East San Rafael Parking Study

Prepared for the City of San Rafael

Submitted by
W-Trans

May 11, 2017

TRAFFIC ENGINEERING
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Executive Summary

Study Purpose

The purpose of this study is to evaluate the existing parking conditions within East San Rafael and to determine appropriate parking strategies that, if implemented, could relieve the area of some of the negative impacts experienced with the high parking demands. Within the East San Rafael area, the Canal Neighborhood subarea is primarily made of numerous apartment buildings with multiple adults and families living in a single apartment unit. This overcrowding has caused an on-going challenge of high parking demands with a limited off-street and on-street parking supply available to accommodate this demand. Additionally, the high parking demand generated by the Canal Neighborhood has caused spillover into surrounding neighborhoods and commercial areas. This has created significant parking demands on weekdays and weekends, especially at night within East San Rafael, including the Canal Neighborhood as well as the neighboring Bahia, Spinnaker, and Baypoint neighborhoods.

Residents and business owners within East San Rafael have been requesting that the City provide some relief from the high parking demands and low turnover of parked vehicles for the last few years. Prior parking surveys and suggested solutions were reviewed in preparing this study. Despite previous efforts to identify solutions, new programming and parking strategies have not been implemented.

In order to capture the full extent of the parking need within East San Rafael, the study area includes five subareas (See Figure ES-1). The existing parking conditions in the East San Rafael study area were evaluated by obtaining feedback from stakeholders, gathering community input through public surveys, and collecting parking counts during multiple time periods, as well as qualitative observations conducted during counts and site visits.

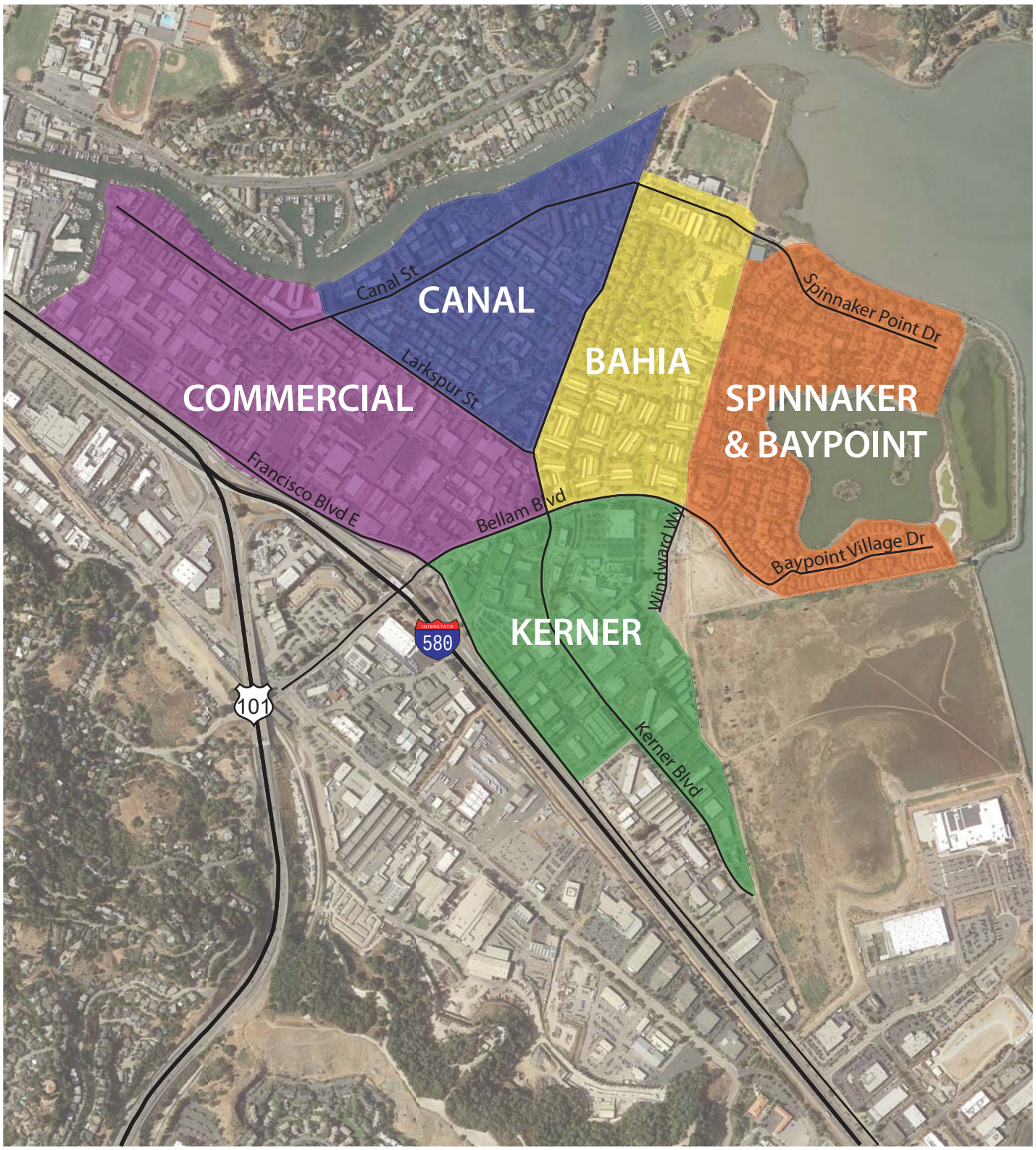
Community Outreach

In December of 2016, multiple methods of community outreach were conducted to gather perceptions of parking conditions within the East San Rafael study area. Multiple meetings were held with a variety of stakeholder groups, and a survey was distributed to residents online as well as hard copies in-person in both English and Spanish. The community meetings included the Canal Alliance, Spinnaker Point and Baypoint Homeowners Association, the Marin Organizing Committee, Bahia Homeowners Association, and the East San Rafael Working Group of the San Rafael Chamber of Commerce. In addition, 424 persons participated in a public survey that was distributed both on-line and in-person.

Existing Parking Inventory and Utilization

The existing supply in the study area was inventoried, including on-street parking and some off-street parking lots, along with any parking restrictions. The off-street parking lots included the Albert J. Boro Community Center, Country Club Bowl, and the Sanitary District 1 building. In total, there are approximately 2,413 on-street spaces in the study area, and 216 off-street spaces in the surveyed lots.

As seen in Table ES-1, parking can exceed 100 percent occupancy due to illegal parking (e.g. in red zones, across driveways, perpendicular or angled parking, on the sidewalk, etc.). The current shortfall of on-street public spaces is approximately 583 parking spaces.



LEGEND
- Commercial Subarea
- Canal Subarea
- Bahia Subarea
- Spinnaker and Baypoint Subarea
- Kerner Subarea

North

Not to Scale

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East San Rafael Parking Study

Figure ES-1 – Study Area

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Table ES-1 – On-Street and Off-Street Peak Occupancy Rates

Subarea/Time Period	Time of Peak Parking Utilization	Supply	# Spaces	% Occupancy
Commercial Subarea				
Weekday Morning	1:00 p.m.		649	97%
Weekday Evening	12:00 a.m.	668	818	122%
Saturday	12:00 a.m.		822	123%
Canal Subarea				
Weekday Morning	12:00 p.m.	596*	547	92%
Weekday Evening	12:00 a.m.	640	775	121%
Saturday	12:00 a.m.		793	124%
Bahia Subarea				
Weekday Evening	11 p.m.	311	329	106%
Saturday	11 p.m.		326	105%
Spinnaker & Baypoint Subarea				
Weekday Evening	12:00 a.m.	436	408	94%
Saturday	12:00 a.m.		386	89%
Kerner Blvd Subarea				
Weekday Morning	9:00 a.m.		268	75%
Weekday Evening	12:00 a.m.	358	263	73%
Saturday	12:00 a.m.		240	67%
A. Boro Community Center				
Weekday Evening	10:00 p.m.	79	66	84%
Saturday Evening	11:00 p.m.		81	103%
Country Club Bowl				
Tuesday Morning	12:00 p.m.		16	12%
Tuesday Night	8:00 p.m.	137	44	32%
Saturday	7:00 p.m.		79	58%
Sanitary District No 1-Marin				
Tuesday Morning	1:00 p.m.	19	25	132%

Notes: # = number of occupied spaces; % = Occupancy Rate; *A few of the cul-de-sacs were not included in Tuesday morning's count, as that survey focused on the commercial areas.

Parking Management Strategies

To address the parking issues, several strategies are recommended for the East San Rafael area, based on best practices and information provided by the public survey, meetings with stakeholder groups, and City of San Rafael staff. The recommended strategies are expected to take several years to implement. The following strategies provide potential methods for the City to increase parking supply and turnover, and prevent neighborhood spillover. The report includes a detailed discussion of enforcement, education, and evaluation that would apply to each strategy presented as well as specific potential short-term, mid-term, and long-term parking strategies (Table ES-3).

Short-Term Strategies

Time Limited Parking

In order to encourage parking turnover and prevent instances of long-term parking storage on public streets, the City could implement 24-hour parking time limits within the residential areas within East San Rafael. In the commercial areas, four to eight hour time limits should be implemented to ensure parking is more regularly available to customers and employees in these locations.

Implementation of time-limited parking by itself would not address the core issues of parking in East San Rafael, including the spillover of parking and the overall parking deficit. Also, area wide time-limited parking would require significant enforcement efforts by the City. Additional signage would also be required to clearly identify the location of the time-limited areas as well as the actual time limits.

Off-Street Parking

Public-Private Partnership

Since there are limited resources for the City to develop their own parking facilities, the City should consider developing public-private partnerships with the Country Club Bowling Alley and Mi Pueblo Market. The Country Club Bowl could potentially provide an additional 139 overnight parking spaces, and Mi Pueblo could possibly provide approximately 190 spaces, for a total of 329 spaces.

Transit Opportunities

The City should work with Marin Transit to provide subsidized transit passes to East San Rafael residents to encourage residents to use alternative modes of travel and reduce reliance on automobiles. For example, it was discovered through community outreach that several residents in East San Rafael travel to the College of Marin. If students were provided transit passes, it could reduce the number of vehicles a household needs if some residents can get to and from school via transit.

Mid-Term Strategy

City-Owned Off-Street Parking

There is currently vacant land along the east and west sides of Windward Way that may present an opportunity for the City to construct new parking facilities to be used by East San Rafael residents. Additionally, vacant space is currently available to the east and west of the Albert J. Boro Community Center, which may provide an opportunity for the City to provide additional public parking. These vacant areas were estimated to have the potential to provide approximately 119-346 additional parking spaces, depending on their configuration, which could be used for short or long-term parking

The implementation of these off-street parking resources would require signs, pavement improvements, and associated elements. These are not one-time capital costs, as there would be a need for maintenance of the system. The estimated costs of these lots is as follows:

- Windward Way, 44 spaces - $408,316.59, approximately $9,280 per space
- Windward Way, 227 spaces - $1,387,107.92, approximately $6,111 per space.
- Al Boro Community Center west lot, 18 spaces - $119,339.62, approximately $11,074 per space
- Al Boro Community Center east lot, 57 spaces - $401,468.68, approximately $7,043 per space

Permit Parking

Permit parking can be used in combination with other strategies to regulate and manage on-street parking in areas that have documented high parking utilization rates, spillover of parking from one area to another, and the need to change parking behavior patterns. The goal of the permitting program is to create fair and equitable use of residential on-street parking areas for all residents and stakeholders. In order for permit parking to be effective in East San Rafael, it has to be implemented area-wide. If it is only implemented in certain neighborhoods, or on certain streets, then the parking issues will just shift from one area to another.

Three main issues can be addressed through permit parking:

1. The spillover of overnight parking from one area to another.
2. The limited daytime parking available to commercial business employees and patrons.
3. The overall deficit of street parking, as parking demand would be reduced and relocated.

For East San Rafael it is recommended that 2,000 permits be made available, representing a little more than 85 percent of the 2,302 publically available on-street parking spaces. Because there are more residential units and businesses than available street spaces, a one unit to one space permit system is not possible. There are 2,382 residential units and 424 commercial units, for a total of 2,806 units that would participate in the permit program. Bahia would not be part of the program since they have their own permit program.

A summary of the proposed permit distribution is provided in Table ES-2.

Table ES-2 – Option 1 Parking Permit Distribution

Subarea	Number of Units	Percent of Units	Number of Permits	Number of On-Street Spaces
Canal	1,350	48%	960	640
Spinnaker and Baypoint	459	16%	320	426
Commercial	873	31%	620	668
Commercial/Kerner Blvd Business	124	5%	100	358
Bahia*	-	-	-	210 public spaces
Total	**2,806**	**100%**	**2,000**	**2,302**

Note: *Bahia would not be included as they are implementing their own permitting program

The permits would be distributed only to residents that have an address in that area, and a registered vehicle matching that address. Vehicles that are not registered in the area would not be eligible for a permit, and they

would be subject to all other parking regulations and parking enforcement. It is also important to recognize that there are off-street parking resources (i.e. off-street parking spaces) that would remain in use, as they are today.

For a permit program of this size, it is estimated that three additional parking enforcement officers (two Parking Enforcement Officers covering 12 hours a day for six days a week, and one covering the day shift), for an estimated cost of $330,000 per year. There would also be a need for one additional administration staff person (estimated at $105,000 per year). Thus, the total estimated labor cost to implement the East San Rafael permit parking program would be $435,000 per year. The cost of the permits should be set to encourage changes in parking behavior and cover some or all of the administrative costs. In this case, if each permit costs $217.50 per year, then $435,000 in revenue would be gathered per year based on the sale of 2,000 permits.

City Parking Code

Several of the Canal Neighborhood subarea apartment buildings were built with lower parking requirements than what the current code requires. If there is any new development or redevelopment within the Canal Neighborhood subarea, developers would be required to providing sufficient parking to meet the City's current code. The code currently requires 1.5 spaces per one-bedroom unit (including one covered space) and two spaces for two bedroom units (with one covered).

Long-Term Strategy

One of the primary parking issues in East San Rafael is the limited parking supply for overnight and long-term parking needs. In order to increase the total parking supply, the City could consider developing a new parking structure to be built for residents to purchase spaces for long-term parking. However, there are no opportunity sites to add significant parking resources. As such, existing City lots would have to be reconfigured with deck or structured parking, or a site would have to be identified outside the East San Rafael area. The cost implications of parking structures make this a longer-term strategy that is less viable than other recommended strategies.

Table ES-3 provides a summary of the recommended parking strategies along with their potential benefits and drawbacks.

Table ES-3 – Recommended Parking Strategies Summary			
Time	**Strategy**	**Benefits**	**Drawbacks**
Short-Term			
	Time Limited Parking	Effective strategy to provide turnover of parking residential and commercial areas	Requires regular enforcement; does not entirely address the issues of spillover or the overall parking deficit
	Public-private partnership/ Off-Street Parking	Utilizes existing parking facilities (Bowling Alley, Mi Pueblo) to add up to 329 spaces	Requires private businesses to be willing to lease their parking spaces; Majority of cost falls to the City to incentivize owners, maintain lots, and provide security
	Transit Opportunities	Reduces the reliance on vehicles for travel; minimal cost to residents	Cost of subsidizing passes on the City or Marin Transit
Mid-Term			
	City-Owned Parking Lots	Increases City-owned parking supply by 119-346 spaces; Costs of permits can offset administrative costs; Spaces can be short or long-term	High cost – up to $2.3M; Would provide some but not total relief to address 582 space shortfall
	Parking Permits	Reduces spillover; Encourages parking turnover; Provides equitable way to manage parking in East San Rafael; Parking demand will be reduced and relocated	Requires regular enforcement/admin staff; Revenue from permits needs to be over $200/year to cover the cost of administration ($435,000 per year); Requires capital expenditure for signs, permits, maintenance, etc.; May result in relocation of parked vehicles outside of East San Rafael
	City Parking Code	Ensures that any development or redevelopment within the Canal Neighborhood subarea provides sufficient parking to meet the City's current code	
Long-Term			
	Parking Structure	Can significantly increase parking supply and provide long-term parking for East San Rafael residents	High cost of $25,000 or more per space; limited opportunity sites available

Introduction

The East San Rafael neighborhood is located along the San Rafael Bay, on the eastern edge of the City of San Rafael, northeast of the US 101. This area includes several subareas and is home to thousands of San Rafael residents and hosts multiple residential and commercial land uses.

Study Purpose

The purpose of this study is to evaluate the existing parking conditions within East San Rafael and to determine appropriate parking strategies that, if implemented, could relieve the area of some of the negative impacts experienced with the high parking demands. Within the East San Rafael area, the Canal Neighborhood subarea is primarily made of numerous apartment buildings with multiple adults and families living in a single apartment unit. This overcrowding has caused an on-going challenge of high parking demands with a limited off-street and on-street parking supply available to accommodate this demand. Additionally, the high parking demand generated by the Canal Neighborhood has caused spillover into surrounding neighborhoods and commercial areas. This has created significant parking demands on weekdays and weekends, especially at night within East San Rafael, including the Canal Neighborhood as well as the neighboring Bahia, Spinnaker, and Baypoint neighborhoods. Residents and business owners within East San Rafael have been requesting that the City provide some relief from the high parking demands and low turnover of parked vehicles for the last few years, with solutions identified by the residents such as an increased supply, permitting, and/or stricter parking enforcement. Prior parking surveys were reviewed in preparing this study. Despite previous efforts to identify solutions, new programming and parking strategies have not been implemented. This goal of this study is to provide an analysis of the existing parking conditions within the East San Rafael study area, which includes the Canal and surrounding neighborhoods, and develop recommendations for potential parking strategies to provide relief and prevent spillover and conflicts with surrounding neighborhoods and commercial businesses.

Study Area and Scope

In order to capture the full extent of the parking need within East San Rafael, the study area includes five subareas. These subareas are called the Commercial subarea, Canal Neighborhood subarea, Bahia subarea, Spinnaker and Baypoint Neighborhood subarea, and Kerner Boulevard subarea. The entire study area is shown in Figure 1 and subareas are shown in Figures 2, 3, 4, 5, and 6.

