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MEMORANDUM **505-222**

TO: **Kevin Gibson, P.E., Principal, RICK Engineering Company**

FROM: **William W. Todd, P.E., Dexter Wilson Engineering, Inc.** WT

DATE: **March 31, 2026**

SUBJECT: **East Harbor Island Redevelopment Project in the City of San Diego – Recommendations for Public Water Line Sizing**

Introduction

This memorandum will provide proposed public water line sizing recommendations to provide adequate water service to the East Harbor Island Redevelopment project in the City of San Diego. Currently, the site has existing commercial buildings. The proposed project is for the demolition of three rental car facilities and the airport temporary construction staging offices, realignment of Liberator Way, redevelopment of 9.8 acres for the Topgolf visitor-serving attraction, and development of a new, approximately 10.1-acre waterfront park and promenade. Land use designations assume that ultimate site buildout could include hotel towers containing a total of 1,350 rooms and associated amenities. However, hotel development is neither proposed nor reasonably foreseeable at this time and is not considered part of this project.

The project is located north of Liberator Way and east of Harbor Island Drive. See the exhibit showing a preliminary site plan in Attachment A.

Existing Water Service

Water service to the East Harbor Drive Redevelopment project will be provided by the City of San Diego from the University Heights 390 Pressure Zone public water system. The project site is bordered by an existing 16-inch public water line in Harbor Island Drive and an existing 16-inch public water line in North Harbor Drive. See the figure showing the existing water facilities in the vicinity of the project in Attachment B.

Recommendations for Public Water Line Sizing

A proposed public water line was configured in Liberator Way to provide water service to the project. The proposed public water line makes two connections to the existing 390 Pressure Zone public water system; one connection will be to the existing 16-inch public water line in Harbor Island Dive and one connection will be to the existing 16-inch public water line in North Harbor Drive. The two connections provide a looped system as required by the City of San Diego Water Design Guide.

To determine the public water line size required, the water system was analyzed under maximum day demand plus fire flow scenarios with the assumption that the two connections to the existing water system were made at the same time. The scenarios included the water system under normal operating conditions and pipe break conditions. Per Table 2-3 of the City of San Diego Water Facility Design Guidelines, a fire flow of 4,000 gpm was used in the analysis. Table 2-2 as well as Figures 2-1 and 2-2 from the Design Guide were used in estimating the maximum day demand for the project.

Based on the water system analysis, a proposed 12-inch public water line is recommended to be within Liberator Way. The entire length of the proposed 12-inch public water line and both connections to the existing 16-inch public water lines need to be installed and operational as part of the last phase of the development. The 12-inch public water line will provide residual pressures greater than 20 psi to hydrants and velocities less than 15 fps within public water lines. See the figure showing the proposed water facilities for the project in Attachment B.

Please contact us if you have any questions or concerns about our public water line sizing recommendations to serve the proposed East Harbor Drive Redevelopment project in the City of San Diego.

