MEMORANDUM

URBAN | CROSSROADS

DATE: July 31, 2024
TO: Dan Boyd, D.R. Horton
FROM: Charlene So, Urban Crossroads, Inc.
Alex So, Urban Crossroads, Inc.
JOB NO: 15133-07 VMT

EMERALD HILLS (PRJ-1107880) VEHICLE MILES TRAVELED (VMT) ANALYSIS

1.0 INTRODUCTION

Urban Crossroads, Inc. has completed the following Vehicle Miles Traveled (VMT) Analysis for the Emerald Hills (**Project**), which is located at 5702 Old Memory Lane (Assessor's Parcel Number 543-340-02-00) in Mobility Zone 2 within the RS-1-2 zone within the Encanto Planning Area in the City of San Diego.

2.0 PROJECT DESCRIPTION

The Project proposes a Vesting Tentative Map (VTM), Site Development Permit (SDP), and Neighborhood Development Permit (NDP) for the removal of existing broadcasting towers and outbuildings. In addition, the Project proposes to subdivide the 31.18 acre lot into 123 single-family residential lots (including 13 affordable housing lots), the construction of a single-family dwelling on each lot, seven (7) Homeowner's Association (**HOA**) open space lots, and the construction of 32 ft wide public streets (within 56 ft right-of-way) for internal circulation. A site plan for the proposed Project is found in Attachment A.

2.1 PROJECT TRIP GENERATION

The proposed Project consists of the development of 123 single-family detached residential lots. As noted previously, 13 of the dwelling units will be designated as affordable to moderate income households, or approximately 10% of the residential units on site. For purposes of VMT, trips from market rate (110) dwelling units will be included. Only affordable units that are 50% area median income (AMI) or less are screened out for VMT screening. Trip generation rates for the Project are shown in Table 1. These rates are based on the City of San Diego's Trip Generation Manual (Revised May 2003) for the single-family detached residential land use category.

As shown in Table 1 the proposed Project is anticipated to generate approximately 1,107 average daily trips (**ADT**).

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Land Use[1]	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily Rate (trips/DU)
Rate: Single Family Detached - Urbanized Area	DU	0.14	0.58	0.72	0.63	0.27	0.90	9.00
Trip Generation: Emerald Hills	123 DU	18	71	89	77	33	111	1,107

[1] Trip Generation Source: City of San Diego, Trip Generation Manual, Revised May 2003.

[2] DU = Dwelling Units

3.0 VMT BACKGROUND

The California Environmental Quality Act (**CEQA**) mandates that all lead agencies use VMT as the measure for identifying transportation impacts in land use development projects. To comply with CEQA, the City of San Diego adopted the Transportation Study Manual (**TSM**) (Current version dated, September 2022) (1). This VMT analysis has been prepared using the adopted City Guidelines.

3.1 VMT SCREENING

VMT ANALYSIS METHODOLOGY & SIGNIFICANCE CRITERIA

As stated in the TSM, for projects that generate less than 2,400 daily unadjusted driveway trips. The Project's expected VMT per capita would be considered the same as the VMT per capita of the census tract in which it is located[1].

The TSM contains screening criteria used to identify when a proposed land use project can be presumed to have a less-than-significant VMT impact based on project characteristics and/or location. The City of San Diego utilizes the San Diego Association of Governments (SANDAG) San Diego Region SB743 VMT Maps which allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening criteria specified in the TSM. Screening criteria are divided into eight categories and are listed below. The screening criteria potentially applicable to the Project are shown in **bold**.

1. **Residential or Commercial Project Located in a VMT Efficient Area**
2. Industrial or Agricultural Located in a VMT Efficient Area
3. **Small Project**
4. Locally Serving Retail/Recreational Project
5. Locally Serving Public Facility
6. **Affordable Housing**

[1] TSM; Page 25

7. Mixed Use Project Screening Considerations
8. Redevelopment Project Screening Considerations

A project needs only meet one of the screening criteria to be presumed to have a less than significant impact and not required to perform further analysis.

RESIDENTIAL OR COMMERCIAL PROJECT LOCATED IN A VMT EFFICIENT AREA

As stated in the TSM, "The project is a residential or commercial employment project located in a VMT efficient area (15% or more below the base year average VMT per Capita or VMT per Employee) based on the applicable location-based screening map produced by SANDAG." Attachment B contains a screenshot of SANDAG Series 14 ABM2+ (Base Year 2016) VMT screening map data for the Project. Based on the screening map, the Project is located in Census Tract 30.01 and would be expected to have a VMT per capita of 16.9, or 89.2% of the regional average. In order for the Project to be screened out of additional analysis, the Project would need to fall 15 percent below the regional average mean[2] of 18.9 or 16.1 VMT per capita (See Attachment B). However, as the Project does not meet this screening criteria it would be presumed to have a significant transportation VMT impact.

VMT Efficient Area screening criteria is NOT met.

SMALL PROJECT

Small projects are expected to generate less than 300 unadjusted driveway trips using the City of San Diego trip generation rates and procedures. As shown in Section 2.1 Project Trip Generation, the Project is anticipated to generate a total of approximately 1,107 ADT, which exceeds the City's 300 daily trip threshold.

Small Project screening criteria is NOT met.

AFFORDABLE HOUSING

The TSM states, if the project has access to transit and is wholly or has a portion that meets one of the following criteria: is affordable to persons with a household income equal to or less than 50% of the area median income (as defined by California Health and Safety Code Section 50093), housing for senior citizens [as defined in Section 143.0720(e)], housing for transitional foster youth, disabled veterans, or homeless persons [as defined in 143.0720(f)]. The units shall remain deed restricted for a period of at least 55 years. The project shall provide no more than the minimum amount of parking per unit, per San Diego Municipal Code Section 143.0744. Only the portion of the project that meets the above criteria is screened out. The Project intends to include 13 affordable units. However, the Project as a whole, is not affordable housing and will not qualify for this screening criteria.

Affordable Housing screening criteria is NOT met.

The Project does not meet any potentially applicable screening criteria and a VMT analysis is required.

[2] The regional mean and total regional VMT are determined using the SANDAG SB743 VMT Screening Map.

4.0 VMT ANALYSIS

Based on the SANDAG Series 14 ABM2+ (Base Year 2016) model screening maps, the Project is located in Census Tract 30.01 and would be expected to have a VMT per capita of 16.9 (See Attachment B). Therefore, the residential project would be expected to have a significant VMT transportation impact and mitigation would be required.

The project would be required to provide measures to mitigate this impact to a level below significance of less than 85%. As the Project's expected VMT per capita is 89.2%, a minimum reduction of 4.3% is required.

5.0 VMT MITIGATION MEASURES

The City of San Diego uses The City of San Diego Mobility Evaluation Tool (**MET**) to evaluate the use of VMT Reduction Measures that could be used to reduce a project's VMT. The MET contains VMT data derived from the San Diego Associations of Governments (SANDAG) travel demand model.

For land use types that are not screened out and the project generated VMT metric is calculated to be higher than the required threshold, the applicant has the option to use a select number of VMT reduction measures identified in the MET VMT Reduction Calculator to reduce its VMT impact. Some of the input variables for measures provided in the VMT Reduction Calculator are based on local data. As provided in San Diego Municipal Code (SDMC) section 143.1103(b)(1) or (b)(2): For projects located in Mobility Zones 2 and 3, the MET Mobility Choices Ordinance Tracking allows the applicant to track the number of points required in each zone to comply with the Mobility Choices Regulations by choosing between a select number of measures provided in the Mobility Choices Regulations: Implementation Guidelines, Appendix T (2).

The Mobility Evaluation Tool (MET) was used to calculate the reduction in the Project's VMT per Capita to a level of less than significance and the following section details this effort. The Applicant proposes to provide the following VMT Reduction Measures:

VMT Reduction Measure #7: Planting shade trees adjacent to a public pedestrian walkway beyond minimum standards (shall be consistent with Land Development Code Landscape Standards and be maintained by the property owner). The minimum spacing between trees is 20 feet. Each tree will allow for a .2 point.

- The Project will include 8 trees with 20 feet spacing as part of the Project plans, which will net 1.6 points[3] (See Attachment C).

VMT Reduction Measure #8: Installing pedestrian resting area/recreation node on-site, adjacent to public pedestrian walkway (with signage designating the space as publicly available). The resting area/recreation node shall be maintained by the property owner. Each resting area (multiple of 250 square feet) will result in 2.5 points (partial points available).

[3] 0.2points x 8 trees =1.6 points

- The Project will include a 200-square-foot resting area with benches, signage, and trash as part of the neighborhood design, which will net 2.0 points. (See Attachment C)

VMT Reduction Measure #12: Providing an on-site bicycle repair station. By installing an on-site bicycle repair station, a 1.5 point reduction is available.

- The Project will install a bicycle repair station, which results in 1.5 points (See Attachment C).

With the implementation of these 3 measures listed above, the Project will provide a total of 5.1 points of VMT Reduction Measures.

MOBILITY CHOICES ORDINANCE

In accordance with SDMC sections 143.1101,143.1102, and 143.110, development that is required to provide VMT reduction measures shall satisfy those requirements by implementing the measures identified below:

The measures shall be located on-site or adjacent to the development site such that the measure can be shown on a site plan. On-site measures shall be privately maintained in perpetuity. Any measure that is on-site for public use shall ensure public access. Measures within the right-of-way shall comply with the City of San Diego Street Design Manual, Land Development Code, San Diego Municipal Code, and applicable Council Policies.

