



## *Draft Report*

# Shipyards District Parking Structure Feasibility Study

*Prepared for:*

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Attachment A: Shipyard Tenant Survey Responses

Attachment B: Parking Demand Detail Sheets

## SHIPYARD DISTRICT PARKING STRUCTURE FEASIBILITY STUDY

This Project Study Report has been reviewed by the following Registered Professional Engineer. The Registered Professional Engineer attests to the recommendations, conclusions, and decisions that are based on the information contained herein.

\_\_\_\_\_  
Registered Professional Engineer

\_\_\_\_\_  
Date

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## EXECUTIVE SUMMARY

The purpose of this study was to analyze the feasibility of a parking structure off tidelands in the Port District that would provide additional parking capacity to facilitate the shipyard industries' planned growth, accommodation of Navy and subcontractor parking and displaced parking from the Bayshore Bikeway. The study analyzed parking demand, parking impacts from the shipyards on the Barrio Logan streets surrounding the shipyards, possible short and long term parking structure alternatives and provided an opinion of probable parking structure construction costs.

The initial effort for this study involved outreach to the shipyard tenants including distribution of surveys and conducting interviews in order to better understand the current operations within the study area. A survey was prepared and distributed to several shipyard tenant representatives, including General Dynamics National Steel and Shipbuilding Company (NASSCO), BAE Systems, Continental Maritime of San Diego, Inc. (CMSD), and CP Kelco. The purpose of the survey was to collect information about current and future business operations and employee parking uses. As a follow-up to the survey, the project team conducted interviews with each of the shipyard tenants to discuss specific parking issues and document general background information and workload information about each business. Interviews were conducted with the shipyard tenant representatives previously mentioned and two additional shipyard-related businesses - Burlington Northern Santa Fe Railroad (BNSF) and Naval Facilities Engineering Command (NAVFAC). The information provided at the interviews along with the information collected from the employer surveys assisted in developing, calibrating, and validating a parking demand forecast.

After initial outreach efforts were completed, a parking demand forecast was initiated to document the existing and projected parking conditions in the study area. The current available parking supply consists of 3,994 off-street parking spaces that are designated for shipyard employees including NASSCO, BAE Systems, CMSD, and CP Kelco. To understand the magnitude of parking impacts related to each shipyard tenant, the parking demand forecast for the Port of San Diego was analyzed on a tenant by tenant basis. Based on the parking demand

forecast, NASSCO currently has a parking deficit of 198 spaces that will increase to 1,943 spaces within a five year period as the projected employment growth occurs. The projected parking demand deficit of 1,943 spaces includes the 75 off-street parking supply reduction due to the proposed Bayshore Bikeway plan. The projected deficit will be further increased by the 181 on-street parking spaces to be removed on Harbor Drive due to the Bayshore Bikeway implementation. All other shipyard businesses located in the study area have adequate parking for both existing and projected parking demand. Additionally no other shipyard business, with the exception of NASSCO, was impacted with potential loss of spaces due to the proposed Bayshore Bikeway plan.

Based on the results of the parking demand analysis, a net gain of 2,124 parking spaces (1,943 parking space deficit plus the 181 parking spaces removed for the Bayshore Bikeway) will be needed to support the planned growth of NASSCO employment. Due to the fact that NASSCO was the primary demand driver for this parking need, potential parking structure location sites were identified that could reasonably supply the needed parking inventory within reasonable proximity to the employment walk-in location.

Two potential sites for development of the required parking were identified. Site 1 includes the property between the railroad tracks and Main Street, and extends from 27th Street to 28th Street. A new parking structure on Site 1 would need to supply 2,124 spaces in order to meet the projected demand. This site is adjacent to the primary demand driver, with the majority of the site within the 600' to 1200' walking radius. Site 2 includes an existing surface parking lot located between the railroad tracks and Main Street, and extends from Sampson Street southward to Schley and 26<sup>th</sup> Streets. The existing surface lot currently supplies 825 parking spaces. As such, in order to meet the needed parking spaces, a parking structure on this site would need to include a total of 2,949 spaces (2,124 + 825 spaces). The southern edge of this site is just outside the 1800' walking radius from NASSCO with the majority of the lot more than 2,000 feet away. Parking structure concepts were developed for each site to determine the general feasibility for development of the parking supply on each site.



Alternative 1 includes the parking structure concept for Site 1 located at 27<sup>th</sup> Street and Main Street. The proposed seven and one-half level parking structure includes 3 bays of parking on each level. The parking layout was developed using 9' x 18' parking stalls, with 26' drive aisles. The concept provides 2,006 parking spaces, 136 spaces short of the projected demand. If parking stalls are narrowed to 8'-6", an additional 50 parking spaces can be achieved with this same parking layout. If additional spaces are desired, a full bottom level of parking can be developed. Each of these options should be studied further during next phases of design to identify the preferred alternative. The total Year 2011 project costs were estimated at \$50,700,000 for Alternative 1.

Alternative 2 includes the parking structure concept for Site 2 located at Sampson Street and Main Street. The proposed five level parking structure includes 3 bays of parking on each level. The parking structure is proposed to use 9' x 18' parking stalls with 26' drive aisle in the middle bay. The one-way angled parking bays on each side of the structure will have a 17' drive aisle. With the layout as proposed, the parking structure provides a total of 3,145 parking spaces, 196 more than the 2,949 required for this site. The total Year 2011 project costs were estimated at \$79,800,000 for Alternative 2.

## INTRODUCTION

In June 2010, the Board of Port Commissioners approved a Capital Development Program (CDP) project to analyze the feasibility of a parking structure off tidelands in the vicinity of Main Street in San Diego. This parking structure is intended to provide additional parking capacity to facilitate the shipyard industries' planned growth, accommodation of Navy and subcontractor parking and displaced parking from the Bayshore Bikeway. Additionally, in response to that need and subsequent approval, the District commissioned a study to analyze parking demand, possible short and long term parking structure alternatives, and an opinion of probable parking structure cost. This study provides the methodology, assumptions, and findings of that study, and includes general recommendations for the implementation of new structured parking capacity within the District.

## PROJECT DESCRIPTION

Parking structure alternatives were presented and analyzed as part of the feasibility study. The purpose of these alternatives is to provide a solution to the existing parking shortage experienced within the Port of San Diego and adjacent Barrio Logan neighborhood. The plan and program presented in this study was developed to address the District's identified concerns to meet the needs of the anticipated parking patrons of the facility. The following tasks were completed as part of this effort:

- Surveys were distributed to each shipyard-related business to understand the operations of each tenant and projected growth;
- Interviews were conducted with each shipyard-related business to discuss and collect information about employee parking uses and employee parking locations;
- And, parking demand analysis was conducted for each shipyard-related business to determine the optimum phased parking structure development to facilitate the shipyard industries' planned growth.

## STUDY AREA

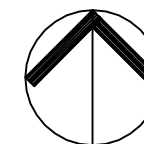
The Port of San Diego is located in the Barrio Logan Community Plan Area along the San Diego Bay and consists of Prime Industrial land use. Currently, there are three shipyard tenants on San Diego Bay including; General Dynamics National Steel and Shipbuilding Company (NASSCO), Continental Maritime of San Diego (CMSD), and BAE Systems. These shipyard tenants specialize in ship repair activities. Additionally, NASSCO is the largest construction shipyard on the west coast of the United States. These shipyard tenants as a whole serve as the largest employers of industrial workers in San Diego County. They have maintained this leading employment status since the early 1940's.

Parking has been a concern within the Barrio Logan neighborhood for decades due to the shortage of parking provided on-site for workers at the shipyard-related businesses. As a result, the community and city have undertaken various measures to control where people park through the use of residential permit parking districts and time limited parking. Additionally, the insufficient parking for industrial workers impacts the operation of business for the shipyard tenants by forcing them to stagger shift times, encourage extensive use of public transportation, and provide shuttle transport for workers from off-site locations.

Figure 1 shows the location of each shipyard-related business within the study area in relation to the Barrio Logan neighborhood. As shown in the figure, the Port District is bounded by Cesar Chavez Parkway to the west, Harbor Drive to the north, Navy Base San Diego to the east, and San Diego Bay to the south.



**FIGURE 1**  
**STUDY AREA**



## PREVIOUS PLANNING EFFORTS

As part of the initial review of on-site parking demands and usage, the project team reviewed available studies and designs to better understand the future of the District. The previous studies related to community parking impacts provided background information for the project area. Two projects in particular provided the most relevant background for this analysis: the Bayshore Bikeway (authorized by SANDAG) and the Barrio Logan Community Plan (authorized by the City of San Diego).

The Bayshore Bikeway Project has been planned for sections around the Bay, and most sections have been implemented at the time of this study. The remaining segment not in the process of completion is along the two and a half mile stretch along Harbor Drive from the Tenth Ave Marine Terminal along the working waterfront to Naval Base San Diego as shown in Figure 2. Based on the plan, the bikeway will be placed along the shoulder of the northbound lanes of Harbor Drive right-of-way, resulting in the relocation of existing on-street parking to an off-site location. More than 150 Harbor Drive parking spaces are expected to be affected by completion of this section of the bikeway. The City is concerned with the ramifications of the removal of parking spaces and its' impacts within the adjacent Barrio Logan neighborhood.

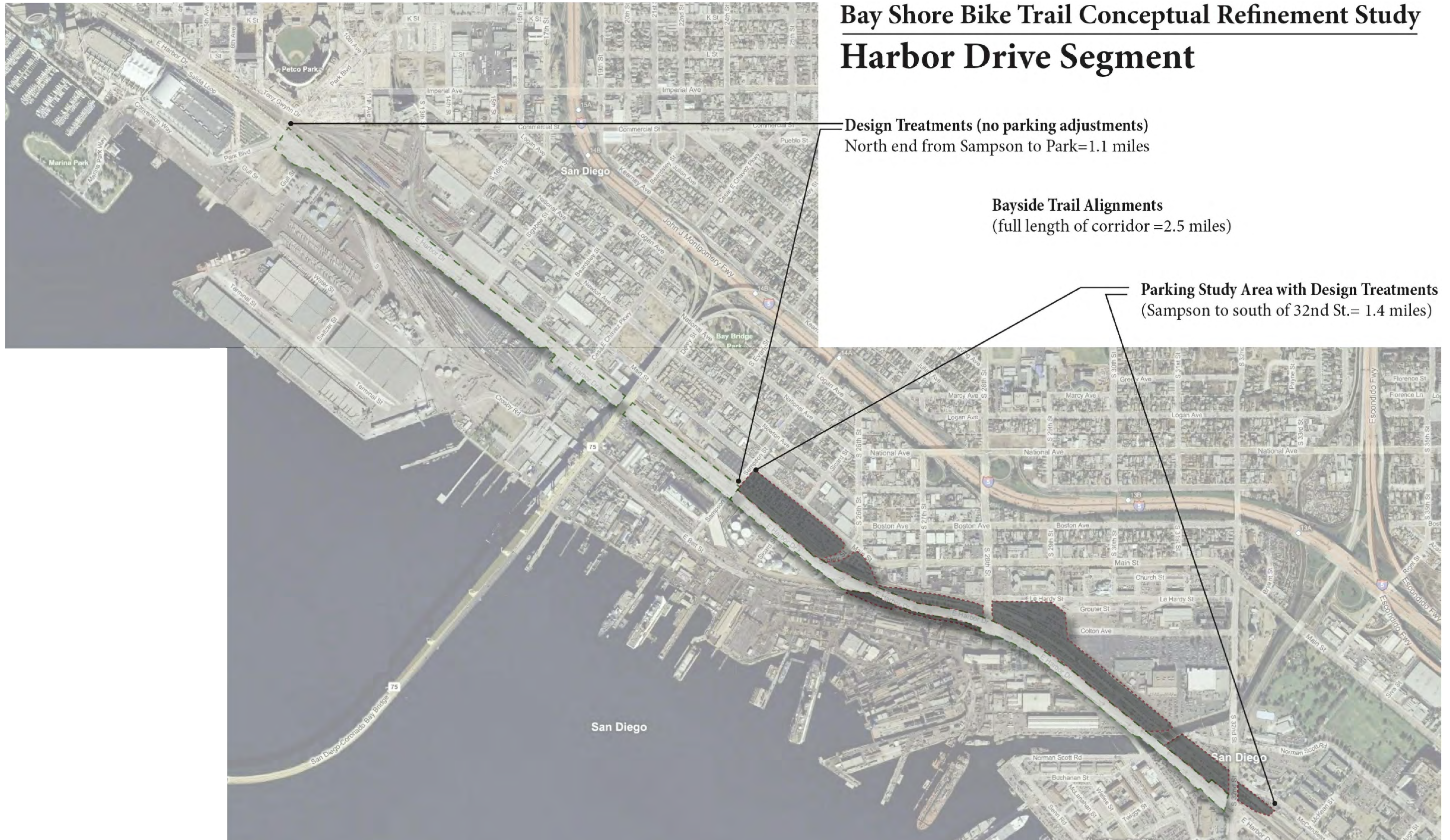
At the time of this writing, the Barrio Logan Community Plan Update was nearly complete. As part of this study, there was an extensive community outreach effort to document transportation and parking related concerns on-site and in the neighborhood. The results of this outreach indicated a shortage of on-street parking in the Barrio Logan neighborhood, primarily from spillover effects of parking shortages at the adjacent harbor-related industries. As a result of this finding, city planners have proposed land use designations which allow parking facilities in the District's designated "transition zone" surrounding the working waterfront, both to provide the needed parking and to act as a buffer between the community and industrial uses. Although a noise analysis has not been completed, it is believed that a proposed structure located in this zone would contribute to the reduction of noise from the shipyard businesses into the adjoining neighborhoods.

# Bay Shore Bike Trail Conceptual Refinement Study Harbor Drive Segment

**Design Treatments (no parking adjustments)**  
North end from Sampson to Park=1.1 miles

**Bayside Trail Alignments**  
(full length of corridor =2.5 miles)

**Parking Study Area with Design Treatments**  
(Sampson to south of 32nd St.= 1.4 miles)



•FIGURE CONTAINS INFORMATION PROVIDED BY KTU+A

**FIGURE 2**  
**BAYSHORE BIKEWAY STUDY AREA**



## SURVEY

A survey was prepared and distributed to shipyard tenant representatives to collect information about business operations and employee parking uses. The survey was distributed on July 11, 2011 to the following shipyard tenant representatives:

- General Dynamics National Steel and Shipbuilding Company (NASSCO)
- BAE Systems
- Continental Maritime of San Diego, Inc. (CMSD)
- CP Kelco

Each tenant was asked the same series of questions ranging from shift work schedules to parking uses and modes of transportation. The responses varied by tenant as some tenants, such as CMSD, indicated that they have sufficient parking on-site and other tenants, such as NASSCO, indicated that they lack sufficient parking and must rely on off-site lots and alternative modes of transportation. This parking related information was used to help develop parking facility recommendations and options, provided later in this study.

