

Attachment C

Dudek Memorandum from May 5, 2025

MEMORANDUM

To:	Tom Sandefur, P.E., Assistant City Engineer, Public Works Department, City of Newport Beach
From:	Tommy Molioo, Senior Biologist and Chis Kallstrand, Senior Urban Forester
Subject:	Tree Evaluation Report for the Balboa Branch Library Replacement Project
Date:	May 5, 2025
Attachment(s):	Landscaping Plans

This memorandum includes the results of an evaluation of the proposed tree replacement activities for the Balboa Branch Library Replacement Project, located on the Balboa Peninsula in the city of Newport Beach, Orange County, California. Dudek's biologist and arborist met with city staff on site to conduct an evaluation of the existing trees that will be removed and trees proposed for replacement that would meet the requirements of both the landscaping design for the project, as well as provided adequate replacement habitat for nesting great blue herons (*Ardea herodias*) on site. This memo includes Dudek's recommendation for the replacement of tree species that are suitable from a biological and arboricultural perspective. This memo has also been prepared to respond to feedback from the California Coastal Commission (CCC) on suitable replacement trees.

Project Location and Description

The project site generally occurs north of the Pacific Ocean, south of Interstate 405, east of State Route 55, and west of Crystal Cove State Park. The project site is specifically located at the Balboa Branch Library at 100 East Balboa Boulevard on the Balboa Peninsula in the city of Newport Beach. The project proposes to demolish the existing Balboa Branch Library and construct a new fire department station with associated landscaping. All vegetation and trees on the project site will be removed for the proposed project. This includes a blue gum (*Eucalyptus globulus*) tree that contains an active heron rookery.

Biological Analysis

In coastal California, suitable trees for heron nesting are typically located in quiet, undisturbed habitats near estuaries, tidal marshes, or coastal wetlands. In other coastal states like Washington, herons sometimes nest on the ground, human-made structures, cliffs, and in shrubs, nesting mostly occurs in trees like alder, cedar, hemlock, pine, Douglas-fir (*Pseudotsuga menziesii*), spruce, hawthorn, bigleaf maple (*Acer macrophyllum*), and cottonwood (*Populus balsamifera*)¹. However, in Southern California, they often frequent taller trees near coastal zones, regardless of human activity. Specifically, herons favor tall, mature trees with broad, sturdy branches that can support large nests and accommodate colony nesting. Species such as coast live oak (*Quercus agrifolia*), Monterey

¹ Azerrad 2012. Management Recommendations for Washington's Priority Habitats and Species. Great Blue Heron *Ardea Herodias*. Washington Department of Fish and Wildlife

cypress (*Hesperocyparis macrocarpa*), and California sycamore (*Platanus racemosa*) provide the height, structure, and canopy cover herons need for safe nesting. Non-native eucalyptus (*Eucalyptus spp.*) or hoop pine (*Araucaria cunninghamii*) also frequently serve as nesting sites due to their size and limb strength.