As provided in SDMC section 143.1103(b)(1):

- Development in Mobility Zone 2 shall include VMT Reduction Measures totaling at least 5 points per SDMC Section 143.1103(b)(1) or 8 points when providing more than the minimum parking per SDMC Section 143.1103(b)(6).

The Project is in the Mobility Zone 2 and proposes to provide the minimum required vehicular parking spaces and therefore is required to include VMT reduction measures totaling at least 5 points. As identified in Section 5.0, the Project will achieve a reduction of 5.1 points and the Project is presumed to have a less than significant impact on VMT.

6.0 CONCLUSION

Based on the results of this analysis, the following conclusions are made:

- The Project was screened for VMT impact based on the City's screening criteria; the Project is not screened out from a VMT Analysis.
- The Project is required to reduce its VMT impact below the 85th percentile of the regional average mean. Per the SANDAG screening map, the project's residential VMT is expected to be 89.2% of the regional average.
- The Project has chosen to plant shade trees with a minimum of 20 feet spacing, install a pedestrian resting area/recreation node, and provide an on-site bicycle repair station to mitigate its VMT impact.

- With the implementation of VMT-reducing design features totaling a net VMT reduction of 5.1 percent**.**
- Based on the results of the MET calculator, the proposed mitigation measures would result in a reduction of 5.1 percent of VMT, reducing the project's VMT per Capita from 89.2 to 84.1and thus reduce the Project's VMT impact to a level of **less than significant.**

If you have any questions, please contact me directly at aso@urbanxroads.com

ATTACHMENTS

ATTACHMENT A: PROJECT PLANS

ATTAHCMENT B: SANDAG SCREENING MAP

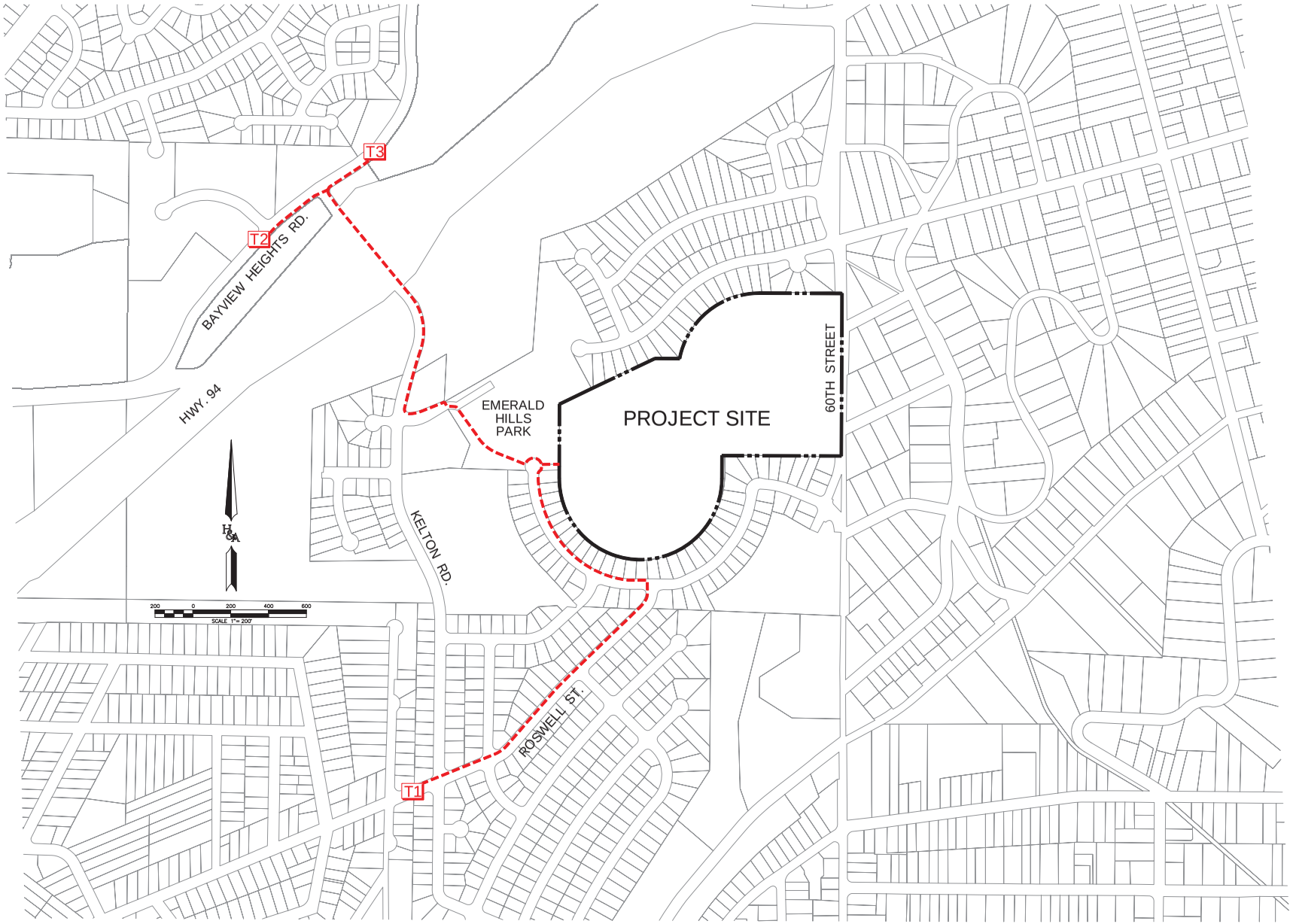
ATTACHMENT C: MET TOOL RESULTS

ATTACHMENT D: LANDSCAPING PLANS

REFERENCES

1. **City of San Diego.** *Transportation Study Manual (TSM).* September 2022.
2. —. *Complete Communities https://www.sandiego.gov/complete-communities.*
3. **SANDAG.** *SANDAG Series 14 ABM 2+ (Base Year 2016) Screening Map.*
4. **City of San Diego.** *City of San Diego Mobility Evaluation Tool (MET).*
5. —. *San Diego Municipal Code Land Development Code Trip Generation Manual.* San Diego : s.n., Revised May 2003.

ATTACHMENT A
PROJECT PLANS



LEGEND

- PATH OF TRAVEL
- T1 TRANSIT STOP 2,720 LF
- T2 TRANSIT STOP 2,620 LF
- T3 TRANSIT STOP 2,740 LF

PREPARED BY:
HUNSAKER & ASSOCIATES SAN DIEGO, INC.

EXISTING TRANSIT STOP ACCESS

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

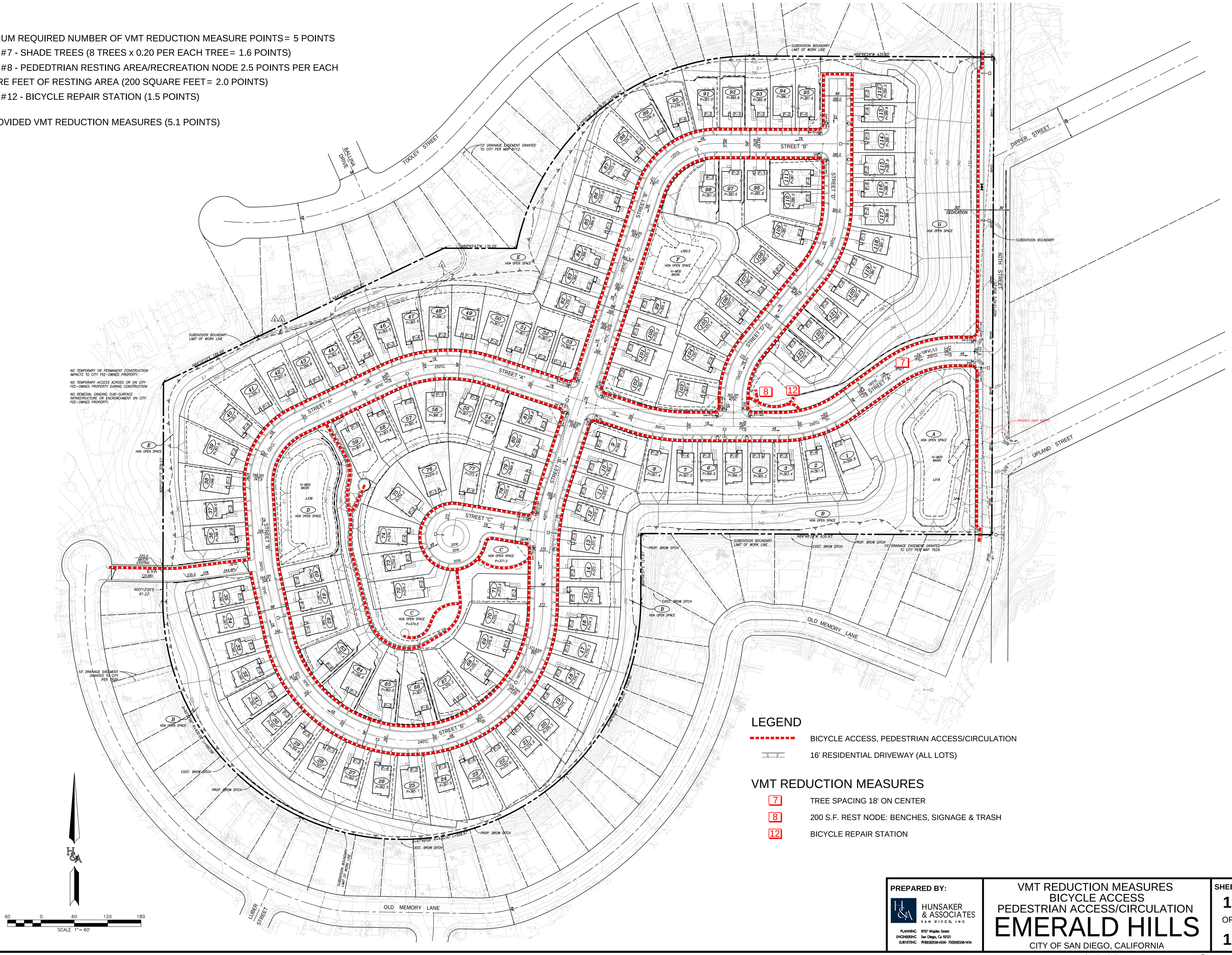
SHEET 1 OF 1

W.O. 1375-0238

R:\16771\dPln\TM\Emerald Hills VTM – Transit Stops.dwg[Jun-03-2024:15:43

- THE MINIMUM REQUIRED NUMBER OF VMT REDUCTION MEASURE POINTS = 5 POINTS
- MEASURE #7 - SHADE TREES (8 TREES x 0.20 PER EACH TREE = 1.6 POINTS)
- MEASURE #8 - PEDEDTRIAN RESTING AREA/RECREATION NODE 2.5 POINTS PER EACH 250 SQUARE FEET OF RESTING AREA (200 SQUARE FEET = 2.0 POINTS)
- MEASURE #12 - BICYCLE REPAIR STATION (1.5 POINTS)