AO:WT:ah

Attachments

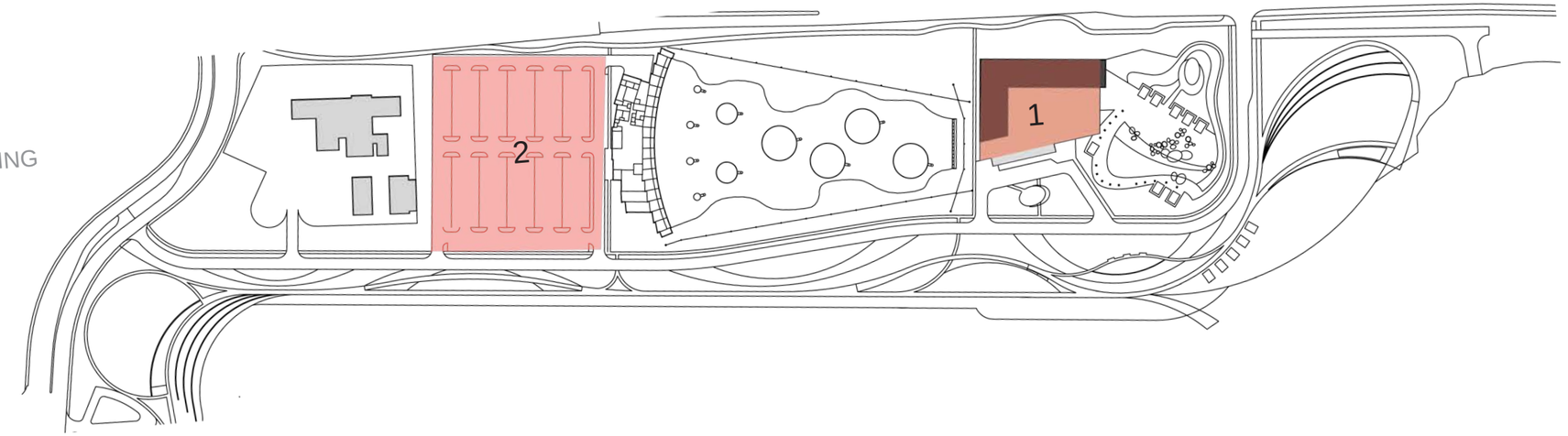
cc: Ed Walton, P.E., RICK Engineering Company

ATTACHMENT A

SITE PLAN EXHIBIT

PHASE 1

TOPGOLF SURFACE PARKING



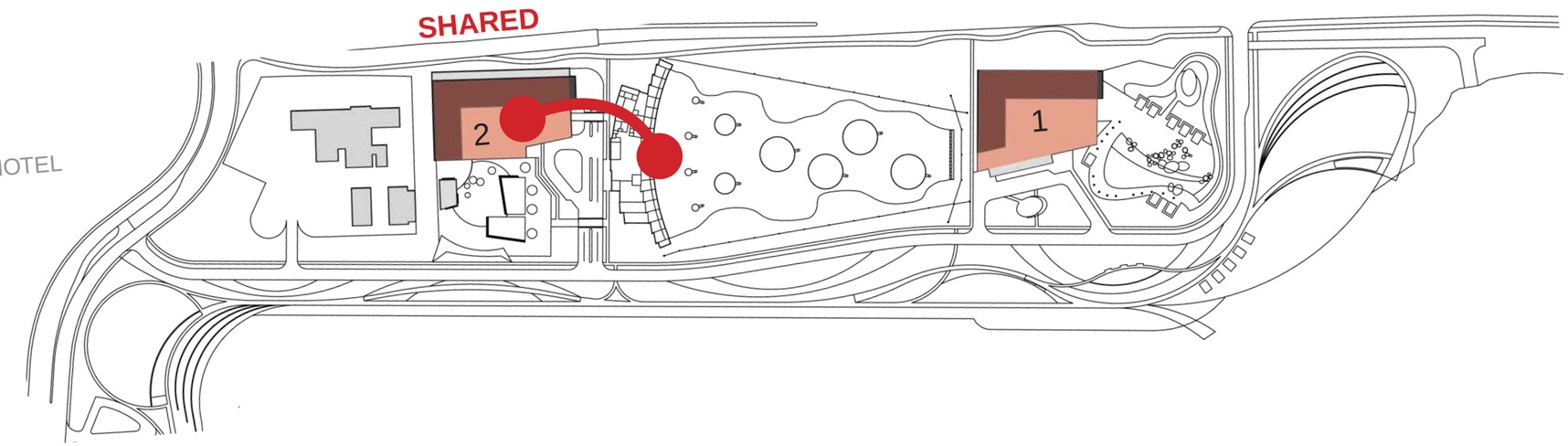
1 **495 KEYS**
HOTEL TOWER = 11 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 148 FT
HOTEL PARKING = 312