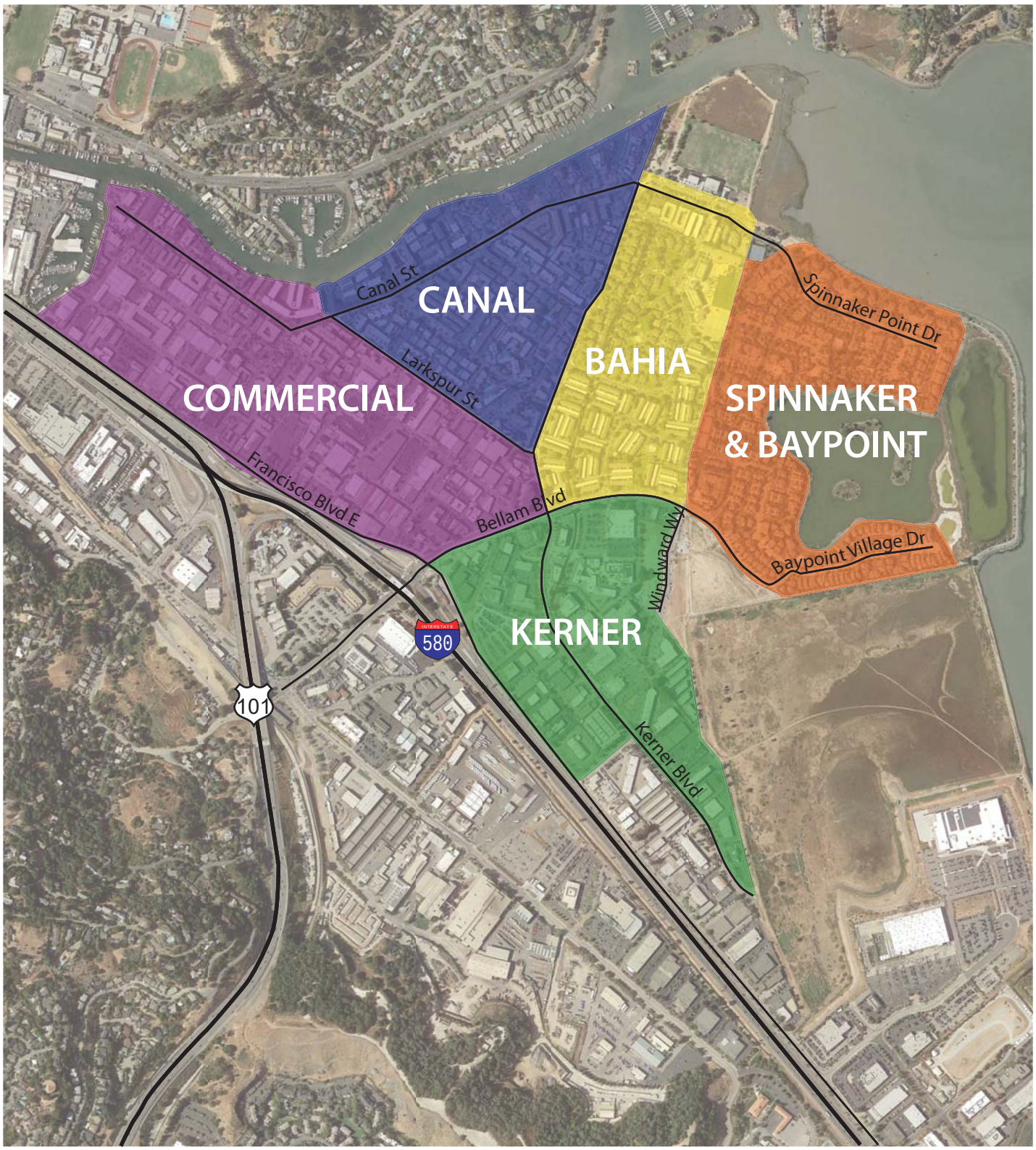
Commercial Subarea. The commercial subarea is comprised of approximately 302 commercial businesses as well as 571 residential units and has about 668 on-street parking spaces.

Canal Neighborhood Subarea. The Canal Neighborhood subarea includes 1,350 residential units and is primarily comprised of high-density apartment complexes. There are approximately 640 on-street parking spaces in the Canal Neighborhood.

Bahia Subarea. The Bahia subarea includes 637 residential units and is comprised of both single-family dwellings and apartment units with approximately 311 on-street parking spaces on both private and public streets (210 spaces are publically available, and 101 spaces are on private streets).

Spinnaker and Baypoint Subarea. The Spinnaker and Baypoint subarea is comprised of 459 residential units, primarily low-density single-family dwellings, and has approximately 436 on-street parking spaces.

Kerner Boulevard. Kerner Boulevard is comprised primarily of commercial land uses, with approximately 122 commercial units, two residential units, and about 358 on-street parking spaces.



LEGEND
- Commercial Subarea
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North

Not to Scale

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Figure 1 – Study Area

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LEGEND
Surveyed Road
P Surveyed Parking Lot

North

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Figure 2 – Commerical Subarea Street Segment Map

W-Trans

LEGEND
Surveyed Road
P Surveyed Parking Lot

North

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East San Rafael Parking Study

Figure 3 – Canal Subarea Street Segment Map

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LEGEND
Surveyed Public Road
Surveyed Private Road

North

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East San Rafael Parking Study

Figure 4 – Bahia Subarea Street Segment Map

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LEGEND
Surveyed Road

North

Not to Scale
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Figure 5 – Spinnaker & Baypoint Subarea Street Segment Map

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LEGEND
Surveyed Road
P Surveyed Parking Lot

North

Not to Scale
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East San Rafael Parking Study

Figure 6 – Kerner Subarea Street Segment Map

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Existing Conditions

The existing parking conditions in the East San Rafael study area were evaluated by obtaining feedback from stakeholders, gathering community input through public surveys, and collecting parking counts during multiple time periods, as well as qualitative observations conducted during counts and site visits.

Community Outreach

In December of 2016, multiple methods of community outreach were conducted to gather perceptions of parking conditions within the East San Rafael study area. Multiple meetings were held with a variety of stakeholder groups, and a survey was distributed to residents online as well as hard copies in-person in both English and Spanish.

Community Meetings

Canal Alliance

A meeting with the Canal Alliance held on November 28, 2016, was attended by several residents as well as the Canal Alliance's Executive Director. The Canal Alliance represents approximately 4,000 Canal Neighborhood residents. Expressed at the meeting was a conclusion that the parking problem is a symptom of the limited housing options in the area. It was also noted that permit parking in the Spinnaker and Baypoint neighborhoods would make the parking issue worse for those living in the Canal neighborhood, as Canal residents do not have enough parking in their neighborhood. Residents of the Canal also mentioned that property owners are renting out parking spaces separately and do not always provide them to those living in the apartments.

Spinnaker Point and Baypoint Homeowners Association

A meeting the Spinnaker and Baypoint Home Owner's Association (HOA) was held on November 28, 2016, with several residents in attendance. Residents noted that nights and weekends are the most challenging times to find parking spaces. Multiple attendees expressed an interest in implementing neighborhood parking permits and/or requiring more parking in the City's municipal code for any new developments. Residents were also generally in favor of providing an off-site parking lot for Canal Neighborhood residents, and mentioned that when the bowling alley stopped allowing overnight parking, spillover into the Spinnaker and Baypoint neighborhoods noticeably increased.

Marin Organizing Committee (MOC)

On December 2, 2016, a meeting was held with the Marin Organizing Committee (MOC). The MOC noted that parking is challenging to find and that every street is impacted, which requires Canal residents to park in adjacent neighborhoods. Some attendees also mentioned that there is low turnover and that residents treat public spaces like their own. It was also noted that residents are selling spaces and that some of the problem stems from the dense housing in the Canal Neighborhood. MOC members expressed an interest in providing new off-street parking for visitors, providing "T" and "L" markings on the streets to designate spaces, and implementing permit parking.

Bahia Homeowners Association

A meeting with the Bahia Homeowners Association (HOA) was held on December 7, 2016; several residents attended. Some Bahia residents mentioned that vehicles are being parked for more than 72 hours and are only moved during street sweeping. Attendees also noted that food trucks regularly take up parking and are often parking illegally. The Bahia neighborhood is currently implementing their own parking and permit program on its private streets to address parking issues in their area.

East San Rafael Working Group of the San Rafael Chamber of Commerce

On December 8, 2016, a meeting with the East San Rafael Working Group of the San Rafael Chamber was held. This group also noted that vehicles do not move for long periods of time, and that several spaces are being used by commercial vehicles as defacto auto dealerships. It was also mentioned that there are several underutilized private parking lots that may provide additional parking opportunities, although they are on southwest side of I-580. These groups were also generally supportive of implementing short-term hourly parking restrictions and long-term parking permits.

Community Surveys

A total of 424 persons participated in the public survey that was distributed both on-line and in-person. Of these, 154 live in the Canal Neighborhood subarea, 16 in Bahia, 153 in Spinnaker, 93 in Baypoint, and eight selected "other" when asked which neighborhood they live in. In terms of primary language of the respondent, 142 surveys were conducted in Spanish and 282 were in English. A complete summary of the survey responses is provided in Appendix A.

The first question participants were asked was where they most often park. The majority of respondents said they parked in a garage, on the street, or in a parking lot (and some declined to answer). East San Rafael residents primarily said that they parked in a parking lot, which does not reflect what is actually occurring in the neighborhood as the on-street parking in the Canal Neighborhood experiences significant parking demands. The majority of Spinnaker and Baypoint residents said they park in a garage, with some parking on a driveway or on the street.

When survey participants were asked how many cars they need to park, the majority of Canal residents said one vehicle. This also does not reflect what was observed in the field or reported during stakeholder meetings. From observations and stakeholder meetings, many households park multiple vehicles. Further, there were reports of several commercial vehicles, primarily food trucks, parking in the Canal Neighborhood, or people selling cars that are stored on streets in the Canal Neighborhood.

Half of the survey respondents said they have cars that need to be parked for long periods of time (several days or more) that are only being used occasionally. The majority of both Canal and Spinnaker residents said they have cars that need to be parked long-term. Several Canal residents also said they would be willing to pay to park their vehicles overnight or for several days in a parking lot. Spinnaker residents generally said they were unsure if they would be willing to or not at all. However, the majority of Canal, Spinnaker, and Baypoint respondents said they would be willing to pay for a parking permit to park their cars on the street.

Survey respondents were also given the opportunity to provide written responses to include their ideas or comments about parking in their neighborhoods. The majority of East San Rafael residents noted that people are storing vehicles on the street for long periods of time, including auto repair businesses storing cars on the street. Some residents also mentioned that people in the neighborhood buy cars and store them on the street and then send them to family in other countries. The Canal residents noted that some landlords of the apartment complexes rent out the parking spaces separately, and do not provide them for people living in the apartments. Canal survey participants did not mention problems with the number of people living in the apartments, but want landlords to limit the number of cars residents can have. Overall, Canal survey participants said they would like to have a dedicated parking spot on the street or at their apartment complex.

Multiple respondents from Spinnaker and Baypoint mentioned that Canal residents use the on-street parking in their neighborhood too often and leave their cars overnight. It was noted multiple times that because of this, parking at night is difficult to find and guests have a hard time finding parking in the neighborhood.

Business owners and employees who participated in the survey noted that some businesses do not have enough parking for their employees, which forces them to park blocks away. It was also mentioned that too many

residents are parking near the commercial areas and not moving their vehicles, which does not provide enough parking for customers and employees. A few survey respondents asked for more regulations in the commercial areas to increase turnover and prevent residents from leaving their cars near the businesses all day.

Existing Parking Inventory and Utilization

Parking Supply and Restrictions

The existing supply in the study area was inventoried, including on-street parking and some off-street parking lots, along with any parking restrictions. The off-street parking lots included the Albert J. Boro Community Center, Country Club Bowl, and the Sanitary District 1 building. The street segments inventoried are shown in Figures 2, 3, 4, 5, and 6. A summary of the parking inventory and restrictions is provided in Appendix B.

The Commercial subarea has approximately 668 on-street spaces. In general, there are no parking restrictions for the on-street parking in this area except on Francisco Boulevard East (between Harbor Street and Medway Road), Vivan Street, and Bellam Boulevard. At these locations, parking is restricted to two hours from 6:00 a.m. to 9:00 p.m. Like other areas in San Rafael, there are also some parking restrictions for commercial vehicles as well as specific requirements during street sweeping.

The Canal subarea has an inventory of approximately 640 on-street parking spaces. Within in the Canal area, parking is restricted on Mondays for street sweeping from 8:00 a.m. to 10 a.m. on one side of the street and 10:00 a.m. to 12:00 p.m. on the other.

The Bahia subarea has approximately 311 on-street parking spaces, including 210 space available on public streets and 101 spaces on private streets. Parking is only restricted on some segments on Mondays for street sweeping from 8:00 a.m. to 10:00 a.m. on one side of the street and 10:00 a.m. to 12:00 p.m. on the other side. and is only available on one side of the street in some locations.

The Spinnaker and Baypoint subarea has an inventory of approximately 436 on-street parking spaces. There are no local parking regulations within the Spinnaker and Baypoint subarea.

The Kerner Boulevard subarea has an inventory of approximately 358 on-street parking spaces. Parking is restricted with two-hour time limits on some segments from 9:00 a.m. to 6:00 p.m. and one-hour time limit restrictions for commercial vehicles over 1,000 pounds.

In total, there are approximately 2,413 on-street spaces in the entire study area and 216 off-street spaces in the surveyed lots.

Parking Utilization

Parking is generally considered at capacity when utilization reaches 85 percent. That leaves 15 percent of spaces available for parking turnover and motorists seeking a spot. When parking utilization rates are higher than 85 percent, spaces are often difficult to find, which leads to more circulation in the area and longer times spent finding an open parking space.

Daily parking utilization was analyzed for a Tuesday weekday from 9:00 a.m. to 1:00 p.m. and evening from 8:00 p.m. to 12:00 a.m. and a Saturday from 2:00 p.m. to 12:00 a.m. Field visits were also conducted during these times to observe parking turnover, parking duration, and spillover of parking into surrounding neighborhoods. Overall, parking utilization was over 85 percent on almost every street and time inventoried within the Commercial, Canal, Bahia, and Spinnaker and Baypoint subareas during evening peak periods on both weekdays and weekends. The Kerner Boulevard subarea experienced the lowest parking demand and did not exceed 85 percent during any period studied. The overall parking demand for the entire study area may be skewed as a result of the lower

parking demand experienced in the Kerner Boulevard subarea. The parking survey and inventory can be found in Appendix B and a summary of the peak parking demand experienced in each subarea is shown in Table 1. As seen in Table 1, parking can exceed 100 percent occupancy due to illegal parking (e.g. in red zones, across driveways, perpendicular or angled parking, on the sidewalk, etc.)

Table 1 – On-Street and Off-Street Peak Occupancy Rates

Subarea/Time Period	Time of Peak Parking Utilization	Supply	# Spaces	% Occupancy
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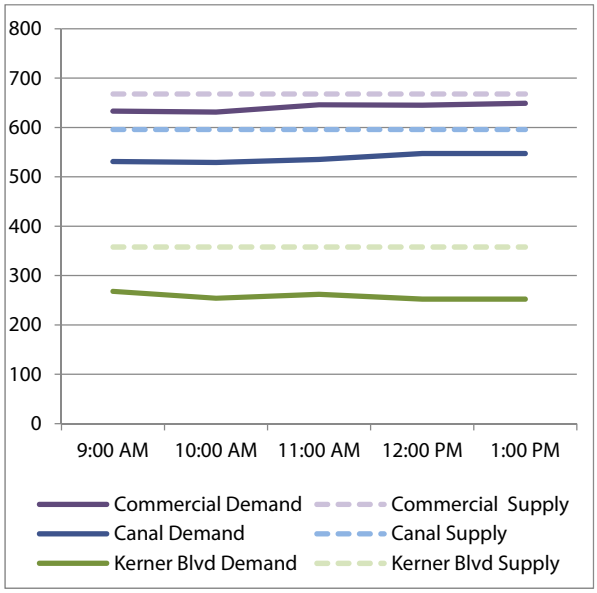
Notes: # = number of occupied spaces; % = Occupancy Rate; *A few of the cul-de-sacs were not included in Tuesday morning's count, as that survey focused on the commercial areas.

Weekday Morning

Three of the five subareas were surveyed from 9:00 a.m. to 1:00 p.m on a weekday, including the Commercial subarea, Canal Neighborhood subarea, and Kerner Boulevard subarea. These areas were selected as they experience the highest weekday midday parking utilization based on data from previous surveys. During this time period, the Commercial subarea and Canal subarea experienced parking occupancies greater than 85 percent during each hour inventoried. Peak parking demand in the Commercial and Canal subareas occurred at 1:00 p.m. with an occupancy of 97 percent in the Commercial area and at 92 percent in the Canal subarea. Kerner Boulevard experienced a peak parking occupancy of 75 percent at 9:00 a.m. The time-of-day parking demand experienced during the weekday morning is shown in Graph 1, with a comparison of the actual demand (solid line) and the approximate parking supply available (dashed line).

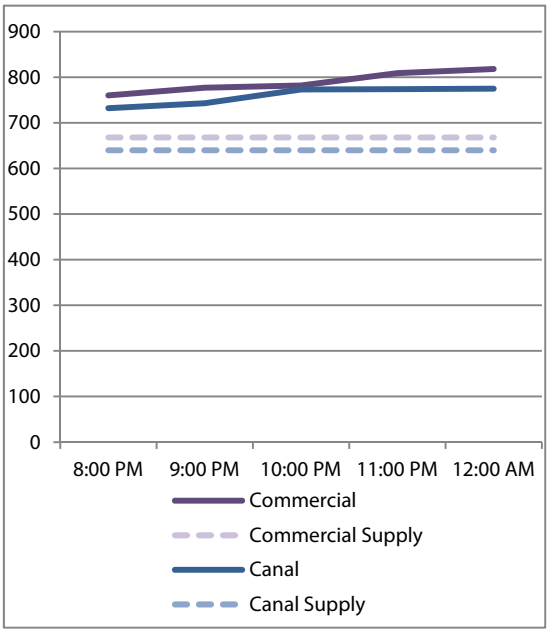
Graph 1: Weekday Morning Time-of-Day Parking Demand



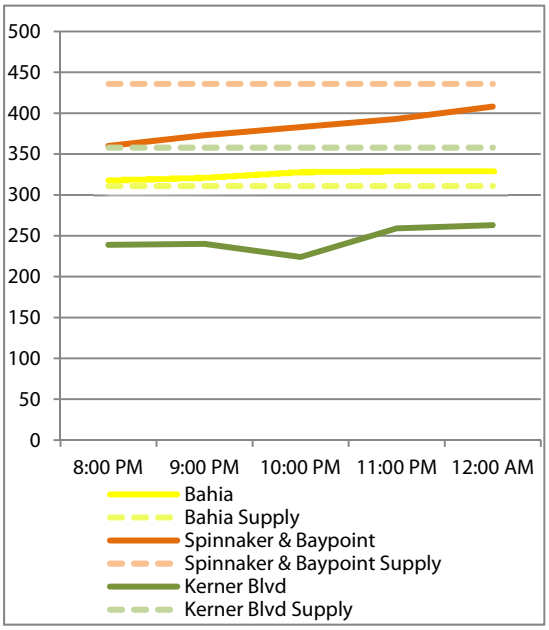
Weekday Evening

All five subareas were surveyed from 8:00 p.m. to 12:00 a.m. on a weekday evening. The Commercial, Canal Neighborhood, and Bahia subareas experienced parking occupancies over 100 percent during each hour surveyed and peaked at 12:00 a.m. The Spinnaker and Baypoint subarea experienced a peak occupancy of 94 percent at 12:00 a.m. and Kerner Boulevard also peaked at this time with an occupancy of 73 percent. The weekday evening experienced the highest overall parking demand of the three time periods analyzed. In order to achieve a peak parking demand of about 85 percent during this time period, 583 parked vehicles would need to be relocated, with 250 from the Commercial subarea, 231 from the Canal subarea, 65 from the Bahia subarea, and 37 from the Spinnaker and Baypoint subarea. The parking demand experienced during the weekday evening is shown in Graph 2 for the Commercial and Canal Subareas, and Graph 3 for the remaining three subareas.

