Appendix B

Construction Management Plan





CONSTRUCTION MANAGEMENT PLAN 03.17.2009

Brion Jeannette Architecture | 470 Old Newport Blvd., Newport Beach, CA 92663

TABLE OF CONTENTS

1.0	PROJECT INTRODUCTION			
1.1	Project Location			
1.2	Project Description			
1.3	Scope of Work			
2.0	PROJECT IMPLEMENTATION4			
2.1	Dates of Construction			
2.2	Hours of Construction			
2.3	8			
2.4				
2.5				
2.6	Construction Process			
2.7	Construction Equipment			
3.0	PARKING MANAGEMENT			
3.1	Construction Parking Details			
	3.1.1 Off-Site Parking for Crew members			
	3.1.2 Short Term Parking			
3.2	Staging Areas	9		
3.3	Construction Trailer, Materials Storage, and Waste Management	0		
4.0	0 TRAFFIC CONTROL			
4.1	Haul Routes 1	.1		
4.2	Delivery Requirements1	.2		
4.3	Traffic Control Plan 1	.2		
5.0	SAFETY AND SECURITY 1			
5.1	Pedestrian Protection1	.3		
5.2	Project Fencing			
5.3	Safety and Security 1	.3		
6.0	AIR QUALITY CONTROL, FUGITIVE DUST CONTROL, NOISE SUPPRESSION, AND VIBRATION			
	MONITORING			
6.1	Emissions/Air Quality Control 1			
6.2	Fugitive Dust Control			
6.3	Noise Control1			
6.4	Noise Control Consideration 1			
6.5	Vibration Monitoring			
7.0				
7.1	Erosion, Sediment Control and Beach Protection1			
7.2	Water Quality Control1			
7.3	Environmental Protection			
8.0	CONSULTANTS/ REFERENCES	1		

Appendices

Appendix A – Construction Schedule Appendix B – Construction Plan Appendix C – Construction Building Sections

1.0 PROJECT INTRODUCTION

- Owner: Advanced Real Estate Services, Inc. 23792 Rockfield Boulevard Lake Forest, CA 92630
- Architect: Brion Jeannette Architecture 470 Old Newport Boulevard Newport Beach, CA 92663

1.1 Project Location

The subject property (the "Site") consists of two parcels at 201 – 207 Carnation Avenue (APNs 052-013-12 and 052-013-13), West of Carnation Avenue at the intersection of Ocean Boulevard and a small portion (584 square feet) of 101 Bayside Place (APN 052-013-21).

1.2 Project Description

The 1.4-acre Site is currently occupied by a 14-unit apartment building, one single-family residence, as well as deteriorating gangway platform, pier walkway and dock facilities. The Aerie Project (the "Project") consists of (a) the demolition of the existing residential structures; (b) the construction of eight residential condominium units; and (c) the replacement and reconfiguration of the existing gangway platform, pier walkway and dock facilities.

1.3 <u>Scope of Work</u>

This Construction Management Plan is designed to minimize the Project's constructionrelated environmental effects and to foster public safety during Project construction. The Project applicant, contractor, and all sub-contractors must adhere to all provisions as stated in this Construction Management Plan. Please refer to Appendices B and C for additional information.

2.0 PROJECT IMPLEMENTATION

2.1 Dates of Construction

The construction of the proposed Project is expected to occur over approximately 32 months. (See Appendix A for construction schedule.) Demolition and asbestos removal are scheduled to occur during the summer months. Grading, dirt hauling, are scheduled to occur between Labor Day and Memorial Day.

2.2 Hours of Construction

The hours of construction will vary depending on the work to be completed and the season. During construction Phases I and II (defined below), construction activities will be restricted to non-holiday weekdays from 7:00 a.m. to 6:30 p.m., per City of Newport Beach Municipal Code Section 10.28.040. During construction Phases III and IV, when work will largely occur indoors, construction activities will be allowed Monday through Friday from 7:00 a.m. to 6:30 p.m., as allowed by City of Newport Beach Municipal Code Section 10.28.040.

2.3 Construction Personnel Trip Generation and Parking

The total number of construction personnel at the Site will vary depending on the construction activity. It is expected that there will be an average of 25 workers daily at the job site during Phase I and 45 workers daily during Phase II. During Phase III and IV, when work will largely occur indoors, there will be an average of 60 to 80 workers on site.