- TOTAL PROVIDED VMT REDUCTION MEASURES (5.1 POINTS)



LEGEND

BICYCLE ACCESS, PEDESTRIAN ACCESS/CIRCULATION

16' RESIDENTIAL DRIVEWAY (ALL LOTS)

VMT REDUCTION MEASURES

7 TREE SPACING 18' ON CENTER

8 200 S.F. REST NODE: BENCHES, SIGNAGE & TRASH

12 BICYCLE REPAIR STATION

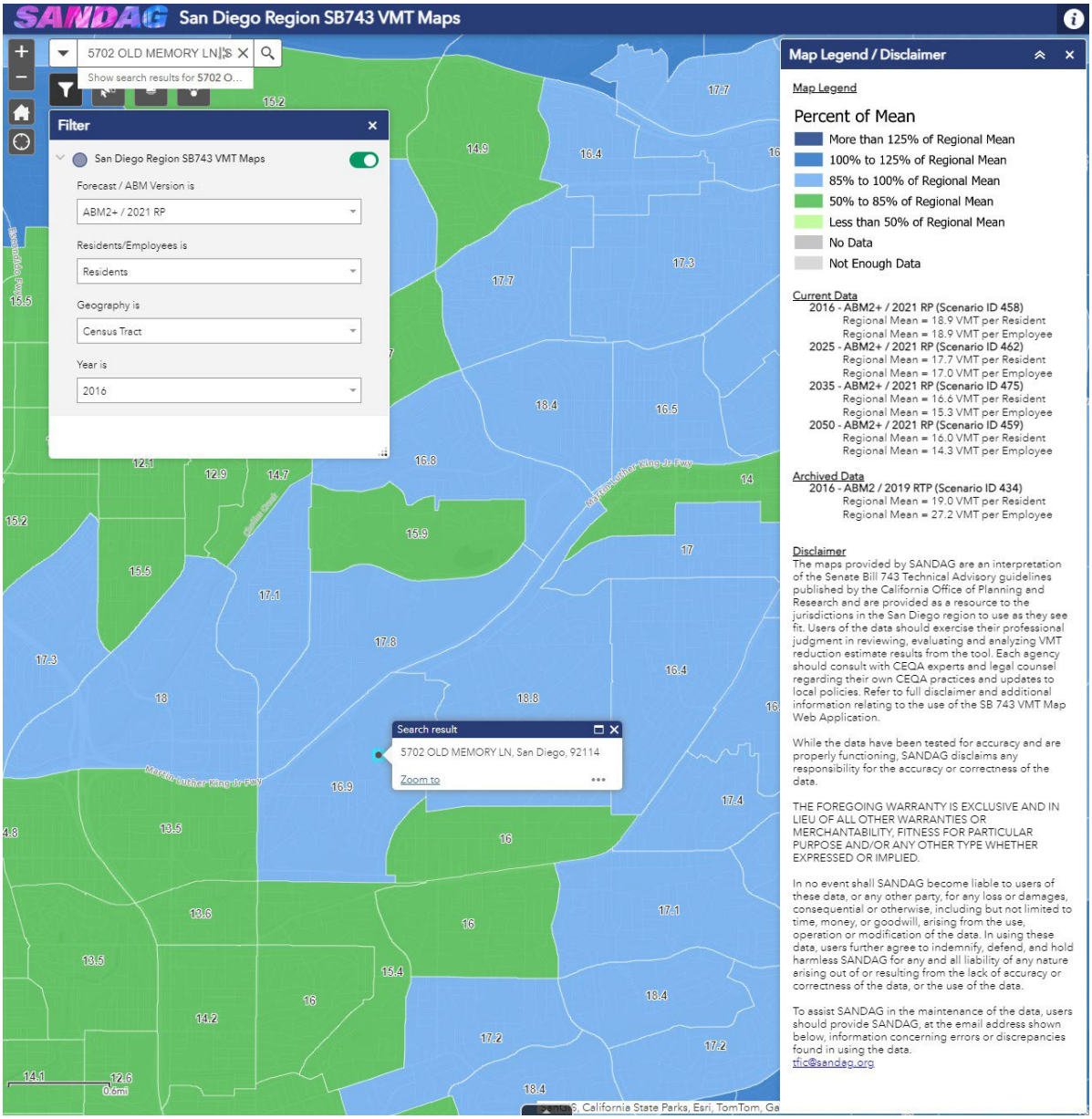
PREPARED BY:
HUNSAKER & ASSOCIATES SAN DIEGO, INC
PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 · FX(858)558-1414

VMT REDUCTION MEASURES
BICYCLE ACCESS
PEDESTRIAN ACCESS/CIRCULATION

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

ATTAHCMENT B
SANDAG SCREENING MAP


San Diego Region SB743 VMT Maps
5702 OLD MEMORY LN, S
Show search results for 5702 O...
Filter
San Diego Region SB743 VMT Maps
Forecast / ABM Version is
ABM2+ / 2021 RP
Residents/Employees is
Residents
Geography is
Census Tract
Year is
2016
Search result
5702 OLD MEMORY LN, San Diego, 92114
Zoom to
Map Legend / Disclaimer
Map Legend
Percent of Mean
More than 125% of Regional Mean
100% to 125% of Regional Mean
85% to 100% of Regional Mean
50% to 85% of Regional Mean
Less than 50% of Regional Mean
No Data
Not Enough Data
Current Data
2016 - ABM2+ / 2021 RP (Scenario ID 458)
Regional Mean = 18.9 VMT per Resident
Regional Mean = 18.9 VMT per Employee
2025 - ABM2+ / 2021 RP (Scenario ID 462)
Regional Mean = 17.7 VMT per Resident
Regional Mean = 17.0 VMT per Employee
2035 - ABM2+ / 2021 RP (Scenario ID 475)
Regional Mean = 16.6 VMT per Resident
Regional Mean = 15.3 VMT per Employee
2050 - ABM2+ / 2021 RP (Scenario ID 459)
Regional Mean = 16.0 VMT per Resident
Regional Mean = 14.3 VMT per Employee
Archived Data
2016 - ABM2 / 2019 RTP (Scenario ID 434)
Regional Mean = 19.0 VMT per Resident
Regional Mean = 27.2 VMT per Employee
Disclaimer
The maps provided by SANDAG are an interpretation of the Senate Bill 743 Technical Advisory guidelines published by the California Office of Planning and Research and are provided as a resource to the jurisdictions in the San Diego region to use as they see fit. Users of the data should exercise their professional judgment in reviewing, evaluating and analyzing VMT reduction estimate results from the tool. Each agency should consult with CEQA experts and legal counsel regarding their own CEQA practices and updates to local policies. Refer to full disclaimer and additional information relating to the use of the SB 743 VMT Map Web Application.
While the data have been tested for accuracy and are properly functioning, SANDAG disclaims any responsibility for the accuracy or correctness of the data.
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To assist SANDAG in the maintenance of the data, users should provide SANDAG, at the email address shown below, information concerning errors or discrepancies found in using the data.
tfic@sandag.org
Martin Luther King Jr Fwy
0.0mi
, California State Parks, Esri, TomTom, Ga

ATTACHMENT C
MET TOOL RESULTS

Project Details	
Analysis Time & Date:	May 23, 2024, 10:20:05 AM
Project Name:	EMERALD HILLS (PRJ-1107880)
Project Screening:	Not Screened Out
Project Description:	The Project proposes a Vesting Tentative Map (VTM), Site Development Permit (SDP), and Neighborhood Development Permit (NDP) for the removal of existing broadcasting towers and outbuildings. In Addition, the Project proposes to subdivide the 31.18 acre lot into 1-23 single-family residential lots (including 13 affordable housing lots), the construction of a single-family dwelling on each lot, seven (7) Homeowner's Association (HOA) open space lots, and the construction of 32 ft wide public streets (within 56 ft right-of-way) for internal circulation.
SANDAG Model Version:	SANDAG ABM2+ / 2021 RP

APN	CPA	Mobility Zone	typology	TPA	Census Tract	MGRA	TAZ	VMT per Capita	VMT per Employee	Residential Density	Employee Density
5433400200	ENCANTO NEIGHBORHOODS SOUTHEASTERN	2	1	0	30.01	1261	3824	16.9	14.6	1.246	0.319