2 TOP GOLF PARKING = 400

495 TOTAL KEYS

PHASE 2

SHARED TOPGOLF AND HOTEL PARKING - STRUCTURED



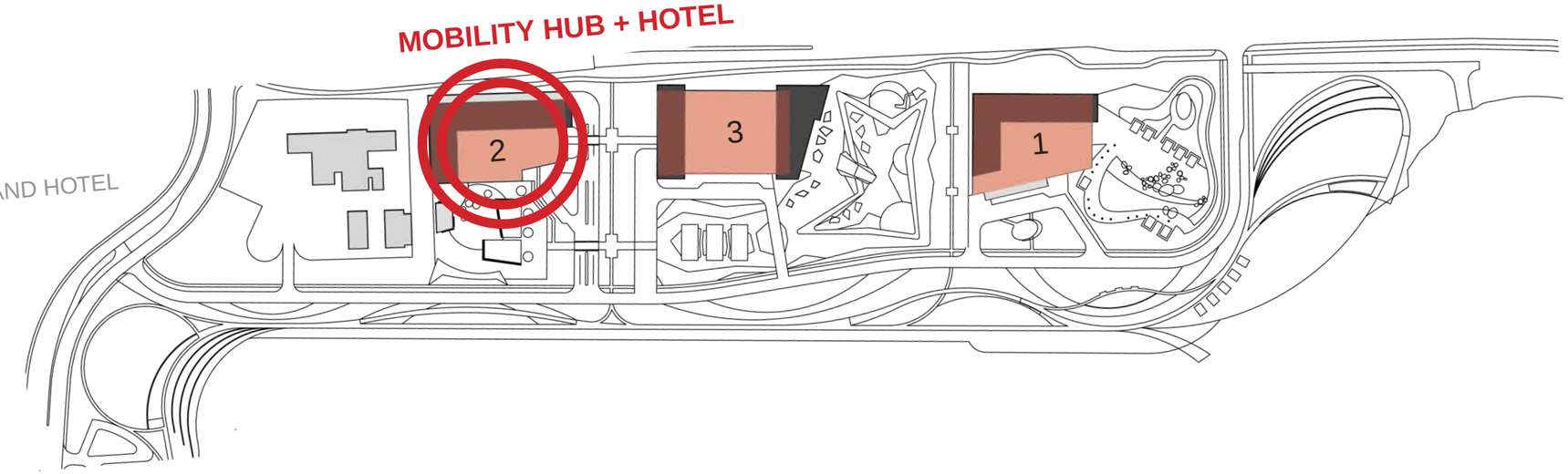
1 **495 KEYS**
HOTEL TOWER = 11 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 148 FT
HOTEL PARKING = 312

2 **360 KEYS**
HOTEL TOWER = 9 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 150 FT
HOTEL PARKING = 200
TOP GOLF PARKING = 600

855 TOTAL KEYS

PHASE 3

SHARED MOBILITY HUB AND HOTEL PARKING - STRUCTURED



1 **495 KEYS**
HOTEL TOWER = 11 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 148 FT
HOTEL PARKING = 312

2 **360 KEYS**
HOTEL TOWER = 9 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 150 FT
HOTEL PARKING = 200
TOP GOLF PARKING = 600