2.4 Sequence (Phasing) of Construction

Project construction is divided into four phases:

I. <u>PHASE I</u> - Asbestos and lead based paint removal, demolition, caisson placement and grading will occur during Phase I. Project grading will be comprised of three segments of earth removal and lagging.

Approx. Time: 6 months

II. <u>PHASE II</u> - Concrete placement, which consists of shotcrete shoring, placement of structural slabs and walls, waterproofing, and sub-slab drainage systems, will occur during Phase II. In addition, site drainage, plumbing underground and electrical underground systems will be integrated. Note that Phase II will be ongoing while Phase III commences so that a portion of Phase II and III will occur simultaneously.

Approx. Time: 18 months (mostly overlapping Phase III)

III. <u>PHASE III</u> – During Phase III, metal stud wall framing will begin on lower levels and work up. Integration of rough plumbing, mechanical, and electrical systems will follow after the metal stud walls are in place. Both vehicular elevators will be installed and operational at this time. Installation of windows and doors will occur during Phase III, as well as planting of large plant materials at Site's bayward side. Note that Phase III will start before Phase II is complete so that a portion of Phase II and III will occur simultaneously.

Approx. Time: 13 months (partially overlapping Phase II)

IV. <u>PHASE IV</u> - Finishes will be installed during Phase IV. Exterior finishes such as exterior plaster, roofing systems, stone veneer, guard rails, exterior lighting and solar panels will be installed, as will the balance of the landscaping and hardscape/paving, artificial rock finishes, softscape, landscape lighting and drainage systems. Finally, interior finishes will be installed, including drywall, painting, cabinetry, stone and tile at counters, walls and floors.

Approx. Time: 11 months

Total Length of Construction Time¹: Approx. 32 months

1 Total construction time is not a sum of the days associated with all construction phases because there is overlapping of certain tasks.

2.5 Construction Schedule

See Appendix A for Construction Schedule Chart.

2.6 Construction Process

During Phase I, caisson placement and grading will begin. Asbestos and lead based paint removal will begin in July, approximately two months prior to grading in early September. After the existing buildings are demolished, the first set of caissons for Row A will be installed along the perimeter of the Site facing Carnation Avenue and along the easterly side yard adjacent to 215 Carnation Ave. (See Appendices B and C.) Grading will begin after Labor Day in early September and will consist of three removal segments:

- Segment #1 Removal of 13,000 cubic yards with 12 yard dump trucks = 1,084 trips to occur over approx. 41 work days
- Segment #2 Removal of 7,000 cubic yards with 12 yard dump trucks = 584 trips to occur over approx. 21 work days
- Segment #3 Removal of 5,240 cubic yards with 12 yard dump trucks = 437 trips to occur over approx. 15 work days

Grading work will be completed by Labor Day. At the end of each removal segment, lagging to retain the earth will be installed per the soils engineer's recommendations.

During Phase I there will be approximately 25 workers at the Site operating the excavation equipment, tractors, dump trucks, ram hoe, earth conveyors, etc. Vibration probes will be placed at 215 Carnation Avenue to monitor construction activities. A vibration monitoring program will be initiated and if found to exceed the threshold for structural damage, other construction methods will be employed to eliminate any occurrence of structural damage. Such alternative construction methods include, but are not limited to, use of different drill bits for the caisson drilling, use of less vibration-intensive construction vehicles, and/or use of lubricants for the caisson drilling.

The contractor shall hire and oversee the construction valet which consists of two crew members, a flagmen and pedestrian detours, who will be stationed at the entrance of the job site during construction activities to monitor security in and out of the gates and to direct pedestrians to the pedestrian walkway. The construction valet and flagmen team will also direct traffic at the Site, shuttle drop-off/pick-up, and material deliveries. During the excavation process, the flagmen will coordinate with the foreman at the dump site who will radio in the dump trucks from Olinda Alpha Sanitary Landfill, one

truck at a time in 15 minute intervals at the start of the workday. Once the trucks are in motion, they will be recycled throughout the day to reduce the number of required trucks used per day and to eliminate the need for a staging area along Pacific Coast Highway and Cameo Highlands Drive. Concrete delivery trucks will follow the same procedure used by the dump trucks. The construction valet and flagmen team will direct dump trucks, cement trucks, etc. to arrive to the site at no greater frequency than the discharge rate by the contractor. At no time will more than one cement or dump truck be stationed at the site. Please refer to Figure 1 for a graphic depiction of the proposed haul route.