Survey responses for each tenant are provided in Attachment A.

## INTERVIEWS

As a follow-up to the initial survey efforts, the project team conducted interviews with each of the shipyard tenant to discuss specific parking issues and document general background information and workload information about each business. Interviews were conducted on July 28, 2011 and August 2, 2011.

Interviews were conducted with the following shipyard tenants: NASSCO, BAE Systems, and CMSD. Interviews with these shipyard tenants provided information regarding employee work levels and peak shifts as well as shift start and end times, on-site and off-site parking, multi-modal uses, internal transportation operations, and planned business projections. Additionally, tenants disclosed concerns regarding the current parking conditions and the impact it has on current business operations. Several business representatives expressed the concern with

employment turnover due to insufficient parking. Shipyard tenants were also given the opportunity to describe the ideal parking plan that would support both current and future demands. It was suggested that including a pedestrian bridge across Harbor Drive from the parking structure would eliminate conflicts of pedestrian and vehicular traffic during shift change and thus create a safer connection from the parking to the employment center.

In addition to the shipyard tenants previously mentioned, two additional shipyard-related businesses were interviewed - Burlington Northern Santa Fe Railroad (BNSF) and Naval Facilities Engineering Command (NAVFAC). The BNSF terminal is located northwest of the Port District. Currently, BNSF leases approximately 6 acres of land for shipyard-related parking spaces to both NASSCO and BAE Systems. NAVFAC is the facilities management group which supports the Naval Base San Diego that is located southeast of the study area. Naval operations directly impact the shipyard tenants since naval ship repair and maintenance are the primary business for the shipyard tenants.

The information provided at the interviews along with the information collected from the employer surveys assisted in developing, calibrating, and validating a parking demand forecast, as documented in the following sections.

#### PARKING DEMAND STUDY

After initial background review and outreach efforts were completed, a parking demand study was initiated to document the existing and projected parking conditions in the study area. The forecast was developed and validated by working with the shipyard tenants, the City of San Diego and other Community stakeholders. The forecast analyzed parking impacts on nearby businesses and neighborhoods, including a detailed parking supply and demand in the surrounding area. The following sections describe the processes involved for developing the parking demand forecast and summarize the study results.



## Data Collection

Parking occupancy counts were collected for on-street parking spaces and designated off-street employee surface parking lots. The parking occupancy data collection was conducted on Tuesday, July 12, 2011 from 4:00 AM to 6:00 PM, with counts occurring every two hours. An inventory of all designated off-street surface parking spaces was conducted during the data collection period, and verified by the information provided by the shipyard tenant representatives. Table 1 summarizes the parking inventory for off-street employee parking.

Table 1: Off-Street Parking Inventory

Shipyard Tenant	Total Parking Spaces
NASSCO	2,052
BAE Systems	1,189
CMSD	633
CP Kelco	120
Total	3,994

The on-street parking supply within the study area is consistently utilized for convenient parking adjacent to the Port District area, and is available on a first-come, first-served basis. Parking along Harbor Drive, Main Street, and Sampson Street are primarily utilized by shipyard employees, based on observations during the data collection period and discussions with shipyard tenants. Table 2 summarizes the parking inventory for on-street parking within the Port District.

Table 2: On-Street Parking Inventory

Location	Total Parking Spaces
Harbor Drive (North of 32 <sup>nd</sup> Street to Sampson Street)	258
Main Street (Sampson Street to Schley Street)	90
Sampson Street (Harbor Drive to Belt Street)	22
Total	370

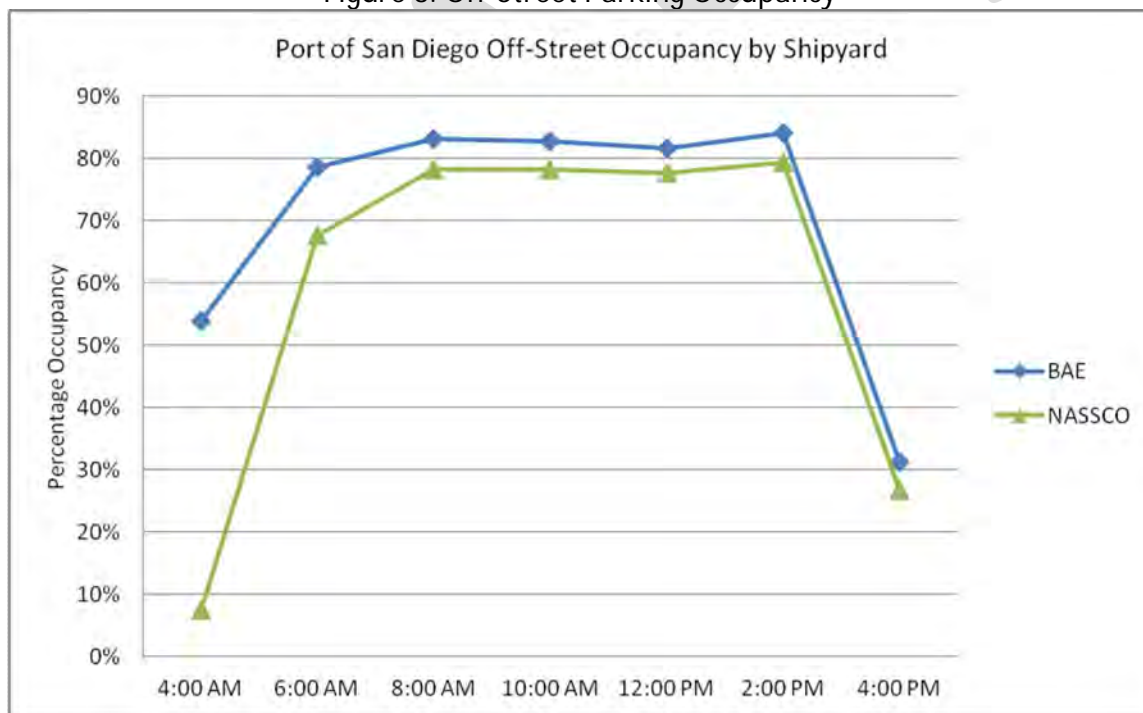
As shown in Table 2, a majority of available on-street parking are located on Harbor Drive between Sampson Street and 32<sup>nd</sup> Street. On-street parking is limited north of the Port District

due to the time restrictions and residential permit parking located in the Barrio Logan community. Therefore, on-street parking use data was not observed in this area.

To understand the magnitude of parking impacts related to each shipyard tenant, the parking demand forecast for the Port of San Diego was analyzed on a tenant by tenant basis. As reflected in Table 1, NASSCO and BAE Systems control and utilize a majority of the off-street parking supply. Both CMSD and CP Kelco also provide on-site, off-street parking for employees and contractors; however, occupancy data was not collected for these tenants because of site access restrictions for these areas.

Figure 3 displays the results of the parking occupancy survey for off-street parking for NASSCO and BAE Systems.

Figure 3: Off-Street Parking Occupancy



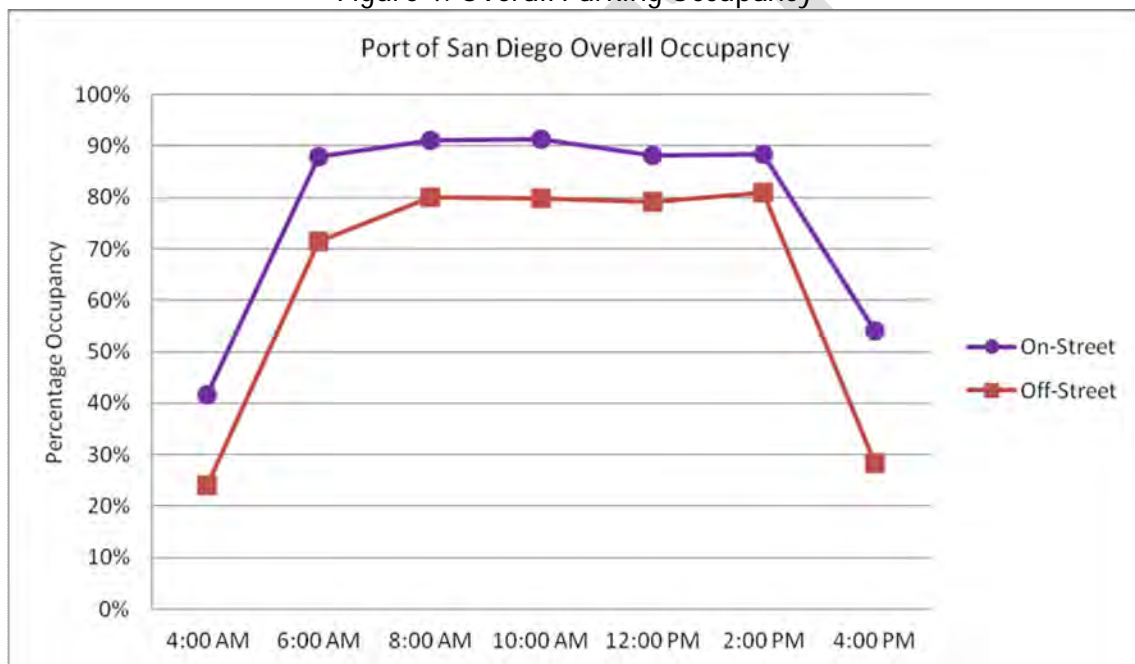
The results indicate a peak occupancy between 6:00 AM and 2:00 PM with a significant decrease by 4:00 PM. The peak occupancy for both tenants is approximately 80%.

A majority of the off-street parking spaces provided for NASSCO and BAE Systems are located off-site within the Port District and adjacent Barrio Logan Neighborhood.

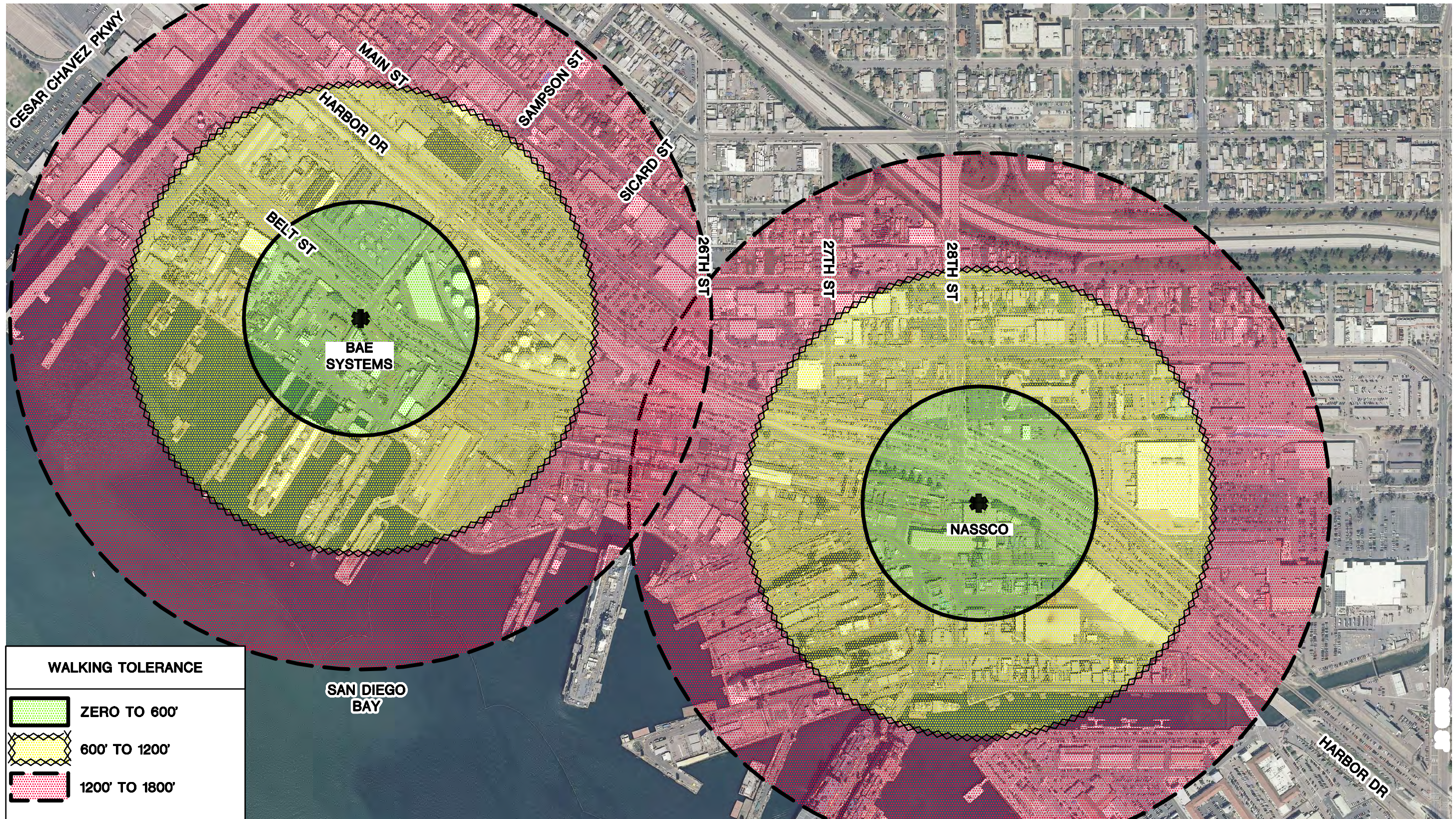
Figure 5 shows the approximate location of the entrance for each of these tenants, as well as the standard walking tolerance radii with the most favorable within 600 feet radii and the least favorable parking within 1,800 feet radii. As the figure shows, the longest walking radius (1,800 feet) encompasses a majority of the parking for each tenant.

Additionally, an overall occupancy evaluation was conducted for the on-street parking system, including the locations documented in Table 2. Figure 4 displays the results of the on-street parking occupancy in relation to off-street parking occupancy.

Figure 4: Overall Parking Occupancy

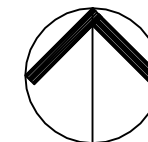


As indicated in the graph, on-street parking maintains a higher occupancy than off-street parking; with a peak occupancy for on-street parking of approximately 90%. It should be noted that Harbor Drive is near full capacity during the peak occupancy. The trends exhibited by the on-street parking occupancy are consistent with the trends found in the off-street occupancy exhibit, which indicates that the parking demand for these areas are driven by employee parking demands and uses, and are directly related to the peak employment shifts.



WALKING TOLERANCE	
	ZERO TO 600'
	600' TO 1200'
	1200' TO 1800'

**FIGURE 5**  
**SHIPYARD TENANT LOCATION**



## Parking Demand Forecast

The shipyard industry parking demand forecast provides current parking demand needs, as well as forecasted parking needs for a period of up to 10 years. The following describes the variables factored into the demand forecast.