Arboricultural Analysis

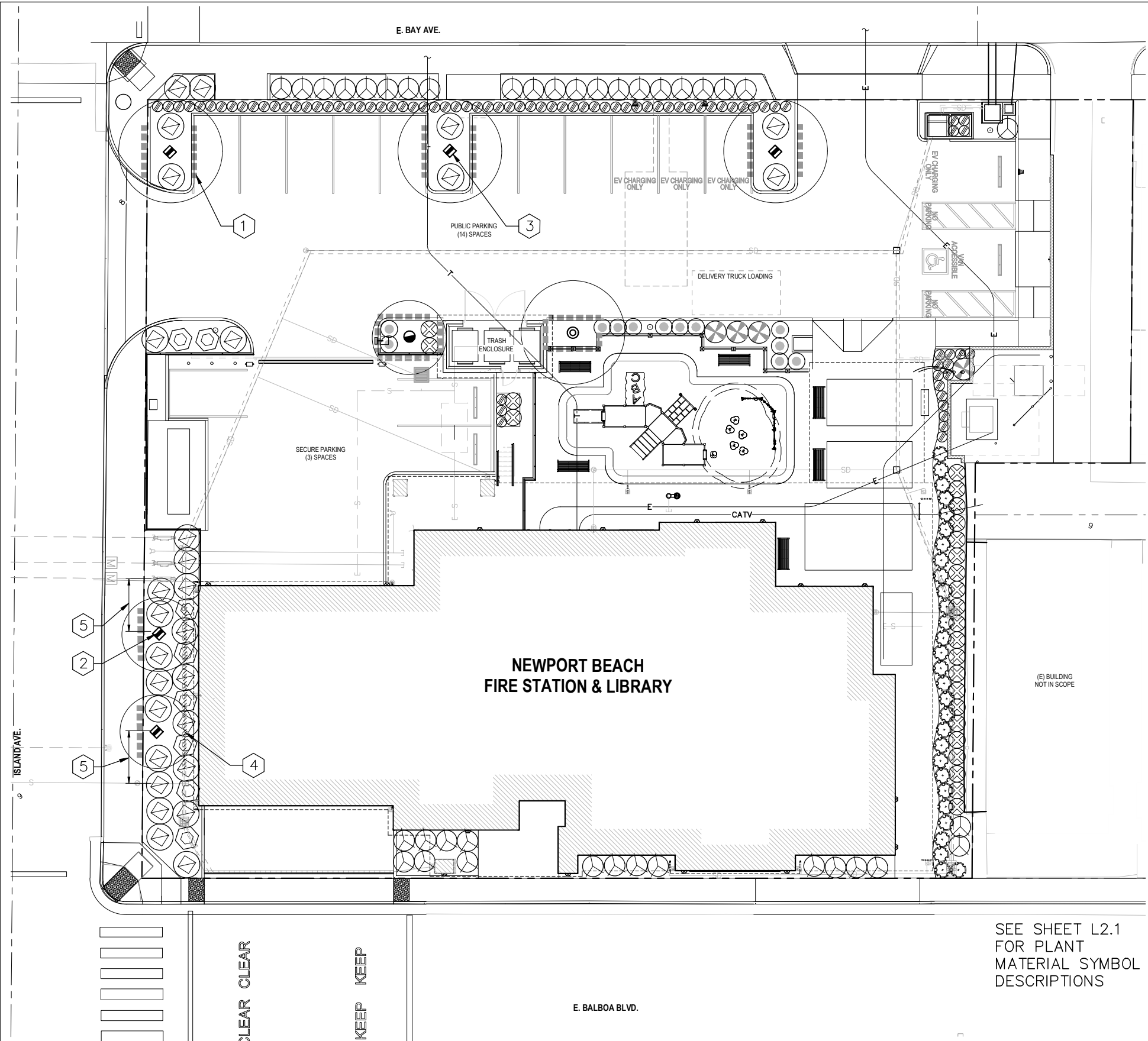
Following an evaluation of the project site plans, available spacing, and nesting requirements, Dudek recommends the use of Western Sycamore (*Platanus racemosa*) as a replacement species due to its ecological value, structural suitability for nesting birds, and compatibility with Southern California's climate. As a native species, Western Sycamore supports local biodiversity and provides ideal branching structure and canopy coverage for colonial nesting birds such as herons. It has a moderate to fast growth rate, averaging 24 to 36 inches per year under favorable conditions, particularly when given adequate water during the establishment period. Western Sycamores typically reach maturity in approximately 20 to 30 years, at which point they can attain heights of 60 to 80 feet with broad, spreading canopies that offer excellent nesting opportunities. Their adaptability to riparian and urban environments, coupled with their proven value as wildlife habitat, makes them a strong candidate for long-term habitat mitigation and landscape integration.

Based on an assessment of the site plans and a review of the intended future use of the property, Dudek has determined that the site can reasonably support the planting of five Western Sycamore trees without compromising existing infrastructure, future development plans, or the overall functionality of the space. This estimate takes into consideration appropriate spacing for tree health and canopy development, as well as long-term growth characteristics of the species. As shown in Attachment A, the proposed placement of the Western Sycamores has been strategically planned to optimize their potential as long-term nesting habitat while ensuring compatibility with site constraints. The introduction of five Western Sycamore trees will, over time, establish a structurally diverse canopy capable of supporting colonial nesting birds such as herons, thereby offering a sustainable and ecologically valuable replacement for the tree proposed for removal.

During the removal and replanting phase, it is important to consider the availability of existing trees in the immediate area that can continue to support heron nesting activity. Several nearby trees already exhibit the size, height, and structural characteristics preferred by herons for nesting. Notably, the mature eucalyptus trees located at the intersection of Island Avenue and W. Bay Avenue, directly across the street from the library, offer substantial canopy height and branching structure well-suited to heron rookeries. Additionally, the hoop pine situated in the median southeast of the library provides another viable nesting option. These trees, due to their mature stature and relative proximity to the original nesting site, are likely to serve as suitable interim nesting habitat for the local heron population. Their presence should help minimize disruption to the nesting cycle during the transitional period while newly planted trees, such as the proposed Western Sycamores, mature and develop sufficient canopy coverage to support long-term habitat needs.

