

4.12 TRANSPORTATION AND CIRCULATION

INTRODUCTION

The proposed Alamitos Bay Marina (Marina) Rehabilitation Project includes reconstruction and upgrading of the Alamitos Bay Marina docks, slips, parking areas, and restrooms. The project would result in a reduction of approximately 321 boat slips. As such, improvements to the Marina would result in lower number of boats at maximum occupancy. Since the average boat length in the Marina would be longer, it is possible that more people could be accommodated on the larger boats, creating additional traffic trips per boat. It is not known to what extent larger boats will attract larger numbers of persons per boat, thus creating more trips per boat; however, any increase in trips associated with larger boats is not anticipated to be greater than the reduction of trips caused by the reduction of 321 slips.¹ Therefore, the long-term traffic levels resulting from operation of the proposed project are not anticipated to significantly change.

Although the proposed project itself would not generate new vehicle trips, implementation of the project would generate a temporary increase in traffic volumes during construction activities. Construction-related vehicle trips are expected to occur with the following events: demolition of docks, parking areas, and facilities to be reconstructed; repaving parking areas; construction of new restroom facilities; construction of replacement docks; dredging operations; and hauling of dredge materials. Therefore, this section focuses on the evaluation of potential impacts related to construction traffic and parking capacity.

The traffic analysis presented in this section is based on the Construction Traffic Analysis and the Parking Demand Analysis (Appendix J), which are summarized in this section.

4.12.1 EXISTING ENVIRONMENTAL SETTING

4.12.1.1 Existing Circulation System

The Alamitos Bay Marina is located in the southeastern portion of the City of Long Beach (City). The Marina comprises eight basins; however, the proposed project only includes renovations to Basins 1–7. Basin 8 is not part of the project and it is not included in this

¹ Both the City of Long Beach and the Department of Boating and Waterways (DBAW) require that no less than 0.75 parking spaces per boat slip be provided for noncommercial boat slips. The proposed loss of slips would mean that 241 fewer parking spaces would be required; however, the project is not reducing the number of parking spaces.

analysis. Basins 1–3 are located adjacent to Marina Drive south of 2nd Street; Basin 4 is located along Appian Way adjacent to the Long Beach Yacht Club on the southeast corner of Naples Island; Basin 5 is located adjacent to the Alamitos Bay Yacht Club on Ocean Boulevard; Basin 7 is located northwest of Basin 5 on Ocean Boulevard. Basin 6 comprises two separate areas known as Basin 6-North (Basin 6-N) and Basin 6-South (Basin 6-S). Basin 6-N is located adjacent to the Marina Pacifica Mall on Pacific Coast Highway (PCH). Basin 6-S is located southwest of Basin 6-N at the northernmost end of Marina Pacifica Drive.

Based on preliminary analysis, dredging activities would require mitigation for potential impacts to marine eelgrass. The City has identified a site adjacent to the northeast shore of Marine Stadium to convert to an open space/habitat mitigation site. This mitigation habitat area will therefore be analyzed as part of the project. The locations of all the Basins and the open space/habitat mitigation site are illustrated on Figure 3.2 (Chapter 3.0, Project Description).

4.12.2 METHODOLOGY

The relative impacts of the added construction-related vehicle trips generated by the proposed construction have been evaluated in the context of existing traffic conditions. Parking capacity analysis is based on existing regulations within the City's Municipal Code and the observed parking demand.

4.12.3 THRESHOLDS OF SIGNIFICANCE

Criteria for determining the significance of impacts to transportation and circulation are based on the California Environmental Quality Act (CEQA) Guidelines. Project-related traffic impacts may be considered potentially significant and adverse if the proposed project would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the v/c ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways
- Result in inadequate parking capacity
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- Result in inadequate emergency access?
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The Initial Study/Mitigated Negative Declaration (IS/MND) previously prepared by the City determined that the proposed project would not result in any significant impacts related to air traffic patterns, emergency access, or alternative transportation. Therefore, these topics are not addressed further in this Environmental Impact Report (EIR).