Phase II will consist of shotcrete shoring, concrete placement for the foundation slab, structural decks, and retaining walls once the last excavation segment is completed. Phase III will include metal stud framing and the installation of mechanical, electrical, and plumbing equipment. Work on Phases II and III will be scheduled so that concrete placement and internal wall framing work can occur simultaneously to shorten the duration of the construction timing.

Dock construction will take place during Phases II and III. Dock materials will be built off site then barged to the Site for installation. Dock construction at the Site will occur over approximately eight weeks.

During Phase III, vehicular elevators will be installed after the Second Floor structural deck is completed and will be available to facilitate on-site parking for workers as most of the remaining work on the project will be internal. Most of the equipment required during Phase III will be small tools and compressors. Mechanical, electrical, and plumbing sub-contractors will be the primary workers on site. Metal stud framing will continue on the upper levels while finish work occurs on the lower levels. Material deliveries and storage will occur on site in the Sub-Basement and Basement levels. Finally, large trees located on the bay side of the Site will be installed at this time.

The final construction phase, Phase IV, will include the application of the interior and exterior finishes and window and door installation. Cabinetry (built off-site), counter tops and floor finish materials will be delivered and installed in all units. Exterior finishes such as stone veneer, roof materials, photovoltaic array panels, and exterior plaster will be installed. Ultimately, landscape and hardscape materials, guardrail glazing, and wrought iron systems will follow the internal and external painting. Final fire suppression systems and testing, as well as passenger elevator installations, will complete the structure. Final landscape and clean up will prepare the building for occupancy.

2.7 <u>Construction Equipment</u>

Construction equipment will be utilized for the various stages of the project as follows:

PHASE I:	Compressor
Demolition	Concrete Mixer and pumper
Caisson Placement	Conveyor (electrical)
Grading	Dozer
Lagging	Drill Rig
0.000 650	Dump Trucks
	Excavator
	Flat bed delivery trucks
	Loader
	Ram Hoe
PHASE II:	Backhoe
Concrete Placement	Concrete mixer and pumper
Site Drainage	Crane
Shotcrete	Drill Rig
	Flat bed delivery trucks
PHASE III:	Compressors
Wall Framing	Crane
Mechanical, Electrical, and Plumbing	Flat bed delivery trucks
Installation	Masonry saws/ Metal Stud Plasma Cutter
Window/ Door installation	Roto Hammers
Dock System Installation	Shot pin applicators
Vehicular Elevator Installation	Small stationary power tools/ hand tools
Large Tree Installation	
PHASE IV:	Compressors
Exterior and Interior Finishes	Flat bed delivery trucks
Hardscape Installation	Masonry Saws
Softscape Installation	Roto Hammers
Passenger Elevators Installation	Skill Saws
	Small Cement Mixer
	Small hand held power tools

3.0 PARKING MANAGEMENT

3.1 <u>Construction Parking Details</u>

3.1.1 Off-Site Parking for Crew members

Construction workers will be prohibited from parking on Carnation Avenue and Ocean Boulevard. Instead, the project applicant will secure one or more binding off-site parking agreements to accommodate the varying number of workers needed for each construction phase. The off-site parking location(s) will be within a 5 mile radius of the Site. This off-site parking agreement shall be presented to the City prior to the issuance of the permits for the phase of construction that will require the off-site parking. The agreement must ensure that (1) the off-site parking location will commit a sufficient number of spaces to Aerie construction workers during the relevant term, and (2) the off-site location possesses the proper permits and authority to rent the subject spaces.

Shuttles will transfer construction workers from their location(s) to the project site. Specifically, two, ten (10) passenger shuttle vans will run up to 6-8 trips each morning and evening and up to 5 trips at lunch time, assuming that some workers will stay at the jobsite during lunch. Carpooling among construction workers will be encouraged throughout project construction.

Once vehicular elevators are installed and workers are able to park in the completed on-site garages. It is anticipated that approximately 31 cars will be able to park on-site once the parking garage is completed. The owner shall provide personnel to assist parking in the garage.