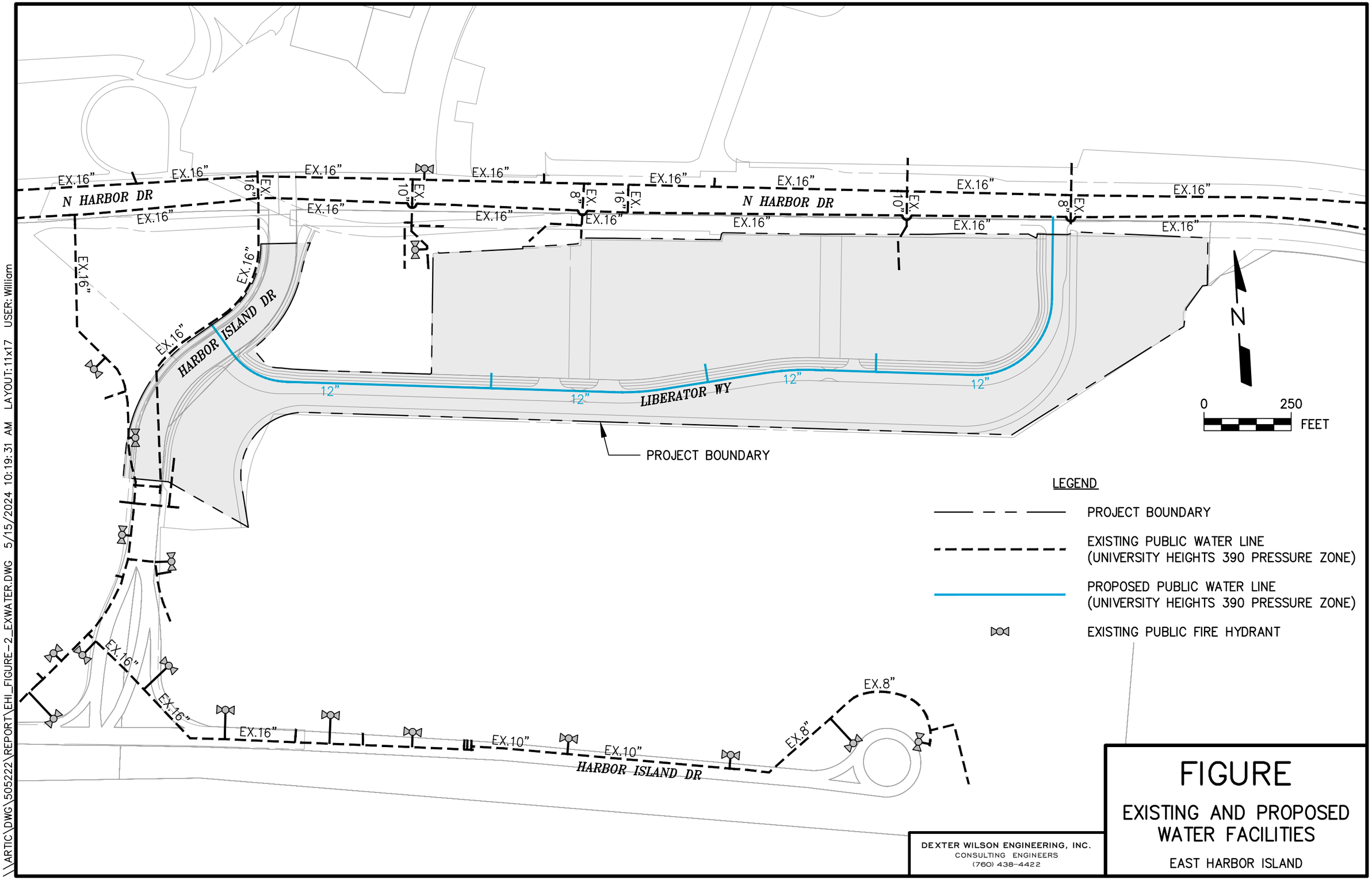
3 **495 KEYS**
HOTEL TOWER = 11 STORIES
BLDG TOTAL = 14 STORIES
BUILDING HEIGHT = 148 FT
HOTEL PARKING = 364

1350 TOTAL KEYS

PHASING STRATEGY

ATTACHMENT B

EXISTING WATER FACILITIES FIGURE



FIGURE

EXISTING AND PROPOSED WATER FACILITIES

EAST HARBOR ISLAND

\\ARTIC\DWG\505222\REPORT\EHI_FIGURE-2_EXWATER.DWG 5/15/2024 10:19:31 AM LAYOUT:11x17 USER: William