4.12.4 IMPACTS AND MITIGATION MEASURES

4.12.4.1 Less Than Significant Impacts

Parking Capacity. There are currently 1,430 customers (occupied slips) in the Marina and 1,967 boat slips in Basins 1 through 7. The proposed project would result in the loss of approximately 321 slips. The City of Long Beach Zoning Ordinance requires that not less than 0.75 parking spaces per boat slip be maintained for noncommercial boat slips. Therefore, applying this ratio to the 1,967 existing slips in the Marina would require a minimum of 1,476 parking spaces. Currently there are 2,515 spaces in the Marina basin parking lots, which exceed the City’s parking requirement by 1,039 spaces.

Because the project will reduce the total number of slips in the Marina by 321, it would also require 241 fewer parking spaces using this same parking ratio. After project completion, there would be a requirement of 1,235 spaces, as indicated in Table 4.12.A. The proposed project, however, would result in the addition of 9 parking spaces, for a total supply of 2,524 spaces. Based on the proposed number of slips, 23 Americans with Disabilities Act (ADA) accessible parking spaces are required and will be provided. The overall number of spaces provided at project completion exceeds the City’s requirements by 1,289 spaces, and no impacts related to parking would occur with implementation of the proposed project.

Table 4.12.A: Alamitos Bay Marina Parking

	Number of Slips	Parking Required per City Code	Parking Provided	Net Difference Over Requirement
Existing Condition	1,967	1,476	2,515	+1,039
Proposed Project	1,646	1,235	2,524	+1,289

Construction Impacts. The construction operation for the Marina rehabilitation project is anticipated to last for a period of 72 months over 12 phases (approximately 6 months per phase). Each phase involves the removal/installation of gangways and docks, pile removal, seawall and riprap repair, dredging, restroom construction (either rehabilitation or new construction), rerouting of utilities, and parking lot repaving. Phase 1A includes excavation and construction of the open space/habitat mitigation site and will occur concurrently with Phase 1. The detailed construction sequence and equipment usage data for each of the 12 phases is included in the Traffic Study (Appendix J).

The proposed project includes two construction staging areas: one located in the parking lot on Marina Drive near Basin 2; and one located in the parking lot on Marina Drive adjacent to the Marina Shipyard near Basin 3 (see Figure 3.16, Chapter 3.0, Project Description).

Commercial and industrial waste resulting from construction, remodeling, repair, and demolition operations would be required to be transported by truck to be disposed of at Class III landfills such as the Puente Hills Landfill, which is the closest Class III landfill. Dredge materials from all Marina basins, except a portion of Basin 1, will be barged to an ocean disposal site (known as LA-2) and would not generate any truck trips. However, due to high levels of mercury discovered during preliminary sampling, approximately 25,504 cubic yards in Basin 1 will need to be trucked off site and disposed of at an approved landfill, confined aquatic disposal site, or upland confined disposal facility. The analysis prepared for the EIR has assumed a worst-case scenario wherein the materials will be trucked to Kettleman Hills Hazardous Waste Facility, a commercial chemical/hazardous waste site located in Kings County, California.

Construction materials would be delivered to one of the two construction staging areas. From there, the construction materials required for renovation of each basin would be loaded onto construction vessels and delivered via the waterway. Similarly, the dock systems would be craned into the water and floated to the appropriate basin during each phase. Therefore, delivery of construction materials would result in truck trips only to the staging areas and not to each individual basin.

Table 4.12.B indicates the total number of construction truck trips during a typical phase, as well as truck trips for the open space/mitigation site and Phases 2 and 3, which require off-site trucking of Basin 1 dredge materials.

Table 4.12.B: Construction Truck Trips by Phase

Project Phase	Delivery Trucks	Removal Trucks
Typical 6-month Phase (Phase 1, 4–12)		
Remove existing gangways, docks, and piles		9
Install new gangways, docks (inclusive of temporary dock), and piles	48	
Dredge basin (no truck trips associated with dredging for these phases)		
Seawall repair, restroom and utility rehabilitations, and parking lot repaving	52	9
Total	100	18
Phase 1A (Open Space/Eelgrass Mitigation Site)		
Demolish and remove excavated materials		585
Total	0	585
Total, Phases 1 and 1A	100	603
Phase 2		
Remove existing gangways, docks, and piles		9
Install new gangways, docks (inclusive of temporary dock), and piles	48	
Dredge Basin 1, remove contaminated materials		718
Seawall repair, restroom and utility rehabilitations, and parking lot repaving	52	9
Total	100	736
Phase 3		
Remove existing gangways, docks, and piles		9
Install new gangways, docks (inclusive of temporary dock), and piles	48	
Dredge Basin 1, remove contaminated materials		718
Seawall repair, restroom and utility rehabilitations, and parking lot repaving	52	9
Total	100	736