3.1.2 Short Term Parking

Construction workers will be prohibited from parking on Carnation Avenue and Ocean Boulevard. Compliance with this prohibition will be monitored daily by the construction valet and flagmen team. However, this prohibition shall not apply to short-term visitors to the Site such as City inspectors, City staff, architects, and consultants. Carpooling shall also be encouraged among professionals.

3.2 Staging Areas

During Phases I and II, an encroachment permit will be required to allow temporary use of 10'-5" of City right-of-way, measured from the property line at Carnation, for staging

of materials and temporary parking while materials are off-loaded, etc., as depicted on Appendix B – Construction Management Exhibit 1.0. This will achieve an average of 10'-5" feet deep x 140 feet wide of staging area along the Carnation Avenue frontage. (Staging area does not include the 10 foot building setback from the property line as that area will be used for constructing the subterranean levels. Excavation will occur up to the property line facing Carnation Avenue). Upon the completion of the Project's concrete structure, during Phase III and IV, an encroachment permit will be required to allow temporary use of 6'-5" of City right-of-way, measured from property line at Carnation, for staging for the various trades to complete the remaining phases of construction. Approximately fourteen (14) months into the construction, it is anticipated that construction of the First Floor concrete deck and on-site subterranean garage will be far enough along to be used to store construction materials and small vehicles.

3.3 Construction Trailer, Materials Storage, and Waste Management

A temporary field office will be set up on the Site within the property and will be equipped with power, phone, computers, and fax. Multiple temporary toilet facilities will be provided on the Site. Once the lower levels are constructed, dedicated storage areas and lockboxes will be provided for each trade to store their tools and materials on-site for the duration of construction.

4.0 TRAFFIC CONTROL

4.1 Haul Routes

Haul operations shall be monitored by the contractor. Additional restrictions may be imposed by the Public Works Department if traffic congestion problems arise.

- The project's haul route shall follow the route depicted in Figure 1, below. Specifically, dump trucks, concrete mixers, deliveries, and shuttles for off-site parking will access the Site via East Coast Highway and travel south on Marguerite Avenue, west on Seaview Avenue, and south on Carnation Avenue to the Site. They will exit by going east on Ocean Boulevard, north on Marguerite Avenue, and back to East Coast Highway.
- Dirt will be hauled to Olinda Alpha Sanitary Landfill in the City of Brea. Dump trucks leaving from East Coast Highway will go north on MacArthur Boulevard to 73N to 55 N to 57N.



FIGURE 1

4.2 Delivery Requirements

All deliveries will use the Haul Route once they enter the neighborhood starting from Marguerite Avenue.

As mentioned in Section 3.2, the contractor shall request an encroachment permit for a temporary staging area during construction between the property line and the street curb. Loading and unloading of all construction materials/equipment and/or construction vehicles will take place onsite or within the staging area. Loading and unloading will be managed by the construction valet team and overseen by the contractor. Dump trucks, cement trucks, etc. shall arrive at the site with no greater frequency than the discharge rate by the contractor so that no more than one truck is on site at one time and that trucks will not need to queue on Carnation Avenue. Once the delivery is complete, the trucks will exit the Project area using the haul route depicted above. All trucks will be required to shut off their engines during the loading/off-loading process.

The majority of the trucks used for Phases I and II will be dump trucks, cement mixers, and cement pumpers. Phases III and IV will require mostly flat bed delivery trucks and vans.

To prevent obstruction of through traffic lanes adjacent to the Site, a flag person shall be retained to maintain safety adjacent to existing roadways.

4.3 <u>Traffic Control Plan</u>

Traffic control will be coordinated with the Police Department and Public Works Department, Traffic and Development Services Division, so that street traffic is not obstructed.

5.0 SAFETY AND SECURITY

5.1 <u>Pedestrian Protection</u>

Currently, there is not a pedestrian walkway adjacent to the Site, along the north side of Carnation Avenue due to the existing driveway cut and lack of sidewalk at 207 Carnation Avenue. Secure fencing will be installed to foster pedestrian safety and a four foot wide temporary walkway will be designated in front of the fencing at the street curb along Carnation Avenue during Phases I and II of construction. During Phase IV, the chain link fence will be pulled back four feet from the street curb. Also, if required by the Public Works Department, a four foot wide temporary crosswalk will be created across Carnation Avenue to direct pedestrians to the existing sidewalk on the southerly side of the street. (See Appendix B – Construction Management Exhibit 1.0.)