Attachment A

Landscaping Plans



WATER EFFICIENCY LANDSCAPE WORKSHEET/CALCULATIONS

Referenced Evapotranspiration (ETo) 44.7				Landscape Area Sector Type Non-Residential			
Hydrozone And Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
LOW 1 (ALL PLANTING AREAS IN LOW 1 CATEGORY)	0.2	SUBSURFACE DRIP	.81	.24	3,366 SF	808	22,381
				AVERAGE .24	TOTAL 3,366 SF	TOTAL 808	
				Average ETAF for Regular Landscape Areas		IN COMPLIANCE	NOT IN COMPLIANCE
				TOTAL LANDSCAPE AREA – 3,366			
				SITE WIDE ETAF – .24			
				ETWU TOTAL / GALLONS PER YEAR – 22,381			
				MAWA TOTAL / GALLONS PER YEAR – 41,972			

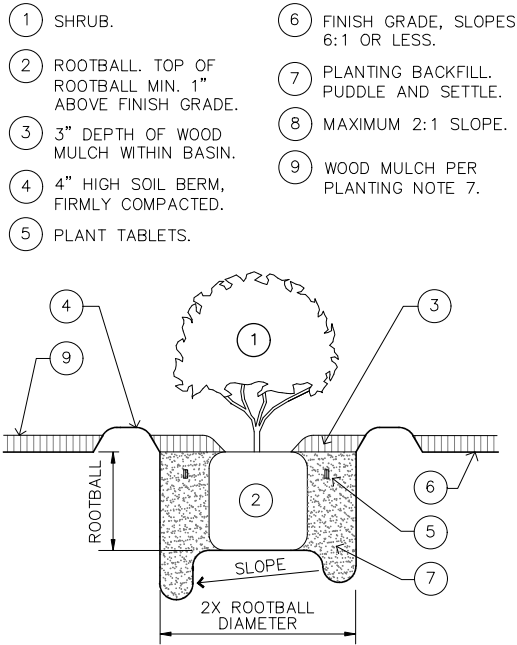
PLANT MATERIAL LEGEND - TREE / SHRUBS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	MINIMUM CALIPER	DETAIL	WUCOL CLASS	QUANTITY
TREES								
●	HYMENOSPORUM FLAVUM	SWEETSHADE	36" BOX	11'-13' HT. / 4'-5' SP. STANDARD	2.5"	A	MODERATE	1
◎	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	36" BOX	12'-14' HT. / 5'-6' SP. STANDARD	2.5"	A	LOW	1
◆	PLATANUS RACEMOSA	WESTERN SYCAMORE	36" BOX	13'-15' HT. / 6'-8' SP. STANDARD	2.5"	A	LOW	5
SHRUBS								
⬡	ALOE DAWAI	ORANGE FLAME ALOE	5 GAL.	SUCCULENT LEAVES, GREEN COLOR		B	LOW	8
⊖	CAREX DIVULSA	BERKLEY SEDGE	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	87
⊗	CARPENDERIA CALIFORNICA "ELIZABETH"	BUSH ANEMONE	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	4
⊙	LEYMUS CONDENSATUS "CANYON PRINCE" "CANYON PRINCE"	CANYON PRINCE WILD RYE	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	12
⊕	LOMANDRA "PLATINUM BEAUTY"	VARIEGATED DWARF MATT RUSH	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	29
⊗	ROSMARINUS OFFICINALIS "TUSCAN BLUE"	UPRIGHT ROSMARY	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	25
⊙	WESTRINGIA FRUTICOSA "MORNING LIGHT"	MORNING LIGHT COAST ROSEMARY	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	38
⬡	WESTRINGIA FRUTICOSA "MUNDI"	LOW COAST ROSEMARY	5 GAL.	FULL, BUSHY, GOOD GREEN COLOR		B	LOW	27