Based on preliminary construction plans, approximately 32 construction workers will be on site per day during each phase of the project. These workers will add 64 daily passenger car trips (32 inbound in the morning and 32 outbound in the evening). Worker commute trips will not add a.m. or p.m. peak-hour trips to construction traffic because the workers will arrive on site by 7:00 a.m., before the 7:00 a.m.–9:00 a.m. peak period, and will depart by 4:00, prior to the 4:00 p.m.–6:00 p.m. peak period. Because Phase 1A will occur concurrently with Phase 1, the workers and vehicle trips are included in the estimated trips for Phase 1.

Because of their larger size and limited maneuverability, the roadway impact of a single truck with five axles is approximately equivalent to two passenger cars. Therefore, when

calculating vehicle trips, each truck trip was assumed to have a passenger car equivalent (PCE) of two trips. Construction truck trips will be similar for most phases of the project, with the exception of the open space/habitat mitigation site and Phases 2 and 3. Based on the truck trips assumptions described above and included in Table A, a total of 118 trucks are expected during the typical 6-month (26-week) construction phase, resulting in an average of 4–5 trucks per week. Therefore, an average of one truck (2 truck trips/4 PCE) per day, with a maximum of one truck trip (2 PCE) during the a.m. peak hour, is estimated to occur during a typical construction phase.

Construction truck trips associated with Phase 1A (the open space/habitat mitigation site) for excavation of soils and earth materials are estimated to total 585 truckloads over a duration of 1.5 months (33 days, applying the City of Long Beach County Standard of 22 work days per month), or an average of approximately 18 trucks (36 truck trips [72 PCE]) per day, with a maximum of 9 trucks (18 truck trips [36 PCE]) in the a.m. peak hour. None of these haul trips would occur during the p.m. peak-hour period of 4:00–6:00 p.m. since excavated materials would most likely be disposed of on the same day and would need to arrive at their destinations by early- to mid-afternoon. Similar to the other basins, no delivery truck trips would occur at this site; delivery of construction materials to this location would be via the waterway from one of the construction staging areas.

During Phases 2 and 3, the 1,435 truck trips required to remove contaminated dredge materials from Basin 1 would occur over 12 months (264 work days), resulting in an average of approximately 6 truck trips (12 PCE) per day occurring in the a.m. peak-hour period. Similar to a typical construction phase, additional general deliveries for Phases 2 and 3 are estimated to be one truck (2 truck trips [4 PCE]) per day, with a maximum of one truck trip (2 PCE) during the a.m. peak hour. The estimated daily trip generation for the project is presented in Table 4.12.C.

Construction Haul Routes. The docking systems will be transported to the project site via delivery trucks from Dixon, California to Alamitos Bay and would travel south on Interstate 405 (I-405), west on State Route 22 (SR-22), south on Studebaker Road, west on 2nd Street, and then south on Marina Drive into the project site. The docking systems would be unloaded at one of the two staging areas off Marina Drive. The docking systems, as well as all other construction materials, will be delivered to the staging area and subsequently craned into the water and floated to the appropriate basin locations, as required by phase. It is assumed that trucks delivering general construction materials would enter the project area via a similar route, primarily utilizing Studebaker Road, 2nd Street, and Marina Drive. The locations of the basins and the corresponding construction routes are illustrated in Figure 4.12-1.

