmental, or institutional floor area?		^
3. Stores, motels, offices, restaurants, and similar structures		X
designed for an occupant load of more than 30 persons?		
	YES	NO
D. Does the Project involve division of property into more than	X	
four parcels or consolidation of more than four parcels?	7.	
12 Small lots + common lot and 1 lot for the apartment building	YES	NO
E. Will the Project require issuance of a Variance, Use Permit,	3/	
Zoning Ordinance Amendment, Zoning Map Amendment, or	X	
General Plan Amendment?		
Use permit to allow 100% residential in the CO zone		
	YES	NO
F. Will the Project result in a change in use at the site (for	X	
example: from residential to commercial or from office to	<b>A</b>	
restaurant?)	TITIC	NIO
Abandoned SF bldg to 24 residences	YES	NO
G. Is this Project:		
1. Similar to the other projects for which you have received	X	
permits in the last two years in the City of Sebastopol?	1	
2. Similar to other projects, which you are planning to develop within two years in the City of Sebastopol?		N/A
No other projects in development at this time	YES	NO
H. Does the Project involve changes to an official City landmark?	ILO	X
11. Does the Project involve changes to an official City fandmark:	YES	NO
I. Does the Project involve use of disposal of potentially	110	110
hazardous materials, such as toxic substances, flammables, or		X
explosives?		
	YES	NO
J. If the Project is located within 500 feet of a residential zone or		
noise-sensitive land uses, will the construction of the project		
involve the use of pile driving, night time track hauling, blasting,		X
24 hour pumping, or other equipment that creates high noise		
levels and or vibrations?		
	YES	NO
K. Does the Project involve the construction, substantial remodel,		
or 50% or more addition to the following types of uses?		
Mobile home, amphitheater, concert hall, auditorium, meeting		X
hall, hospital, church, library, school classrooms, or day care?		

I	certify	that	the i	nform	ation	in	this	form	is	correct to	the	best	of my	knowle	edge	

Applicant Signature 12-1-2023

Date

Katherine Austin, Project Architect

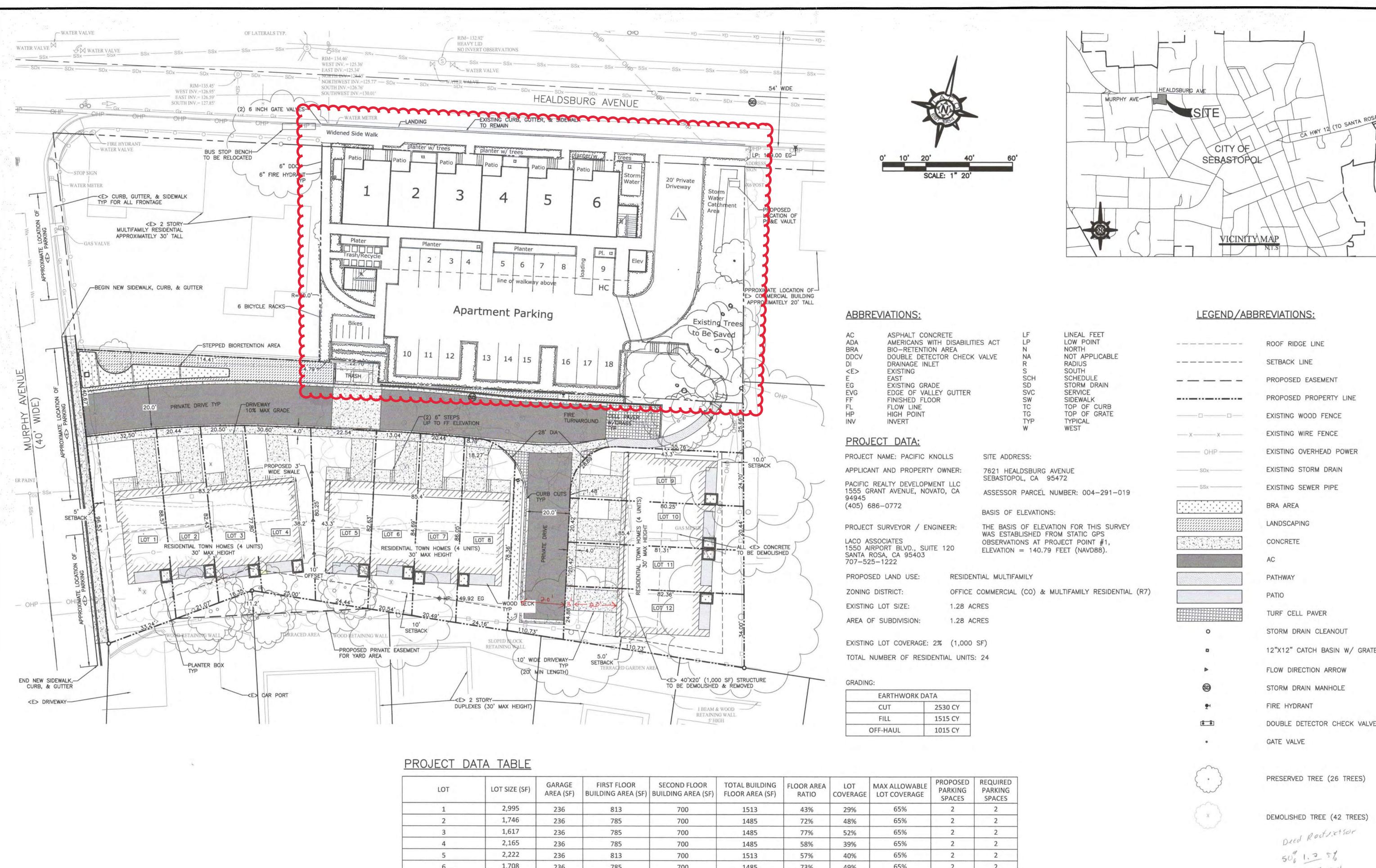
Environmental Information Form September 2003