PROJECT INFORMATION FORM	
Project Name	EMERALD HILLS (PRJ-1107880)
Project Description	The Project proposes a Vesting Tentative Map (VTM), Site Development Permit (SDP), and Neighborhood Development Permit (NDP) for the removal of existing broadcasting towers and outbuildings. In Addition, the Project proposes to subdivide the 31.18 acre lot into 123 single-family residential lots (including 13 affordable housing lots), the construction of a single-family dwelling on each lot, seven (7) Homeowner's Association (HOA) open space lots, and the construction of 32 ft wide public streets (within 56 ft right-of-way) for internal circulation.
Project Type	Discretionary
Project Mobility Zone	2
Number of parking spaces (Vehicle)	246
Number of parking spaces (Accessible)	0
Number of parking spaces (Bicycle)	0
Number of parking spaces (Motorcycle)	0
For Mobility Zone 2 & 3: Select project specific mitigation (TDM Calculator) OR VMT Reduction Measure points compliance (Mobility Choices Ordinance Tracking)	Ordinance Tracking
Land Use 1 - Residential (Dwelling Units)	123
Affordable Units (Residential) %	10
Market Rate Units (Residential) %	90
Land Use 2 – Commercial Employment (ksf)	0

PRELIMINARY SCREENING CRITERIA	SCREENED OUT?
1. REDEVELOPMENT PROJECT:	
(a) Does the project result in net decrease in total project VMT? (If not a redevelopment project, answer N/A)	N/A
(b) Answer, if 'YES' to 1a. If the project replaces affordable housing with market rate housing, are there equal or more market rate units planned than existing affordable units being replaced? (If the existing use is not affordable housing, answer N/A)	
2. RESIDENTIAL PROJECT (LAND USE 1):	
(a) Is the project in a VMT/Capita Efficient Area? (per SANDAG Screening Maps)	No
(b) Is the project 100% affordable?	No
(c) Small project criteria: Is the daily unadjusted driveway trip generation 300 or less?	No
3. COMMERCIAL EMPLOYMENT PROJECT (LAND USE 2):	
(a) Is the project in a VMT/Employee Efficient Area? (per SANDAG Screening Maps)	N/A
(b) Small project criteria: Is the daily unadjusted driveway trip generation 300 or less?	N/A
4. INDUSTRIAL EMPLOYMENT PROJECT (LAND USE 3):	
(a) Is the project in a VMT/ Employee Efficient Area? (per SANDAG Screening Maps)	N/A
(b) Small project criteria: Is the daily unadjusted driveway trip generation 300 or less?	N/A
5. RETAIL, PUBLIC FACILITY, OR RECREATIONAL PROJECT (LAND USE 4):	
(a) Is the project locally serving: Retail, Public Facility, or Recreational as defined by TSM?	N/A
(b) Small project criteria: Is the daily unadjusted driveway trip generation 300 or less?	N/A

Land Use 3 - Industrial (ksf)	0
Land Use 4 – Retail / Public Facility / Recreational (ksf)	0

LANDUSE	METRIC	PROJECT VMT	REGIONAL AVERAGE VMT	VMT IMPACT
Residential	VMT/Cap	16.9	18.9	YES

Note : When submitted to the City, the information contained is subject to verification by City staff.

MEASURE	USER INPUT	POINTS
PEDESTRIAN SUPPORTIVE MEASURES		
1. Pedestrian scale lighting adjacent to public pedestrian walkways along the entire development frontage.		
2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required[1].	Number of improved legs= Total number of intersection legs= No of intersection improved=	
3. Installing high-visibility crosswalk striping at adjacent intersection (if not otherwise required)[1].	Number of improved legs= Total number of intersection legs= No of intersection improved=	
4. Installing enhanced crosswalk paving at adjacent intersection[1].	Number of improved legs= Total number of intersection legs= No of intersection improved=	
5. Installing pedestrian enhancing amenities at adjacent intersections (hardscape): Median refuges, raised crosswalks	Number of amenities installed=	
6. Signal pedestrian countdown heads (if not otherwise required).	Number of intersections=	
7. Planting shade trees adjacent to a public pedestrian walkway beyond minimum standards (shall be consistent with Land Development Code Landscape Standards and be maintained by the property owner). Minimum spacing between trees is 20 feet[2].	Number of trees=8	1.60
8. Installing pedestrian resting area/recreation node on-site, adjacent to public pedestrian walkway (with signage designating the space as publicly available). The resting area/recreation node shall be maintained by the property owner.	Square Feet of rest area =200	2.00
9. Widening sidewalk within the existing public right-of-way to Street Design Manual standards. The reduction of parkway/landscape buffer to less than the width required by the Street Design Manual standards to widen sidewalk width is not permitted. Requires replacement of existing sidewalk.	Number of miles =	
10. Widening an urban parkway through dedication of private property in accordance with the Street Design Manual Standards. This requires replacement of existing sidewalk.	Number of miles =	
BICYCLE SUPPORTIVE MEASURES		
11. Providing on-site shared bicycle fleet. The number of bicycles provided shall be equal to the number of bicycle parking spaces that would otherwise be required by SDMC Table 142-05C, or five bicycles, whichever is greater.		
12. Providing on-site bicycle repair station	Yes	1.5
13. Installing new bicycle infrastructure (Class I, II, IV) that is part of the City's planned bikeway network that closes or incrementally closes an existing gap between two existing bikeways.	Number of miles =	
14. Upgrading bicycle infrastructure adjacent to the development (along roadway and at intersections, i.e. signage, green paint, upgrade to a protected bicycle facility, etc. above required minimum bicycle infrastructure standards).	Number of upgraded feature=	
15. Installing electric bicycle charging stations/micro-mobility charging stations that are available to the public.	Number of stations=	

16. Providing short-term bicycle parking spaces that are available to the public, at least 10% beyond minimum requirements.	percent increase=	
17. Providing long-term bicycle parking spaces at least 10% beyond minimum requirements.	percent increase=	
18. Providing on-site showers/lockers at least 10% beyond minimum requirement.		
MEASURE	USER INPUT	POINTS
TRANSIT SUPPORTIVE MEASURES		
19. Providing high cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of shelter, real time bus information monitors.	Number of upgraded feature=	
20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Number of upgraded feature=	
OTHER SUPPORTIVE MEASURES		
21. Providing on-site showers/lockers at least 10% beyond minimum requirement.		
22. Providing on-site car share vehicles spaces that are available to the public with designated parking shown on a site plan.	Number of car-share spaces=	
23. Providing on-site designated micro-mobility (e.g. bicycles, Ebikes, electric scooters, shared bicycles, and electric pedal assisted bicycle) parking area) that is available to the public.		
24. Providing on-site passenger loading zones and delivery vehicle space (above minimum loading space requirements).	Number of loading zone spaces=	
25. Installing a traffic calming measure, such as speed feedback signs, median slow points (chokers), and speed table/raised crosswalk. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or MTS/NCTD may be required.	Number of calming feature=	
26. Providing carpool parking spaces 10% beyond the minimum number of carpool spaces required (for non-residential projects).	percent increase=	
27. Number of parking spaces provided does not exceed the parking requirements contained in the SDMC and a permit system is provided (or other parking management such as time limited or metered spaces) to control off-site parking.		
TOTAL POINTS		5.10

ATTACHMENT D
LANDSCAPING PLANS

VMT REDUCTION MEASURES

7	VMT Reduction Measure #7	# of Trees with 20 feet spacing	Points per Tree	Total Points
		8	0.2	1.6
8	VMT Reduction Measure #8	200-square-foot resting area	-	2
12	VMT Reduction Measure #12	On-Site Bicycle Reapair Station	-	1.5
			Total Points	**5.1**
			Points Required	5.0

SEE SHEET L3 FOR POCKET PARK ENLARGEMENTS AND STREET SECTION
SEE SHEET L4 FOR PLANT LEGEND
SEE SHEET L5 FOR WALL AND FENCE PLAN
SEE SHEET L6 FOR HYDROZONE MAP AND WATER CALCULATIONS

0 25' 50' 150'
Scale 1" = 50'

North

REVISIONS	DATE	BY
ORIGINAL	11/20/23	HAI

PREPARED BY:
HOWARD ASSOCIATES
landscape architecture
rla 2681
1951 Fourth Avenue, Ste. 302
San Diego, CA 92101 (619) 718-9660

LANDSCAPE CONCEPT PLAN

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

SHEET L1

11/20/23

SEE SHEET L3 FOR POCKET PARK ENLARGEMENTS AND STREET SECTION
SEE SHEET L4 FOR PLANT LEGEND
SEE SHEET L5 FOR WALL AND FENCE PLAN
SEE SHEET L6 FOR HYDROZONE MAP AND WATER CALCULATIONS

0 25' 50' 150'
Scale 1" = 50'

North

PREPARED BY:
rla 2681
HOWARD ASSOCIATES
landscape architecture
1951 Fourth Avenue, Ste. 302
San Diego, CA 92101 (619) 718-9660