### Peak Parking Demand

All shipyard businesses operate in shifts throughout the day and night. Therefore, an adjustment was made to the existing demand to better represent the total number of parking spaces needed for various times of days, based on the peak shift change. The demand includes employees, subcontractors, and government officials identified by each tenant. However, the demand does not account for United States Navy personnel, which are currently being transported by shuttle bus to and from the respective sites on an as-needed basis, or finding on-street parking.

### Parking Supply

Parking supply includes all available off-street parking spaces as presented in Table 1. Some of the shipyard tenant off-street parking is currently being leased from BNSF. The parking supply does not include on-street parking inventory presented in Table 2. On-street parking are public spaces and available to any user. However, parking occupancy on-street patterns follow the shift patterns that would indicate employee parking, as reflected in Figure 4.

### Projected Parking Demand

The projected parking demand is based on an assumed growth within the next five years. The assumed growth of the shipyard businesses is directly related to the support of U.S. Navy requirements for vessel maintenance. It is assumed that the number of Navy vessels docked in San Diego is estimated to increase by approximately 17% in the next three years. For the purpose of this study, a 20% growth was assumed for all shipyard businesses with the exception of NASSCO which indicated a 60% growth within the next five years.

### Multi-Modal Adjustment

Due to the limited parking supply and limited land availability to build additional supply, many shipyard-business employees choose alternative modes of transportation to commute to work. Both vanpools and the trolley are utilized as modes of transportation. Each shipyard tenant provides current numbers of employees utilizing alternative modes of transportation. These numbers are included in the multi-modal adjustment to determine the overall parking demand.

### Parking Demand Projections

Based on these variables, Table 3 summarizes the parking demand for each of the shipyard tenants. The existing parking demand was determined based on the existing peak supply versus the existing peak parking demand for each of the four employment zones within the study area. Similarly, the projected parking demand was determined based on the existing parking supply versus projected peak parking demand for each zone. It should be noted that parking surplus from one tenant cannot be reasonably shared with tenants experiencing a parking deficit in a different employment zone due to excessive walking distances.

Table 3: Shipyard Parking Demand

Shipyard Tenant	Existing Parking Demand Surplus/Deficit (+/-)	Projected Parking Demand Surplus/Deficit (+/-)
NASSCO	-198	-1,943
BAE Systems	+299	+119
CMSD	+233	+153
CP Kelco	+20	+0

*\*Projected Parking Demand Surplus and Deficit from each tenant cannot be reasonably shared with another tenant due to excessive walking distances and tenant land leases.*

According to the parking demand forecast, NASSCO currently has a parking deficit that will continue to increase as the projected employment growth occurs. The existing parking demand deficit is currently being offset by available on-street parking. However, the deficit will be further increased by the 75 off-street parking spaces in the NASSCO parking lots and 181 on-street parking spaces to be removed on Harbor Drive. These on-street and off-street losses in parking supply are due to the Bayshore Bikeway implementation. The 75 off-street parking

spaces to be removed reduce the parking supply and increase the projected parking demand deficit for NASSCO. As footnoted in Table 3, the projected surplus for BAE Systems and CMSD are not available to offset the parking deficit for NASSCO.

The proposed parking structure should provide enough parking spaces for 2,124 vehicles (1,943 parking space deficit plus the 181 parking spaces removed for the Bayshore Bikeway). Detailed worksheets for each shipyard tenant are located in Attachment B.

## PARKING SUPPLY SOLUTIONS

Based on the results of the parking demand analysis, a net gain of 2,124 parking spaces is needed to support the planned growth of NASSCO employment. Due to the fact that NASSCO is the primary demand driver for this parking need, potential parking structure location sites were identified that could reasonably support this parking need in reasonable proximity to the employment location. Two sites were identified and are described in more detail below.

### Parking Structure Sites

Two potential sites for development of the required parking have been identified. Each of these two sites is shown in Figure 6, along with their respective proximity to the primary demand location (NASSCO employment center).

Parking Structure Site 1 is the property between the railroad tracks and Main Street, and extends from 27th Street to 28th Street. This site is currently used for a variety of businesses including the following:

- All Services Auto Storage, South 28<sup>th</sup> Street
- El Pollo Loco – 28<sup>th</sup> / Main St (fast food restaurant)
- VCA Main Street Animal Hospital, Main Street
- IMS Recycling Services, Main Street / 27<sup>th</sup> Street

Each of the above businesses, except the fast food restaurant, would need to be demolished and relocated in order to construct the new facility. It is anticipated that all would be relocated except the El Pollo Loco restaurant.

This site currently is not used for employee parking, so a new parking structure would need to supply 2,124 spaces in order to meet the projected demand. This site is adjacent to the primary demand driver, with the proposed site being located within the 600' to 1200' walking radius.

Parking Structure Site 2 is an existing surface parking lot located between the railroad tracks and Main Street, and extends from Sampson Street southward to Schley and 26<sup>th</sup> Streets. The existing surface lot currently supplies 825 parking spaces. As such, in order to meet the parking demand projections, a parking structure on this site would need to include a total of 2,949 spaces (2,124 + 825 spaces). The southern edge of this site is just outside the 1800' walking radius from NASSCO with the majority of the lot more than 2,000 feet distance away. Further, this lot has utility easements spread throughout the lot which would limit development of a parking structure.

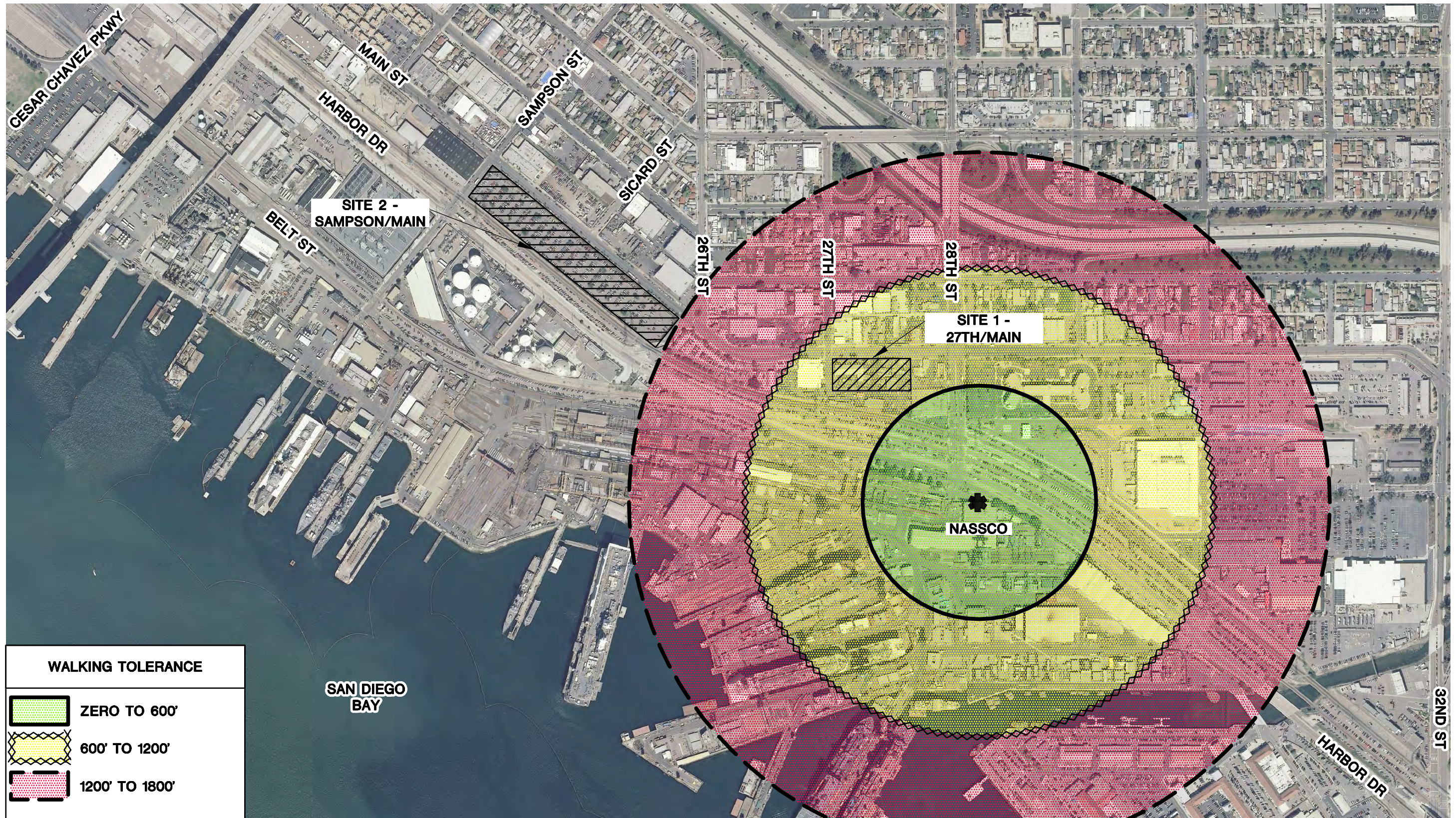
#### Development Codes/Permits

Each of the two sites is within the Barrio Logan Planned District Subdistrict D (BLPD-SUBD-D). Specific uses allowed are defined in Section 131.0622 in the Land Development Code for IH-2-1 zoning designations. Parking structures are a Permitted Use within this zoning designation. Development regulations are identified in the Planned District for Industrial uses in Section 152.0313. Specific requirements of this section include the following:

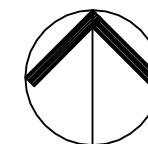
- Minimum Front Setback (from Main St)      10 feet
- Minimum Side Setback                              5 feet
- Maximum Floor Area Ratio                        2.0
- Maximum Building height                        35 feet

Exceptions to these requirements may be approved, upon application and hearing from a Hearing Officer as long as the exceptions are consistent with the intent of Subdistrict D.





**FIGURE 6**  
**PARKING STRUCTURE POTENTIAL SITE LOCATIONS**



The process for entitlements for development of a parking structure will need to be confirmed. It is recommended that once a preferred site is identified, that a coordination meeting with the City be conducted to review design parameters including setbacks, height, and landscape requirements in order to confirm agreement prior to moving forward with the design process.

Another item to note is that the project site is within the Coastal Zone and will be subject to provisions of the California Coastal Act. The City of San Diego has a certified Local Coastal Program (LCP), and the site is in the Barrio Logan Harbor 101 LCP. The City of San Diego will perform a consistency determination with the LCP to issue a Coastal Development Permits (CDP), or process a LCP amendment through the California Coastal Commission if needed.

Finally, it is anticipated that the project will require an environmental review in accordance with the California Environmental Quality Act (CEQA).

#### Building Code

Based on the proposed project schedule, it is anticipated that the project would begin construction in 2013. The following regulatory building codes are anticipated and should be used in further design phases.

- 2010 California Building Code (International Building Code – 2009)
- 2010 California Fire Code (International Fire Code – 2009)

#### PARKING STRUCTURE CONCEPT ALTERNATIVES

##### Alternative 1 – Site 1 at 27<sup>th</sup> St/Main St

This site is bounded by 27<sup>th</sup> Street to the north, Main Street along its east edge, and 28<sup>th</sup> Street to the south. The west edge is adjacent to the railroad and trolley tracks. In addition to the railroad tracks, there is a high voltage electrical power line, owned by San Diego Gas & Electric Company (SDG&E) that borders the western edge of the site.

The site currently is used by a variety of businesses, but the majority of the site encompasses a recycling center. There are two smaller businesses along Main Street – a veterinary hospital, and a fast food restaurant located at the 28<sup>th</sup>/Main Street intersection. An auto storage facility is located in the SW corner of the property adjacent to 28th Street.

The site generally slopes downward from the northeast corner to the southwest corner. There is approximately 5 to 7 feet of elevation change across the site at the south end.

The proposed parking structure is a seven and one-half level structure with 3 bays of parking on each level. In order to provide the required number of parking spaces on this site, the structure exceeds the height restrictions within the District for this site. A variance will be required to allow the development of this option. A half level is proposed for the lowest level along the south end, with access directly to this level from the southwest corner from 28<sup>th</sup> Street. The first full level is proposed to align with Main Street, and then 6 levels are proposed above. The parking structure layout (shown in Figure 7) consists of 3 bays of parking, each with 2-way drive aisles and 90-degree parking. Parking ramps are located in the middle bay for vertical circulation between levels. One vehicular entrance/exit is proposed along Main Street, one on 27th Street, and one on 28th Street.

The parking layout is developed using 9' x 18' parking stalls, with 26' drive aisles. The concept provides 2006 parking spaces, 136 spaces short of the projected demand. If parking stalls are narrowed to 8'-6", an additional 50 parking spaces can be achieved with this same parking layout. If additional spaces are desired, a full bottom level of parking can be developed. Figure 8a through Figure 8d illustrate the floor plans.

If this site is selected as the preferred site, additional study should be completed in the next phases of design to study various alternatives that may provide the needed parking demand for this site, as well as an analysis of the feasibility of obtaining a variance from the 35 foot height restrictions. The further analysis should also confirm the number of stalls, and entry/exit locations for the parking structure.