Pacific Realty Development LLC, Mark Hanf

#### Certification:

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information represented are true and correct to the best of my knowledge and belief.

Date: <u>12-1-2023</u>	Throng
	Signature:
	Printed Name: Katherine Austin



1,708 236 700 65% 785 1485 73% 49% 1,742 236 700 65% 785 1485 72% 48% 2,024 236 785 700 65% 1485 62% 42% 9 1,872 236 813 700 65% 1513 68% 43% 10 1,649 236 65% 785 700 1485 76% 48% 11 1,671 236 785 700 65% 2 75% 47% 12 2,445 236 785 700 65% 1485 51% 32%

8636

42%

20%

NA

NA

NA

5,077

HEALDSBURG AVE APTS.

**COMMON PARCEL** 

24 X 38 PRINTED ON NO. 1000H CLEARPRINTS

20,505

11,336

0

NA

3,559

Disclaimer: This drawing has been prepared by K. Austin with the permission of LACO to be used for conceptual purposes. LACO is not responsible for the content of this drawing

18

18

NA

AIA topol, PRESERVED TREE (26 TREES) DEMOLISHED TREE (42 TREES)

> Date 8-14-2024 Scale 1"=10'

REVISIONS

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aldsbur

Pacific

Revised

Drawn K Austin

Rev. SP

#### **RESOLUTION NO. 24-06**

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SEBASTOPOL RECOMMENDING THE CITY COUNCIL APPROVE A USE PERMIT AND TENTATIVE MAP FOR THE PROPERTY AT 7621 HEALDSBURG AVE (APN 004-291-019)

WHEREAS, the City of Sebastopol completed a comprehensive General Plan update with adoption of a new General Plan on November 15, 2016; and

WHEREAS, the City of Sebastopol completed a Housing Element Update to the General Plan with adoption of a new Housing Element on January 3, 2023, and Certified by the State of California Department of Housing and Community Development (HCD) on March 7, 2023; and,

WHEREAS, pursuant to the California Environmental Quality Act (CEQA, codified at Public Resources Code § 21000 et seq.) and the State CEQA Guidelines (14 CCR, § 15000 et seq.), on November 15, 2016, the City Council certified and adopted an Environmental Impact Report (EIR) for the Sebastopol General Plan (the "Project"; State Clearinghouse No. 2016032001); and

WHEREAS, an application for a Conditional Use Permit for residential development in a Commercial Office district and a Tentative Map for an 12-Unit townhome project and 12 unit apartment building known as Pacific Knolls (the "Project"), was filed on May 8, 2024, by Kathy Austin / Pacific Knolls LLC, which consists of subdividing one vacant parcels into 12 townhome lots and one parcel to include; to be developed with 12 townhome units, landscaped areas, and parking. Parking will be provided via a surface parking lot on site as well as garage parking for all of the units; and

WHEREAS, the project, as conditioned, is consistent with the General Plan, in that it conforms to the following goals and policies:

- Goal LU1 Maintain Sebastopol as a unique, charming, and environmentally sensitive small town that provides residents, businesses, and visitors with opportunities to enjoy a high quality of life, in that the project will provide housing opportunities that are environmentally friendly with the low water landscape, and improvements to existing pedestrian facilities.
- Policy LU 1-2: Avoid urban sprawl by concentrating development within the City limits; favor infill development over annexation, in that the project is an infill development as it intends to develop two vacant parcels within city limits.
- Policy LU 1-7: Encourage new development to be contiguous to existing development, whenever possible, in that the project reflects similar characteristics to the existing development of the building to the west as it's the same owner and developer.