LANDSCAPE CONCEPT PLAN

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

SHEET L2

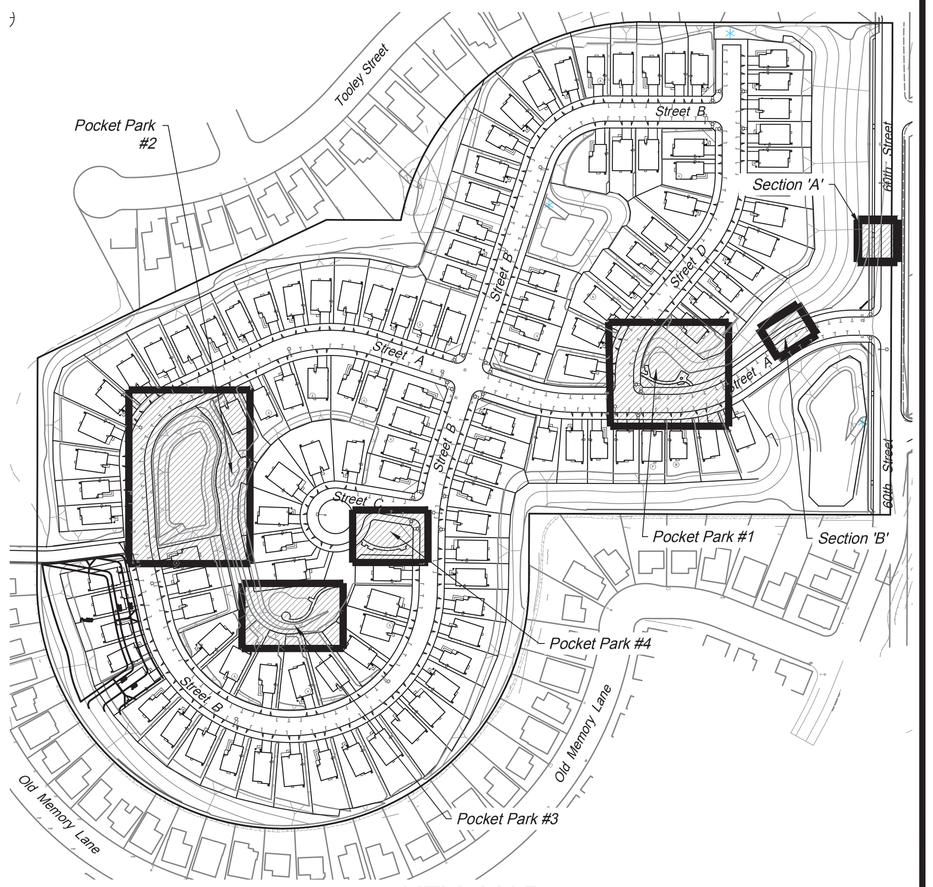
11/20/23

POCKET PARK 2

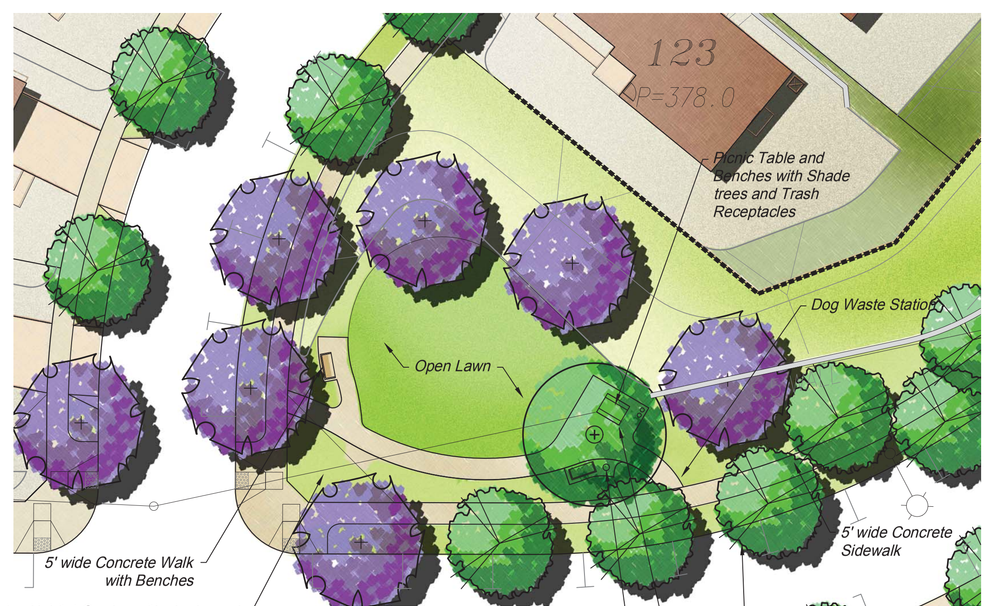
POCKET PARK 4

POCKET PARK 3

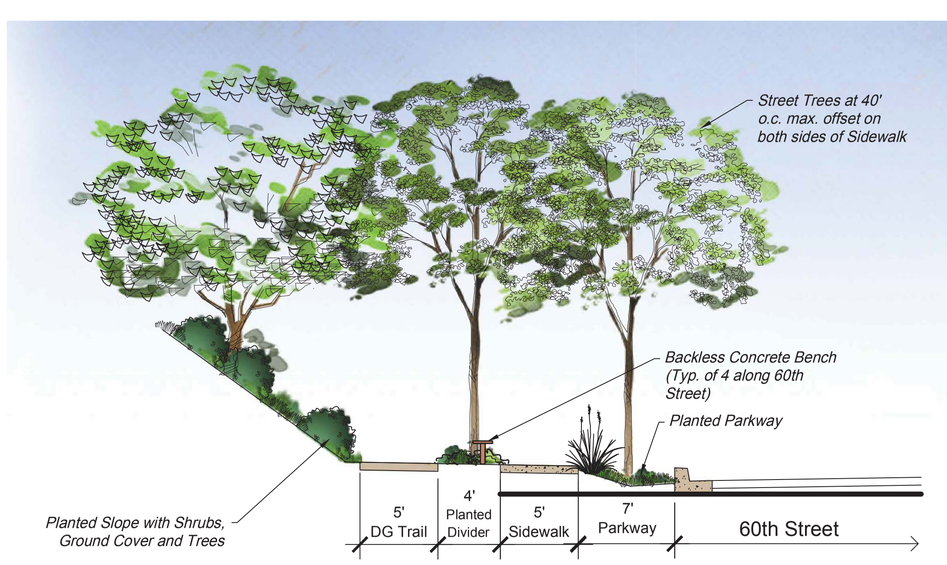
Dog Waste Station
Masonry Wall
Overlook Patio with Benches for Views South and West
View Fencing
Overlook Garden
Storm Water Basin Planted with Decorative Grasses and Ground Covers
Retaining Wall screened with tall grasses and vines
Concrete Walk with Benches
Open Lawn
Dog Waste Station
Concrete Walk through Pocket Parks
Slopes Planted with Native Shrubs and Ground Covers
Accent Trees
Open Lawn
Concrete Walk
Masonry Wall
Gate at Emergency Access Drive
5' wide Concrete Sidewalk
View Fencing
Planted Parkway with Street Trees
Overlook Patio with Picnic Table and Benches for view south and west



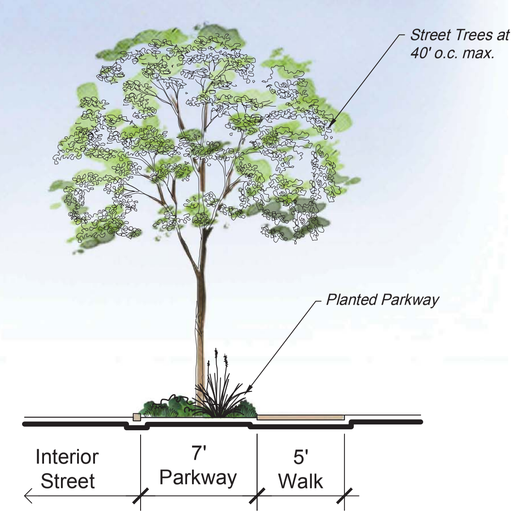
KEY MAP
NTS



POCKET PARK 1



SECTION 'A' - 60th STREET



SECTION 'B' - INTERNAL STREET

SEE SHEET L4 FOR PLANT LEGEND
SEE SHEET L5 FOR WALL AND FENCE PLAN
SEE SHEET L6 FOR WATER CALCULATIONS

0 10' 20' 60'
Scale 1" = 20'

North

REGISTERED LANDSCAPE ARCHITECT
7-24-24
EXP. DATE
STATE OF CALIFORNIA

PREPARED BY:
rla 2681
HOWARD ASSOCIATES
landscape architecture
1951 Fourth Avenue, Ste. 302
San Diego, CA 92101 (619) 718-9660

POCKET PARK ENLARGEMENTS AND STREET SECTIONS

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

SHEET L3

11/20/23

Landscape Concept Statement:

The landscape has been designed to provide wide, tree lined parkways for walking paths throughout the site, connecting to the existing neighborhood and Emerald Hills Park. An open space walkway with four (4) pocket parks maximized view opportunities to the south and west. The pocket parks offer open lawn, seating, flowering accent planting and shade trees.