Table 4.12.C: Project Trip Generation

Generator	Vehicle Trips			PCE Trips		
	ADT	AM Peak Hour	PM Peak Hour	ADT	AM Peak Hour	PM Peak Hour
Typical Phase (Phase 1, 4–12)						
Construction Workers ¹	64	N/A	N/A	64	N/A	N/A
Trucks	2	1	N/A	4	2	N/A
Total	66	1	0	68	2	0
Phase 1A – Habitat Mitigation Site						
Construction Workers	N/A	N/A	N/A	N/A	N/A	N/A
Trucks	36	18	N/A	72	36	N/A
Total	36	18	0	72	36	0
Phases 1/1A Combined	102	19	0	140	38	0
Phase 2						
Construction Workers	64	N/A	N/A	64	N/A	N/A
Trucks	14	7	N/A	28	14	N/A
Total	78	7	0	92	14	0
Phase 3						
Construction Workers	64	N/A	N/A	64	N/A	N/A
Trucks	14	7	N/A	28	14	N/A
Total	78	7	0	92	14	0

¹ Workers arrive by 7:00 a.m. and depart by 4:00 p.m. Trips are based on one person per vehicle.

ADT = average daily traffic PCE = passenger car equivalent

Demolition material and debris from gangways, docks, restrooms, and road debris will be transported by truck to be disposed of at Class III landfills such as the Puente Hills Landfill, which is the closest Class III landfill. Removal trucks destined for the Puente Hills Class III Landfill will initially leave the project site from one of the two staging areas located in the Marina parking lots on Marina Drive. Similar to the delivery of construction materials, construction debris from each phase will be taken via the waterway from the Basins to the construction staging area, where it will be loaded onto trucks for removal. The exceptions to this removal process are Basin 4 and the open space/habitat mitigation site. Due to the number of docks being removed from Basin 4, and because there is plenty of parking lot area available, construction debris from Basin 4 will be removed directly from the land side. Due to the amount of excavated earth material to be removed from the open space/habitat mitigation site, trucks will leave via the local street system. Construction trucks leaving the project site will be routed through the local street network as follows:

- Trucks from Basins 1–3 and Basins 5–7 will depart from the staging areas and be routed north on Marina Drive, east on 2nd Street, and north on Studebaker Road
- Trucks from Basin 4 will be routed north on Appian Way, east on 2nd Street, and north on Studebaker Road
- Trucks from the open space/habitat mitigation site will be routed west on Eliot Street, west on Colorado Street, north on Park Avenue, and east on Seventh Street

All removal trucks will continue out of the project area via SR-22 and then north on Interstate 605 (I-605). Removal trucks for the contaminated dredge materials from Basin 1 will use the same route as removal trucks from Basins 1–3, but will continue from I-605 to north on Interstate 5 (I-5) toward Kettleman City, California.

Based on the estimated trip generation presented in Table 4.12.B, the construction activity during Phases 1/1A will add approximately 140 daily PCE trips. Based on these estimates, this is the most intense trucking phase of the project. As stated above, the truck trips associated with Phases 1/1A would travel two separate routes leaving the project area. Trucks associated with Phase 1 (Basin 4) would utilize Appian Way, 2nd Street, and Studebaker Road to SR-22. Trucks associated with Phase 1A would utilize Eliot Street, Colorado Street, Park Avenue, and Seventh Street to SR-22. Delivery trucks coming to the project site would travel via Studebaker Road, 2nd Street, and Marina Drive. 7th Street and 2nd Street are designated as Major Arterials in the City's General Plan. Studebaker Road is designated as a Minor Arterial, while Appian Way, Eliot Street, Colorado Street, Park Avenue, and Marina Drive are Local and Collector Streets.

The addition of 68 daily PCE associated with Phase 1 is expected to be insignificant to traffic flows along Appian Way, 2nd Street, and Studebaker Road. The 72 daily PCE of Phase 1A is also expected to be insignificant to traffic flows along Eliot Street, Colorado Street, Park Avenue, and 7th Street.

The total daily construction-related trips of 140 is expected to be insignificant to traffic flows along the roadways as described above. In addition, most truck trips would occur during the off-peak hours of the day, when ambient traffic is less. Therefore, construction of the proposed project would not cause an increase in traffic that is substantial in relation to the existing traffic load of the street system. In addition, construction traffic effects are temporary during the period of construction, and the number of construction workers and truck trips would vary depending on the specific construction activities. Although no adverse traffic impacts are anticipated, and no mitigation is required, several construction traffic recommendations are included as mitigation in order to minimize the effects of construction traffic on the local roadway system. Implementation of Mitigation Measure 4.12-1, requiring a Construction Traffic Management Plan, would minimize potential delays and conflicts

related to construction traffic within the Marina. In addition, Mitigation Measure 4.12-2 will ensure that potential construction traffic impacts remain at a less than significant level.