Graph 2: Weekday Evening Parking Demand – Commercial and Canal Subareas



Graph 3 – Weekday Evening Parking Demand – Bahia, Spinnaker & Baypoint, and Kerner Blvd Subareas

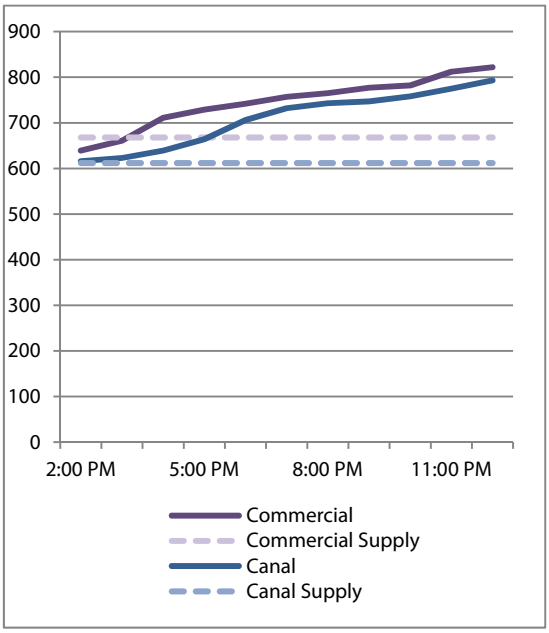


Weekend Evening

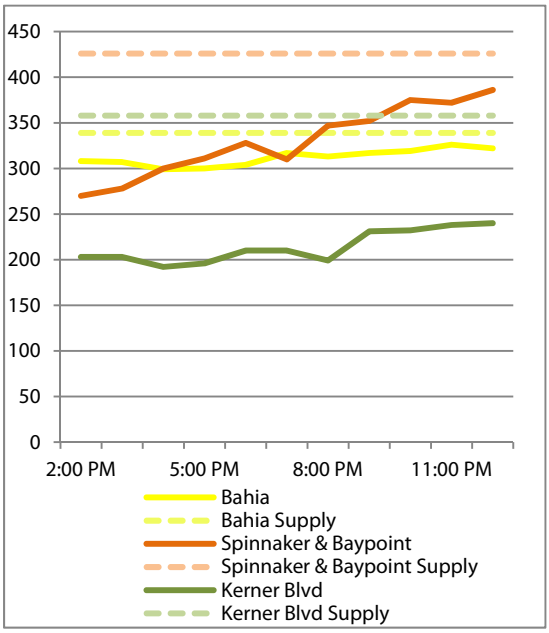
All five subareas were surveyed on Saturday from 2:00 p.m. to 12:00 midnight. In the Canal and Commercial subareas, parking occupancies over 90 percent were experienced from 2:00 p.m. to 4:00 p.m., but rose above 100 percent for the rest of the survey period. The Bahia subarea also experienced parking occupancies above 90 percent between 2:00 p.m. to 5:00 p.m. that rose above 100 percent for the rest of the evening. Within the Spinnaker and Baypoint subarea, parking occupancy was below 85 percent between 2:00 p.m. and 9:00 p.m. At 10:00 p.m., parking occupancy rose to 86 percent and peaked at midnight with an 88 percent occupancy. The Kerner Boulevard subarea experienced a peak parking demand of 67 percent at 12:00 a.m.

In order to achieve a parking utilization of at most 85 percent during this time, 576 vehicles would need to be relocated, including 254 vehicles from the Commercial subarea, 249 from the Canal Neighborhood subarea, 58 from the Bahia subarea, and 15 from the Spinnaker and Baypoint subarea. The parking demand experienced during the weekday evening is shown for the Commercial and Canal Subareas in Graph 4, and Graph 5 shows the data for the Bahia, Spinnaker & Baypoint and Kerner Subareas.

Graph 4: Weekend Evening Parking Demand – Commercial and Canal Subareas



Graph 5: Weekend Evening Parking Demand – Bahia, Spinnaker & Baypoint, and Kerner Blvd Subareas



Parking Lots

The three parking lots surveyed were the Albert J. Boro Community Center, Country Club Bowl, and the Sanitary District 1-Marin lot. The Community Center experienced a peak parking demand on Saturday evening with an occupancy of 103 percent. Currently, residents are allowed to park in the Community Center's lot overnight. The Country Club Bowl experienced a peak parking demand on Saturday at 7:00 p.m. with an occupancy rate of 58 percent. In general, parking utilization at the Country Club Bowl decreased later in the evening and the lot was almost empty by midnight. The Sanitary District lot was over capacity with a peak occupancy rate at 1:00 p.m. on a weekday. This lot was only surveyed during the weekday morning period.

Parking Management Strategies

To address parking concerns and alleviate some of the high parking demand, several parking strategies are recommended for the East San Rafael study area. These strategies are based on best practices and information provided by the public survey, meetings with stakeholder groups, and City of San Rafael staff. The recommended strategies are expected to take several years to implement. Enforcement, education, and an evaluation of strategies, after they are implemented, will be key parts of their success. Additionally, not every issue that arose during the course of the analysis will be resolved with the implementation of these strategies. In particular, multiple community members and stakeholders noted that the parking problems in the East San Rafael area are a symptom of having several people living in a single apartment unit, creating a large population of residents. This issue cannot be addressed solely through parking policies, but would require a broad study on housing options in San Rafael. This study presents methods to provide some relief form the high parking demands with the assumption that housing occupancy in the East San Rafael study area will remain the same.

The following strategies provide potential methods for the City to increase parking supply and turnover, and prevent neighborhood spillover. This section includes a discussion of enforcement, education, and evaluation that would apply to each strategy presented, as well as a discussion of specific potential short-term, mid-term, and long-term parking strategies.

Enforcement, Education, and Evaluation

Enforcement

Several enforcement issues were raised while reviewing the area and in discussions with stakeholders. These include illegally parked vehicles (parking in red zones, across driveways, in front of fire hydrants, etc.), commercial vehicle parking (e.g. food trucks), commercial activity (selling of vehicles), on-street vehicle storage for more than 72 hours, and various illegal activities occurring in the area. The City should consider reviewing its existing parking enforcement practices to identify potential shortfalls and develop strategies to improve enforcement.

Enforcement is the key component to the success of any parking strategy. The police department should be included in discussions to determine what level of enforcement can reasonably be implemented in East San Rafael with various parking strategies. Along with the goals of parking enforcement, the possible effects should be discussed.

Parking enforcement should target modifying parking behavior to achieve a desired result. In this case, the desired result is to reduce overall parking occupancy on the streets of East San Rafael. Regular and consistent enforcement of existing codes and regulations could help in this regard, or in combination with other strategies discussed below.

The cost of enforcement is an important factor when considering changes to a parking program. The fully burdened cost for a parking enforcement officer in San Rafael is approximately $110,000 per year.

Education

With any new strategy, an education component will be required to ensure residents are informed of any changes to parking enforcement, programs to reduce auto dependency, as well as the location of any new parking facilities created. This may include multilingual community meetings and workshops to provide materials and presentations on the importance of implementing new parking programming in East San Rafael. Additionally, the City could work with local community groups, property owners, and business owners to assist in providing materials to residents and employees within East San Rafael. Materials should clearly describe the new policies or

programs, instructions on how to obtain permits or transit passes (if those strategies are implemented), maps of new parking locations, etc.

Evaluation

In order to determine the effectiveness of implemented strategies, an annual survey should be conducted to ensure that the intended outcomes of each strategy are being achieved. Additional strategies should be considered in the event that the implemented strategies do not achieve the desired outcomes.

Short-Term Strategies

Time Limited Parking

In order to encourage parking turnover and prevent instances of long-term parking storage on public streets, the City could implement 24-hour parking time limits within the residential areas within East San Rafael. Establishing time-limited parking areas is a common parking management strategy. The City's municipal code currently provides direction for establishing parking time limits within the downtown, but does not include policy on establishing time limits in residential neighborhoods. As an example of how another city manages a similar situation, the City of Seattle's municipal code specifies that a new or expanded restricted parking area may be established whenever: 75 percent or more of the capacity of the streets available for parking on 10 contiguous blocks is generally occupied; over 35 percent of the vehicles parked on the street in the area are not owned by residents of the designated area; a strong and effective community engagement effort indicating that generally stakeholders in the designated area have reviewed and support the restricted parking zone; and the public interest would be served. Based on the parking surveys and community outreach efforts, the neighborhoods in East San Rafael would meet these requirements and be a good candidate for restricted and time-limited parking.

While 72-hour parking limits in residential areas are more typical in most cities, 24-hour limits have been implemented in communities that experienced high parking occupancy. In each subarea of East San Rafael, a 24-hour parking limit would be more likely to increase parking turnover and prevent long-term storage. With these restrictions, those wishing to store vehicles for longer than a day will be required to find alternative long-term parking options. In the commercial areas, four to eight hour time limits should be implemented to ensure parking is more regularly available to customers and employees in these locations.

Implementation of time-limited parking by itself would not address all the core parking issues in East San Rafael, however. To reduce the effects of parking spillover and to lower the overall parking demand, significant enforcement efforts by the City would also be needed to achieve the desired results of implementing 24-hour (residential) and four or eight hour (commercial) parking limits. New signage would also be required to clearly identify the location of the time-limited areas as well as the actual time limits.

Off-Street Parking

Based on the evaluation of existing parking occupancy counts and results from community outreach and public surveys, there is a need for the City to increase their parking supply or pursue the construction of new parking lots or a parking structure to accommodate the high parking demand in East San Rafael. Based on existing parking counts, in order to lower the parking utilization rate to about 85 percent, approximately 583 additional parking spaces would need to be provided.

Public-Private Partnerships

Since there are limited resources for the City to develop their own parking facilities, the City should consider developing public-private partnerships with the Country Club Bowling Alley and Mi Pueblo Market. The bowling alley had previously allowed residents to park in their lot overnight but no longer allows this due to a lack of

security. The Mi Pueblo Market has previously been approached by the City regarding a public-private partnership, but declined due to security concerns.

Despite these previous attempts, the City should consider trying to negotiate a public-private partnership with these businesses. The Country Club Bowl could provide an additional 139 overnight parking spaces and Mi Pueblo could provide approximately 190 spaces, for a total of 329 spaces. In order to achieve this, issues of security at night would need to be resolved and the private businesses would need incentives to allow use of their parking lots. If the business owners were guaranteed that their lots would be maintained and secure, and spaces would remain available for patrons and employees during business hours, then these lots may be a viable solution. Figure 7 shows the locations of these two businesses.

Transit Opportunities

The City should work with Marin Transit to provide subsidized transit passes to East San Rafael residents to encourage residents to use alternative modes of travel and reduce reliance on automobiles. For example, it was discovered through community outreach that several residents in East San Rafael travel to the College of Marin. If students were provided transit passes, it could reduce the number of vehicles a household needs if some residents can get to and from school via transit.

Mid-Term Strategies

Off-Street Parking

City Owned Parking

Several opportunity sites for new parking have been identified by community members in previous efforts to address the East San Rafael parking issues. Based on a review of these suggestions, the City should consider revisiting a few of these locations as potential sites for new parking.

There is currently vacant land along the east and west sides of Windward Way that may present an opportunity for the City to construct new parking facilities to be used by Canal residents. Additionally, vacant space is currently available to the east and west of the Albert J. Boro Community Center, which may provide an opportunity for the City to provide additional Canal parking.

These vacant areas were estimated to have the potential to provide approximately 99 to 302 additional parking spaces, depending on the parking lot size and layout. The addition of these spaces would provide some relief, but would not entirely address the shortfall of 582 parking space in East San Rafael. The advantage of these locations is that some spaces, especially those on Windward Way, could be used for long-term parking, as there are no other competing uses of these sites. The proposed locations of these new parking lots are shown in Figure 7.

In order for residents to utilize off-street lots for long-term parking, the cost of a parking ticket would need to be higher than the cost of parking a vehicle in the long-term lot. Additionally, an off-street lot would require plans for adequate security, lighting, and maintenance.

Feasibility Analysis of City-Owned Opportunity Sites

A civil engineering feasibility analysis of the City-owned opportunity sites was conducted, including how many spaces could potentially be accommodated, possible engineering issues, a concept level layout plan, and cost estimate.

At Windward Way, two parking lot layout options were developed. The first would provide 44 parking spaces on vacant City-owned land with access from Windward Way. The second layout option would require the City to

purchase or lease privately owned land, but could accommodate 227 new spaces. Since Windward Way is farther from the Canal Neighborhood subarea, where additional parking is most needed, it is recommended that new spaces along Windward Way be used for long-term parking and vehicle storage.

At the Albert J. Boro Community Center, approximately 18 spaces could be provided on the west side of the existing parking lot. New parking spaces at this location would impact the existing entrance to the park. On the east side of the existing parking lot, three potential parking lot options were developed. This area, which is currently used to store mulch, could accommodate 37, 43, or 57 spaces depending on the layout of the parking lot. The highest parking space option, with 57 spaces, would require the driveway off of Spinnaker Point Drive to be opened up for public access. New spaces at Albert J. Boro Community Center would likely not be able to be used as long-term parking but would be available for additional overnight parking.

The implementation of these off-street parking resources would also require signs, pavement improvements, and associated elements. These are not one-time capital costs, as there would be a need for maintenance of the system. The estimated costs of these lots is as follows:

- Windward Way, 44 spaces - $408,316.59, approximately $9,280 per space
- Windward Way, 227 spaces - $1,387,107.92, approximately $6,111 per space.
- Al Boro Community Center west lot, 18 spaces - $119,339.62, approximately $11,074 per space
- Al Boro Community Center east lot, 57 spaces - $401,468.68, approximately $7,043 per space

Detailed layouts and cost estimates for these potential lots are provided in Appendix C

Neighborhood and Commercial Permit Parking

Permit parking can be used in combination with other strategies to regulate and manage on-street parking in areas that have documented high parking utilization rates, spillover of parking from one area to another, and the need to change parking behavior patterns. All of these conditions are present in East San Rafael, and therefore, a permitting program was considered. Although the City recognizes that it is desirable to allow residents to park legally on any public street, it also recognizes the inconvenience that repetitive spillover and long-term parking has on the affected residents. The goal of the permitting program is to create fair and equitable use of residential on-street parking areas for all residents and stakeholders.

There have been several requests for permit parking by residents and business owners in East San Rafael. In order for permit parking to be effective in East San Rafael, it has to be implemented area-wide. If it is only implemented in certain neighborhoods, or on certain streets, then the parking issues will just shift from one area to another. This is not a solution, but rather a transference of the parking issue. Since it is documented that there are high parking utilization rates in all of the study subareas, the use of permits would have to be applied to all areas.

There are three main issues that can be addressed through permit parking:

1. The spillover of overnight parking from one area to another.
2. The limited daytime parking available to commercial business employees and patrons.
3. The overall deficit of street parking, as parking demand would be reduced and relocated.

Creating a permit program, with associated enforcement of parking regulations, would result in residents and employees seeking other parking areas within San Rafael and reducing the number of vehicles being parked on the street. The City's Residential Parking Permit Policy was adopted in December 2012 and outlines the required procedures to initiate a residential permit parking program. The process for establishing a permit parking program in San Rafael requires a minimum of 1,500 residences must participate to initialize the program, and that 67 percent of the occupants within the district support the program. However, multiple cities in California have policies that allow the creation of permit programs or permitted districts based on need rather than a petition

process. For example, the City of Berkeley's municipal code allows residential permit parking areas to be established either through resident petition or through City Council initiation. In Berkeley's municipal code, if the City can demonstrate the need for a residential permit parking area, such as through studies or surveys, the Council may draft a resolution that would establish a residential permit parking area, including all regulations and time restrictions determined by the Council to be reasonable necessary in such area. Due to the pressing need for parking management strategies in East San Rafael, as demonstrated through public outreach and parking surveys, it is possible that a permit program could be implemented without a petitioning process.

For East San Rafael it is recommended that 2,000 permits be made available, representing a little more than 85 percent of the 2,302 publically available on-street parking spaces. Because there are more residential units and businesses than available street spaces, a one unit to one space permit system is not possible. Limiting the number of permits based on available spaces is practiced in other Bay Area communities. For example, Alameda County's code specifies that in areas where it appears that the number of permits sold per block would exceed the number of legal on-roadway parking spaces per block, the initial sale would be limited to one or possibly two permits per neighborhood. In contrast, some cities, such as the City of Oakland, issue an unlimited number of permits to residents regardless of the number of curb parking spaces available in the area. This can cause highly congested parking conditions as the permit only gives residents the right to look for a spot, but not be guaranteed one. By limiting the number of permits issued in East San Rafael, the likelihood that a resident will be able to find a parking space would substantially increase.

There are 2,382 residential units and 424 commercial units, for a total of 2,806 units that would participate in the permit program. Bahia would not be part of the program since they have their own permit program.

Two different parking permit systems were considered. The first option is a distribution of permits that is proportional to the number of units in each subarea. For example, residents of the 1,350 Canal Neighborhood residential units would be eligible for 960 permits, or 48 percent of the permits based on having 1,350 of the 2,809 units. Similarly, 16 percent of the permits would be available to, or 320 permits, for Spinnaker and Baypoint, 620 permits (31 percent) in the Commercial Subarea, and 100 permits (5 percent) for the Commercial/Kerner Boulevard Business Units. A summary of the proposed permit distribution is provided in Table 2.

Table 2 – Option 1 Parking Permit Distribution

Subarea	Number of Units	Percent of Units	Number of Permits	Number of On-Street Spaces
Canal	1,350	48%	960	640
Spinnaker and Baypoint	459	16%	320	426
Commercial	873	31%	620	668
Commercial/Kerner Blvd Business	124	5%	100	358
Bahia*	-	-	-	210 public spaces
Total	**2,806**	**100%**	**2,000**	**2,302**

Note: *Bahia would not be included as they are implementing their own permitting program

There would be a limit of one permit per address and distribution would be on a first-come first-served basis; not everyone would be able to acquire a parking permit. While there will be concerns about a shortage of permits in the Canal Neighborhood or other subareas, the permits would be distributed only to residents that have an address in that area, and a registered vehicle matching that address. Vehicles that are not registered in the area would not be eligible for a permit, and they would be subject to all other parking regulations and parking

enforcement. It is also important to recognize that there are off-street parking resources (i.e. off-street parking spaces) in all areas of the Canal Neighborhood subarea that would remain in use, as they are today.