- Policy LU 5-5: Strongly encourage residential development in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses, in that the project provides pedestrian access to an adjacent bus line, and is within walking distance of a major shopping center.
- Policy LU 6-1: Promote increased residential densities in that the project provides 12 townhome units on the R7 Multifamily zoned portion of the lot and also provides 12 apartments on the Commercial Office zoned portion of the site.
- Policy LU 6-2: Promote compact urban form that provides residential opportunities in close proximity to jobs, services, and transit, in that the project is a compact design of townhomes located in close proximity to a large shopping center, bus stop and two schools.
- Policy CIR 1-5: When analyzing impacts to the circulation network created by new development or roadway improvements, consider the needs of all users, including those with disabilities, ensuring that pedestrians, bicyclists, and transit riders are considered preeminent to automobile drivers in that the project provides connectivity to an adjacent to a bus transit line.
- Housing Element Goal D-1: Promote Housing Affordability for both Renters and Homeowners; Housing Element Policy C-4: The City will encourage development of new housing to meet a range of income levels, including market-rate housing, and a variety of housing sizes and types. The project is consistent with this Goal and Policy in that it includes both market-rate and affordable housing units and both rental and ownership opportunities. The number and affordability level of the units offered as affordable will be not less than required by the City's Inclusionary Housing program, with final numbers determined at the time of or prior to final map recordation and guaranteed affordable in perpetuity.

WHEREAS, granting a Conditional Use Permit for the Project is appropriate as it complies with SMC 17.415.030 as detailed below:

- 1. The proposed use is consistent with the General Plan and all applicable provisions of this title in that residential development in a Commercial Office zoning district is allowed with the approval of a Conditional Use Permit.
- 2. The establishment, maintenance, and operation of the use applied for will not, under the circumstances of the particular case (location, size, design, and operating characteristics), be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working in the area of such use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City in that:
  - i. The proposed use of a residential development is compatible with the surrounding uses of residential and office.

- ii. The Project maintains the existing trees and screening to the adjoining residential areas, as well as appropriate setbacks from adjoining properties.
- iii. The Project is consistent with the R7 Multi-family housing zoning requirements.
- The Project, with the approval of a Use Permit, is consistent with the Commercial Office Zoning District.
- v. The Project underwent a Traffic Study to ensure that traffic effects on the Healdsburg and Murphy Avenue intersection would not warrant a new traffic signal.

WHEREAS, granting a Tentative Map for the Project is appropriate as it complies with SMC 16.28.070(A) in that:

- The proposed subdivision, together with the provisions for its design and improvement, is consistent with the General Plan as detailed above, and other applicable provisions of SMC Chapter 16 and the State Subdivision Map Act (SMA); and
- 2. The design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision, as described in the State Subdivision Map Act and any guidelines promulgated by the City Council.
  - i. The Project is required to comply with the California Green Building Standard Code (CalGreen) requirements for energy efficient buildings and appliances, including Tier 2 standards required by the City of Sebastopol (which are higher than the base State requirements for green design). CalGreen Standards require that buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant emitting finish materials. The project also incorporates many sustainable features which help reduce energy consumption, such as:
    - Low water use landscape
    - Native Plant materials
    - Accessible/adaptable features in all buildings

WHEREAS, on May 3, 2022, the Development Review Team which consists of the Planning Director, Police Chief, Fire Chief, Building Official, City Engineer, Public Works Superintendent and Associate Planner conducted a preapplication conference of the proposed project and provided comments to the applicant; and,

WHEREAS, on December 21, 2022, the Design Review Board conducted a preliminary review of the proposed project and provided comments to the applicant; and,

WHEREAS, on January 10, 2023, the Planning Commission conducted a preliminary review of the proposed project; and,

WHEREAS, on August 27, 2024, the Planning Commission held a duly noticed public hearing to review the proposed residential development with the including entitlements of a use permit and tentative map, heard a staff report and public testimony, and deliberated; and,

NOW, THEREFORE, BE IT RESOLVED THAT, The Planning Commission of the City of Sebastopol, California, does hereby recommend approval to the City Council, based on the findings above and subject to the Conditions of Approval in Exhibit B and Exhibit C:

- 1. A use permit for residential development in a Commercial Office district.
- 2. A tentative map for the creation of 12 Townhome units, one building including 12 apartment units, common areas, and on-site parking as shown in Exhibit A.

Approved on August 27, 2024, by the following vote:

AYES: Commissioner Burnes, Oetinger, Vice Chair Hanley, Chair Fritz

NOES: ABSTAIN:

ABSENT: Commissioner Fernandez

Certified: Jane Riley

Jane Riley, Interim Planning Director