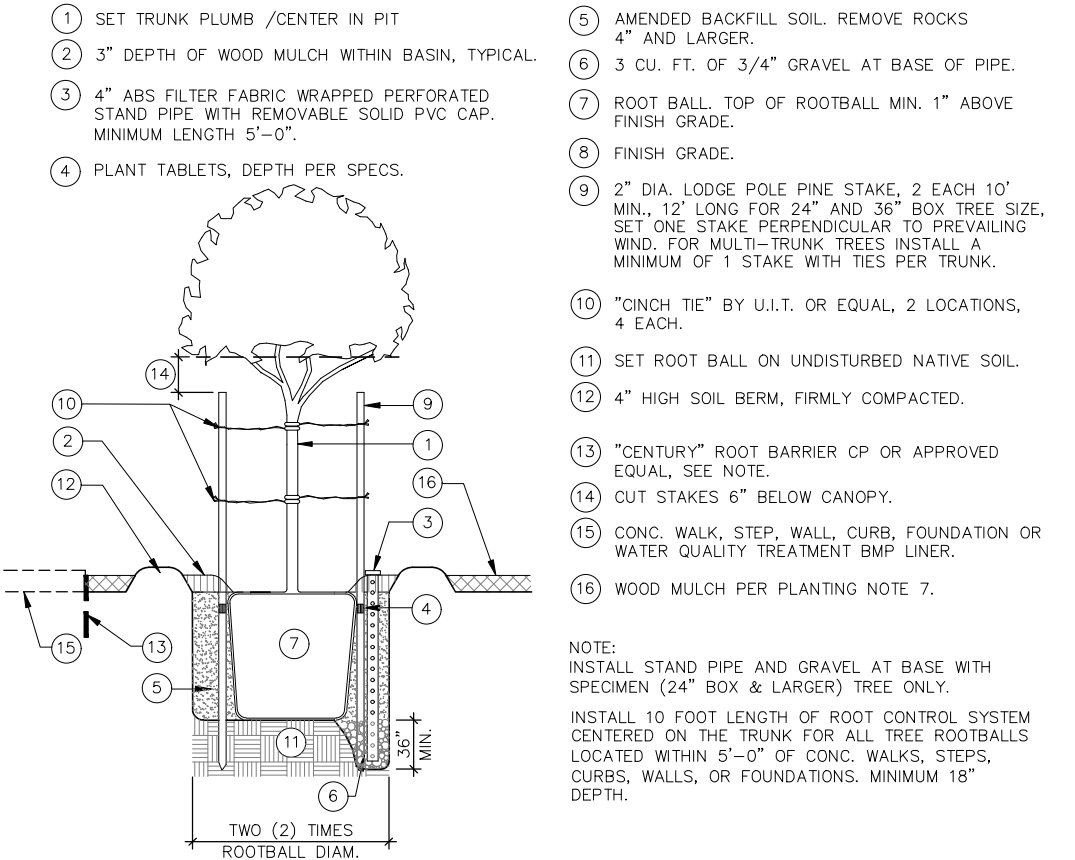
ROOT BARRIER

■■■■■ ROOT BARRIER, SEE PLAN FOR LOCATIONS. ANY TREE WITHIN 10' OF PAVING, FOOTING, BUILDING OR ANY OTHER HARDSCAPE SHALL HAVE ROOT BARRIER INSTALLED A MINIMUM OF 18" IN DEPTH, AND 0' IN LENGTH, CENTERED ON THE CENTERLINE OF THE TREE TRUNK (5' EACH SIDE). SEE SPECIFICATION FOR TYPE OF ROOT BARRIER.

NOTE:
PLANT MATERIAL QUANTITIES LISTED IN THE LEGEND ARE FOR THE CONTRACTOR'S REFERENCE ONLY. THE CONTRACTOR IS REQUIRED TO COMPLETE A THOROUGH TAKEOFF OF REQUIRED PLANT MATERIAL SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO SUBMITTING A BID OF ANY DISCREPANCIES IN QUANTITIES LISTED. THE CONTRACTOR IS REQUIRED TO INSTALL ALL PLANT MATERIAL SHOWN ON THE PLANS AS PART OF THE CONTRACT.



C SHRUB PLANTING
N.T.S.



A SPECIMEN TREE PLANTING / DOUBLE STAKE
N.T.S.



PARTERRE
SITE PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
1221 HAYES AVENUE
SAN DIEGO, CALIFORNIA 92103
PHONE: (619) 296-3713

PROJECT:

CITY OF NEWPORT BEACH

NEWPORT BEACH FIRE
STATION NO.1 & LIBRARY

110 E BALBOA BLVD
NEWPORT BEACH, CA 92661
CITY CONTRACT NO. C-8865-1



DESCRIPTION:	DATE:
50% DESIGN DEVELOPMENT	8/12/24
100% DD INTERNAL REVIEW	9/12/24
100% DESIGN DEVELOPMENT	9/30/24
60% CONSTRUCTION DOCUMENTS	1/15/25
PERMIT SUBMITTAL	3/11/25

NOT FOR
CONSTRUCTION

PROJECT NUMBER:
202401

SHEET TITLE:
PLANTING
LEGEND, DETAILS,
WATER
EFFICIENCY
WORKSHEET

SHEET NUMBER:

L2.1