Permits would allow parking on any public street for up to 72 hours anywhere in the study area. Longer-term parking needs are discussed in the section on mid- and long-term strategies.

For a permit program of this size, it is estimated that three additional parking enforcement officers (two Parking Enforcement Officers covering 12 hours a day for six days a week, and one covering the day shift), for an estimated cost of $330,000 per year. There would also be a need for one additional administration staff person (estimated at $105,000 per year). Thus, the total estimated labor cost to implement the East San Rafael permit parking program would be $435,000 per year.

The cost of the permits should be set to encourage changes in parking behavior and cover some or all of the administrative costs. In this case, if each permit costs $217.50 per year, then $435,000 in revenue would be gathered per year based on the sale of 2,000 permits.

The implementation of the parking permit program would also require a permit application database, permits, signs, and associated elements. These are not one-time capital costs, as there would be a need for replacement of supplies and maintenance of the system.

A second permit parking option would include the same provisions as the first in terms of administration, but permits would be sold on a first come-first served system regardless of address, which would be easier to administer. However, the permits may be disproportionately distributed to those that sign up first, potentially leaving the largest area (the Canal Neighborhood subarea) with the most vehicles and too few permits. As such, the second option is not recommended.

North

Not to Scale

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East San Rafael Parking Study

Figure 7 – Recommendations

W-Trans

City Parking Code

Several of the Canal Neighborhood subarea apartment buildings were built with lower parking requirements than what the current code requires. If there is any new development or redevelopment within the Canal Neighborhood subarea, developers would be required to providing sufficient parking to meet the City's current code. The code currently requires 1.5 spaces per one-bedroom unit (including one covered space) and two spaces for two bedroom units (with one covered).

Long-Term Strategies

Parking Structure

One of the primary parking issues in East San Rafael is the limited parking supply for overnight and long-term parking needs. In order to increase the parking supply, the City should consider developing a new parking structure to be built for residents to purchase spaces for long-term parking.

Creating a new parking structure would come at a high cost and may potentially induce additional parking demand as people may bring more cars into East San Rafael if space is available. However, there is potential to create a new structure through a public-private partnership by working with a private developer to construct a structure.

However, unless an existing business in the East San Rafael area is acquired, there are no opportunity sites to add significant parking resources (i.e. structure with several hundred spaces). Existing City lots (e.g. Albert J. Boro Community Center) would have to be reconfigured with deck or structured parking, or a site would have to be identified outside the East San Rafael area. Additionally, due to the high cost of a parking structure and limited opportunity sites, a structure is not as viable of an option as the other strategies presented in this report.

Conclusions

The parking occupancy surveys revealed that, in general, the East San Rafael study area, excluding Kerner Boulevard, is experiencing high parking demands that exceed the available supply. The Commercial, Canal, and Bahia subareas are experiencing the highest demands during weekday mornings and evenings, as well as on weekends with parking occupancies over 100 percent. The Spinnaker and Baypoint subareas experience high parking demands in the evenings with parking occupancies rising above 85 percent. In general, on-street parking is not readily available anywhere in the East San Rafael study area.

In order to more efficiently manage the parking supply, the City should consider short-term, mid-term, and long-term strategies that would increase supply, increase parking turnover, and discourage substantial spillover into other neighborhoods, while also reducing parking demand during the day around commercial businesses. Table 3 provides a summary of the recommended parking strategies along with their potential benefits and drawbacks.

A key component to the success of any parking strategy is adequate and consistent enforcement. The City should consider these strategies in combination with their enforcement practices, an education campaign, and periodic evaluation so that over time there is a better balance of parking demand and space availability.

Table 3 – Recommended Parking Strategies Summary			
Time	**Strategy**	**Benefits**	**Drawbacks**
Short-Term			
	Time Limited Parking	Effective strategy to provide turnover of parking residential and commercial areas	Requires regular enforcement; does not entirely address the issues of spillover or the overall parking deficit
	Public-private partnership/ Off-Street Parking	Utilizes existing parking facilities (Bowling Alley, Mi Pueblo) to add up to 329 spaces	Requires private businesses to be willing to lease their parking spaces; Majority of cost falls to the City to incentivize owners, maintain lots, and provide security
	Transit Opportunities	Reduces the reliance on vehicles for travel; minimal cost to residents	Cost of subsidizing passes on the City or Marin Transit
Mid-Term			
	City-Owned Parking Lots	Increases City-owned parking supply by 119-346 spaces; Costs of permits can offset administrative costs; Spaces can be short or long-term	High cost – up to $2.3M; Would provide some but not total relief to address 582 space shortfall
	Parking Permits	Reduces spillover; Encourages parking turnover; Provides equitable way to manage parking in East San Rafael; Parking demand will be reduced and relocated	Requires regular enforcement/admin staff; Revenue from permits needs to be over $200/year to cover the cost of administration ($435,000 per year); Requires capital expenditure for signs, permits, maintenance, etc.; May result in relocation of parked vehicles outside of East San Rafael
	City Parking Code	Ensures that any development or redevelopment within the Canal Neighborhood subarea provides sufficient parking to meet the City's current code	
Long-Term			
	Parking Structure	Can significantly increase parking supply and provide long-term parking for East San Rafael residents	High cost of $25,000 or more per space; limited opportunity sites available

Study Participants and References

Study Participants

Principal in Charge	Mark E. Spencer, TE
Assistant Planner	Shannon Baker
Graphics/Editing/Formatting	Hannah Yung
Report Review	Mark E. Spencer, TE

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Appendix A

Online Parking Survey Questions and Results

Summary of Canal Neighborhood Parking Study Public Survey

A total of 424 residents participated in the survey:

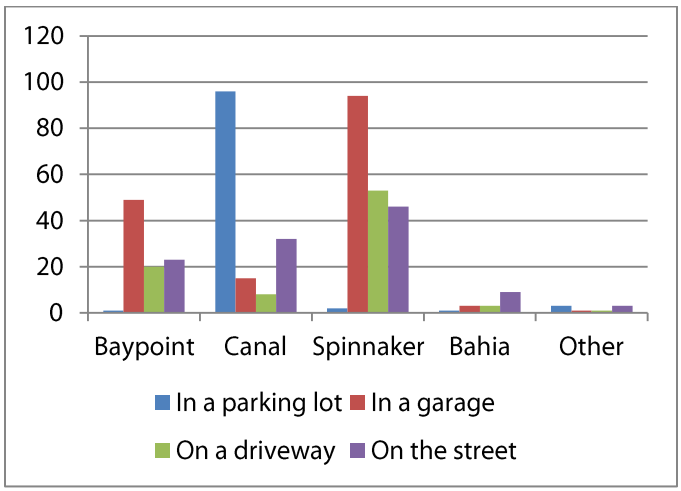
- Baypoint: 93
- Canal: 154
- Spinnaker: 153
- Bahia: 16
- Other: 8

142 were conducted in Spanish and 282 were conducted in English.

2) Where do you park?

Number of responses: 463

	In a parking lot	In a garage	On a driveway	On the street
Baypoint	1	49	20	23
Canal	96	15	8	32
Spinnaker	2	94	53	46
Bahia	1	3	3	9
Other	3	1	1	3



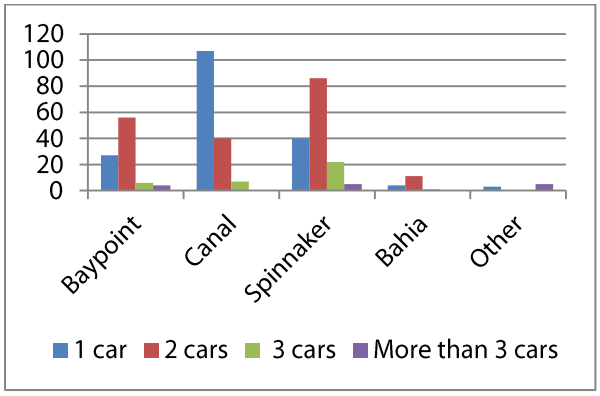
3) If you park on the street, what street(s) do you typically park on?

- In Baypoint, the majority of their residents park on Baypoint Blvd.
- In Spinnaker, the majority of their residents park on Catalina Blvd or Bedford Ct.
- In Canal, the majority of residents park on Sonoma St or Canal St.

4) How many cars do you need to park?

Number of Responses: 424

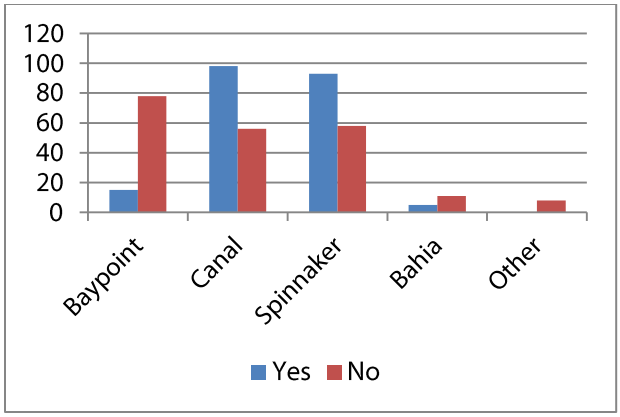
Number of Cars	1	2	3	More than 3
Baypoint	27	56	6	4
Canal	107	40	7	0
Spinnaker	40	86	22	5
Bahia	4	11	1	0
Other	3	0	0	5



5) Do you have cars that are parked for long periods of time (several days or more) and are only used occasionally?

Number of responses: 422

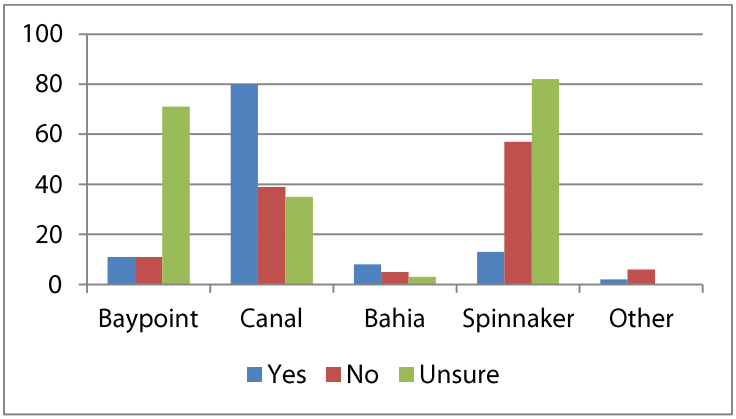
	Yes	No
Baypoint	15	78
Canal	98	56
Spinnaker	93	58
Bahia	5	11
Other	0	8



6) Would you be willing to pay to park your car overnight or for several days in a parking lot?

Number of responses: 423

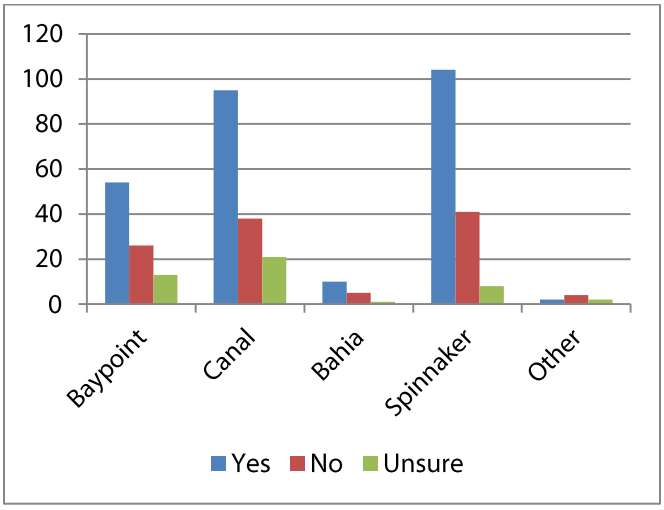
	Yes	No	Unsure
Baypoint	11	11	71
Canal	80	39	35
Bahia	8	5	3
Spinnaker	13	57	82
Other	2	6	0



7) Would you be willing to pay for a permit to park your car on the street?

Number of responses: 424

	Yes	No	Unsure
Baypoint	54	26	13
Canal	95	38	21
Bahia	10	5	1
Spinnaker	104	41	8
Other	2	4	2



8) If you are a resident in the area, please share any comments or ideas you have about parking in your neighborhood:

Baypoint Residents:

- Upset they pay enough in HOA and can't park in their neighborhoods.
- Upset they can't have their friends/guest over because they can't find parking.
- Feel non-residents use their parking too much by leaving their cars there overnight and picking them up in the morning.
- Feel more rules should be added like parking time limits and permitting.

Canal Residents:

- Majority of the comments mention that people are storing their cars on the street for long periods of time.
- Car dealerships are storing vehicles in the street parking.
- Some say they buy cars and store them on the street and then send them to their countries.
- A lot blame the landlords, they sell the parking spaces and do not provide them for the people living in the apartments. They don't really complain about the number of people in the apartments, they just say that the landlords need to limit the number of cars the people can have.
- Some suggest marking the streets with Ts and Ls.
- They would like to be secured parking spots either on the street or at the apartment complex.

Bahia Residents:

- Feel cars are staying in the area for extended periods of time and only being moved for two hours for street cleaning.
- Cars begin to become places for debris and other things to form.

Spinnaker Residents:

- Not enough parking for their guests.
- Can't park in their driveways due to rules in their community and are forced to park on the street.
- Requesting permit parking.
- Feel they pay a lot for their homes, and should be able to park where they want.
- They don't like that Canal residents come to their area and park overnight.

Other Residents

- Nonresidents save parking spaces for their friends leaving residents with fewer spaces to park.

9) If you own an apartment building in the Canal area, please share any comments and ideas you have about parking for your tenants. What are your biggest concerns? If the City required permits to park on the street, how many would your tenants need?

Baypoint Residents:

- Upset that there are many residents who live in the area adding to the parking issues
- Feel people do not move their car enough.

Canal Residents:

- Views the problem as that people have too many cars.

Bahia Residents:

- No owners there.

Spinnaker Residents:

- Too many residents in the area.

10) If you run a business in the Canal area, please share any comments and ideas you have about parking for your employees, customers, or the local community.

Baypoint Residents:

- No one from Baypoint ran a business but proposed the question if businesses would be willing to open their parking to permit residents.

Canal Residents:

- Frustrated that residents use their parking lots to park. Their employees can't park for work because the residents took over.
- Asked for more regulations.

Bahia Residents:

N/A

Spinnaker Residents:

- Parking usually not a problem during day, but hard to find after 6.

Other:

- Some businesses don't have enough parking for employees forcing them to park blocks away.
- Encourage alternative means of transportation.
- Need more business for parking.