Hazardous Design Features/Incompatible Uses. Several comments received at the scoping meeting and during the NOP review period raised concerns regarding safety as it specifically relates to the proposed design of Basins 3 and 4, which would result in a narrowing of the Marina Channel between these two Basins. The concerns center on the perceived existing and potential conflict between the multiple recreational activities in Alamitos Bay and include, but are not limited to, rowing, kayaking, small boat and novice sailing, paddle boarding, larger vessel sailing, and motorized boating.

The existing Marina Channel has a design width of approximately 330 ft from dock to dock, but an effective navigable width of approximately 291 ft due to the side-tie boats at the ends of the docks. The proposed project includes an extension of docks from Basins 3 and 4 into Marina Channel that would result in a loss of 35 ft of the overall Channel width. Therefore, the encroachment from the project improvements would result in a final Marina Channel width of 295 ft.

Based on the Department of Boating and Waterways (DBAW) Guidelines of Marina Berthing Facilities (July 2005), the minimum recommended width for an interior channel (such as the Marina Channel) is 75 ft at the bottom of the channel. In addition, the width of a fairway is required to be 1.75 multiplied by the length of the longest boat that will be berthed perpendicular to the fairway. As an example, the longest boat accommodated in Basins 3 or 4 is planned to be 70 ft, which means the fairway accommodating the 70 ft boat must be 122.5 ft wide (70 x 1.75). Applying this recommendation of fairway width to the Marina Channel, the appropriate design width should be at least 122.5 ft. Because the Marina Channel would be 295 ft wide under the proposed project design, the width of the Channel is considered consistent with DBAW design guidelines and suitable for effective navigation.

Because the proposed project would result in fewer slips and capacity is not being increased, implementation of the project would not significantly increase congestion in the Marina or Marina Channel. Although the increased number of larger boats could affect maneuverability, the risk of accidents between the multiple users within the Bay is impacted by several factors, including vessel size and maneuverability; vessel speed; the effects of wind, waves, and currents; and the amount of traffic congestion. Assuming that the design width of the Marina Channel exceeds all design standards, the safety of competing users is contingent upon common sense and rules of the road. All recreational users in the Bay waters are responsible to be aware of the basic navigational rules (e.g., maintain a safe speed at all times so that action can be taken to avoid collisions; vessels under power should alter their course to starboard so that each will pass to the port side of each other; the sailing vessel that has the wind on the port side shall keep out of the way of the other; boats shall keep to the

starboard side of narrow channels whenever safe and practicable; motorboats shall keep out of the way of sailing vessels or human-powered craft where courses involve the risk of collision).

Because the final design width is consistent with Marina standards, safe and efficient navigation of the Marina Channel should be achievable with the 35 ft reduction in width. Safety impacts resulting from the encroachment of the docks in Basins 3 and 4 are therefore considered to be less than significant, and no mitigation is required.

4.12.4.2 Potentially Significant Impacts

No potentially significant impacts were identified. Although no mitigation is required, Mitigation Measure 4.12-1 is included to ensure that construction traffic impacts associated with implementation of the project would be less than significant throughout each phase of the project.

4.12.5 MITIGATION MEASURES

The following mitigation measures are incorporated to ensure that construction traffic impacts remain less than significant.

4.12-1 Prior to the issuance of demolition or building permits, the Marine Manager shall develop a Construction Traffic Management Plan for review and approval by the City of Long Beach Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes. The plan shall identify the routes that construction vehicles will use to access the site, the hours of construction traffic, traffic controls and detours, and off-site vehicle staging areas. The plan shall also restrict construction trucks to no more than 19 during the a.m. peak hour for any one phase of the project, prohibit truck trips after 3:30 p.m., and require that a minimum of one travel lane in each direction on Marina Drive and 2nd Street be kept open during construction activities. The plan shall also require the City to keep all haul routes clean and free of debris including, but not limited to, gravel and dirt.