# Figure 7: Alternative 1 Site Layout

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Parking  
Structure

San Diego, CA

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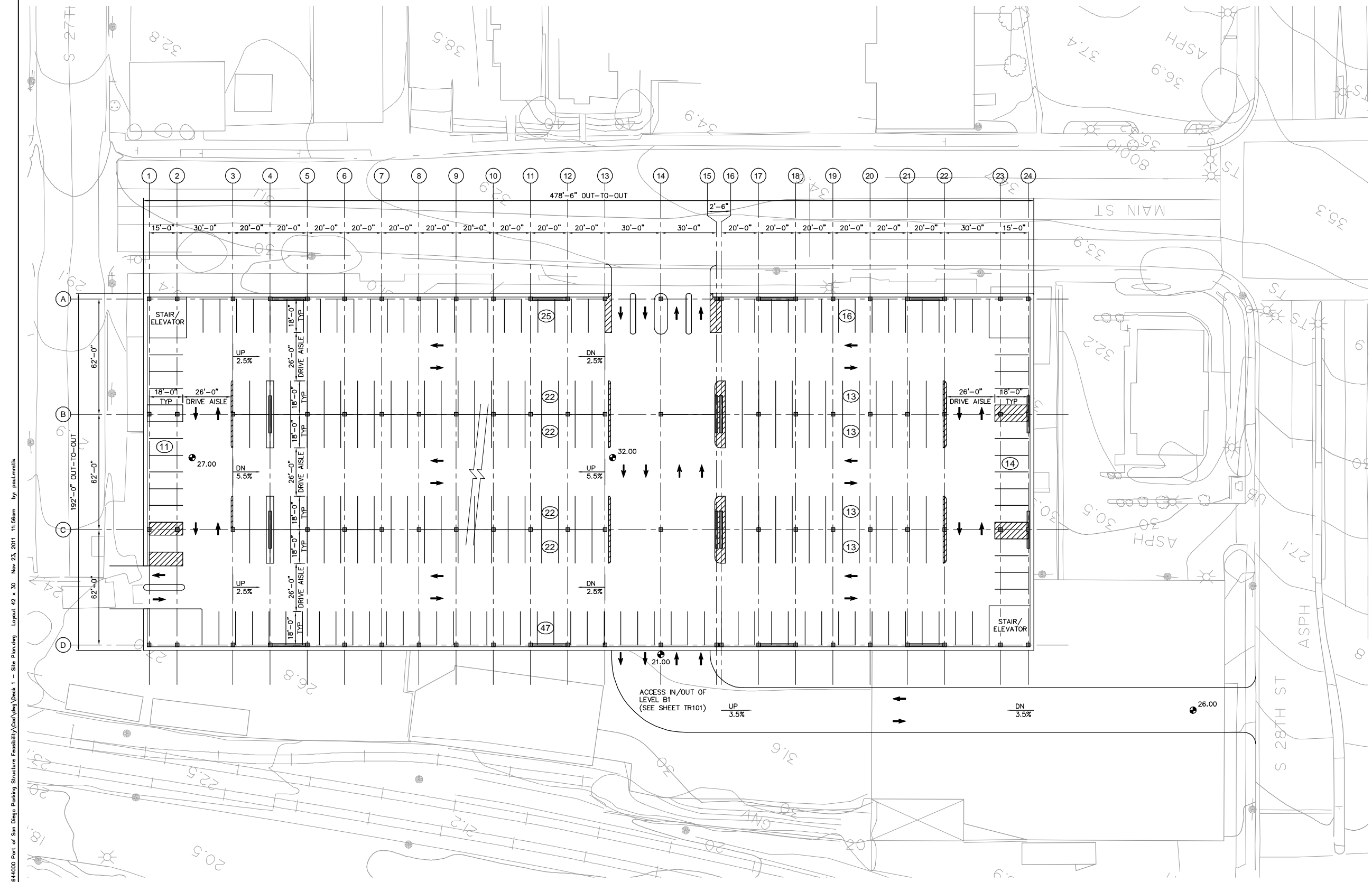
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PROJECT NO.: \_\_\_\_\_  
FILENAME: DECK 1 - SITE PLAN.DWG

SITE PLAN

CONCEPTUAL DOCUMENTS

S101

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# Figure 8a: Alternative 1, Floor Plan B1

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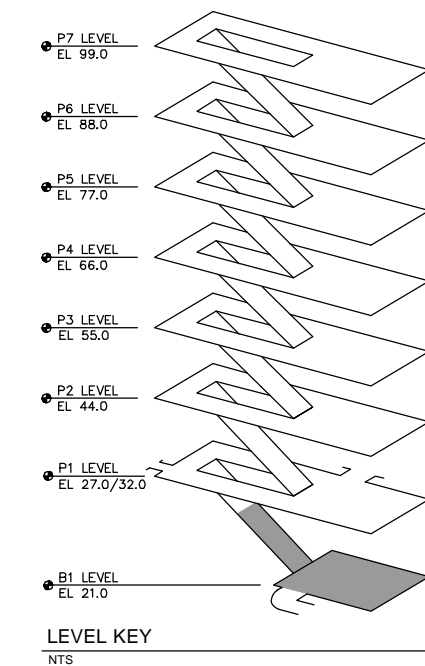
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PARKING SUMMARY	
LEVEL	TOTAL PARKING SPACES
P7	236
P6	274
P5	274
P4	274
P3	274
P2	274
P1	253
B1	147
<b>TOTAL</b>	<b>2006</b>



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**STRIPING PLAN**  
**LEVEL B1**

CONCEPTUAL DOCUMENTS



**1 STRIPING PLAN - LEVEL B1**  
SCALE: 1" = 20'-0"  
TR101

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# Figure 8b: Alternative 1, Floor Plan P1

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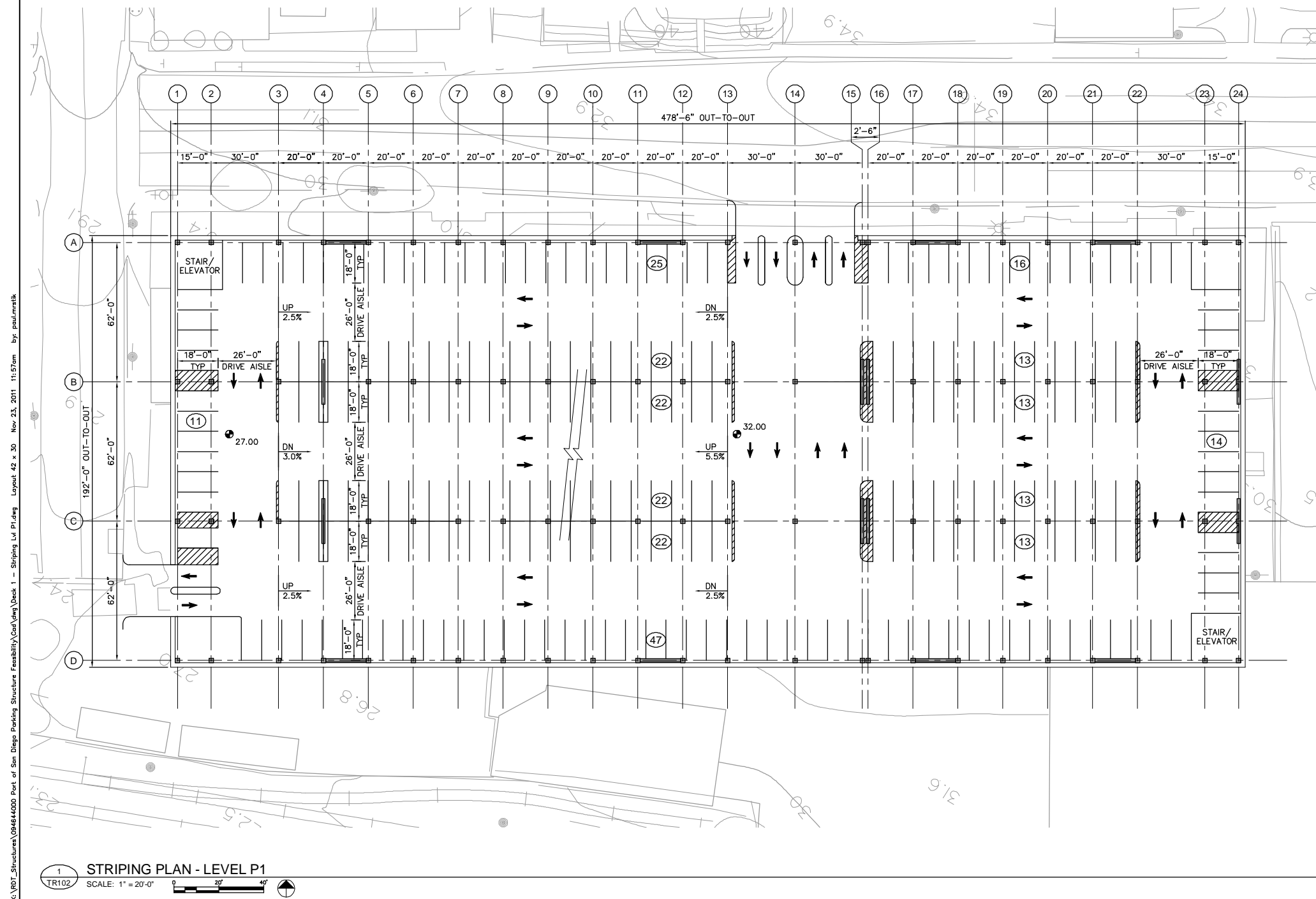
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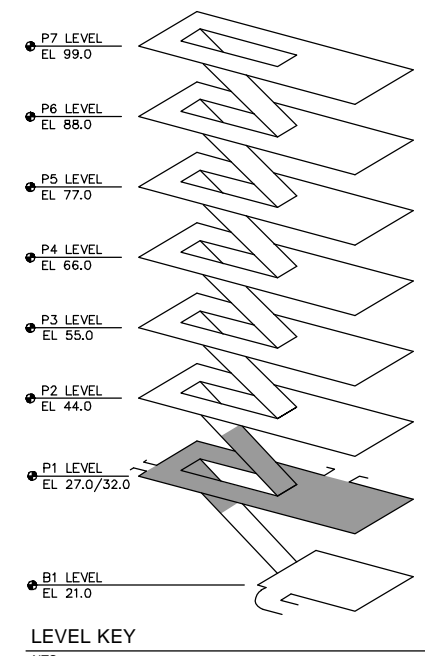
27th & Main Parking Structure

San Diego, CA



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1 STRIPING PLAN - LEVEL P1  
TR102 SCALE: 1" = 20'-0"



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FILENAME: DECK 1 - STRIPING LVL P1.DWG

STRIPING PLAN  
LEVEL P1

CONCEPTUAL DOCUMENTS

TR102

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# Figure 8c: Alternative 1, Floor Plan P2-P6

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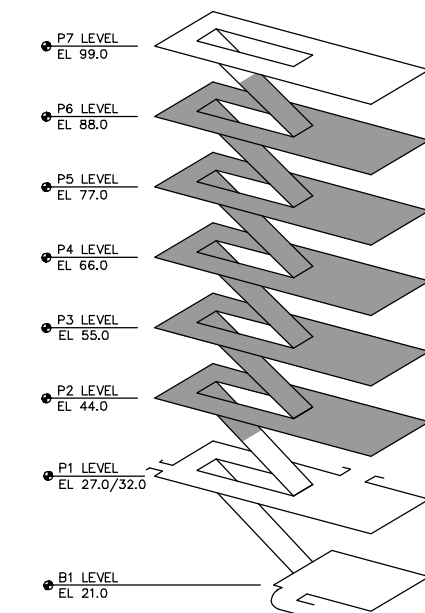
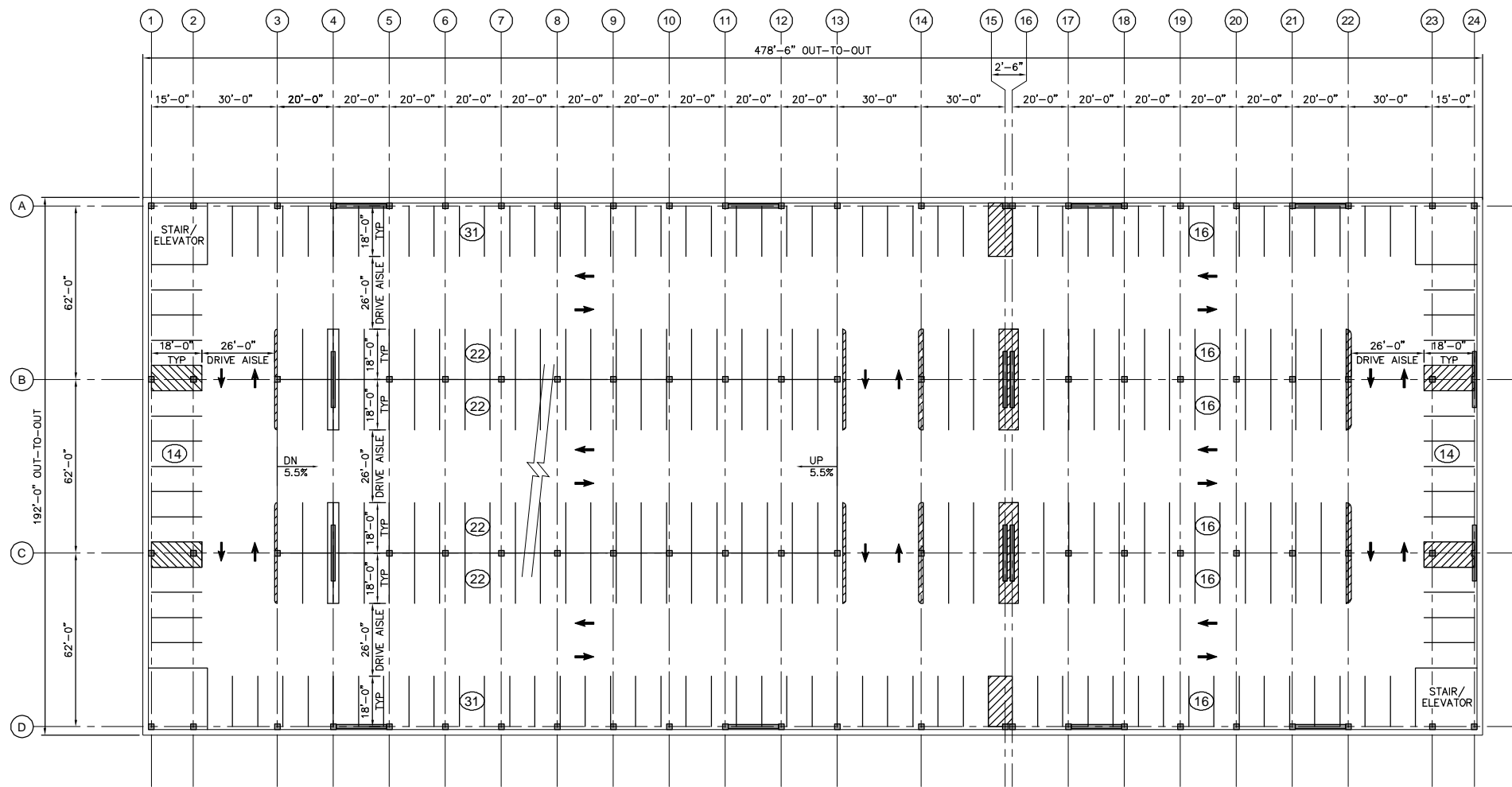
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STRIPING PLAN  
LEVELS P2 - P6

CONCEPTUAL DOCUMENTS

TR103

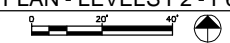
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**1 STRIPING PLAN - LEVELS P2 - P6**  
TR103 SCALE: 1" = 20'-0"