Appendix B

Parking Occupancy Surveys

Canal Neighborhood - Parking Survey
Time: Tueday Morning

				Number of Spaces	Number of Occupied Spaces									Max # Occupied Spaces (Weekday)		Min # Occupied Spaces (Weekday)		Current Parking Regulations/Comments
Area	Lot #	Location	Side of Street	Inventory	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM					Spaces	%	Spaces	%	
	A	Pickleweed Community Center	Canal Street	79										0	0%	0	0%	3Hr parking 7AM- 10PM,No parking 6AM - 7AM, Handcap -(4), 20 Min Parking 1PM-5PM - (8)
	B	Country Club Bowl	Belvedere St & Vivian St	137	8	8	10	16	15					16	12%	8	6%	6 Handicapped, 131 unmarked
	C	Sanitary District No 1-Marin	2960 Kerner Blvd	19	21	22	18	21	25					25	132%	18	95%	The parking lot was inaccessible on Tuesday Night and Saturday
			Lots Subtotal	*156*	*29*	*30*	*28*	*37*	*40*					40	26%	28	18%	
			%	*19%*	*19%*	*18%*	*24%*	*26%*										
Sub-Area	**Street #**	**Street Name**	**Segment**	**Inventory**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**					**Spaces**	**%**	**Spaces**	**%**	
Commercial	1	Francisco Blvd E	Harbor St to Medway Rd	22	8	6	6	10	10					10	45%	6	27%	2Hr Parking 9AM - 6PM
	2	Francisco Blvd E	Medeway Rd to Bellam Blvd	0	0	0	0	0	0									No Parking at anytime
	3	Harbor St	Francisco Blvd E to Canal St	44	48	48	48	48	47					48	109%	47	107%	Commercial Vehicles over 10000lb,No parking 7AM - 7PM, 1 Hr parking 9AM - 7PM
	4	Front St	Harbor St to Medway Rd	61	74	64	72	75	75					75	123%	64	105%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	5	Hoag Ave	Francisco Blvd E to Canal St	43	61	46	49	50	48					61	142%	46	107%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	6	Mill St	Harbor St to Medway Rd	65	64	68	69	69	70					70	108%	64	98%	Commercial Vehicles over 10000lb,No parking 7AM - 7PM, 1 Hr parking 9AM - 7PM
	7	Medway Rd	Francisco Blvd E to Canal St	23	19	22	23	19	22					23	100%	19	83%	Mondays street sweeping 8AM - 10PM
	8	Belvedere St	Medway Rd to Tiburon St	49	54	54	52	51	51					54	110%	51	104%	No Regulations
	9	Belvedere St	Tiburon St to Bellam Blvd	46	52	50	49	50	49					52	113%	49	107%	No Regulations
	10	Alto St	Belvedere St to Larkspur St	22	21	19	17	18	17					21	95%	17	77%	No Regulations
	11	Vivan St	Francisco Blvd E to Belvedere St	58	9	11	15	20	22					22	38%	9	16%	2Hr Parking 6AM - 6PM
	12	Louise St	Francisco Blvd E to Belevedere St	28	27	28	36	30	32					36	129%	27	96%	No Regulations
	13	Tiburon St	Francisco Blvd E to Belevedere St	41	42	42	39	40	44					44	107%	39	95%	No Parking Unloading/Loading 6AM - 7PM (4)
	14	Market St	Tiburon St to Verdi St	27	28	34	33	29	29					34	126%	28	104%	No Regulations
	15	Verdi St	Bellam Blvd to Belvedere St	23	27	30	28	30	29					30	130%	27	117%	No Regulations
	16	Lisbon St	Verdi St to Bellam Blvd	24	25	24	27	28	25					28	117%	24	100%	No Regulations
	17	Canal St	Harbor St to Medway Rd	75	67	66	67	65	68	85% Utilization				68	91%	65	87%	Mondays street sweeping 8AM - 10PM
	18	Bellam Blvd	Francisco Blvd E to Kerner Blvd	17	7	19	16	13	11	#	%	Diff		19	112%	7	41%	2Hr Parking 6AM - 6PM
			Total	**668**	**633**	**631**	**646**	**645**	**649**	**568**	**85%**	**81**		649	97%	0.85	0%	
			Occupancy %		**95%**	**94%**	**97%**	**97%**	**97%**									
Canal	19	Canal St	Medway Rd to Novato St	30	27	23	27	27	25					27	90%	23	77%	Mondays street sweeping 10AM - 12PM
	20	Canal St	Novato St to Sonoma St	40	35	34	35	35	36					36	90%	34	85%	Mondays street sweeping 10AM - 12PM
	21	Canal St	Sonoma St to Sorento Way	52	52	50	49	49	50					52	100%	49	94%	Mondays street sweeping 10AM - 12PM
	22	Novato St	Canal St to Kerner Blvd	89	77	78	80	79	78					80	90%	77	87%	Mondays street sweeping 10AM - 12PM
	23	Fairfax St	Canal St to Kerner Blvd	66	58	57	58	59	59					59	89%	57	86%	Mondays street sweeping 10AM - 12PM
	24	Sonoma St	Canal St to Kerner Blvd	42	39	41	39	38	40					41	98%	38	90%	Mondays street sweeping 10AM - 12PM
	25	Kerner Blvd	Canal St to Sonoma St	47	53	55	56	57	58					58	123%	53	113%	Mondays street sweeping 8AM - 10PM
	26	Kerner Blvd	Sonoma St to Novato St	39	35	34	32	34	35					35	90%	32	82%	Mondays street sweeping 8AM - 10PM
	27	Kerner Blvd	Novato St to Bellam Blvd	21	18	15	16	19	18					19	90%	15	71%	Mondays street sweeping 8AM - 10PM
	28	Sorento Way	Canal St to end of cul-de-sac	10	7	8	10	11	10					11	110%	7	70%	Mondays street sweeping 10AM - 12PM, Parking only on one side
	29	Canal St	Kerner Blvd to Bahia Way	28	23	24	26	29	26					29	104%	23	82%	Mondays street sweeping 10AM - 12PM
	30	Marian Ct	Kerner Blvd to end of cul-de-sac	14	14	14	13	14	14	85% Utilization				14	100%	13	93%	Mondays street sweeping 8AM - 10PM
	31	Larkspur St	Canal St to Kerner Blvd	118	93	96	94	96	98	#	%	Diff		98	83%	93	79%	Mondays street sweeping 10AM - 12PM
			Total	**596**	**531**	**529**	**535**	**547**	**547**	**507**	**85%**	**40**		547	92%	529	89%	
			Occupancy %		**89%**	**89%**	**90%**	**92%**	**92%**									
Kerner Blvd	60	Francisco Blvd E	Bellam Blvd to Irene St	26	16	4	15	13	16					16	62%	4	15%	2 Hr parking 9AM - 6PM, Parking on one side of the street, 30Min Parking (3)
	61	Francisco Blvd E	Irene St to Shoreline Pkwy	34	36	38	32	32	30					38	112%	30	88%	No Regulations
	62	Castro Ave	Bellam Blvd to Francisco Blvd E	23	8	6	7	10	6					10	43%	6	26%	2Hr parking 9AM -6PM
	63	Kerner Blvd	Bellam Blvd to Irene St	92	95	91	95	86	87					95	103%	86	93%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	64	Kerner Blvd	Irene St to end of street	90	81	86	81	80	79					86	96%	79	88%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	65	Irene St	Francisco Blvd E to Kerner Blvd	0	0	0	0	0	0									No Parking at anytime
	66	Windward Way	Bellam Blvd to end of cul-de-sac	93	32	29	32	31	34					34	37%	29	31%	Mondays Street sweeping 7AM - 10AM, Handcap (1), 2Hr parking -(4)
			Total	**358**	**268**	**254**	**262**	**252**	**252**					268	75%	252	70%	
			Occupancy %		**75%**	**71%**	**73%**	**70%**	**70%**									
			Streets Subtotal	*1622*	*1432*	*1414*	*1443*	*1444*	***1448***			122		1448	89%	1414	87%	
					88%	87%	89%	89%	**89%**									
			TOTAL	***1778***	***1461***	***1444***	***1471***	***1481***	***1488***					1488	84%	1444	81%	
					82%	***81%***	***83%***	***83%***	***84%***									

Canal Neighborhood - Parking Survey
Time: Tuesday Night

Area	Lot #	Location	Side of Street	Number of Spaces Inventory	Peak Number of Occupied Spaces 8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	85% Utilization			Max # Occupied Spaces (Weekday) Spaces	%	Min # Occupied Spaces (Weekday) Spaces	%	Current Parking Regulations/Comments
	A	Pickleweed Community Center	Canal Street	79	49	50	66	66	66				66	84%	49	62%	3Hr parking 7AM- 10PM,No parking 6AM - 7AM, Handcap -(4), 20 Min Parking 1PM-5PM - (8)
	B	Country Club Bowl	Belvedere St & Vivian St	137	44	42	32	16	3				44	32%	3	2%	6 Handicapped, 131 unmarked
	C	Sanitary District No 1-Marin	2960 Kerner Blvd	19									0	0%	0	0%	The parking lot was inaccessible on Tuesday Night and Saturday
			Lots Subtotal	*216*	*93*	*92*	*98*	*82*	*69*				98	45%	69	32%	
			%	*43%*	*43%*	*45%*	*38%*	*32%*									
Sub-Area	**Street #**	**Street Name**	**Segment**	**Inventory**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**	**12:00 AM**				**Spaces**	**%**	**Spaces**	**%**	
Commercial	1	Francisco Blvd E	Harbor St to Medway Rd	22	23	23	23	23	23				23	105%	23	105%	2Hr Parking 9AM - 6PM
	2	Francisco Blvd E	Medeway Rd to Bellam Blvd	0	0	0	0	0	0								No Parking at anytime
	3	Harbor St	Francisco Blvd E to Canal St	44	49	49	51	51	56				56	127%	49	111%	Commercial Vehicles over 10000lb,No parking 7 AM - 7PM, 1 Hr parking 9AM - 7PM
	4	Front St	Harbor St to Medway Rd	61	87	87	78	79	77				87	143%	77	126%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	5	Hoag Ave	Francisco Blvd E to Canal St	43	52	53	52	54	53				54	126%	52	121%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	6	Mill St	Harbor St to Medway Rd	65	73	75	78	79	80				80	123%	73	112%	Commercial Vehicles over 10000lb,No parking 7 AM - 7PM, 1 Hr parking 9AM - 7PM
	7	Medway Rd	Francisco Blvd E to Canal St	23	26	26	27	27	27				27	117%	26	113%	Mondays street sweeping 8AM - 10PM
	8	Belvedere St	Medway Rd to Tiburon St	49	55	61	60	62	63				63	129%	55	112%	No Regulations
	9	Belvedere St	Tiburon St to Bellam Blvd	46	48	50	49	52	52				52	113%	48	104%	No Regulations
	10	Alto St	Belvedere St to Larkspur St	22	22	23	24	24	24				24	109%	22	100%	No Regulations
	11	Vivan St	Francisco Blvd E to Belvedere St	58	62	62	66	66	62				66	114%	62	107%	2Hr Parking 6AM - 6PM
	12	Louise St	Francisco Blvd E to Belevedere St	28	39	37	40	43	46				46	164%	37	132%	No Regulations
	13	Tiburon St	Francisco Blvd E to Belevedere St	41	47	48	49	49	49				49	120%	47	115%	No Parking Unloading/Loading 6AM - 7PM (4)
	14	Market St	Tiburon St to Verdi St	27	28	28	28	29	29				29	107%	28	104%	No Regulations
	15	Verdi St	Bellam Blvd to Belvedere St	23	23	23	24	27	27				27	117%	23	100%	No Regulations
	16	Lisbon St	Verdi St to Bellam Blvd	24	23	24	25	26	27				27	113%	23	96%	No Regulations
	17	Canal St	Harbor St to Medway Rd	75	89	92	92	100	104	85% Utilization			104	139%	89	119%	Mondays street sweeping 8AM - 10PM
	18	Bellam Blvd	Francisco Blvd E to Kerner Blvd	17	14	16	16	18	19	#	%	Diff	19	112%	14	82%	2Hr Parking 6AM - 6PM
			Total	**668**	**760**	**777**	**782**	**809**	**818**	**568**	**85%**	**250**	818	122%	0.85	0%	
			Occupancy %		**114%**	**116%**	**117%**	**121%**	**122%**								
Canal	19	Canal St	Medway Rd to Novato St	30	33	36	35	35	36				36	120%	33	110%	Mondays street sweeping 10AM - 12PM
	20	Canal St	Novato St to Sonoma St	40	45	44	45	48	47				48	120%	44	110%	Mondays street sweeping 10AM - 12PM
	21	Canal St	Sonoma St to Sorento Way	52	61	59	68	68	70				70	135%	59	113%	Mondays street sweeping 10AM - 12PM
	22	Canal St	Kerner Blvd to Bahia Way	28	31	33	33	33	33				33	118%	31	111%	Mondays street sweeping 10AM - 12PM
	23	Novato St	Canal St to Kerner Blvd	89	96	101	102	102	102				102	115%	96	108%	Mondays street sweeping 10AM - 12PM
	24	Fairfax St	Canal St to Kerner Blvd	66	89	80	81	81	82				89	135%	80	121%	Mondays street sweeping 10AM - 12PM
	25	Sonoma St	Canal St to Kerner Blvd	42	53	51	53	52	55				55	131%	51	121%	Mondays street sweeping 10AM - 12PM
	26	Kerner Blvd	Canal St to Sonoma St	47	61	71	75	72	70				75	160%	61	130%	Mondays street sweeping 8AM - 10PM
	27	Kerner Blvd	Sonoma St to Novato St	39	41	44	46	46	45				46	118%	41	105%	Mondays street sweeping 8AM - 10PM
	28	Kerner Blvd	Novato St to Bellam Blvd	21	24	25	25	25	24				25	119%	24	114%	Mondays street sweeping 8AM - 10PM
	29	Sorento Way	Canal St to end of cul-de-sac	10	10	10	10	10	10				10	100%	10	100%	Mondays street sweeping 10AM - 12PM, Parking only on one side
	30	Marian Ct	Kerner Blvd to end of cul-de-sac	14	19	19	19	21	20				21	150%	19	136%	Mondays street sweeping 8AM - 10PM
	31	Larkspur St	Canal St to Kerner Blvd	118	116	119	128	127	125				128	108%	116	98%	Mondays street sweeping 10AM - 12PM
	32	Portofino Rd	Canal St to end of cul-de-sac	10	12	12	12	12	12				12	120%	12	120%	Mondays street sweeping 10AM - 12PM
	33	Capri Ct	Canal St to end of cul-de-sac	7	8	8	8	8	8				8	114%	8	114%	Mondays street sweeping 10AM - 12PM
	34	Amalfi Pl	Canal St to end of cul-de-sac	7	7	8	9	9	9				9	129%	7	100%	Mondays street sweeping 10AM - 12PM
	35	Lido Ln	Canal St to end of cul-de-sac	10	10	10	10	10	10				10	100%	10	100%	Mondays street sweeping 10AM - 12PM
	36	Elaine Way	Sonoma St to Fairfax St	5	7	8	8	8	10	85% Utilization			10	200%	7	140%	Mondays street sweeping 10AM - 12PM
	37	Charlotte Dr	Sonoma St to Fairfax St	5	9	5	6	7	7	#	%	Diff	9	180%	5	100%	Mondays street sweeping 10AM - 12PM
			Total	**640**	**732**	**743**	**773**	**774**	**775**	**544**	**85%**	**231**	775	121%	732	114%	
			Occupancy %		**114%**	**116%**	**121%**	**121%**	**121%**								
Bahia	38	Bahia Way	Canal St to Bahia Cir	13	11	11	11	11	11				11	85%	11	85%	Mondays street sweeping 10AM - 12PM
	39	Bahia Cir	Bahia Way to Bahia Way (the whole loop)	22	23	22	22	22	23				23	105%	22	100%	No Regulations, parking on one side of the street
	40	Bahia Way	Bahia Cir to Kerner Blvd	137	146	149	156	157	157				157	115%	146	107%	Mondays street sweeping 10AM - 12PM, Passenger Loading/Unloading 7AM -3 PM (6)
	41	Bahia Pl	Bahia Cir to Bahia Way	13	14	13	13	14	13				14	108%	13	100%	No Regulations, parking on one side of the street
	42	Playa Del Rey	Bahia Way to Bellam Blvd	31	31	31	31	31	31				31	100%	31	100%	No Regulations, parking on one side of the street
	43	Vista Del Mar	Playa Del Rey Bellam Blvd	35	32	34	34	33	33	85% Utilization			34	97%	32	91%	No Regulations, parking on one side of the street
	44	Bellam Blvd	Kerner Blvd To Playa Del Rey	60	61	61	61	61	61	#	%	Diff	61	102%	61	102%	No Regulations
			Total	**311**	**318**	**321**	**328**	**329**	**329**	**264**	**85%**	**65**	329	106%	0.848875	0%	
			Occupancy %		**102%**	**103%**	**105%**	**106%**	**106%**								
Spinnaker & Baypoint	45	Spinnaker Point Dr	Bahia Way to Catalina Blvd	66	67	66	67	65	67				67	102%	65	98%	Mondays street sweeping 10AM - 12PM
	46	Spinnaker Point Dr	Calaline Blvd to Bedford Cove	47	39	43	39	42	44				44	94%	39	83%	No Regulations
	47	Salem Cove	Spinnaker Point Dr to end of cul-de-sac	3	4	4	3	3	4				4	133%	3	100%	No Regulations
	48	Rockport Cove	Spinnaker Point Dr to end of cul-de-sac	3	3	2	3	3	3				3	100%	2	67%	No Regulations
	49	Hingham Cove	Spinnaker Point Dr to end of cul-de-sac	4	3	3	3	2	3				3	75%	2	50%	No Regulations
	50	Newport Way	Spinnaker Point Dr to end of culd-de-sac	10	10	10	10	10	10				10	100%	10	100%	No Regulations
	51	Duxbury Cove	Spinnaker Point Dr to end of cul-de-sac	5	3	3	3	3	3				3	60%	3	60%	No Regulations
	52	Narragansett Cove	Spinnaker Point Dr to end of culd-de-sac	9	7	7	7	7	7				7	78%	7	78%	No Regulations
	53	Bedford Cove	Spinnaker Point Dr to end of cul-de-sacs	10	1	1	3	3	3				3	30%	1	10%	No Regulations
	54	Portsmouth Cove	Spinnaker Point Dr to end of cul-de-sac	10	9	10	10	11	11				11	110%	9	90%	No Regulations
	55	Catalina Blvd	Spinnaker Point Dr to Falmouth Cove	42	38	38	39	40	40				40	95%	38	90%	No Regulations
	56	Catalina Blvd	Falmouth Cove to Baypoint Village Dr	42	36	38	38	39	41				41	98%	36	86%	No Regulations
	57	Hyannis Cove	Catalina Blvd to end of cul-de-sac	13	10	9	11	11	12				12	92%	9	69%	No Regulations
	58	Gloucester Cove	Cataline Blvd to end of cul-de-sac	10	10	10	10	10	10				10	100%	10	100%	No Regulations
	59	Falmouth Cove	Catalina Blvd to end of-cul de sac	10	10	10	10	10	10				10	100%	10	100%	No Regulations
	60	Nantucket Cove	Catalina Blvd to end of cul-de-sac	31	21	24	25	25	28				28	90%	21	68%	No Regulations
	61	Baypoint Dr	Catalina Blvd to Dowitcher Way	22	18	21	23	24	26				26	118%	18	82%	No Regulations
	62	Baypoint Dr	Dowitcher Way to Baypoint Village Dr	26	16	18	20	21	21				21	81%	16	62%	No Regulations
	63	Baypoint Dr	Baypoint Village Dr to end of street	29	27	26	29	33	34				34	117%	26	90%	No Regulations
	64	Egret View	Baypoint Dr to Baypoint Dr (loop)	15	2	3	3	3	3	85% Utilization			3	20%	2	13%	No Regulations
	65	Baypoint Village Dr	Baypoint Dr to Playa Del Rey	29	26	27	27	28	28	#	%	Diff	28	97%	26	90%	No Regulations
			Total	**436**	**360**	**373**	**383**	**393**	**408**	**371**	**85%**	**37**	408	94%	0.850917	0%	
			Occupancy %		**83%**	**86%**	**88%**	**90%**	**94%**				370.6	85%			
Kerner Blvd	66	Francisco Blvd E	Bellam Blvd to Irene St	26	16	13	14	17	17				17	65%	13	50%	2 Hr parking 9AM - 6PM, Parking on one side of the street, 30Min Parking (3
	67	Francisco Blvd E	Irene St to Shoreline Pkwy	34	18	18	17	17	17				18	53%	17	50%	No Regulations
	68	Castro Ave	Bellam Blvd to Francisco Blvd E	23	22	23	23	24	23				24	104%	22	96%	2Hr parking 9AM-6PM
	69	Kerner Blvd	Bellam Blvd to Irene St	92	77	81	83	89	89				89	97%	77	84%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	70	Kerner Blvd	Irene St to end of street	90	44	37	32	31	39				44	49%	31	34%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	71	Windward Way	Bellam Blvd to end of cul-de-sac	93	62	68	55	81	78				81	87%	55	59%	Mondays Street sweeping 7AM - 10AM, Handcap (1), 2Hr parking -(4)
			Total	**358**	**239**	**240**	**224**	**259**	**263**				263	73%	224	63%	
			Occupancy %		**67%**	**67%**	**63%**	**72%**	**73%**								
			Streets Subtotal	*2413*	*1731*	*1760*	*1779*	*1842*	*1856*			*583*	1856	77%	583.2	24%	
					72%	*73%*	*74%*	*76%*	*77%*								
			TOTAL	***2629***	***1824***	***1852***	***1877***	***1924***	***1925***				1925	73%	1824	69%	
					69%	**70%**	**71%**	**73%**	**73%**								