4.12-2 Prior to the issuance of demolition or building permits, the Marine Bureau Manager shall, under the direction of the City of Long Beach Traffic Engineer, address the truck route and circulation effects of the Home Depot and/or the Second+PCH Project construction, should either of these projects be under construction in the vicinity of the project site during construction of the Alamitos Bay Marina Rehabilitation project. The coordination shall identify the

construction routes, the hours of construction traffic, traffic controls and detours, and off-site vehicle staging areas, and address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes.

4.12.6 CUMULATIVE IMPACTS

According to the project schedule, Phase 1 will commence in 2011. Cumulative projects include any committed and/or approved developments in the project study area that will generate future vehicle trips. The following projects are included in the cumulative impacts analysis for the proposed project:

- Colorado Lagoon Restoration Project, currently under construction
- Second+PCH Mixed Use Commercial/Hotel/Residential Project
- Proposed Home Depot Project at Loynes Drive and Studebaker Road
- Termino Drain Project, various segments terminating at the northern end of Marine Stadium

Of the related projects, the Second+PCH Project and the Home Depot Project are the only ones located where there is a potential to affect some of the same streets as construction of the proposed project would. Because the proposed project is scheduled to begin in 2011 and be implemented over 6 years, it is possible that the construction activity for the proposed project and construction for one of the cumulative projects identified above may occur at the same time.

The Second+PCH Project is proposing to redevelop the approximately 10-acre site located at 2nd Street and Pacific Coast Highway (PCH), currently developed with the Seaport Marina Hotel. The current plan proposes 192,000 sf of retail, 20,000 sf of restaurant uses, a 100-room hotel, 325 condominium units, a Coastal Science Center, and a Community Theater.¹ Construction of the proposed Second+PCH Project would occur in close proximity to the primary construction activity for the proposed project, and adjacent to the trucks being routed to and from Marina Drive and 2nd Street.

Similarly, the proposed Home Depot site is located on Studebaker Road, which will be utilized by construction traffic coming to and leaving from the Marina project site.

Construction workers, equipment, and haul vehicles associated with these two projects may utilize the same haul routes as the proposed Marina project. Therefore, when combined, these

¹ <http://www.secondandpch.com/>.