Notes:

1. All landscape and irrigation shall conform to the standards of the county-wide landscape regulations and the 'City of San Diego Land Development Manual Landscape Standards', and all other landscape related City and regional standards
2. Maintenance: All landscape shown on this plan shall be maintained by the property owner until turned over to the HOA and private homeowners, the HOA will maintain all public right of way areas. The landscape areas shall be kept free of litter and debris, and all plant material shall be maintained in a healthy growing condition. Diseased or dead plant material shall be satisfactorily treated or replaced per the conditions of the permit.
3. The irrigation system will be designed to afford optimum coverage for the support of plant growth. The coverage will meet the water requirements for the selected plant material and within the given planting areas. The design will take into consideration the type of exposure the system will have. The irrigation system will be designed with respect to water conservation. Irrigation heads shall be chosen for maximum coverage with low-gallonage and precipitation qualities. The irrigation system shall be a fully automatic system and as maintenance-free as possible. The materials for the system will be of an extremely durable nature and will have been selected for wear resistance and long life. The overall system shall be designed for ease of maintenance. HOA areas shall have a separate designated irrigation water meter.
4. All proposed plant material shall be non-invasive, per CAL-IPC listing.
5. A minimum root zone of 40sf in area shall be provided for all trees. The minimum dimension for this area shall be 5 feet, per SDMC §142.0403(b)(5).
6. Tree root barriers shall be installed where trees are placed within 5 feet of public improvements including walks, curbs, or street pavements or where new public improvements are placed adjacent to existing trees. The root barrier will not wrap around the root ball.
7. Mulch: All required planting areas and all exposed soil areas without vegetation shall be covered with mulch to a minimum depth of 3 inches, excluding slopes requiring revegetation per SDMC §142.0411.
8. All pruning shall comply with the standards of the American National Standards Institute (ANSI) for tree care operations and the International Society of Arboriculture (ISA) for tree pruning. Topping of trees is not permitted.
9. Trees shall be maintained so that all branches over pedestrian walkways are 6 feet above the walkway grade and branches over vehicular travel ways are 16 feet above the grade of the travel way per the San Diego Municipal Code §142.0403(b)(10).
10. There can be no overspray or irrigation runoff onto adjacent City fee-owned property.

CAP Notes:

1. (2) Trees per 5,000 SF shall be planted for each private lot

Minimum Street Tree Separation Distance	
IMPROVEMENT	MIN. DISTANCE TO STREET TREE
TRAFFIC SIGNALS AND STOP SIGNS	20'
UNDERGROUND UTILITY LINES	5'
SEWER LINES	10'
ABOVE GROUND UTILITY STRUCTURES	10'
DRIVEWAY ENTRIES	10'
INTERSECTIONS	25'

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	MATURE HEIGHT X SPREAD	WUCOLS ZONE 3	THEME FUNCTION
TREES:						
	STREET TREES - 60TH STREET (QTY. = 35)					
	LOPHOSTEMON CONFERTUS	BRISBANE BOX	24" BOX	40' X 40'	L	EVERGREEN SHADE TREE
	PLATANUS RACEMOSA	SYCAMORE	24" BOX	60' X 40'	M	BROAD HEADED SHADE TREE
	STREET TREES - INTERIOR STREETS (QTY. = 205)					
	CERCIS 'FOREST PANSY'	FOREST PANSY REDBUD	24" BOX	20' x 20'	M	FLOWERING TREE
	LOPHOSTEMON CONFERTUS	BRISBANE BOX	24" BOX	40' X 40'	M	EVERGREEN THEME TREE
	JACARANDA MIMOSIFOLIA	JACARANDA TREE	24" BOX	30' X 30'	M	FLOWERING TREE
	SLOPE TREES (QTY. = 163)					
	HETEROMELES ARBUTIFOLIA	TOYON	24" BOX	20' X 20'	L	NATIVE EVERGREEN TREE
	PINUS HALEPENSIS	ALEPPO PINE	24" BOX	60' x 30'	L	CONICAL EVERGREEN TREE
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX	40' x 50'	L	NATIVE BROAD HEADED TREE
	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	30' X 25'	M	EVERGREEN SHADE TREE
	OPEN SPACE TREES (QTY. = 55)					
	JACARANDA MIMOSIFOLIA	JACARANDA	24" BOX	40' x 25'	M	FLOWERING TREE
	LAGERSTROEMIA NATCHEZ	INDIA HAWTHORN	24" BOX	25' X 12'	M	FLOWERING TREE
	SYAGRUS ROMANZOFFIANA	QUEEN PALM	24" BOX	40' X 20'	M	VERTICAL ACCENT PALM
	TIPUANA TIPU	TIPU TREE	24" BOX	30' X 30'	L	EVERGREEN SHADE TREE
	ULMUS P. 'TRUE GREEN'	EVERGREEN ELM	24" BOX	50' x 40'	L	BROAD HEADED SHADE TREE
SHRUBS:						
	MASSING SHRUBS: (30% 5 GALLON, 70% 1 GALLON) (QTY. = 500)					
	CALLISTEMON LITTLE JOHN	DWARF BOTTLE BRUSH	5 GAL.	3' x 3'	L	FLOWERING SHRUB
	DIETES BICOLOR	FORTNIGHT LILY	1 GAL.	2' X 2'	L	VERTICAL ACCENT
	LANTANA 'GOLD MOUND'	GOLD MOUND LANTANA	1 GAL.	3' x 3'	L	FLOWERING SHRUB
	LOMANDRA 'BREEZE'	MAT RUSH	1 GAL.	2' X 2'	L	MASSING GRASS
	RHAPHIOLEPIS U. 'MINOR'	DWF. YEDDO HAWTHORN	5 GAL.	3' x 3'	L	FLOWERING SHRUB
	SALVIA LEUCANTHA	MEXICAN BUSH SAGE	1 GAL.	3' x 3'	L	FLOWERING SHRUB
	SCREENING SHRUBS: (5 GALLON) (QTY. = 200)					
	ARBUTUS U. 'COMPACTA'	DWF. STRAWBERRY TREE	5 GAL.	5' X 5'	L	THEME SHRUB
	PHORMIUM TENAX	FLAX	5 GAL.	5' X 5'	L	VERTICAL ACCENT
	TECOMA ORANGE JUBILEE	ORANGE BELLS	5 GAL.	6' X 6'	L	FLOWERING THEME SHRUB
	WESTRINGIA 'BLUE GEM'	AUSTRALIAN ROSEMARY	5 GAL.	4' X 4'	L	THEME SHRUB
	ACCENT SHRUBS: (5 GALLON) (QTY. = 150)					
	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	4' x 4'	L	SUCCULENT ACCENT
	AGAVE BLUE GLOW	BLUE GLOW AGAVE	5 GAL.	3' x 3'	L	SUCCULENT ACCENT
	AGAVE DESMETTIANA	SMOOTH AGAVE	5 GAL.	3' x 3'	L	SUCCULENT ACCENT
	BOUGAINVILLEA 'TORCH GLOW'	T.G. BOUGAINVILLEA	5 GAL.	6' X 6'	L	FLOWERING THEME SHRUB
	CHAMAEROPS HUMILIS	MED. FAN PALM	5 GAL.	10' X 10'	L	SMALL ACCENT PALM
	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL.	3' X 3'	L	SUCCULENT ACCENT
	LOW SPREADING SHRUBS: (1 GALLON) (QTY. = 800)					
	BOUGAINVILLEA 'ROSENKA'	BOUGAINVILLEA	1 GAL.	2' X 4'	L	FLOWERING THEME SHRUB
	CARISSA 'GREEN CARPET'	NATAL PLUM	1 GAL.	2' X 4'	L	SPREADING THEME SHRUB
	LANTANA 'NEW GOLD'	LANTANA	1 GAL.	2' X 4'	L	FLOWERING THEME SHRUB
	RHAPHIOLEPIS BALLERINA	INDIA HAWTHORN	1 GAL.	2' X 4'	L	SPREADING THEME SHRUB
	ROSMARINUS SPP.	ROSEMARY	1 GAL.	2' X 4'	L	FLOWERING THEME SHRUB
	SLOPE SHRUBS: (QTY. = 2,000)					
	ALOE ARBORESCENS	TORCH ALOE	1 GAL.	6' X 8'	L	SPREADING SHRUB
	BAHIOPSIS LACINIATA	S.D. COUNTY VIGUIERA	1 GAL.	2' X 4'	L	SPREADING SHRUB
	ENCELIA CALIFORNICA	NCN	1 GAL.	3' X 3'	L	SPREADING SHRUB
	EPILOBIUM CANUM	CALIFORNIA FUSCHIA	1 GAL.	2' X 2'	L	SPREADING SHRUB
	RHUS INTEGRIFOLIA	LEMONADE BERRY	1 GAL.	6' X 12'	L	LARGE SPREADING SHRUB
	ROSA CALIFORNICA	CALIFORNIA WILD ROSE	1 GAL.	4' X 10'	L	SPREADING SHRUB
	SALVIA CLEVELANDII	CLEVELAND SAGE	1 GAL.	3' X 3'	L	SPREADING SHRUB
	VINES: (5 GALLON) (QTY. = 50)					
	BOUGAINVILLEA SPP.	BOUGAINVILLEA	5 GAL.	10' X 10'	L	CLIMBING VINE
	MACFADYENA UNGUIS-CATI	CAT'S CLAW VINE	5 GAL.	10' X 25'	L	CLIMBING VINE
GROUND COVERS:						
	GROUND COVERS: (FLAT AREAS)					
	BACCHARIS P. 'PIGEON POINT'	P. P. COYOTE BRUSH	FLATS @ 12" O.C.	1' X 10'	L	TRAILING GROUNDCOVER
	MYOPORUM 'PUTAH CREEK'	P. C. MYOPORUM	FLATS @ 12" O.C.	1' X 10'	L	TRAILING GROUNDCOVER
	SLOPE GROUND COVER					
	BACCHARIS P. 'PIGEON POINT'	P. P. COYOTE BRUSH	FLATS @ 12" O.C.	1' X 10'	L	TRAILING GROUNDCOVER
	BIO BASIN					
	CAREX TUMULICOLA	FOOTHILL SEDGE	PLUGS @ 24" O.C.	2' X 2'	L	BASIN GRASS
	CALYSTEGIA MACROSTEGIA	CALIF. MORNING GLORY	1 GAL.	10' X 10'	L	BASIN VINE
	FESTUCA CALIFORNICA	CALIFORNIA WILD RYE	PLUGS @ 24" O.C.	4' X 4'	L	BASIN GRASS
	JUNCUS PATENS	COMMON RUSH	PLUGS @ 24" O.C.	2' X 2'	L	BASIN GRASS
	MUHLENBERGIA RIGENS	DEERGRASS	PLUGS @ 24" O.C.	3' X 3'	L	BASIN GRASS

Erosion Control Hydroseed:
Areas requiring temporary, non-irrigated erosion control shall be hydroseeded with S & S Seed's 'Erosion Control Mix', available at www.ssseeds.com.