# Figure 8d: Alternative 1, Floor Plan P7

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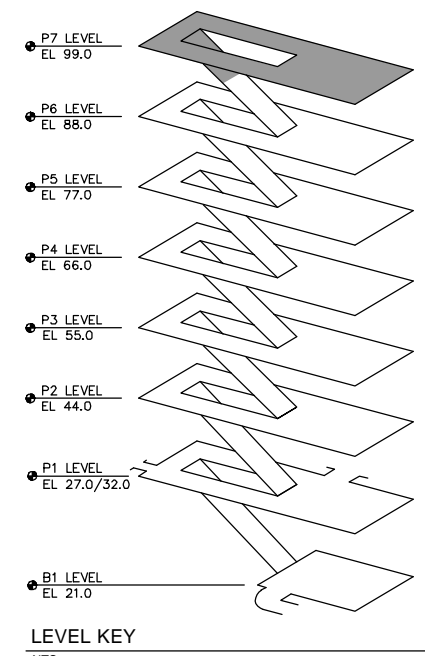
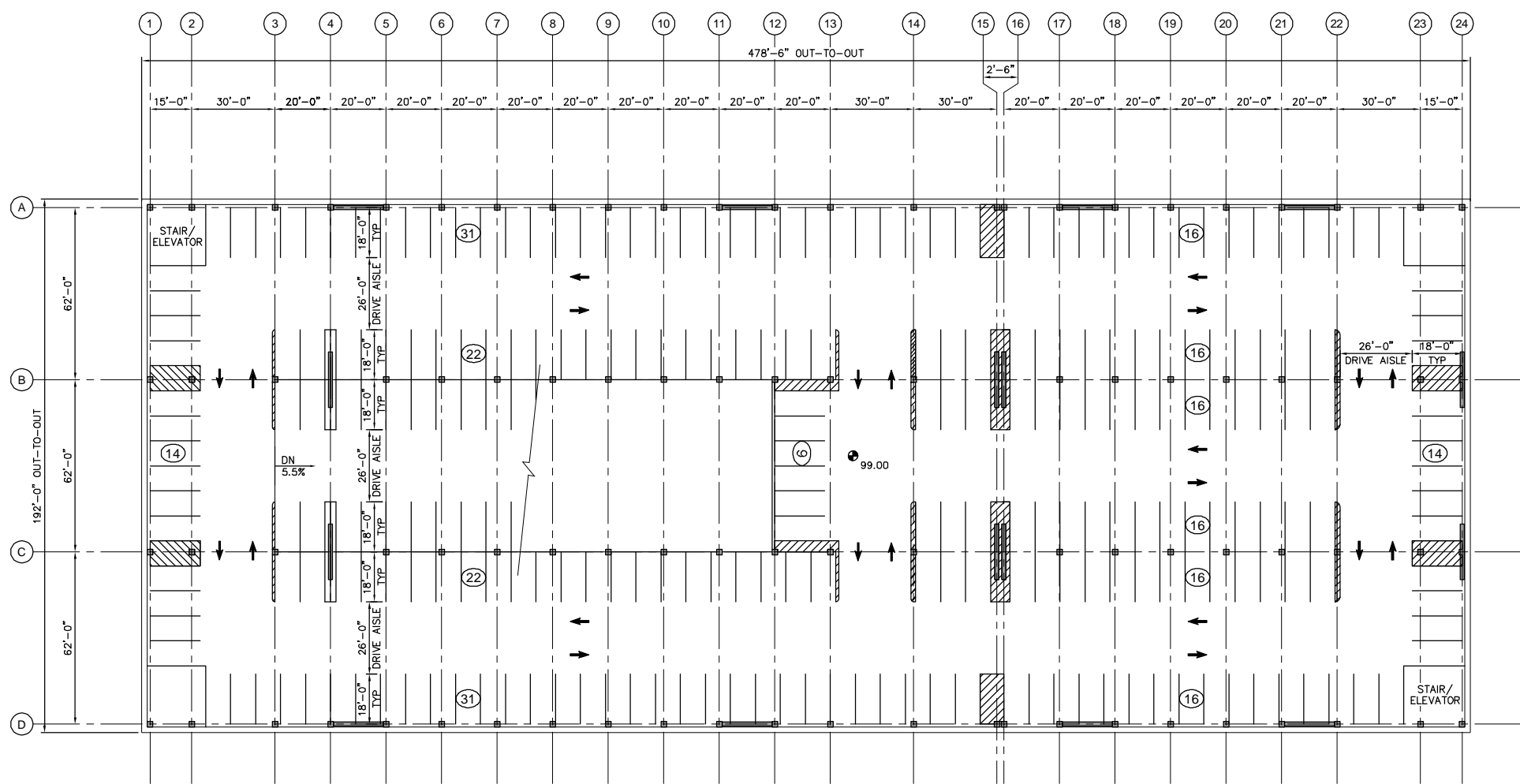
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FILENAME: DECK 1 - STRIPING LVL P7.DWG

STRIPING PLAN  
LEVEL P7

CONCEPTUAL DOCUMENTS

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## Project Requirements

The following general project requirements have been identified for the continued planning, design and technical requirements for this project based on available information to date.

### *Civil*

#### *Demolition*

Existing curb, gutter, sidewalk and pavement that are in conflict with the proposed parking structure will be removed and disposed of off-site. Each of the buildings on this site, except for the fast food restaurant in the SE corner, will have to be demolished. The following general project requirements have been identified for the continued planning, design and technical requirements for this project based on available information to date.

#### *Utilities*

No existing utilities, other than normal feed lines are anticipated within the project boundaries. Utility feeds to each of the existing buildings that are demolished are proposed to be removed and capped. Water supply from Main Street is available for connection to the proposed structure.

#### *Storm Drainage*

Storm water will be directed toward current/future catch basins and storm sewers as per best management practices (BMP) for the proposed new structure. Floor drains will be provided in the deck and tied to vertical risers that extend below grade.

#### *Pavements*

New pavement, base and sub-base within the proposed new deck structure will consist of slab-on-grade concrete for the below grade level. Driveway entrances will be tied into existing pavements at the entrance locations.

### *Traffic Access*

Access for vehicles to the street level (P1) of the parking structure is anticipated to be provided from Main Street, 27<sup>th</sup> Street, and 28<sup>th</sup> Street in one location along each side.

Internal circulation will be provided by parking ramps on 5.5% slopes inside the parking structure.

### *Structural*

#### *Foundation*

The foundation for the parking structure will be determined following a geotechnical investigation of the site. It is anticipated that Seismic Zone Category D will apply to this site, however no geotechnical information was available for this study.

#### *Structure*

The first level of this structure is proposed to be below grade. As such, the ground floor will be a concrete slab-on-grade with cast-in-place concrete retaining walls around the perimeter. These walls can be integrated with the perimeter columns to provide the foundation for structure above.

The elevated structure is anticipated to be long span construction with columns spaced at approximately 62' center to center in each bay. This will minimize the columns within the parking areas of the structure. The structural system is anticipated to be either a cast-in-place post-tensioned concrete system, or a precast concrete system. The structural loadings will comply with the building code requirements, and are recommended to support 40 pounds per square foot live load. Minimum floor slopes will be provided for drainage. The stairways/elevator cores are anticipated to be free-standing structures isolated from the parking structure elevated levels with expansion joints. The primary structure will require 1 transverse expansion joint with double columns at this location. Beam depths are estimated at 3'-0" deep. Floor to floor heights are proposed at 11'-0" between levels.

## *Architecture*

The parking structure will front to 27th Street and Main Street. It is anticipated that the exterior façade of the structure will be designed to be compatible with the adjacent structures at this site. The building facades will be simple, yet elegant to mesh with the neighborhood. Due to the linear nature of the structure along Main Street, architectural treatments may be considered to help break up the length and make it more interesting for views from Main Street. The ground level of the structure will be open to the adjacent streets. Landscaping will be provided along each side between the deck and the adjacent streets.

Due to the length of the site, it is anticipated that elevators will be provided in at least two locations. Stair towers will be located adjacent to each elevator, as well as along the other sides of the structure in order to meet fire code exit requirements.

## *Electrical*

### *Lighting*

The structure will include a complete lighting system to provide illumination within the structure including the parking areas, drive aisles, and stair/elevator and lobby areas. The interior lighting will be surface or pendant mounted fixtures supported by the structure above. Lighting on the roof level (P7) will be provided by pole mounted fixtures supported at interior column locations. Exit and emergency egress lighting will be provided in stairwells as per code. The minimum average illumination levels will have an average sustained intensity as per code.

### *Power*

Electrical power supply will be provided by San Diego Gas & Electrical Company via an underground service entrance.

### *Mechanical*

Mechanical ventilation may be required for the below –grade level unless natural ventilation wells can be created around the perimeter. It is desired to design ways to allow the bottom level to be naturally ventilated without the aid of mechanical ventilation. All upper levels are anticipated to be designed as an open parking structure so that no mechanical ventilation system will be required.

### *Plumbing*

Floor drains in the supported levels with accompanying drain lines will be sized and located to capture runoff that can be directed into the existing storm drainage system located in the adjacent streets. The drains will have strainers.

### *Fire Protection*

The parking structure will be designed to meet open parking structure requirements. As such, the fire protection system will be designed to meet code requirements for an open parking structure. It is anticipated that this will include a dry standpipe fire protection system.

### *Signs*

All traffic regulatory and wayfinding signs will meet industry standards for parking structures.

### *Schedule*

The project planning, design, approval, bid, and permits are estimated to take up to 27 months. Construction is estimated to take up to 16 months with closeout of the project estimated at an additional 6 months. A summary of the proposed project schedule major milestones is presented below.

Table 4: Alternative 1 Schedule

Milestones	Dates
Project Study Report Approved	2/1/2012
Project Plan Development*	7/1/2012
Financing and Land Assembly	7/1/2012 – 8/1/2014
Site and Pre-engineering	8/31/2012
Begin Environmental Phase	9/1/2012
Circulate Draft Environmental Document	3/1/2013
Draft EIR Project Report	5/1/2013
End Environmental Phase	7/1/2013
Begin Design Phase	7/1/2013
End Design Phase	7/1/2014
Demolition of Existing Buildings	10/1/2014
Begin Construction Phase	11/1/2014
End Construction Phase	2/1/2016
Begin Closeout Phase	2/1/2016
End Closeout Phase	7/1/2016

\*Includes project delivery planning, site selection, user negotiations, and agreements.

### Opinion of Probable Costs

The opinion of probable costs is based on information that is available to date and does not include geotechnical information. The costs are based on estimated average costs per square foot for structure below grade, on-grade, and elevated. Costs include estimates for excavation, retention, and utilities. A summary of the estimated hard construction costs in Year 2011 are presented below (costs associated with demolition of existing buildings in not included in this Opinion of Probable Cost).

Table 5: Alternative 1 Hard Construction Cost Estimate

Item	Year 2011 Hard Construction Cost Estimate
Earthwork	\$900,000
Retaining Walls	\$720,000
Slab on Grade	\$2,210,000
Elevated Floors	\$33,667,500
Total Hard Cost	\$37,497,500

Soft costs (Planning, architectural, engineering, legal, loan costs, permits, project management, insurance, lease buyouts, material testing, inspections, etc.) are estimated to add up to an additional 35% of construction costs. As such, these are estimated at \$13,202,500. Resulting Total Year 2011 project costs are estimated at \$50,700,000.

Recent trends in construction costs in California over the past few years indicate moderate annual increases. Given a Year 2014 start date for construction, an estimated 10-15% increase in costs is anticipated.

Total escalated construction costs that consider a Year 2014 start date for construction is estimated at \$50,000,000 - \$57,000,000. Total estimated project costs are \$68,000,000 - \$77,000,000.

#### Alternative 2 - Site 2 at Sampson St/Main St

This site is bounded by Sampson Street to the north, Main Street along its east edge, and Schley Street to the south. The west edge is adjacent to the railroad and trolley tracks. In addition to the railroad tracks, there is a high voltage electrical power line, owned by San Diego Gas & Electric Company (SDG&E) that borders the western edge of the site.

The site is currently used as a surface parking lot for employees working in the District. The parking lot is currently bordered by a fence around its entire perimeter, with vehicular access to the lot provided by a single driveway to Main Street, south of Sampson Street. The surface lot is relatively flat along Main Street, and slopes gently downward toward the railroad tracks.

The proposed parking structure is a five level structure with 3 bays of parking on each level. In order to keep the parking structure below the height limitations on this site, it is proposed that one level be below street grade, one at street level, and 3 above. The parking structure layout consists of one-way angled parking on the perimeter bays, with 2-way, 90-degree parking in the middle bay. Two parking ramps are located in the middle bay for vertical circulation between levels. Two vehicular entrance/exits are proposed along Main Street.

The parking structure is proposed to use 9' x 18' parking stalls with 26' drive aisle in the middle bay. The one-way angled parking bays will have a 17' drive aisle. With the layout as proposed, the parking structure provides a total of 3,145 parking spaces, 196 more than the 2,949 required for this site. Figure 9a through Figure 9d illustrate the floor plans.

If this site is selected as the preferred location, then additional alternatives on this site should be studied in the next phases of design in order to confirm the preferred alternative, specifically related to number of stalls, entrance/exits, stair/elevator locations, and heights/setbacks.