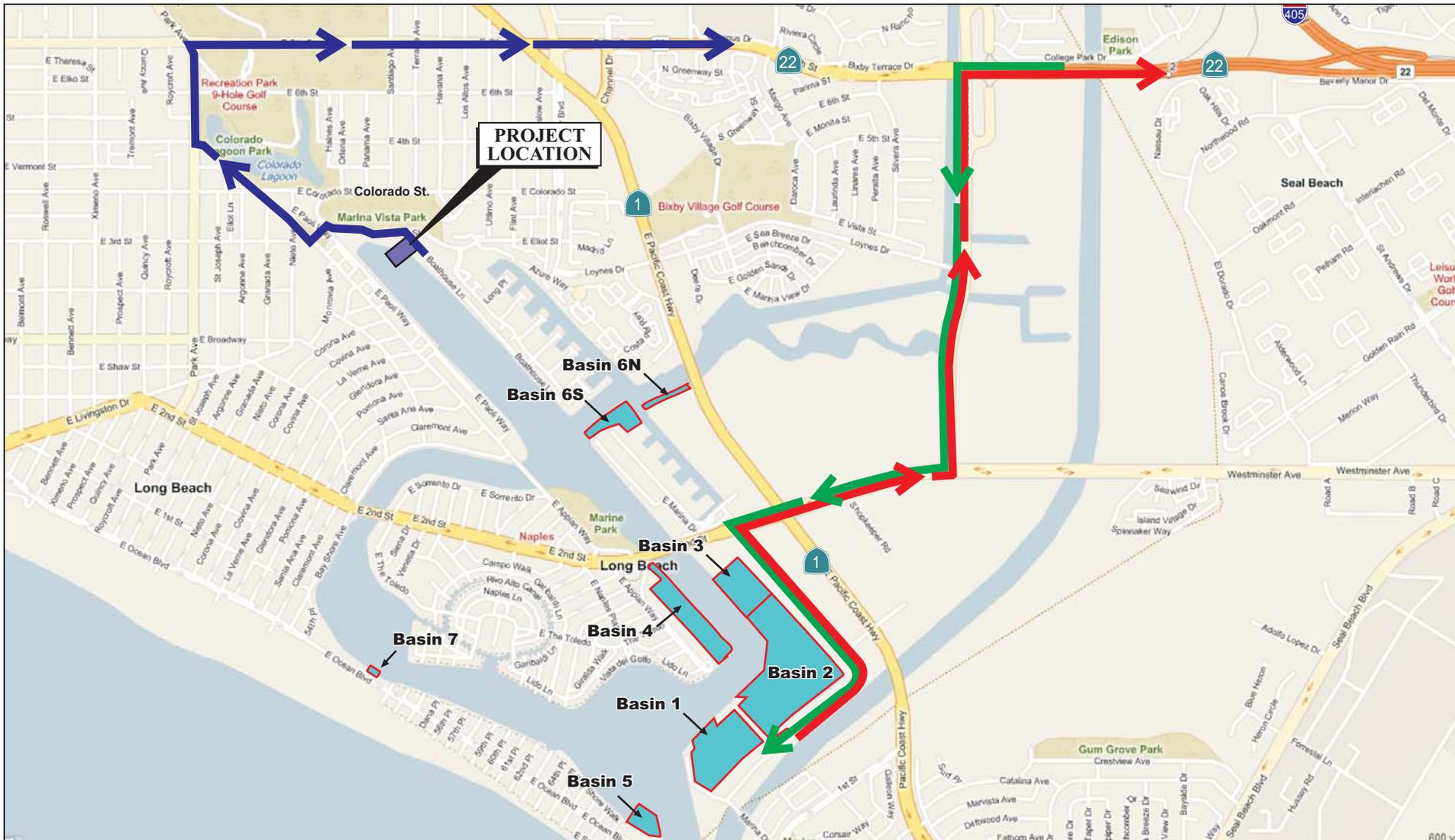
projects have the potential to contribute to short-term construction traffic impacts. However, with implementation of the construction traffic recommendations discussed below, including the Construction Traffic Management Plan (which restricts trucks to no more than 19 during the a.m. peak hour for any one phase of the project, prohibits truck trips after 3:30 p.m., and requires that a minimum of one travel lane in each direction on Marina Drive and 2nd Street be open during construction activities), cumulative impacts would be reduced.

Nevertheless, should either the Second+PCH Project or the Home Depot Project be under construction at the same time as the proposed Marina Rehabilitation Project, implementation of the construction traffic control measure requiring the City of Long Beach Traffic Engineer to address the truck route and circulation effects of the Home Depot Project and/or the Second+PCH Project construction traffic is warranted to ensure that potential cumulative construction traffic is addressed. This control measure is outlined as Mitigation Measure 4.12-2. Implementation of Mitigation Measure 4.12-2 will ensure that potential cumulative construction traffic is reduced to a less than significant level.

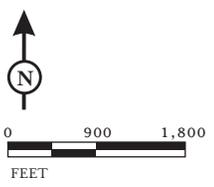
The proposed project would retain the existing marina recreation uses of the project site, and no intensification of uses would occur. Implementation of the Marina Rehabilitation Project would result in approximately 321 fewer slips, and no long-term operational traffic impacts are expected. Therefore, the traffic levels resulting from operation of the proposed project are not anticipated to change as a result of the proposed project, and no cumulative operational traffic impacts would occur.

4.12.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Operational project impacts related to traffic are less than significant and implementation of Mitigation Measure 4.12-1 would ensure that construction-related project traffic impacts remain less than significant throughout each phase of the project. In the event that either the Second+PCH or the Home Depot Project are under construction at the same time as the proposed Marina Rehabilitation Project, there is the potential for the project to contribute to cumulative construction traffic impacts. Implementation of Mitigation Measure 4.12-2 would ensure that any cumulative construction traffic impacts are reduced to a less than cumulatively significant level.



LSA



LEGEND

- Project Area
- Open Space/Habitat Mitigation Site
- To Landfill Facilities
- From Concrete Float Facility
- Removal Truck Route

FIGURE 4.12.1

Alamos Bay Marina Rehabilitation Project EIR
 Construction Haul Routes

SOURCE: Microsoft, Bing Maps, 2009
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