0 30' 60' 120'
Scale 1" = 60'

North

PREPARED BY:
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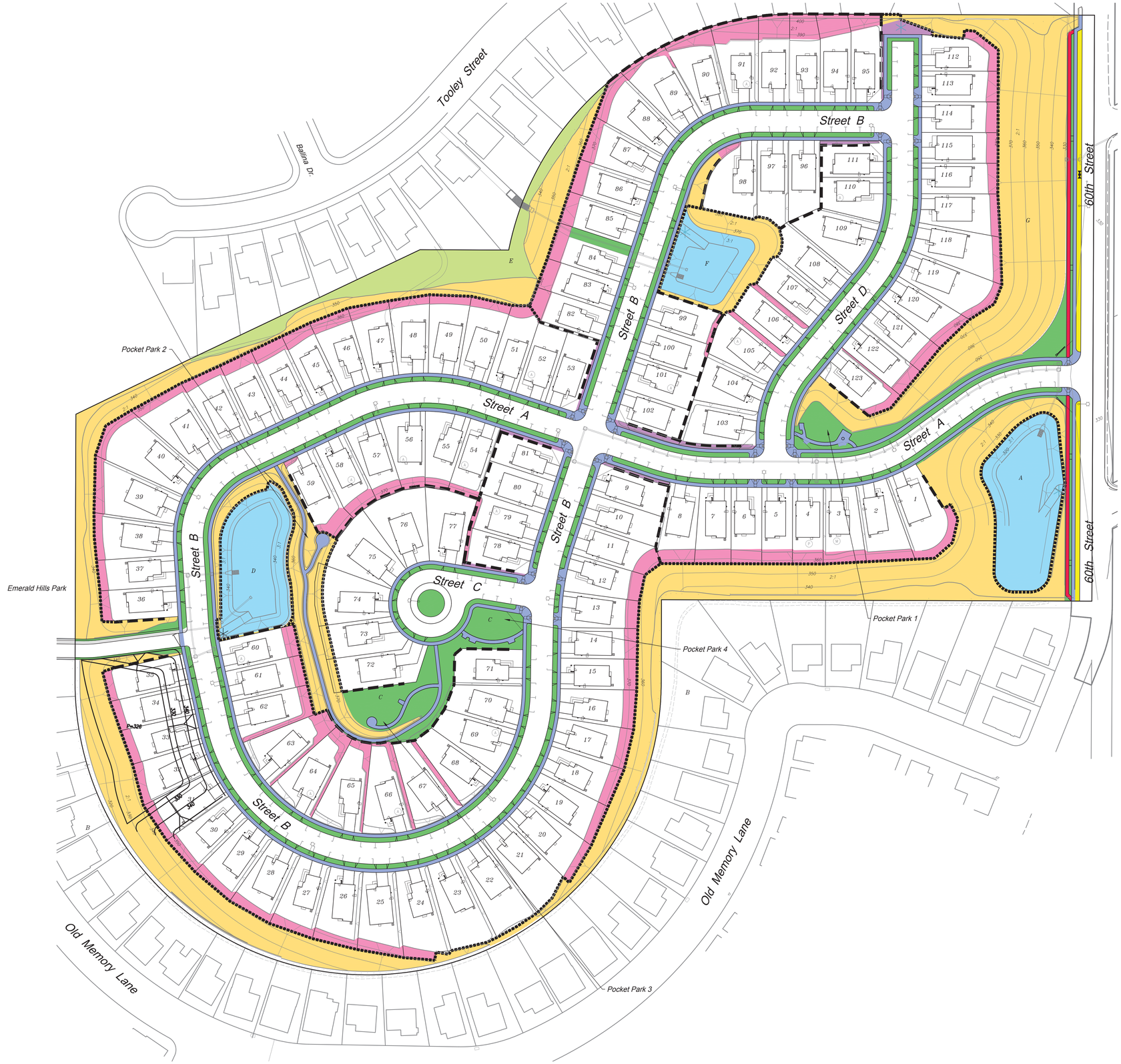
PRELIMINARY PLANT LEGEND AND NOTES

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

SHEET L4

11/20/23



Landscape Maintenance Areas

HZ #	Symbol	Description	Maintenance Responsibility
1		HOA planted Slopes - Permanent Irrigation	HOA
2		Private Yard Slopes - Permanent Irrigation	Homeowner
3		Parkways and Flat Common Areas	HOA
4		Side Slopes and Flat Common Areas	HOA
5		Bio-filtration Basins	HOA
6		Parkway - 60th Street	HOA
7		Existing Slope areas to remain undisturbed	HOA

Pedestrian Circulation

Symbol	Description	Maintenance Responsibility
	5' wide D.G. Trail	HOA
	Concrete Walks and Stairs	HOA

Preliminary Water Calculations

City of San Diego Water Efficient Landscape Worksheet

Evapotranspiration Rate

ET_o	[in]	
Yearly	46.40	

Maximum Applied Water Budget

LA (Total Landscape Area) =	**487,618**	
SLA (Special Landscape Area) =		
Maximum Applied Gallons / Year = Eto(0.62) [(0.7)(LA) + (0.3)(SLA)]		
Maximum Applied Gallons / Year =	**7,715,287**	

Design Case Table

B	C	F	G		E	H	D	I	J	K
Hydrozone #	**Valve Circuit #**	**Hydrozone Area (HA)**	**% of Total Landscaped Area**		**Plant Factor (PF)**	**HA x PF**	**Irrigation Method**	**IE**	**PFxHA/IE**	**ETWU (Eto)(.62)(PFxHA/IE)**
		[SF]	[SF]		(WUCCOLS)					[gal]
1 - HOA slopes - Permanent Irrigation		235,470	48.3%	Low	0.3	70,641	Drip	0.80	88,301	2,540,250
2 - Private Slopes - Permanent Irrigation		85,203	17.5%	Low	0.3	25,561	Drip	0.80	31,951	919,170
3 - HOA Parkways / Flat areas		89,997	18.5%	Low	0.3	26,999	Drip	0.80	33,749	970,888
4 - HOA Maintained Side Slopes		4,010	0.8%	Low	0.3	1,203	Drip	0.80	1,504	43,260
5 - HOA Detension Basins		48,385	9.9%	Low	0.3	14,516	Rotor	0.70	20,736	596,546
6 - Parkways - 60th Street		5,302	1.1%	Mod	0.5	2,651	Drip	0.80	3,314	95,330
7 - Ex. HOA Slope - Non irrigated		19,251	3.9%	VL	0.1	1,925	Other	1.00	1,925	55,381
	Total:	**487,618**							**Total Estimated Water Use (ETWU):**	**5,220,825**
									Maximum Applied Water Budget	**7,715,287**

Irrigation Chart

Spray	0.550
Rotor	0.700
MP Rotator	0.750
Drip	0.800
Other	0.850

Plant Factor Chart

Low	0.200
Moderate	0.500
High	0.800
Special/Other	1.000

0 30' 60' 180'

Scale 1" = 60'

North

REGISTERED LANDSCAPE ARCHITECT RICHARD LEE BURNS No. 2681 7-24-24 RENEWAL 1-1-25 EXP. DATE STATE OF CALIFORNIA

PREPARED BY:

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landscape architecture
1951 Fourth Avenue, Ste. 302
San Diego, CA 92101 (619) 718-9660