Canal Neighborhood - Parking Survey
Time: Saturday Afteroon and Night

Peak

Area	Lot #	Location	Side of Street	Number of Spaces Inventory	Number of Occupied Spaces 2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	Max # Occupied Spaces (Weekday) Spaces	%	Min # Occupied Spaces (Weekday) Spaces	%	Current Parking Regulations/Comments
	A	Pickleweed Community Center	Canal Street	79	39	42	55	52	59	74	64		70	81	79	81	103%	39	49%	3Hr parking 7AM- 10PM,No parking 6AM - 7AM, Handcap -(4), 20 Min Parking 1PM-5PM - (8)
	B	Country Club Bowl	Belvedere St & Vivian St	137	50	47	57	63	57	79	66	51	43	34	10	79	58%	10	7%	6 Handicapped, 131 unmarked
	C	Sanitary District No 1-Marin	2960 Kerner Blvd	19																The parking lot was inaccessible on Tuesday Night and Saturday
			Lots Subtotal	*216*	*89*	*89*	*112*	*115*	*116*	*153*	*130*	*51*	*113*	*115*	*89*	153	71%	51	24%	
					41%	*41%*	*52%*	*53%*	*54%*	*71%*	*60%*	*24%*	*52%*	*53%*	*41%*					
Sub-Area	**Street #**	**Street Name**	**Segment**	**Inventory**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**	**12:00 AM**	**Spaces**	**%**	**Spaces**	**%**	
Commercial	1	Francisco Blvd E	Harbor St to Medway Rd	22	8	18	15	20	22	21	22	22	24	24	24	24	109%	8	36%	2Hr Parking 9AM - 6PM
	2	Francisco Blvd E	Medeway Rd to Bellam Blvd	0	0	0	0	0	0	0	0	0	0	0	0					No Parking at anytime
	3	Harbor St	Francisco Blvd E to Canal St	44	43	45	48	49	50	43	47	54	51	50	53	54	123%	43	98%	Commercial Vehicles over 10000lb,No parking 7AM - 7PM, 1 Hr parking 9AM - 7PM
	4	Front St	Harbor St to Medway Rd	61	59	74	75	71	75	74	71	71	67	81	81	81	133%	59	97%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	5	Hoag Ave	Francisco Blvd E to Canal St	43	49	49	48	52	51	52	48	51	53	52	54	54	126%	48	112%	Commercial Vehicles over 10000lb, 1 Hr parking 9AM - 7PM
	6	Mill St	Harbor St to Medway Rd	65	75	74	76	75	75	76	81	78	75	77	80	81	125%	74	114%	Commercial Vehicles over 10000lb,No parking 7AM - 7PM, 1 Hr parking 9AM - 7PM
	7	Medway Rd	Francisco Blvd E to Canal St	23	25	24	23	26	25	27	25	26	30	30	29	30	130%	23	100%	Mondays street sweeping 8AM - 10PM
	8	Belvedere St	Medway Rd to Tiburon St	49	51	43	55	56	56	57	60	58	59	64	64	64	131%	43	88%	No Regulations
	9	Belvedere St	Tiburon St to Bellam Blvd	46	38	46	49	50	51	52	51	53	50	52	52	53	115%	38	83%	No Regulations
	10	Alto St	Belvedere St to Larkspur St	22	22	20	22	23	24	21	22	22	21	21	21	24	109%	20	91%	No Regulations
	11	Vivan St	Francisco Blvd E to Belvedere St	58	43	47	57	62	51	61	62	61	62	65	64	65	112%	43	74%	2Hr Parking 6AM - 6PM
	12	Louise St	Francisco Blvd E to Belevedere St	28	26	24	23	25	23	41	43	48	52	49	49	52	186%	23	82%	No Regulations
	13	Tiburon St	Francisco Blvd E to Belevedere St	41	37	40	38	44	47	46	44	47	46	46	46	47	115%	37	90%	No Parking Unloading/Loading 6AM - 7PM (4)
	14	Market St	Tiburon St to Verdi St	27	25	26	27	29	28	26	27	25	26	27	29	29	107%	25	93%	No Regulations
	15	Verdi St	Bellam Blvd to Belvedere St	23	20	23	23	23	25	25	24	26	26	27	27	27	117%	20	87%	No Regulations
	16	Lisbon St	Verdi St to Bellam Blvd	24	22	16	24	23	26	24	23	24	24	24	24	26	108%	16	67%	No Regulations
	17	Canal St	Harbor St to Medway Rd	75	87	84	93	86	94	93	97	92	95	102	105	105	140%	84	112%	Mondays street sweeping 8AM - 10PM
	18	Bellam Blvd	Francisco Blvd E to Kerner Blvd	17	9	8	15	15	19	18	18	19	21	21	20	21	124%	8	47%	2Hr Parking 6AM - 6PM
			Total	**668**	**639**	**661**	**711**	**729**	**742**	**757**	**765**	**777**	**782**	**812**	**822**	822	123%	639	96%	
			Occupancy %		**96%**	**99%**	**106%**	**109%**	**111%**	**113%**	**115%**	**116%**	**117%**	**122%**	**123%**					
Canal	19	Canal St	Medway Rd to Novato St	30	27	30	28	28	33	34	35	36	35	36	36	36	120%	27	90%	Mondays street sweeping 10AM - 12PM
	20	Canal St	Novato St to Sonoma St	40	37	38	35	37	40	43	44	45	47	46	47	47	118%	35	88%	Mondays street sweeping 10AM - 12PM
	21	Canal St	Sonoma St to Sorento Way	52	54	54	56	53	54	64	60	61	63	64	69	69	133%	53	102%	Mondays street sweeping 10AM - 12PM
	22	Canal St	Kerner Blvd to Bahia Way	28	28	30	33	29	41	32	30	30	32	36	35	41	146%	28	100%	Mondays street sweeping 10AM - 12PM
	23	Novato St	Canal St to Kerner Blvd	89	83	84	86	91	92	104	99	96	98	98	99	104	117%	83	93%	Mondays street sweeping 10AM - 12PM
	24	Fairfax St	Canal St to Kerner Blvd	66	64	67	66	68	71	78	84	81	80	78	83	84	127%	64	97%	Mondays street sweeping 10AM - 12PM
	25	Sonoma St	Canal St to Kerner Blvd	42	45	49	50	52	51	51	55	54	55	60	60	60	143%	45	107%	Mondays street sweeping 10AM - 12PM
	26	Kerner Blvd	Canal St to Sonoma St	47	53	43	57	59	64	60	62	64	65	66	67	67	143%	43	91%	Mondays street sweeping 8AM - 10PM
	27	Kerner Blvd	Sonoma St to Novato St	39	38	40	39	40	42	47	46	48	48	48	49	49	126%	38	97%	Mondays street sweeping 8AM - 10PM
	28	Kerner Blvd	Novato St to Bellam Blvd	21	19	21	19	20	24	23	23	25	23	25	26	26	124%	19	90%	Mondays street sweeping 8AM - 10PM
	29	Sorento Way	Canal St to end of cul-de-sac	10	9	10	10	16	10	10	10	10	10	10	10	16	160%	9	90%	Mondays street sweeping 10AM - 12PM, Parking only on one side
	30	Marian Ct	Kerner Blvd to end of cul-de-sac	14	13	13	14	16	16	19	23	22	21	23	23	23	164%	13	93%	Mondays street sweeping 8AM - 10PM
	31	Larkspur St	Canal St to Kerner Blvd	118	100	101	101	111	117	115	119	119	124	125	125	125	106%	100	85%	Mondays street sweeping 10AM - 12PM
	32	Portofino Rd	Canal St to end of cul-de-sac	10	15	12	13	13	13	13	13	13	14	14	14	15	150%	12	120%	Mondays street sweeping 10AM - 12PM
	33	Capri Ct	Canal St to end of cul-de-sac	7	6	6	7	6	8	8	9	9	9	9	9	9	129%	6	86%	Mondays street sweeping 10AM - 12PM
	34	Amalfi Pl	Canal St to end of cul-de-sac	7	6	6	7	6	8	8	7	8	8	7	7	8	114%	6	86%	Mondays street sweeping 10AM - 12PM
	35	Lido Ln	Canal St to end of cul-de-sac	10	9	8	9	9	9	10	10	10	10	10	12	12	120%	8	80%	Mondays street sweeping 10AM - 12PM
	36	Elaine Way	Sonoma St to Fairfax St	5	5	6	5	5	6	7	9	9	9	12	13	13	260%	5	100%	Mondays street sweeping 10AM - 12PM
	37	Charlotte Dr	Sonoma St to Fairfax St	5	5	5	4	5	7	6	5	7	7	8	9	9	180%	4	80%	Mondays street sweeping 10AM - 12PM
			Total	**640**	**616**	**623**	**639**	**664**	**706**	**732**	**743**	**747**	**758**	**775**	**793**	793	124%	616	96%	
			Occupancy %		**96%**	**97%**	**100%**	**104%**	**110%**	**114%**	**116%**	**117%**	**118%**	**121%**	**124%**					
Bahia	38	Bahia Way	Canal St to Bahia Cir	13	14	14	12	9	9	11	12	11	11	11	12	14	108%	9	69%	Mondays street sweeping 10AM - 12PM
	39	Bahia Cir	Bahia Way to Bahia Way (the whole loop)	22	23	24	17	19	17	21	17	17	17	17	17	24	109%	17	77%	No Regulations, parking on one side of the street
	40	Bahia Way	Bahia Cir to Kerner Blvd	137	133	129	133	137	138	142	140	141	141	149	151	151	110%	129	94%	Mondays street sweeping 10AM - 12PM, Passenger Loading/Unloading 7AM - 3 PM (6
	41	Bahia Pl	Bahia Cir to Bahia Way	13	20	15	15	14	17	16	16	17	17	16	16	20	154%	14	108%	No Regulations, parking on one side of the street
	42	Playa Del Rey	Bahia Way to Bellam Blvd	31	31	31	31	31	32	31	32	32	32	32	31	32	103%	31	100%	No Regulations, parking on one side of the street
	43	Vista Del Mar	Playa Del Rey Bellam Blvd	35	31	37	32	32	32	36	36	37	38	38	33	38	109%	31	89%	No Regulations, parking on one side of the street
	44	Bellam Blvd	Kerner Blvd To Playa Del Rey	60	56	57	59	58	59	60	60	62	63	63	62	63	105%	56	93%	No Regulations
			Total	**311**	**308**	**307**	**299**	**300**	**304**	**317**	**313**	**317**	**319**	**326**	**322**	326	105%	0.848875	0%	
			Occupancy %		**99%**	**99%**	**96%**	**96%**	**98%**	**102%**	**101%**	**102%**	**103%**	**105%**	**104%**					
Spinnaker & Baypoint	45	Spinnaker Point Dr	Bahia Way to Catalina Blvd	66	62	65	62	65	66	63	63	63	66	66	67	67	102%	62	94%	Mondays street sweeping 10AM - 12PM
	46	Spinnaker Point Dr	Calaline Blvd to Bedford Cove	47	21	26	30	31	38	20	39	40	42	44	45	45	96%	20	43%	No Regulations
	47	Salem Cove	Spinnaker Point Dr to end of cul-de-sac	3	4	3	3	4	4	4	4	5	4	4	4	5	167%	3	100%	No Regulations
	48	Rockport Cove	Spinnaker Point Dr to end of cul-de-sac	3	3	3	3	2	2	2	2	2	2	2	2	3	100%	2	67%	No Regulations
	49	Hingham Cove	Spinnaker Point Dr to end of cul-de-sac	4	2	2	2	2	2	3	3	4	4	4	4	4	100%	2	50%	No Regulations
	50	Newport Way	Spinnaker Point Dr to end of clu-de-sac	10	10	10	10	10	10	10	10	10	10	10	10	10	100%	10	100%	No Regulations
	51	Duxbury Cove	Spinnaker Point Dr to end of cul-de-sac	5	2	2	1	2	1	1	2	1	1	2	2	2	40%	1	20%	No Regulations
	52	Narragansett Cove	Spinnaker Point Dr to end of culd-de-sac	9	3	4	4	5	5	5	5	6	6	6	6	6	67%	3	33%	No Regulations
	53	Bedford Cove	Spinnaker Point Dr to end of cul-de-sacs	10	7	7	6	6	3	3	3	3	3	4	5	7	70%	3	30%	No Regulations
	54	Portsmouth Cove	Spinnaker Point Dr to end of cul-de-sac	10	8	9	9	10	11	11	11	11	11	11	11	11	110%	8	80%	No Regulations
	55	Catalina Blvd	Spinnaker Point Dr to Falmouth Cove	42	25	25	32	33	34	35	37	36	33	36	39	39	93%	25	60%	No Regulations
	56	Catalina Blvd	Falmouth Cove to Baypoint Village Dr	42	34	25	29	30	33	36	38	38	50	41	42	50	119%	25	60%	No Regulations
	57	Hyannis Cove	Catalina Blvd to end of cul-de-sac	13	6	5	5	5	8	8	8	8	8	8	9	9	69%	5	38%	No Regulations
	58	Gloucester Cove	Catalina Blvd to end of cul-de-sac	10	3	4	4	6	7	7	7	7	7	7	7	7	70%	3	30%	No Regulations
	59	Falmouth Cove	Catalina Blvd to end of-cul de sac	10	2	3	5	5	7	8	9	9	10	10	10	10	100%	2	20%	No Regulations
	60	Nantucket Cove	Catalina Blvd to end of cul-de-sac	31	8	9	13	15	16	15	17	16	17	15	18	18	58%	8	26%	No Regulations
	61	Baypoint Dr	Catalina Blvd to Dowitcher Way	22	11	11	15	16	18	20	21	21	23	23	23	23	105%	11	50%	No Regulations
	62	Baypoint Dr	Dowitcher Way to Baypoint Village Dr	26	16	19	19	16	14	16	16	19	23	22	23	23	88%	14	54%	No Regulations
	63	Baypoint Dr	Baypoint Village Dr to end of street	29	23	24	24	22	22	21	22	22	26	27	29	29	100%	21	72%	No Regulations
	64	Egret View	Baypoint Dr to Baypoint Dr (loop)	15	3	3	3	2	3	2	3	3	2	2	3	3	20%	2	13%	No Regulations
	65	Baypoint Village Dr	Baypoint Dr to Playa Del Rey	29	17	19	21	24	24	20	27	28	27	28	27	28	97%	17	59%	No Regulations
			Total	**436**	**270**	**278**	**300**	**311**	**328**	**310**	**347**	**352**	**375**	**372**	**386**	386	89%	270	62%	
			Occupancy %		**62%**	**64%**	**69%**	**71%**	**75%**	**71%**	**80%**	**81%**	**86%**	**85%**	**89%**					
Kerner Blvd	66	Francisco Blvd E	Bellam Blvd to Irene St	26	16	12	9	7	10	7	7	8	8	15	15	16	62%	7	27%	2 Hr parking 9AM - 6PM, Parking on one side of the street, 30Min Parking (3
	67	Francisco Blvd E	Irene St to Shoreline Pkwy	34	18	16	16	18	17	15	15	15	15	14	14	18	53%	14	41%	No Regulations
	68	Castro Ave	Bellam Blvd to Francisco Blvd E	23	8	8	10	14	18	18	20	21	21	20	21	21	91%	8	35%	2Hr parking 9AM -6PM
	69	Kerner Blvd	Bellam Blvd to Irene St	92	73	83	76	76	80	83	82	84	86	86	88	88	96%	73	79%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	70	Kerner Blvd	Irene St to end of street	90	61	44	43	34	35	34	33	34	33	30	32	61	68%	30	33%	Commercial vehicles over 10000lb 1Hr parking 7AM - 7PM
	71	Windward Way	Bellam Blvd to end of cul-de-sac	93	27	40	38	47	50	53	42	69	69	73	70	73	78%	27	29%	Mondays Street sweeping 7AM - 10AM, Handcap (1), 2Hr parking -(4)
			Total	**358**	**203**	**203**	**192**	**196**	**210**	**210**	**199**	**231**	**232**	**238**	**240**	240	67%	192	54%	
			Occupancy %		**57%**	**57%**	**54%**	**55%**	**59%**	**59%**	**56%**	**65%**	**65%**	**66%**	**67%**					
			Streets Subtotal	*2413*	*2036*	*1487*	*1542*	*1589*	*1658*	*1699*	*1707*	*1755*	*1772*	*1825*	*1855*	2036	84%	1487	62%	
					84%	62%	64%	66%	69%	70%	71%	73%	73%	76%	77%					
			TOTAL	***2629***	***2125***	***1576***	***1654***	***1704***	***1774***	***1852***	***1837***	***1806***	***1885***	***1940***	***1944***	2125	81%	1576	60%	
					81%	***60%***	***63%***	***65%***	***67%***	***70%***	***70%***	***69%***	***72%***	***74%***	***74%***					

85% Utilization

#	%	Diff
567.8	85%	254

85% Utilization

#	%	Diff
544	85%	249

85% Utilization

#	%	Diff
264	85%	58

85% Utilization

#	%	Diff
371	85%	15

Appendix C

Feasibility Analysis of City-Owned Opportunity Sites

CSW | ST2

45 Leveroni Court
Novato, CA 94949
www.cswst2.com

415.883.9850
Fax: 415.883.9835

Novato
Petaluma
Sacramento
Redwood City

CSW/Stuber-Stroeh Engineering Group, Inc. Engineers | Land Planners | Surveyors | Landscape Architects

MEMORANDUM

DATE: March 23, 2017 **FILE:** 4.1161.19

TO: Mark Spencer
W-Trans

FROM: Al Cornwell
CSW|ST2

RE: **CANAL PARKING SITE REVIEW AND PRELIMINARY OPINION OF PROBABLE COST**

W-Trans is in the process of studying various parking options for the overall East San Rafael area of the City of San Rafael in Marin County California. As you have noted the area generally suffers from a lack of available parking. On March 13, 2017 W-Trans, CSW|ST2 and representatives of the Public Works and Parking Authority Departments met to discuss initial findings and map out future presentations to the City Council Subcommittee on Parking. The direction given to CSW|ST2 at the close of the meeting was to create preliminary plans and opinions of probable cost for 4 specific parcels which had potential to provide additional parking in the area. Three of the parcels are owned or controlled by the City. The fourth parcel is a private parcel, a portion of which is already used to park cars. The four sites are:

Al Boro Community Center west side (City owned)
Al Boro Community Center east side (City owned)
Windward Way and Bellam Ave, Southeast corner (City owned)
Windward Way, east side (privately held)

Attached are preliminary layouts and Opinions of Probable cost associated with each of the four locations. The preliminary layouts used the standards from several of the parking lots and the City's parking requirements for the downtown area. The layouts were developed after site visits on March 9 and the available aerial imagery from Marin Map. General assumptions and notes have been listed on the layout at each site.

We are available to discuss these sites and our assumptions at your convenience.