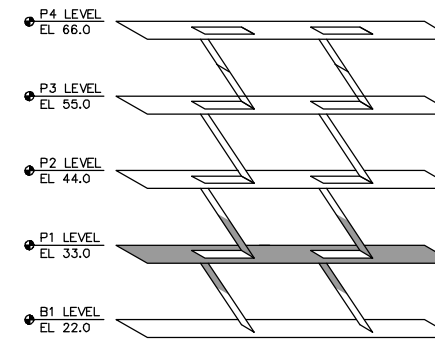


# Figure 9b: Alternative 2, Floor Plan P1

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Structure

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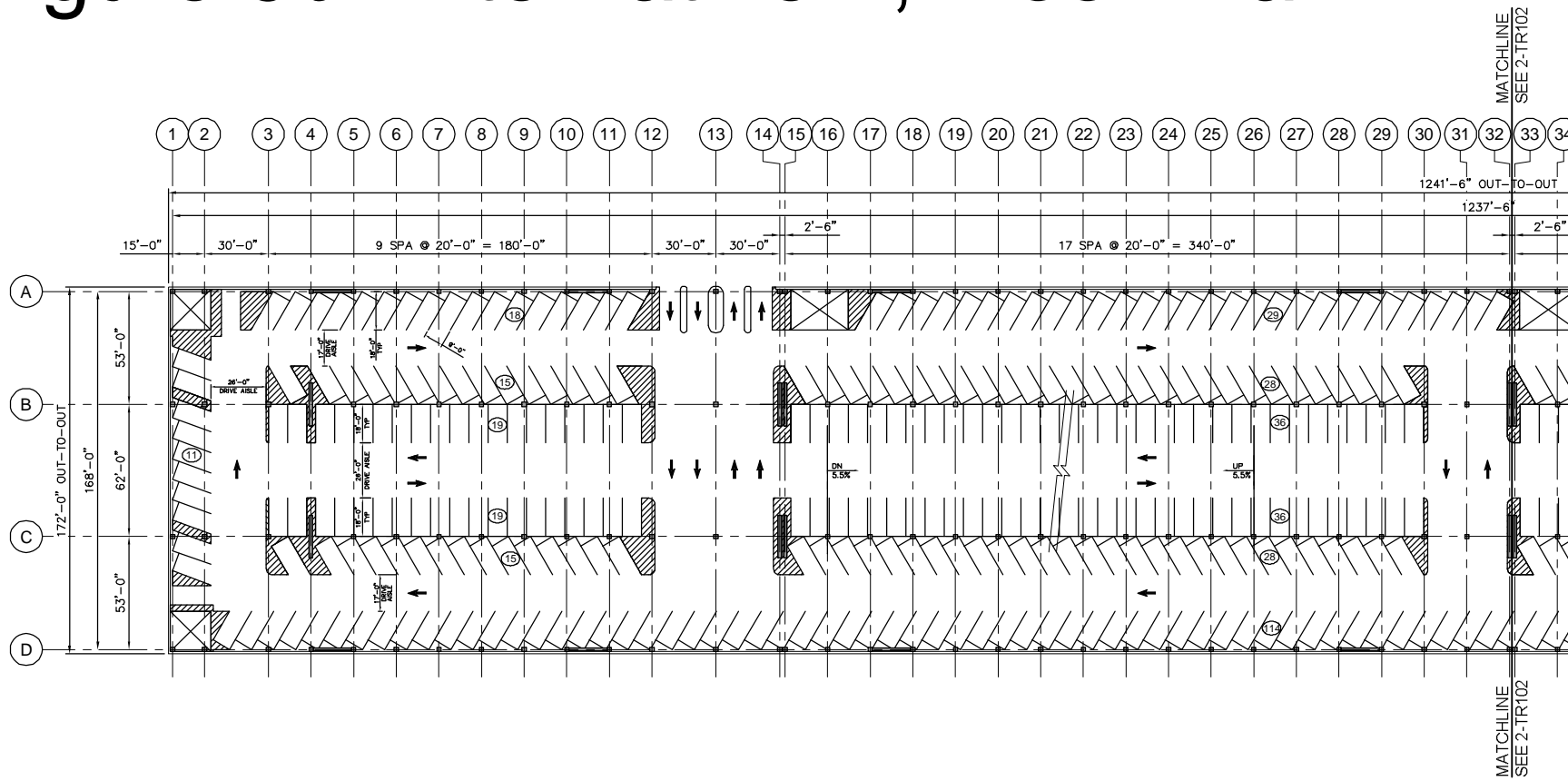
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STRIPING PLAN  
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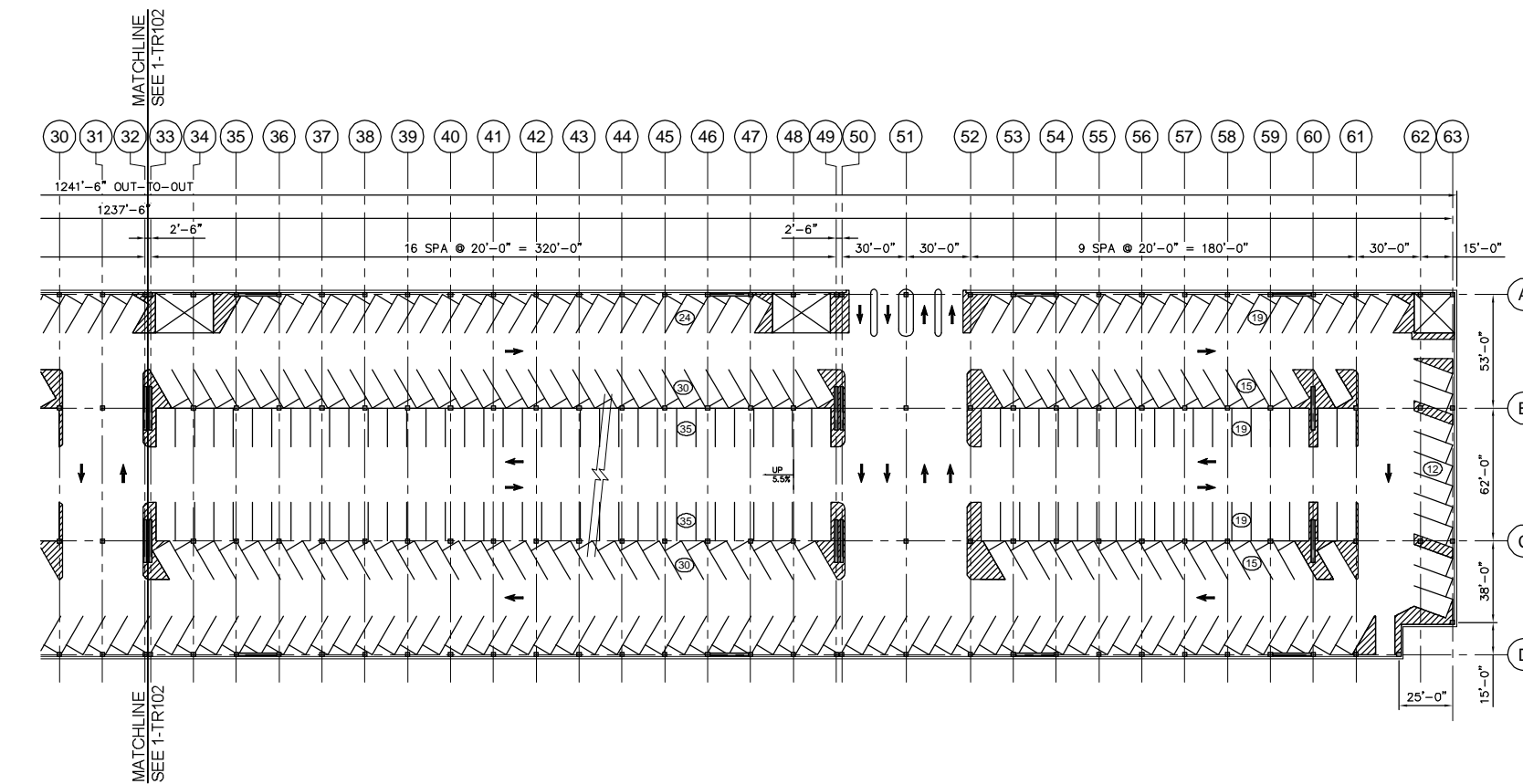
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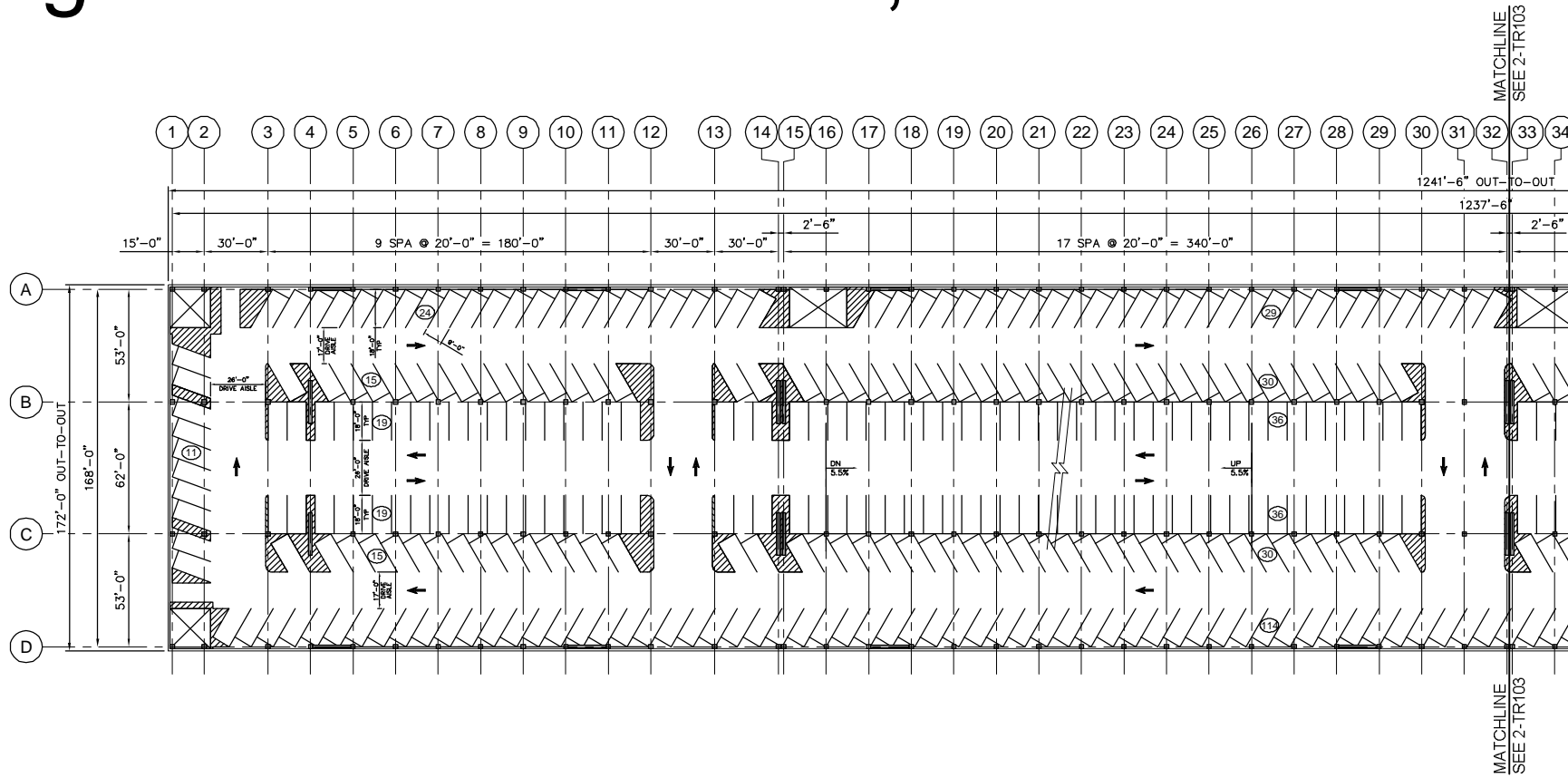
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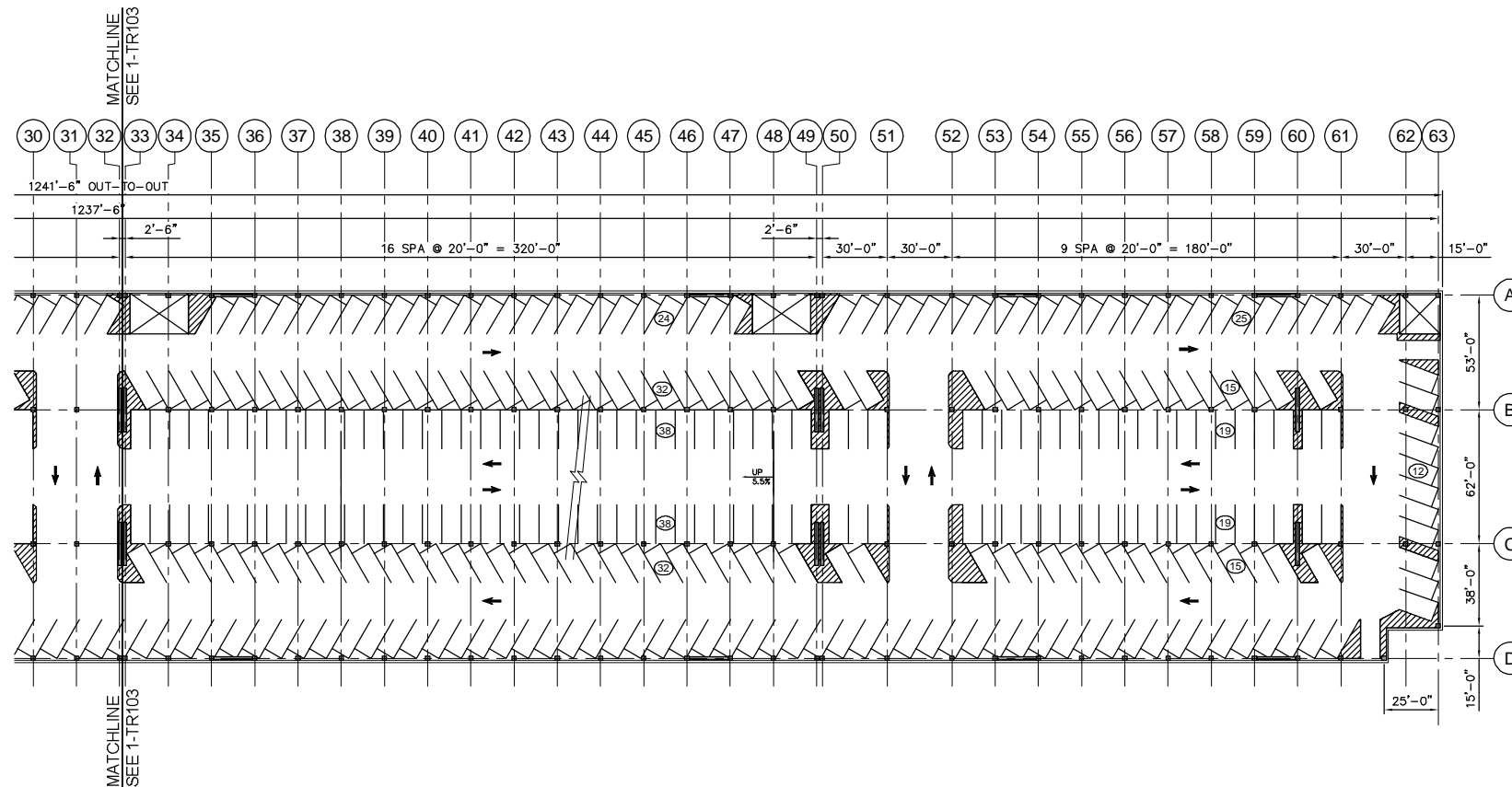
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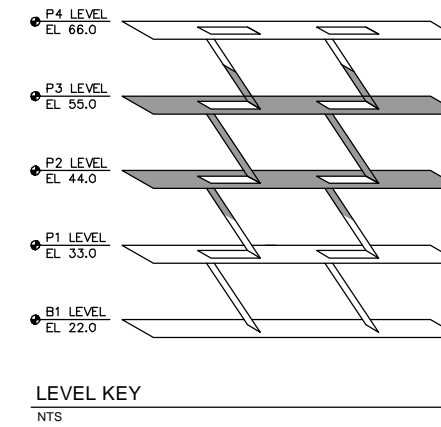
# Figure 9c: Alternative 2, Floor Plan P2-P3



1 STRIPING PLAN - LEVELS P2-P3  
SCALE: 1" = 30'-0"



2 STRIPING PLAN - LEVELS P2-P3  
SCALE: 1" = 30'-0"



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STRIPING PLAN  
LEVELS P2-P3