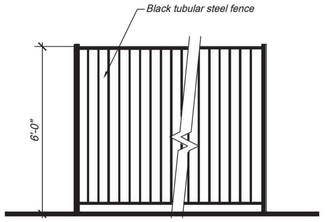
PRELIMINARY MAINTENANCE RESPONSIBILITY, PEDESTRIAN CIRCULATION & WATER CALC'S

EMERALD HILLS

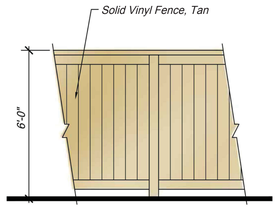
CITY OF SAN DIEGO, CALIFORNIA

SHEET L5

11/20/23



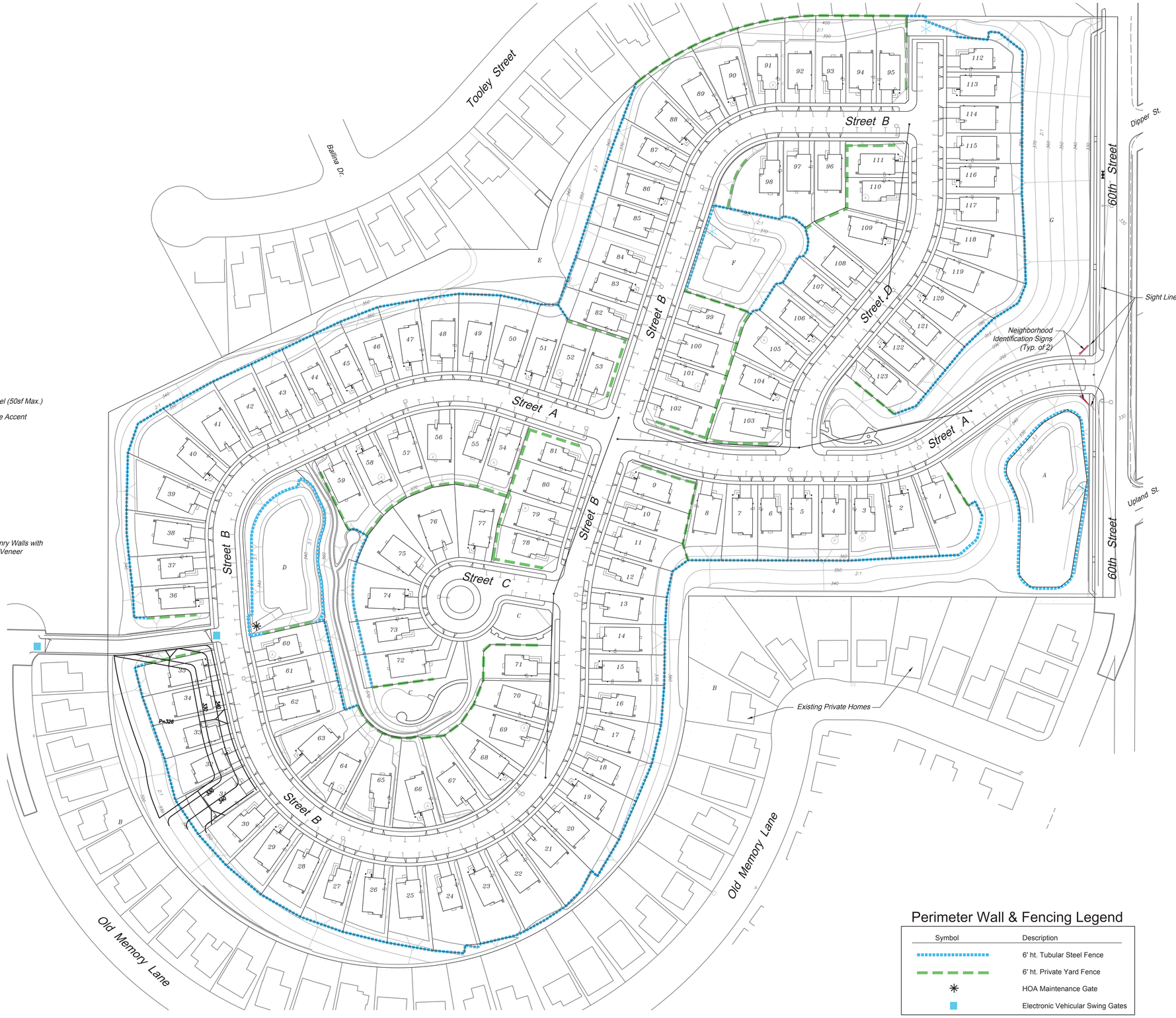
Tubular Steel View Fence
Preliminary Concept



Private Yard Fence
Preliminary Concept

Neighborhood Identification Signage
Preliminary Concept

Note: Neighborhood Identification signs shall be located outside of the right-or-way and outside of all corner sight lines



Perimeter Wall & Fencing Legend

Symbol	Description
	6' ht. Tubular Steel Fence
	6' ht. Private Yard Fence
✳	HOA Maintenance Gate
■	Electronic Vehicular Swing Gates

Scale 1" = 60'

North

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WALL AND FENCE EXHIBIT

EMERALD HILLS

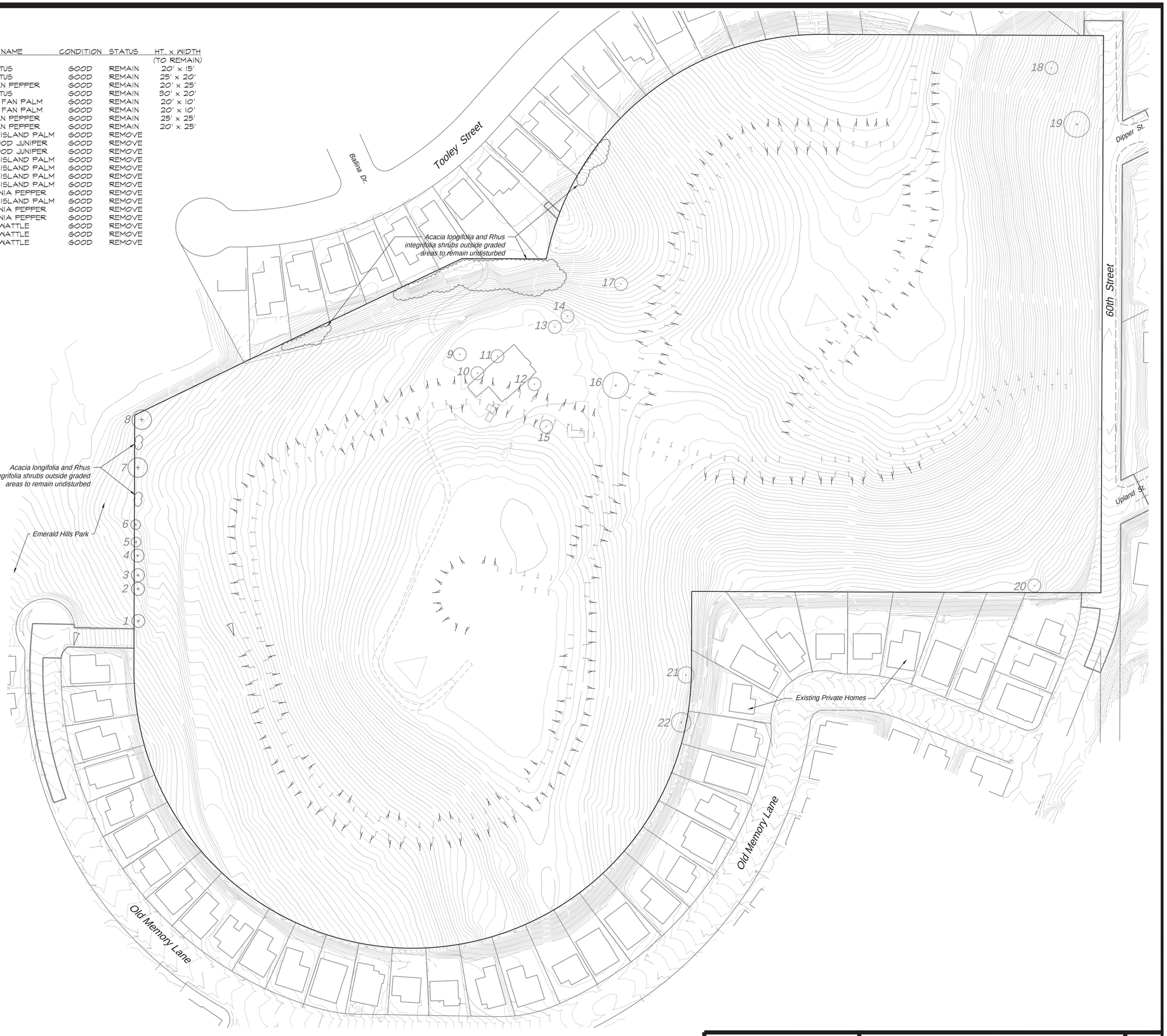
CITY OF SAN DIEGO, CALIFORNIA

SHEET L6

11/20/23

EXISTING TREE LEGEND

SYMBOL	CALIPER	BOTANICAL NAME	COMMON NAME	CONDITION	STATUS	HT. x WIDTH (TO REMAIN)
1	4"	EUCALYPTUS SPP.	EUCALYPTUS	GOOD	REMAIN	20' x 15'
2	8"	EUCALYPTUS SPP.	EUCALYPTUS	GOOD	REMAIN	25' x 20'
3	12"	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPPER	GOOD	REMAIN	20' x 25'
4	24"	EUCALYPTUS SPP.	EUCALYPTUS	GOOD	REMAIN	30' x 20'
5	12"	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	GOOD	REMAIN	20' x 10'
6	12"	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	GOOD	REMAIN	20' x 10'
7	24"	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPPER	GOOD	REMAIN	25' x 25'
8	24"	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPPER	GOOD	REMAIN	20' x 25'
9	30"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
10	6"	JUNIPERUS C. 'TORULOSA'	HOLLYWOOD JUNIPER	GOOD	REMOVE	
11	6"	JUNIPERUS C. 'TORULOSA'	HOLLYWOOD JUNIPER	GOOD	REMOVE	
12	24"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
13	18"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
14	24"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
15	18"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
16	30"	SCHINUS MOLLE	CALIFORNIA PEPPER	GOOD	REMOVE	
17	24"	PHOENIX CANARIENSIS	CANARY ISLAND PALM	GOOD	REMOVE	
18	6"	SCHINUS MOLLE	CALIFORNIA PEPPER	GOOD	REMOVE	
19	30"	SCHINUS MOLLE	CALIFORNIA PEPPER	GOOD	REMOVE	
20	8"	ACACIA LONGIFOLIA	GOLDEN WATTLE	GOOD	REMOVE	
21	8"	ACACIA LONGIFOLIA	GOLDEN WATTLE	GOOD	REMOVE	
22	8"	ACACIA LONGIFOLIA	GOLDEN WATTLE	GOOD	REMOVE	



0 30' 60' 180'

Scale 1" = 60'

North

REGISTERED LANDSCAPE ARCHITECT DAVID L. HOWARD No. 2681 STATE OF CALIFORNIA

2-6-24 RENEWAL DATE

PREPARED BY:

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EXISTING TREES EXHIBIT

EMERALD HILLS

CITY OF SAN DIEGO, CALIFORNIA

SHEET L7

11/20/23