Al Cornwell

CSW | ST2

Opinion of Probable Cost

Al Boro West Lot - 18 Spaces

	ITEM NO. DESCRIPTION	QUANTITY		Unit Price ($)	Item Total ($)
1	Mobilization	1	LS	28,890	28,890
2	Demolition	1	LS		-
3	Traffic Control	1	LS		-
4	Erosion Control	1	LS		-
5	Adjust Structures to Grade				
	a. Adjust E-Box & WV to Grade	-	EA		-
	b. Adjust SDMH to Grade	-	EA		-
6	Minor Concrete - Minor Structures				
	a. Curb & Gutter (UCS Type "A")	215	LF	44	9,460
	b. Curb & Gutter (UCS Type "B")	-	LF		-
	c. Curb Ramps (Caltrans Case "A")	-	EA		-
	d. Modified Curb Ramp	-	EA		-
	e. Island Median Ramp	-	EA		-
	f. Driveway Approach (UCS #115)	-	EA	2,500	-
7	Cast In Place Concrete				
	a. Sidewalk/Flatwork	-	SF		-
8	Utility Structures				
	a. Drop Inlet (UCS #260)	1	EA	2,500	2,500
	b. Turning Structure (UCS #260)	-	EA	2,500	-
9	Storm Drain Pipe (12" HDPE)	200	LF	115	23,000
10	Modify Ex Catch Basin	-	EA		-
11	Earthwork	1,406	CYD	15	21,090
12	Roadside Signs				
	a. Install New Sign(s) on New Post	-	EA		-
	b. Relocate Existing Sign to New Post	-	EA		-
13	Hot Mix Asphalt	115	TN	100	11,500
14	Aggregate Base	146	CYD	120	17,520
15	Sawcut	-	LF		-
16	Relocate Luminaires	-	EA		-
17	Bioretention/ Landscape				
	a. Bioretention Soil	250	SF	25	6,250
	b. Landscape	474	SF	6	2,844
18	Signage and Striping				
	a. Parking Lot Signage	2	EA	500	1,000
	b. Parking Spaces	17	SPACES	30.00	510
	c. ADA Spaces (Signage and Striping)	1	SPACES	250.00	250
	d. Clean Air Vehicle Spaces	1	SPACES	50.00	50
19	Lighting/ Electrical				
	a. PG&E Service	1	EA	25,000	25,000
	b. Light Fixtures	3	EA	5,000	15,000
	c. EV Charging Stations	-	EA	10,000	-
	d. Conduit for EV Spaces	-	LF	10	-
	e. Conduit/ Conductor for Lighting	339	LF	25	8,475
				Subtotal	173,338.80
				15% Contigency	26,000.82
				Total	199,339.62

Spaces	18
Average Cost Per Space	11,074

CSW | ST2

Opinion of Probable Cost

Al Boro East Lot - 57 Spaces

	ITEM NO. DESCRIPTION	QUANTITY		Unit Price ($)	Item Total ($)
1	Mobilization	1	LS	45,535	45,535
2	Demolition	1	LS		-
3	Traffic Control	1	LS		-
4	Erosion Control	1	LS		-
5	Adjust Structures to Grade				
	a. Adjust E-Box & WV to Grade	-	EA		-
	b. Adjust SDMH to Grade	-	EA		-
6	Minor Concrete - Minor Structures				
	a. Curb & Gutter (UCS Type "A")	475	LF	44	20,900
	b. Curb & Gutter (UCS Type "B")	-	LF		-
	c. Curb Ramps (Caltrans Case "A")	-	EA		-
	d. Modified Curb Ramp	-	EA		-
	e. Island Median Ramp	-	EA		-
	f. Driveway Approach (UCS #115)	1	EA	2,500	2,500
7	Cast In Place Concrete				
	a. Sidewalk/Flatwork	-	SF		-
8	Utility Structures				
	a. Drop Inlet (UCS #260)	3	EA	2,500	7,500
	b. Turning Structure (UCS #260)	1	EA	2,500	2,500
9	Storm Drain Pipe (12" HDPE)	200	LF	115	23,000
10	Modify Ex Catch Basin	-	EA		-
11	Earthwork	1,406	CYD	15	21,090
12	Roadside Signs				
	a. Install New Sign(s) on New Post	-	EA		-
	b. Relocate Existing Sign to New Post	-	EA		-
13	Hot Mix Asphalt	459	TN	100	45,900
14	Aggregate Base	586	CYD	120	70,320
15	Sawcut	-	LF		-
16	Relocate Luminaires	-	EA		-
17	Bioretention/ Landscape				
	a. Bioretention Soil	710	SF	25	17,750
	b. Landscape	1,898	SF	6	11,388
18	Signage and Striping				
	a. Parking Lot Signage	4	EA	500	2,000
	b. Parking Spaces	49	SPACES	30.00	1,470
	c. ADA Spaces (Signage and Striping)	3	SPACES	250.00	750
	d. Clean Air Vehicle Spaces	5	SPACES	50.00	250
19	Lighting/ Electrical				
	a. PG&E Service	1	EA	25,000	25,000
	b. Light Fixtures	3	EA	5,000	15,000
	c. EV Charging Stations	1	EA	10,000	10,000
	d. Conduit for EV Spaces	500	LF	10	5,000
	e. Conduit/ Conductor for Lighting	850	LF	25	21,250
				Subtotal	349,103.20
				15% Contigency	52,365.48
				Total	401,468.68

Spaces	57
Average Cost Per Space	7,043

CSW | ST2

Opinion of Probable Cost

Windward Way - 44 Spaces

	ITEM NO. DESCRIPTION	QUANTITY		Unit Price ($)	Item Total ($)
1	Mobilization	1	LS	46,312	46,312
2	Demolition	1	LS		-
3	Traffic Control	1	LS		-
4	Erosion Control	1	LS		-
5	Adjust Structures to Grade				
	a. Adjust E-Box & WV to Grade	-	EA		-
	b. Adjust SDMH to Grade	-	EA		-
6	Minor Concrete - Minor Structures				
	a. Curb & Gutter (UCS Type "A")	482	LF	44	21,208
	b. Curb & Gutter (UCS Type "B")	-	LF		-
	c. Curb Ramps (Caltrans Case "A")	-	EA		-
	d. Modified Curb Ramp	-	EA		-
	e. Island Median Ramp	-	EA		-
	f. Driveway Approach (UCS #115)	-	EA	2,500	-
7	Cast In Place Concrete				
	a. Sidewalk/Flatwork	-	SF		-
8	Utility Structures				
	a. Drop Inlet (UCS #260)	4	EA	2,500	10,000
	b. Turning Structure (UCS #260)	-	EA	2,500	-
9	Storm Drain Pipe (12" HDPE)	331	LF	115	38,065
10	Modify Ex Catch Basin	-	EA		-
11	Earthwork	1,321	CYD	15	19,815
12	Roadside Signs				
	a. Install New Sign(s) on New Post	-	EA		-
	b. Relocate Existing Sign to New Post	-	EA		-
13	Hot Mix Asphalt	431	TN	100	43,100
14	Aggregate Base	550	CYD	120	66,000
15	Sawcut	-	LF		-
16	Relocate Luminaires	-	EA		-
17	Bioretention/ Landscape				
	a. Bioretention Soil	870	SF	25	21,750
	b. Landscape	1,783	SF	6	10,698
18	Signage and Striping				
	a. Parking Lot Signage	4	EA	500	2,000
	b. Parking Spaces	42	SPACES	30.00	1,260
	c. ADA Spaces (Signage and Striping)	2	SPACES	250.00	500
	d. Clean Air Vehicle Spaces	2	SPACES	50.00	100
19	Lighting/ Electrical				
	a. PG&E Service	1	EA	25,000	25,000
	b. Light Fixtures	3	EA	5,000	15,000
	c. EV Charging Stations	1	EA	10,000	10,000
	d. Conduit for EV Spaces	200	LF	15	3,000
	e. Conduit/ Conductor for Lighting	850	LF	25	21,250
				Subtotal	355,057.90
				15% Contigency	53,258.69
				Total	408,316.59

Spaces	44
Average Cost Per Space	9,280

CSW | ST2

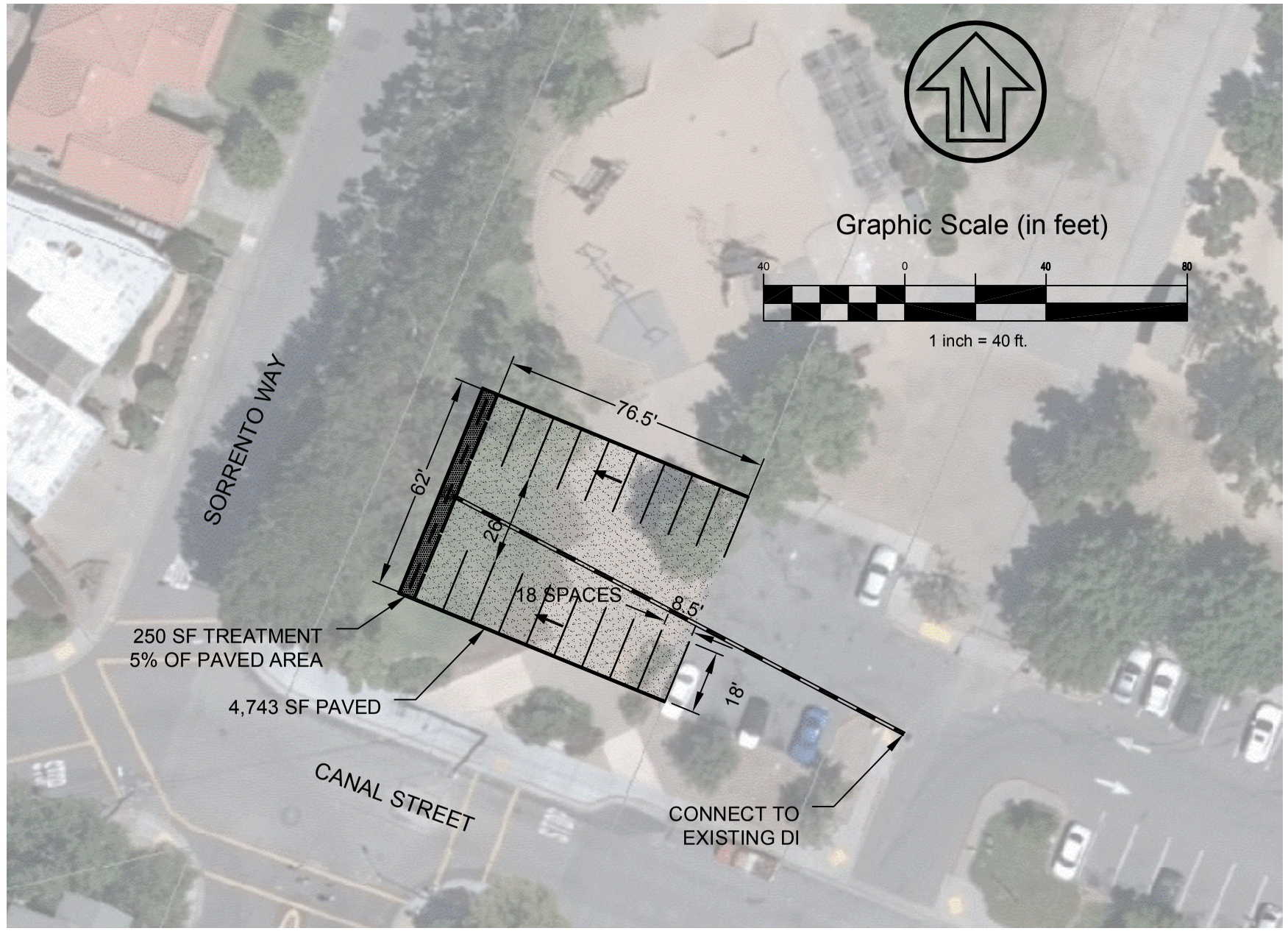
Opinion of Probable Cost

Windward Way - 227 Spaces

ITEM NO.	DESCRIPTION	QUANTITY		Unit Price ($)	Item Total ($)
1	Mobilization	1	LS	109,653	109,653
2	Demolition	1	LS		-
3	Traffic Control	1	LS		-
4	Erosion Control	1	LS		-
5	Adjust Structures to Grade				
	a. Adjust E-Box & WV to Grade	-	EA		-
	b. Adjust SDMH to Grade	-	EA		-
6	Minor Concrete - Minor Structures				
	a. Curb & Gutter (UCS Type "A")	1,785	LF	44	78,540
	b. Curb & Gutter (UCS Type "B")	-	LF		-
	c. Curb Ramps (Caltrans Case "A")	-	EA		-
	d. Modified Curb Ramp	-	EA		-
	e. Island Median Ramp	-	EA		-
	f. Driveway Approach (UCS #115)	2	EA	2,500	5,000
7	Cast In Place Concrete				
	a. Sidewalk/Flatwork	-	SF		-
8	Utility Structures				
	a. Drop Inlet (UCS #260)	10	EA	2,500	25,000
	b. Turning Structure (UCS #260)	2	EA	2,500	5,000
9	Storm Drain Pipe (12" HDPE)	875	LF	115	100,625
10	Modify Ex Catch Basin	-	EA		-
11	Earthwork	5,509	CYD	15	82,635
12	Roadside Signs				
	a. Install New Sign(s) on New Post	-	EA		-
	b. Relocate Existing Sign to New Post	-	EA		-
13	Hot Mix Asphalt	1,797	TN	100	179,700
14	Aggregate Base	2,296	CYD	120	275,520
15	Sawcut	-	LF		-
16	Relocate Luminaires	-	EA		-
17	Bioretention/ Landscape				
	a. Bioretention Soil	3,600	SF	25	90,000
	b. Landscape	7,438	SF	6	44,628
18	Signage and Striping				
	a. Parking Lot Signage	8	EA	500	4,000
	b. Parking Spaces	201	SPACES	30.00	6,030
	c. ADA Spaces (Signage and Striping)	7	SPACES	250.00	1,750
	d. Clean Air Vehicle Spaces	18	SPACES	50.00	900
19	Lighting/ Electrical				
	a. PG&E Service	1	EA	25,000	25,000
	b. Light Fixtures	10	EA	5,000	50,000
	c. EV Charging Stations	5	EA	10,000	50,000
	d. Conduit for EV Spaces	1,800	LF	15	27,000
	e. Conduit/ Conductor for Lighting	1,808	LF	25	45,200
				Subtotal	1,206,180.80
				15% Contigency	180,927.12
				Total	1,387,107.92

Spaces	227
Average Cost Per Space	6,111

- CURRENT USE: ENTRANCE TO PARK, SMALL GRASS AREA ADJACENT TO PLAYGROUND
- INTERFERES WITH EXISTING ENTRANCE TO THE PARK
- DRAIN TO CANAL STREET
- LIMITED AREA FOR ADDITIONAL PARKING SPACES
- ADA SPACES AND CLEAN AIR VEHICLE SPACES ARE NOT SHOWN ON THE PLAN, BUT THEY HAVE BEEN INCLUDED IN THE ENGINEER'S OPINION OF PROBABLE COSTS



Rev	Date	Description	Checked
-	3/23/2017	SUBMITTED FOR REVIEW	CJB

CSW | ST2
CSW/Stuber-Stroeh Engineering Group, Inc.
Civil & Structural Engineers | Surveying & Mapping | Environmental Planning
Land Planning | Construction Management
45 Leveroni Court
Novato, CA 94949
tel: 415.883.9850
fax: 415.883.9835
http://www.cswst2.com

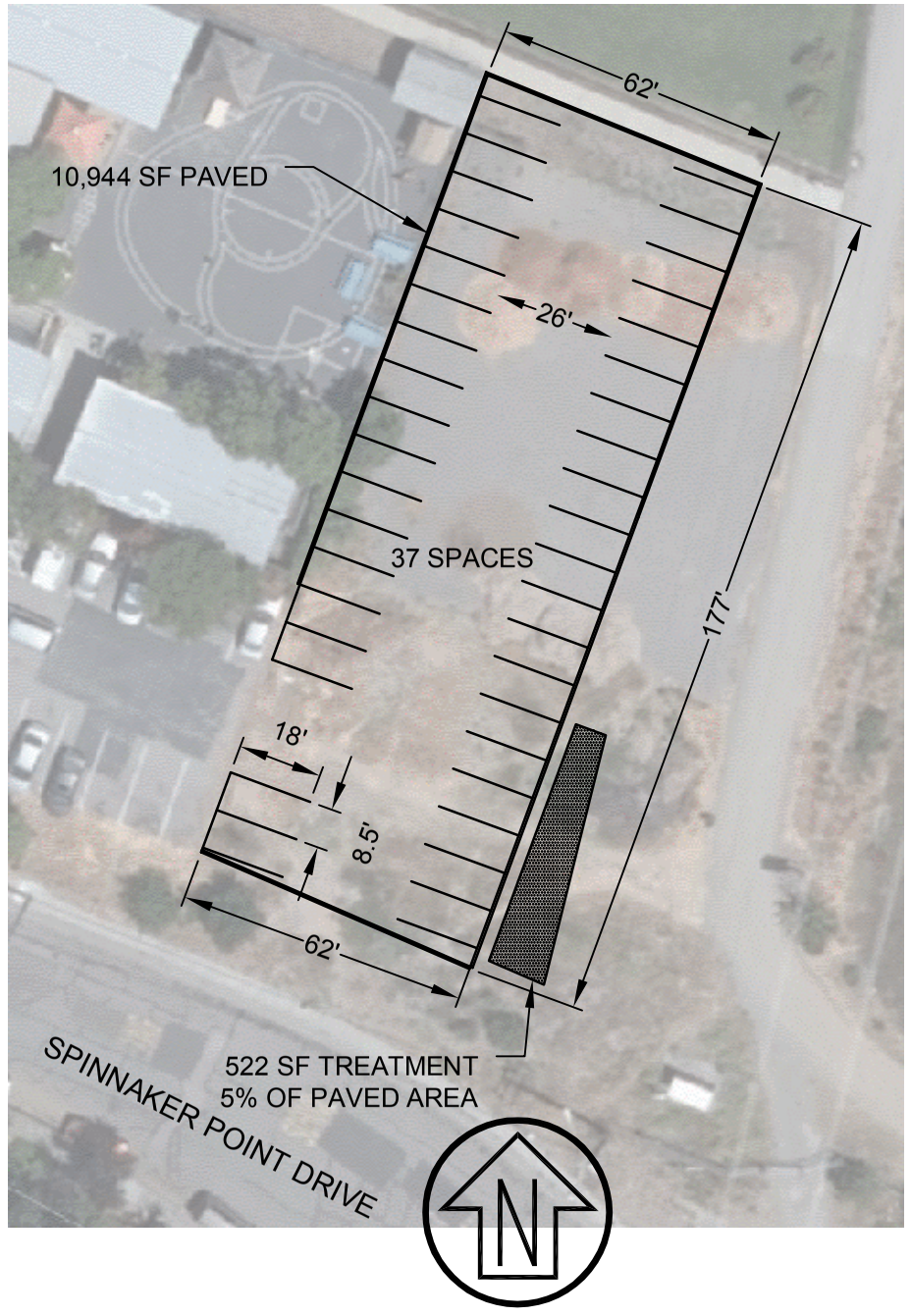
Prepared Under the Direction of:

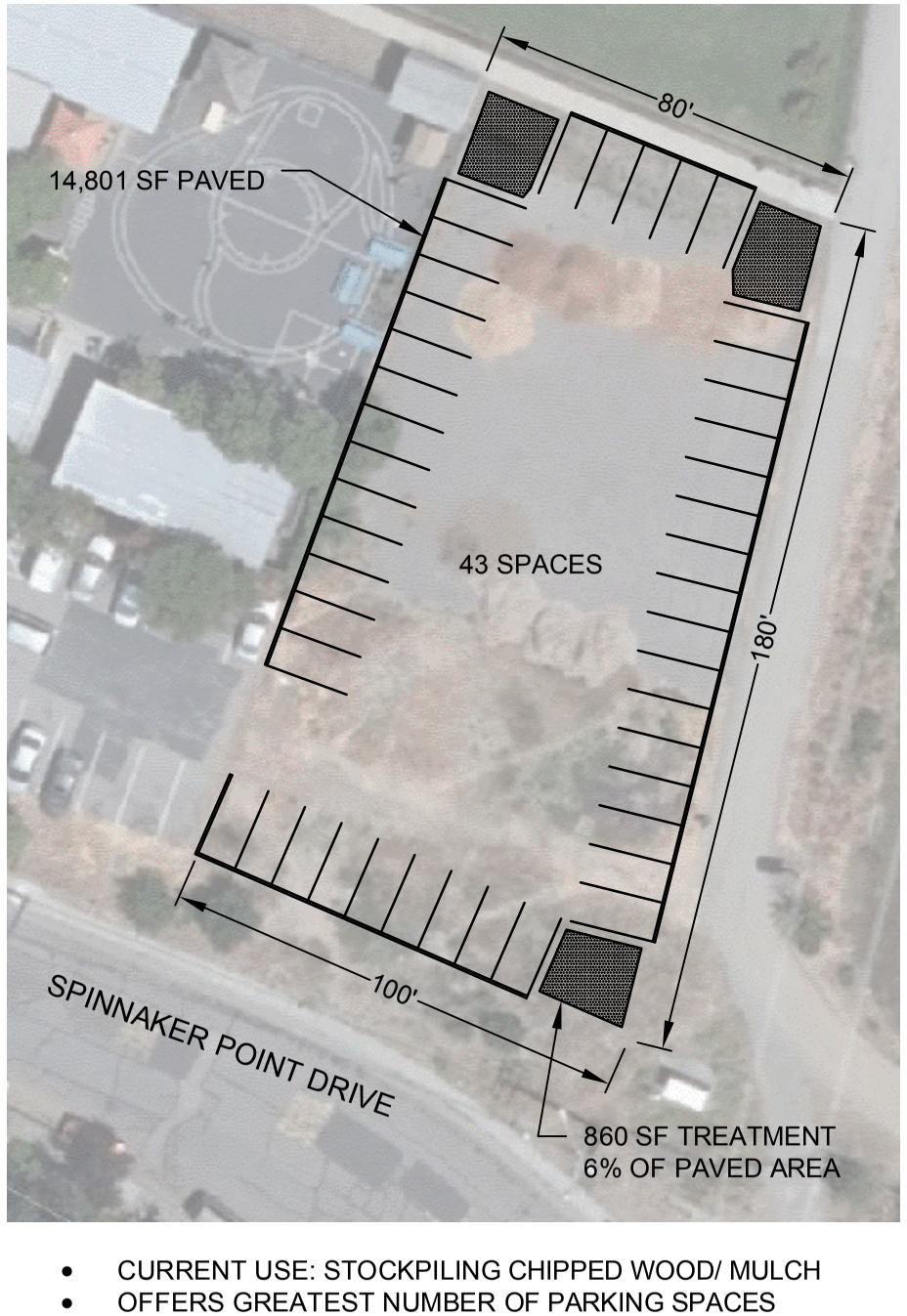
Job No. 4116119

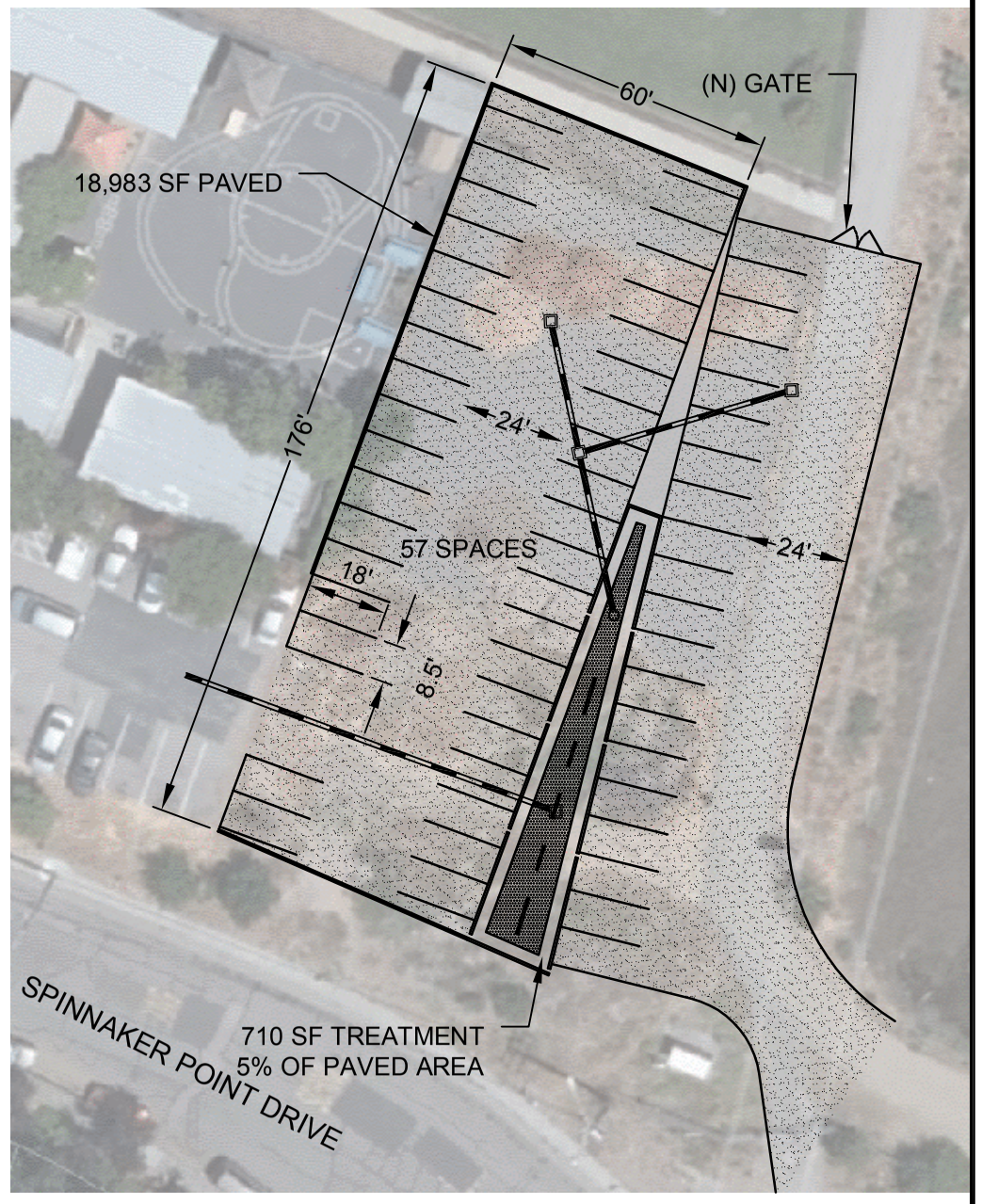
Date: 3/23/2017

Scale: 1" = 40'

PARKING STUDY
AL BORO WEST LOT
ADJACENT TO PICKLEWEED PARK
SAN RAFAEL MARIN CALIFORNIA

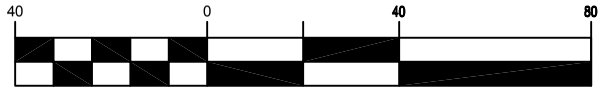






(THIS OPTION USED FOR COST ESTIMATE)

Graphic Scale (in feet)



1 inch = 40 ft.

- CURRENT USE: STOCKPILING CHIPPED WOOD/ MULCH
- OFFERS GREATEST NUMBER OF PARKING SPACES
- TREATMENT AREA LOCATED WITHIN CENTER ISLAND
- REQUIRES REDUCED AISLE WIDTH OR STALL LENGTH DIMENSIONS IN ORDER TO FIT 3 PARKING ROWS
- CLOSE TO WETLAND TO THE EAST
- DRIVEWAY OFF SPINNAKER POINT DRIVE WOULD NEED TO BE OPENED FOR PUBLIC ACCESS. GATE WOULD NEED TO BE MOVED TO THE NORTH OF PARKING ROW.
- ADA SPACES AND CLEAN AIR VEHICLE SPACES ARE NOT SHOWN ON THE PLAN, BUT THEY HAVE BEEN INCLUDED IN THE ENGINEER'S OPINION OF PROBABLE COST

Rev	Date	Description	Drawn
-	3/23/2017	SUBMITTED FOR REVIEW	CJB

CSW | ST2
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45 Leveroni Court
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tel: 415.883.9850
fax: 415.883.9835
http://www.cswst2.com

Prepared Under the Direction of:

Job No. 4116119

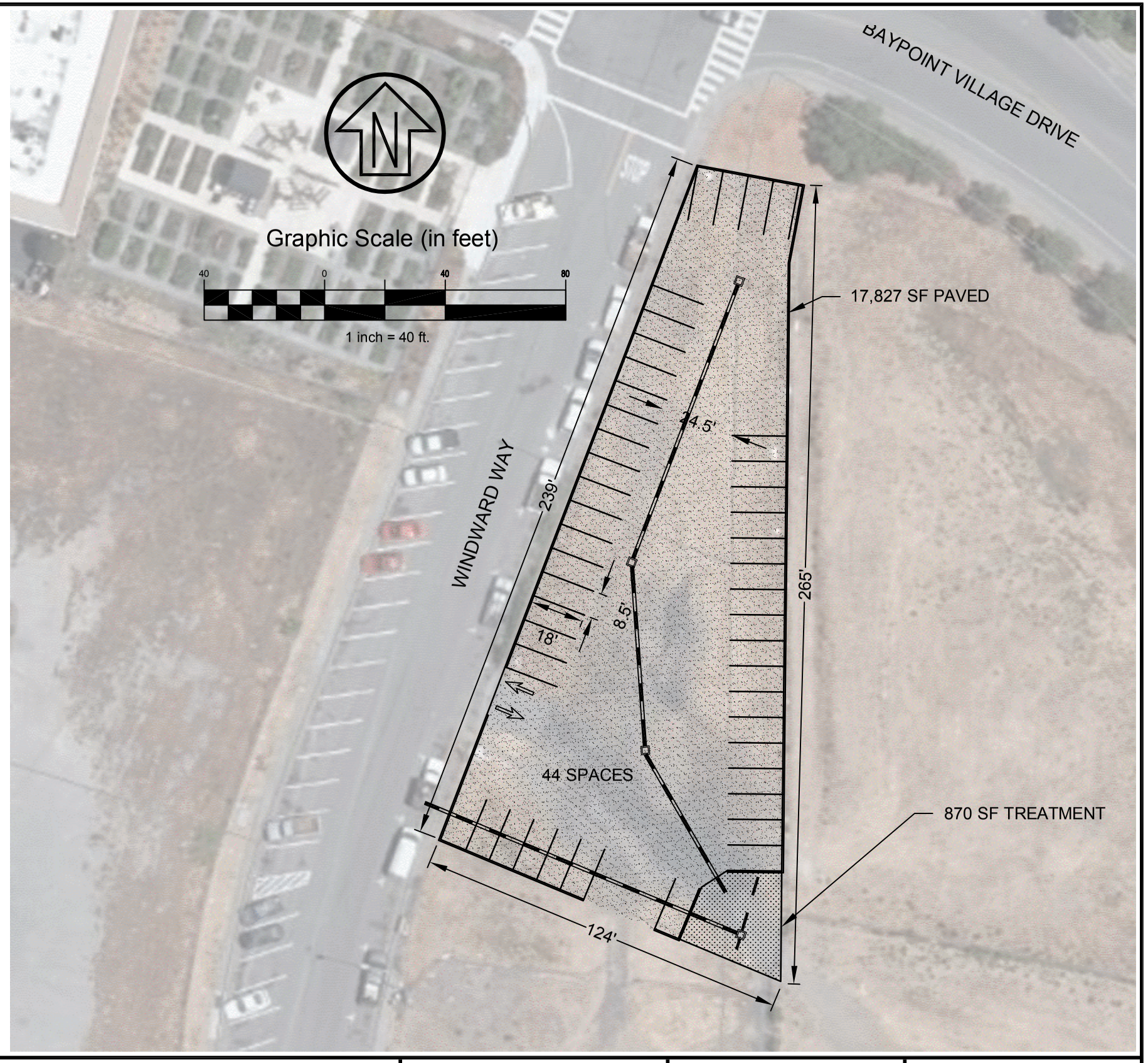
Date: 3/23/2017

Scale: 1" = 40'

PARKING STUDY
AL BORO EAST LOT
ADJACENT TO PICKLEWEED PARK

SAN RAFAEL MARIN CALIFORNIA

- CURRENT USE: SOIL STOCKPILING
- FILL MAY BE REQUIRED TO DRAIN SITE TO WINDWARD WAY
- EXISTING WETLAND TO THE EAST
- SITE IS NOT AS CENTRALLY LOCATED AS PICKLEWEED PARK
- ADA SPACES AND CLEAN AIR VEHICLE SPACES ARE NOT SHOWN ON THE PLAN, BUT THEY HAVE BEEN INCLUDED IN THE ENGINEER'S OPINION OF PROBABLE COSTS



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Prepared Under the Direction of:

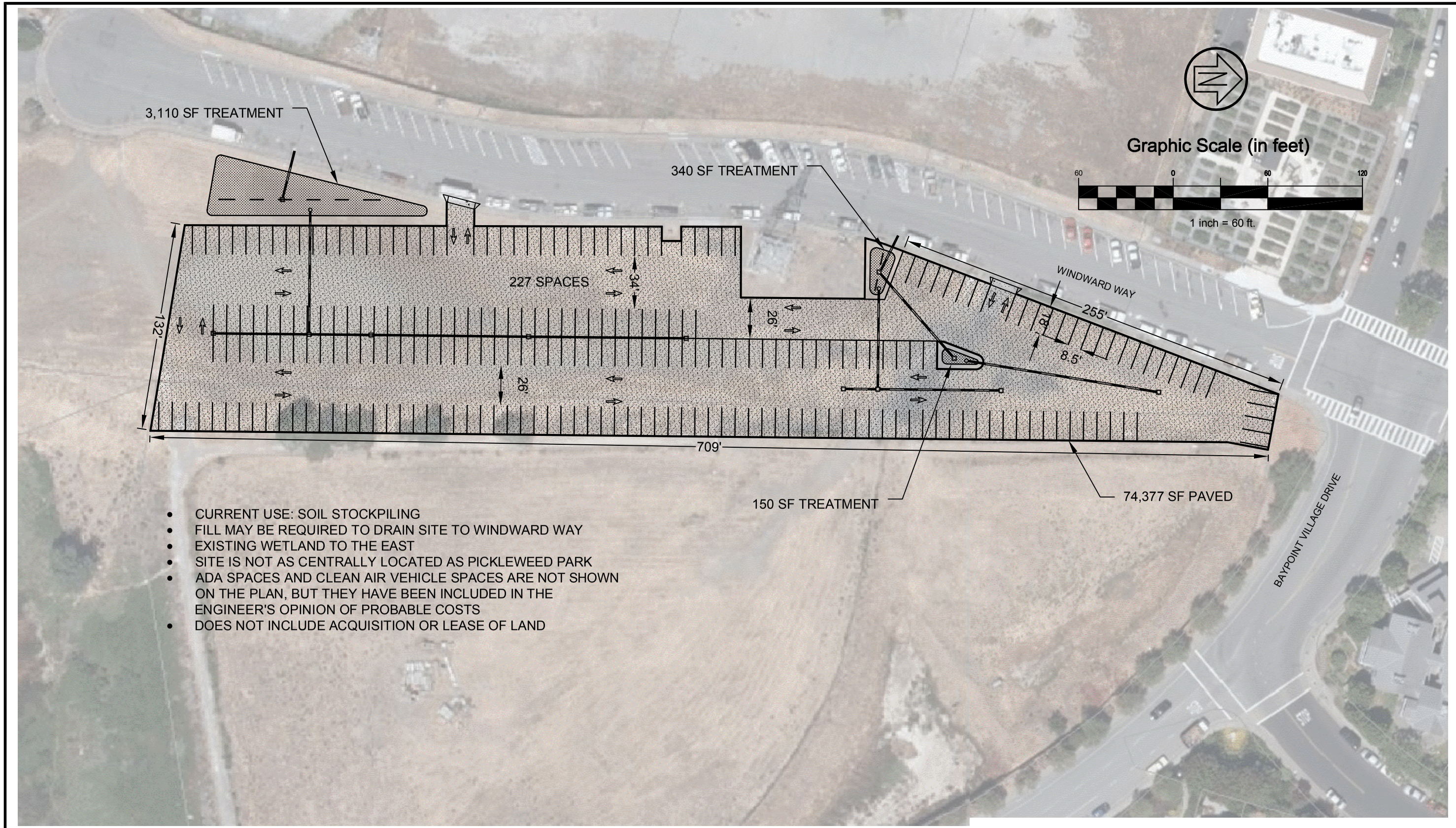
Job No. 4116119

Date: 3/23/2017

Scale: 1" = 40'

PARKING STUDY
44 SPACE ALTERNATIVE
PARKING LOT OFF WINDWARD WAY

SAN RAFAEL MARIN CALIFORNIA



- CURRENT USE: SOIL STOCKPILING
- FILL MAY BE REQUIRED TO DRAIN SITE TO WINDWARD WAY
- EXISTING WETLAND TO THE EAST
- SITE IS NOT AS CENTRALLY LOCATED AS PICKLEWEED PARK
- ADA SPACES AND CLEAN AIR VEHICLE SPACES ARE NOT SHOWN ON THE PLAN, BUT THEY HAVE BEEN INCLUDED IN THE ENGINEER'S OPINION OF PROBABLE COSTS
- DOES NOT INCLUDE ACQUISITION OR LEASE OF LAND

Rev	Date	Description	Checked
-	3/23/2017	SUBMITTED FOR REVIEW	CJB

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Prepared Under the Direction of:

Job No. 4116119

Date: 3/23/2017

Scale: 1" = 60'

PARKING STUDY
227 SPACE ALTERNATIVE
PARKING LOT OFF WINDWARD WAY
SAN RAFAEL MARIN CALIFORNIA