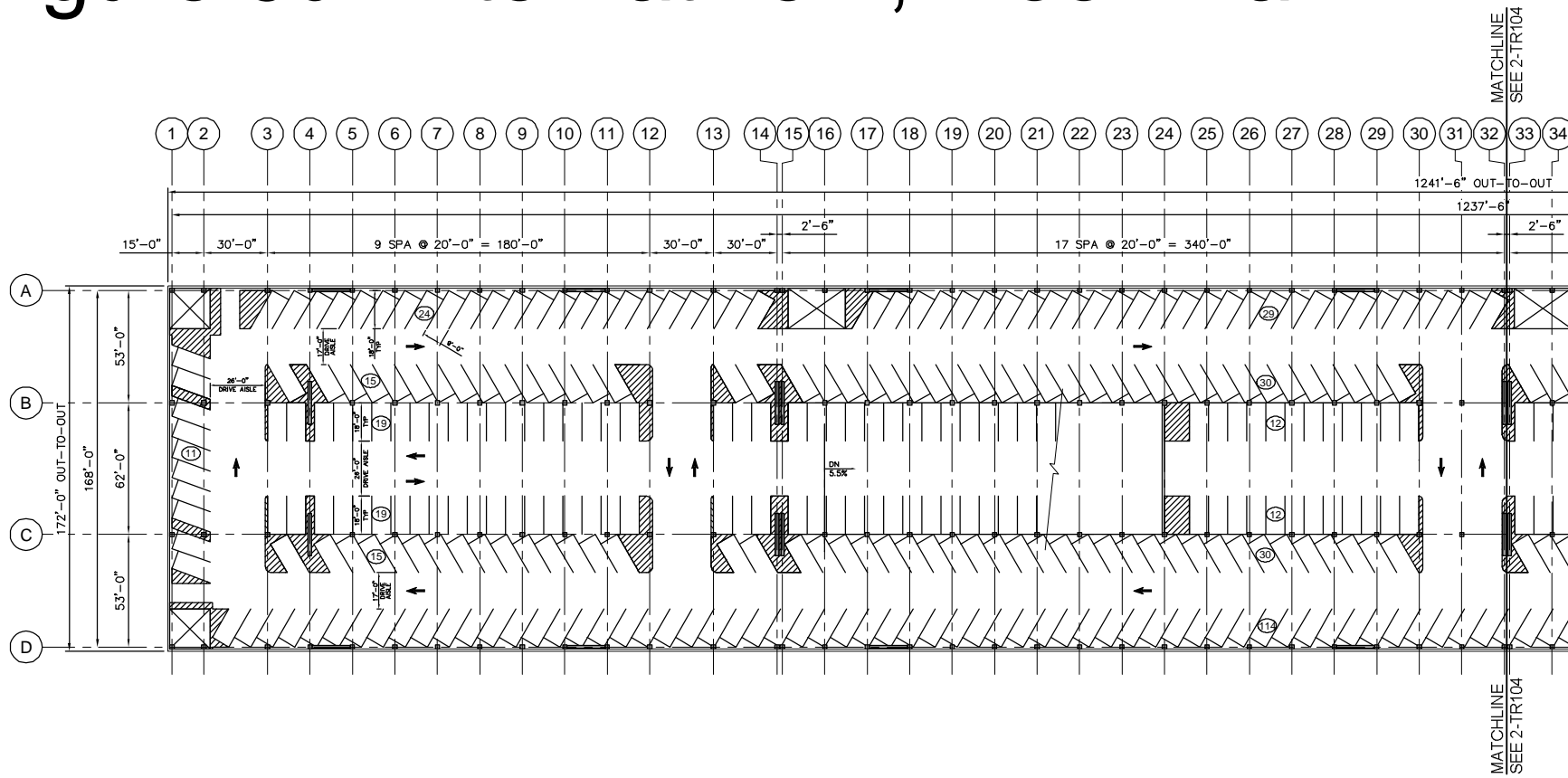
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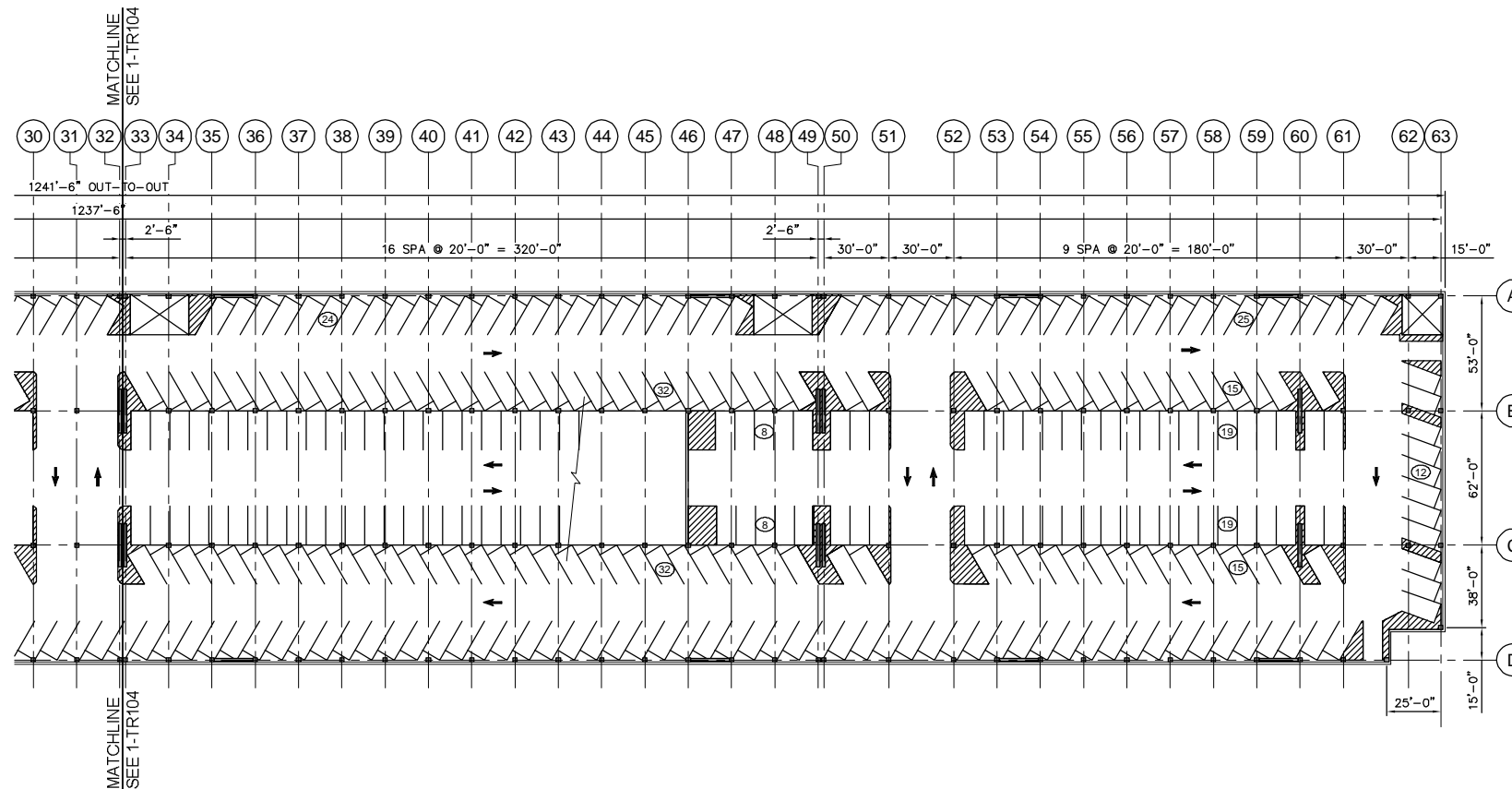
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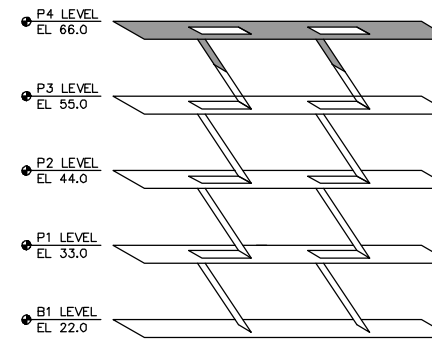
# Figure 9d: Alternative 2, Floor Plan P4



1 STRIPING PLAN - LEVEL P4  
SCALE: 1" = 30'-0"



2 STRIPING PLAN - LEVEL P4  
SCALE: 1" = 30'-0"



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30-SCALE VPORTS.DWG

STRIPING PLAN  
LEVEL P4

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## Project Requirements

The following general project requirements have been identified for the continued planning, design and technical requirements for this project based on available information to date.

### *Civil*

#### *Demolition*

Existing curb, gutter, sidewalk and pavement within the site will be removed and disposed of off-site.

#### *Utilities*

No existing utilities are anticipated within the project boundaries. Water supply from Main Street is available for connection to the proposed structure.

#### *Storm Drainage*

Storm water will be directed toward current/future catch basins and storm sewers as per best management practices (BMP) for the proposed new structure. Floor drains will be provided in the deck and tied to vertical risers that extend below grade.

#### *Pavements*

New pavement, base and sub-base within the proposed new deck structure will consist of slab-on-grade concrete for the below grade level. Driveway entrances will be tied into existing pavements at the entrance locations.

#### *Traffic Access*

Access for vehicles to the street level (P1) of the parking structure is anticipated to be provided from Main Street in two locations along its eastern side. If needed, access could also be provided to/from Sampson Street along the north end, and to/from Schley Street along the south end.

Internal circulation will be provided by two parking ramps on 5.5% slopes inside the parking structure.

### *Structural*

#### *Foundation*

The foundation for the parking structure will be determined following a geotechnical investigation of the site. It is anticipated that Seismic Zone Category D will apply to this site, however no geotechnical information was available for this study.

#### *Structure*

The first level of this structure is proposed to be below grade. As such, the ground floor will be a concrete slab-on-grade with cast-in-place concrete retaining walls around the perimeter. These walls can be integrated with the perimeter columns to provide the foundation for structure above.

The elevated structure is anticipated to be long span construction with columns spaced at approximately 53' center to center in the perimeter bays, and 62' center to center in the middle bay. This will minimize the columns within the parking areas of the structure. The structural system is anticipated to be either a cast-in-place post-tensioned concrete system, or a precast concrete system. The structural loadings will comply with the building code requirements, and is recommended to support 40 pounds per square foot live load. Minimum floor slopes will be provided for drainage. The stairways/elevator cores are anticipated to be free-standing structures isolated from the parking structure elevated levels with expansion joints. The primary structure will require 3 transverse expansion joints with double columns at these locations. Beam depths are estimated at 3'-0" deep. Floor to floor heights are proposed at 11'-0" between levels.

## *Architecture*

The parking structure will front to Sampson Street, Main Street, and Schley Streets. It is anticipated that the exterior façade of the structure will be designed to be compatible with the adjacent structures at this site. The building facades will be simple, yet elegant to mesh with the neighborhood. Due to the linear nature of the structure along Main Street, architectural treatments may be considered to help break up the length and make it more interesting for views from Main Street. The ground level of the structure will be open to the adjacent streets. Landscaping will be provided along each side between the deck and the adjacent streets.

Due to the length of the site, it is anticipated that elevators will be provided in at least 2 locations, and possibly 3 along Main Street. Stair towers will be located adjacent to each elevator, as well as along the other sides of the structure in order to meet fire code exit requirements.

## *Electrical*

### *Lighting*

The structure will include a complete lighting system to provide illumination within the structure including the parking areas, drive aisles, and stair/elevator and lobby areas. The interior lighting will be surface or pendant mounted fixtures supported by the structure above. Lighting on the roof level (P4) will be provided by pole mounted fixtures supported at interior column locations. Exit and emergency egress lighting will be provided in stairwells as per code. The minimum average illumination levels will have an average sustained intensity as per code.

### *Power*

Electrical power supply will be provided by San Diego Gas & Electrical Company via an underground service entrance.

### *Mechanical*

Mechanical ventilation may be required for the below grade level unless natural ventilation wells can be created around the perimeter. It is desired to design ways to allow the bottom level to be naturally ventilated without the aid of mechanical ventilation. All upper levels are anticipated to be designed as an open parking structure so that no mechanical ventilation system will be required.

### *Plumbing*

Floor drains in the supported levels with accompanying drain lines will be sized and located to capture runoff that can be directed into the existing storm drainage system located in the adjacent streets. The drains will have strainers.

### *Fire Protection*

The parking structure will be designed to meet open parking structure requirements. As such, the fire protection system will be designed to meet code requirements for an open parking structure. It is anticipated that this will include a dry standpipe fire protection system.

### *Signs*

All traffic regulatory and wayfinding signs will meet industry standards for parking structures.

### *Schedule*

The project planning, design, approval, bid, and permits are estimated to take up to 27 months. Construction is estimated to take 15 months with closeout of the project estimated at an additional 6 months. A summary of the proposed project schedule major milestones is presented below.

Table 6: Alternative 2 Schedule

Milestones	Dates
Project Study Report Approved	2/1/2012
Project Plan Development*	7/1/2012
Financing and Land Assembly	7/1/2012 – 8/1/2014
Site and Pre-engineering	8/31/2012
Begin Environmental Phase	9/1/2012
Circulate Draft Environmental Document	3/1/2013
Draft EIR Project Report	5/1/2013
End Environmental Phase	7/1/2013
Begin Design Phase	7/1/2013
End Design Phase	7/1/2014
Begin Construction Phase	10/1/2014
End Construction Phase	1/1/2016
Begin Closeout Phase	1/1/2016
End Closeout Phase	6/1/2016

\*Includes project delivery planning, site selection, user negotiations, and agreements.

The above schedule for Alternative 2 assumes full build out of the parking structure in one single phase. The construction of this alternative could be phased such that approximately half of the structure would be built and open for use in advance of the construction of the second half of the structure. This would allow approximately half of the proposed supply to be available for use prior to the above proposed “End Construction Phase”. This would, however, extend the total construction phase duration of the full site built out beyond that of which is shown above by approximately 2 to 3 months.

#### *Opinion of Probable Costs*

The opinion of probable costs is based on information that is available to date and does not include geotechnical information. The costs are based on estimated average costs per square foot for structure below grade, on-grade, and elevated. Costs also include estimates for



excavation, retention, and utilities. A summary of the hard construction costs in Year 2011 are presented below.

Table 7: Alternative 2 Hard Construction Cost Estimate

Item	Year 2011 Hard Construction Cost Estimate
Earthwork	\$3,600,000
Retaining Walls	\$2,295,000
Slab on Grade	\$7,490,000
Elevated Floors	\$45,705,000
Total Hard Cost	\$59,090,000

Soft costs (Planning, architectural, engineering, legal, loan costs, permits, project management, insurance, lease buyouts, material testing, inspections, etc.) are estimated to add up to an additional 35% of construction costs. As such, these are estimated at \$20,710,000. Resulting Total Year 2011 project costs are estimated at \$79,800,000.

Recent trends in construction costs in California over the past few years indicate moderate annual increases. Given a Year 2014 start date for construction, an estimated 10-15% increase in costs is anticipated.

Total escalated construction costs that consider a Year 2014 start date for construction is estimated at \$79,000,000 - \$90,000,000. Total estimated project costs are \$107,000,000 - \$122,000,000.

## SUMMARY COMPARISON OF ALTERNATIVES

A summary of the proposed parking structure sites is provided below.

Table 8: Summary Comparison of Alternatives

Comparison Criteria	Alternative 1 Structure 1 at 27th St / Main St	Alternative 2 Structure 2 at Sampson St / Main St
<i>Description</i>	3-bay, 478' x 192' Ground plus six elevated levels One-half level below grade	3-bay, 1241' x 172' Ground plus four elevated levels One level below grade
<i>General</i>		
Total No. of Parking Spaces	2,006	3,131
Height Above Street Grade (Feet)	67	33
Parking Square Footage	697,500	1,045,000
Efficiency: Square Foot per Space	348	334
Total Square Footage	697,500	1,045,000
<i>Construction Cost (Includes soft costs)</i>		
Year 2011 Total Estimated Project Costs	\$50,700,000	\$79,800,000
Year 2011 Cost per Square Foot	\$72.69	\$76.36
Year 2011 Cost per Space	\$25,300	\$25,500
<i>Miscellaneous Considerations</i>		
General	Exceeds allowable height - requires variance; concept is 140 spaces short of demand (will need to study alternatives in next phase of design)	Primary parking levels are within height restrictions; May need height variance for stair/elevators
Proximity to NASSCO	600 feet - 1,200 feet walking distance	>1,800 feet walking distance
Demolition	Requires demolition and relocation of existing businesses	Requires temporary loss of parking in surface lot and temporary relocation of those parkers during construction

ATTACHMENT A

Shipyard Tenant Survey Responses

1. Please provide the following information:

a. Name of Business: General Dynamics NASSCO

b. Contact Person: Darren Viera

c. Contact Information:

i. Phone: (619) 544-8642

ii. Email: Darren.Viera@NASSCO.com

2. How many people do you employ at your business? 3600. Plus another 324 subcontractors.

3. Does your business have multiple shifts? Yes

If so, please describe the shift changes in regards to time of day, # of employees coming/going, etc.

Shift 1 start times are between 0530 and 0615 and end times are between 1430 and 1515 – approximately 2510 employees.

Shift 2 start times are between 1545 and 1615 and end times between 2300 and midnight – approximate # of employees 360

Shift 3 start times between 2145 and 2215 and end times between 0700 and 0730 – approximate # of employees 45

As well as approximately 685 employees at offsite locations

4. Do you provide parking for your employees? Yes

a. If so, where is the parking located, how many spaces are available, and is the parking on-site or off-site?

Lot 1: North of Trolley Line & south of Navy fence, 28<sup>th</sup> St to Chollas Creek; 200 spaces; On-site.

Lot 2: South of BNSF Line to Harbor Dr, Harbor Dr. to 28<sup>th</sup>; 85 spaces; On-site.

Lot 3: Corner of Main & Schley; 173 Spaces; On-Site.

Lot 5: Between Trolley & BNSF Lines, Schley to 28<sup>th</sup>; 232 spaces; On-site.

Lot 6: Between Trolley & BNSF Lines, 28<sup>th</sup> to NASSCO Eastern Gate-2; 406 spaces; On-site.

Lot 6B: South of BNSF Line, 28<sup>th</sup> to NASSCO Eastern Gate-2; 186 spaces; On-site.  
Lot 6C: South of BNSF Line, NASSCO Gate-2 to Chollas Creek; 80 spaces; On-site

Lot 6D: Between Trolley & BNSF Lines, NASSCO Gate-2 to Chollas Creek; 44 spaces; On-site

Lot 6T: South of BNSF Line, Chollas Creek to 32<sup>nd</sup> Street; 65 spaces; On-site.

Lot 7: South of Trolley Line, Sampson to Schley Streets; 140 Spaces; On-site.

Lot 20: In shipyard on water's edge at Sicard St; 40 spaces; On-site.

Executive Lot: Between Shipyard & Harbor Dr, West of Building 1; 45 spaces. On-site

HR Lot: Between Shipyard & Harbor Dr, End of 28<sup>th</sup> street. 40 spaces; On-site

Main Lot: South of BNSF Line, Sicard St. to Harbor Dr; 286 spaces; On-site.

Boston Lot: I-5 at Boston Street on-ramp; 66 spaces; Off-site, employees walk to work.

- b. If off-site, how do your employees get to the worksite? From the Boston Street lot employees walk 5 blocks to work
5. Do you pay for service for your employees to get from parking areas to the workplace?  
No
6. Does your firm lease parking spaces from other entities? Yes, all lots leased except Lots 1, 3, & 7 and portions of Lots 5 and 6.
7. Please provide future employment projections and expansion plans for your business.  
  
5 years or less: Current employment is 3600, with another 1,000 subs. Future employment within five years or less: add another 500.  
  
More than 5 years: 1,000
8. As part of the study, KHA will need to reach out to employees to solicit feedback on the parking environment in the study area. Would you recommend that feedback be

solicited through a manual/hard copy survey similar to this or an online electronic survey?

Manual/Hard: \_\_\_\_\_

Electronic: \_\_\_\_\_

Other: NASSCO would prefer that KHA not directly solicit feedback from its employees as it may lead to unnecessary speculation. NASSCO would prefer to solicit the necessary as requested by KHA.

1. Please provide the following information:

- a. Name of Business: BAE Systems San Diego Ship Repair
- b. Contact Person: Brian Fantel
- c. Contact Information:
  - i. Phone: 619-238-1000 x3911
  - ii. Email: brian.fantel@baesystems.com

2. How many people do you employ at your business? 1117 ± 25-50

3. Does your business have multiple shifts? Yes

If so, please describe the shift changes in regards to time of day, # of employees coming/going, etc.

1st Shift: 0600-1430 (80% employees)

2nd Shift: 1430-2300 (15% employees)

3rd Shift: 2200-0600 (5% employees)

4. Do you provide parking for your employees? Yes

- a. If so, where is the parking located, how many spaces are available, and is the parking on-site or off-site?

<u>Location</u>	<u># Spaces</u>	<u>Notes</u>
Belt St (Command North)	60	BNSF lease (yr-to-yr); Navy parks here
Belt St (Command South)	60	BNSF lease (yr-to-yr); Navy parks here
Belt St (Lot C)	23	Visitor Parking
Belt St (E of Tracks)	22	BNSF/SDGE lease (yr-to-yr)
Silver Gate (Lot E)	88	BNSF/SDGE lease (yr-to-yr)
Lot A	86	SDGE Lease; Navy parks here
Main Street (Lot 11)	850	CA Properties long-term lease (5 yrs)
	<u>1189</u>	

- b. If off-site, how do your employees get to the worksite? All of the parking lots are located outside of our facilities fence line however within walking distance.

5. Do you pay for service for your employees to get from parking areas to the workplace?  
No

6. Does your firm lease parking spaces from other entities? Yes, all of the parking lots listed above are leased.

7. Please provide future employment projections and expansion plans for your business.

5 years or less: At this time, BAE Systems does not foresee any significant changes in employment levels.

More than 5 years: At this time, BAE Systems does not foresee any significant changes in employment levels.

8. As part of the study, KHA will need to reach out to employees to solicit feedback on the parking environment in the study area. Would you recommend that feedback be solicited through a manual/hard copy survey similar to this or an online electronic survey?

Manual/Hard: \_\_\_\_\_

Electronic: \_\_\_\_\_

Other: \_\_\_\_\_



1. Please provide the following information:
  - a. Name of Business: [Continental Maritime of San Diego, Inc.](#)
  - b. Contact Person: [Lee Wilson](#)
  - c. Contact Information:
    - i. Phone: [619 247-0944](#)
    - ii. Email: [leewilson10@cox.net](mailto:leewilson10@cox.net)
2. How many people do you employ at your business? [434 \(Many subcontract employees, government employees & US Navy crew members\)](#)
3. Does your business have multiple shifts? [Yes, 3 shifts 24/7](#)

If so, please describe the shift changes in regards to time of day, # of employees coming/going, etc.

[Day: 0600 to 1430 \(80% employees\)](#)

[Swing: 1430 to 2030 \(15% employees\)](#)

[Grave: 2030 to 0630 \(5% employees\)](#)
4. Do you provide parking for your employees? [Yes](#)
  - a. If so, where is the parking located, how many spaces are available, and is the parking on-site or off-site?

Location: [on site @ 1995 Bay Front Street](#)

# of Spaces: [633 max capacity, includes spots for company trucks and equipment](#)

On- or Off-Site: [all on site](#)
  - b. If off-site, how do your employees get to the worksite? [Some of our work is off site and employees are bussed to other locations around the Bay. US Navy crew members park off site and are bussed to the shipyard.](#)
5. Do you pay for service for your employees to get from parking areas to the workplace? [No](#)
6. Does your firm lease parking spaces from other entities? [No](#)

7. Please provide future employment projections and expansion plans for your business.

5 years or less: moderate increase 1% to 2%

More than 5 years: Stable

8. As part of the study, KHA will need to reach out to employees to solicit feedback on the parking environment in the study area. Would you recommend that feedback be solicited through a manual/hard copy survey similar to this or an online electronic survey?

Manual/Hard: This would be best, as shipyard workers have limited online access.

Electronic: \_\_\_\_\_

Other: \_\_\_\_\_

1. Please provide the following information:

- a. Name of Business: CP Kelco
- b. Contact Person: Melinda Robinson (Director of Personnel)
- c. Contact Information:
  - i. Phone: (619) 595-5086
  - ii. Email:

2. How many people do you employ at your business? 193 employees including 80 staff members and 80 shift workers

3. Does your business have multiple shifts? Yes

If so, please describe the shift changes in regards to time of day, # of employees coming/going, etc.

4 shifts of 20 workers each shift

4. Do you provide parking for your employees? Yes

a. If so, where is the parking located, how many spaces are available, and is the parking on-site or off-site? 120 parking spaces are available on-site

b. If off-site, how do your employees get to the worksite? No off-site parking

5. Do you pay for service for your employees to get from parking areas to the workplace? No

6. Does your firm lease parking spaces from other entities? No

7. Please provide future employment projections and expansion plans for your business.

5 years or less:

More than 5 years:

8. As part of the study, KHA will need to reach out to employees to solicit feedback on the parking environment in the study area. Would you recommend that feedback be solicited through a manual/hard copy survey similar to this or an online electronic survey?

Manual/Hard: \_\_\_\_\_

ATTACHMENT B

Parking Demand Detail Sheets

## General Dynamic NASSCO

Personnel	Existing Demand	Existing Peak Parking Demand <sup>A</sup>	Existing Parking Supply <sup>B</sup>	Existing Parking Supply Deficit <sup>C</sup>	Future Demand	Projected Parking Demand <sup>D</sup>	Projected Peak Parking Demand <sup>E</sup>	Less Projected Parking Supply <sup>F</sup>	Projected Parking Supply Deficit <sup>G</sup>
Employees	3600				3600				
Subcontractors	324				324				
Mission Valley Workers					350				
<i>Sub-Total</i>	3924				4274				
Multi-Modal Adjustment <sup>H</sup>	800				870				
<b>Total</b>	<b>3,124</b>	<b>2,250</b>	<b>2,052</b>	<b>-198</b>	<b>3,404</b>	<b>5,450</b>	<b>3,920</b>	<b>-75</b>	<b>-1,943</b>

Notes:

- A = Existing peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- B = Parking supply includes all available off-street parking spaces (including leased spaces) identified by shipyard businesses. This number does not include on-street parking including Main, Harbor, Sampson, and streets located in the Barrio Logan Neighborhood.
- C = Existing parking supply minus existing peak parking demand.
- D = Projected parking demand represents the total number of parking spaces needed based on a 60% overall growth within the next 5 years.
- E = Projected peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- F = Less projected parking supply off-street per KTU+A Level 3 Analysis.
- G = Existing parking supply less projected parking supply minus projected peak parking demand.
- H = Multi-Modal Adjustment includes the following:

	Existing	Future**
Transit/Rail:	500	540
Vanpool:	300	330

\*\*Future Multi-Modal Adjustments are proportional to existing adjustments

## BAE Systems

Personnel	Existing Demand	Existing Peak Parking Demand <sup>A</sup>	Existing Parking Supply <sup>B</sup>	Existing Parking Supply Surplus <sup>C</sup>	Projected Parking Demand <sup>D</sup>	Projected Peak Parking Demand <sup>E</sup>	Projected Parking Supply Surplus <sup>F</sup>
Employees	1,117	890	1,189	299	1,340	1,070	119

Notes:

- A = Existing peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- B = Parking supply includes all available off-street parking spaces (including leased spaces) identified by shipyard businesses. This number does not include on-street parking including Main, Harbor, Sampson, and streets located in the Barrio Logan Neighborhood.
- C = Existing parking supply minus existing peak parking demand.
- D = Projected parking demand represents the total number of parking spaces needed based on a 20% overall growth within the next 5 years.
- E = Projected peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- F = Existing parking supply minus projected peak parking demand.

## Continental Maritime of San Diego, Inc.

Personnel	Existing Demand	Existing Peak Parking Demand <sup>A</sup>	Existing Parking Supply <sup>B</sup>	Existing Parking Supply Surplus <sup>C</sup>	Projected Parking Demand <sup>D</sup>	Projected Peak Parking Demand <sup>E</sup>	Projected Parking Supply Surplus <sup>F</sup>
Employees	434						
Government	100						
<i>Sub-Total</i>	534						
Multi-Modal Adjustment <sup>G</sup>	30						
<b>Total</b>	<b>504</b>	<b>400</b>	<b>633</b>	<b>233</b>	<b>600</b>	<b>480</b>	<b>153</b>

Notes:

- A = Existing peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- B = Parking supply includes all available off-street parking spaces (including leased spaces) identified by shipyard businesses. This number does not include on-street parking including Main, Harbor, Sampson, and streets located in the Barrio Logan Neighborhood.
- C = Existing parking supply minus existing peak parking demand.
- D = Projected parking demand represents the total number of parking spaces needed based on a 20% overall growth within the next 5 years.
- E = Projected peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- F = Existing parking supply minus projected peak parking demand.
- G = Multi-Modal Adjustment includes the following:
  - Transit/Rail: 30
  - Vanpool: 0

## CP Kelco

Personnel	Existing Demand	Existing Peak Parking Demand <sup>A</sup>	Existing Parking Supply <sup>B</sup>	Existing Parking Supply Surplus <sup>C</sup>	Projected Parking Demand <sup>D</sup>	Projected Peak Parking Demand <sup>E</sup>	Projected Parking Supply Surplus <sup>F</sup>
Employees	193	100	120	20	230	120	0

Notes:

- A = Existing peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- B = Parking supply includes all available off-street parking spaces (including leased spaces) identified by shipyard businesses. This number does not include on-street parking including Main, Harbor, Sampson, and streets located in the Barrio Logan Neighborhood.
- C = Existing peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- D = Projected parking demand represents the total number of parking spaces needed based on a 20% overall growth within the next 5 years.
- E = Projected peak parking demand represents the total number of parking spaces needed based on the peak shift change per the information provided by the shipyard businesses.
- F = Existing parking supply minus projected peak parking demand.