A safe and clean path along the driveway frontage of the Site will be provided at the end of each work day. A construction valet member shall be provided at the entrance of the Site during construction hours to coordinate workers and shuttles into and out of the Site.

5.2 Project Fencing

The entire perimeter of the Site will be fenced with a 6 foot high fence. More specifically, plywood fencing will be installed on both sides of the property facing the adjacent neighbors and will wrap around the corner of Carnation Ave. Chain link fence with green fabric per City of Newport Beach requirements will be installed at the street curb, beginning where the plywood fence ends 8 feet away from the side property line. Two 20 foot wide rolling gates on Carnation Ave. will provide access into the Site and will be locked for security. These rolling gates shall open on site to avoid interference with construction work. During Phase III and IV, the chain link fencing along Carnation Avenue will be pulled back 4 feet from the street curb so that the pedestrian walkway is off the street. See Appendix B for location of project fencing.

5.3 Safety and Security

Appropriate signage will be posted at the Site indicating "No Trespassing," "Hard Hat Required," "Authorized Personnel Only," and other visitor and delivery information. Daily safety inspections will be done by the onsite superintendent.

6.0 AIR QUALITY CONTROL, FUGITIVE DUST CONTROL, NOISE SUPPRESSION, AND VIBRATION MONITORING

6.1 Emissions/Air Quality Control

Construction activities will follow the 2007 Air Quality Management Plan (AQMP) adopted by the South Coast Air Quality Management District to reduce air pollution and emissions impact.

To the extent feasible, pre-coated/natural colored building materials shall be used. Water-based or low VOC coatings such as Dunn Edwards Ecoshield Low-Odor/ Zero-VOC paint shall be used that comply with SCAQMD Rule 1113 limits. Spray equipment with high transfer efficiency, or manual coatings application such as paint brush, hand roller, trowel, etc. shall be used to reduce VOC emissions, where practical. Paint application shall use lower volatility paint not exceeding 100 grams of ROG per liter.

6.2 Fugitive Dust Control

The project shall comply with the Fugitive Dust Emission and Control Plan approved by the South Coast Air Quality Management District (under District Rule 403).

Dust will be minimized using water as control. Site and debris watering shall be performed a minimum of three times daily during all demolition activities. During grading activities, any exposed soil areas shall be watered at least four times per day. Stockpiles of crushed cement, debris, dirt or other dusty materials shall be covered or watered three times daily. In addition, trucks carrying soil and debris shall be wetted or covered prior to leaving the Site. On windy days, or when fugitive dust can be observed leaving the Site, additional applications of water shall be applied to maintain a minimum 12 percent moisture content as defined by SCAQMD Rule 403. Soil disturbance shall be terminated whenever wind conditions exceed 25 miles per hour.

All diesel-powered machinery exceeding 100 horsepower shall be equipped with soot traps, unless the Contractor demonstrates to the satisfaction of the City Building Official that it is infeasible.

6.3 <u>Noise Control</u>

Construction activities will adhere to the hours prescribed by the City of Newport Beach's Noise Ordinance (Municipal Code Section 10.28.040). Specifically, construction activities will be restricted to non-holiday weekdays from 7:00 a.m. to 6:30 p.m., per Section 10.28.040. During construction Phases III and IV, when work will largely occur indoors, construction activities will be allowed Monday through Friday from 7:00 a.m. to 6:30 p.m. and Saturday from 8:00 to 6:00 p.m., as allowed by City of Newport Beach Municipal Code Section 10.28.040.

The construction contractor shall provide residents living within 100 feet of the project site with a construction schedule for the project prior to the commencement of construction, including the dock, and shall keep them informed of any material changes to the schedule. The notification shall also identify the name and phone number of a contact person with whom to register complaints.

6.4 Noise Control Consideration

Noise from construction activities on this project will be a function of the noise generated by individual construction equipment items (as listed in Section 2.7 Construction Equipment), the equipment location (much of this construction will be insulated by the landform, the depth of the excavation, and the concrete used for most of the structure), and the timing and duration of noise-generated activities. It is important to note that all equipment is not generally operated continuously or used simultaneously. The number, type, distribution, and usage of construction equipment will differ from phase to phase. The noise generated is both temporary in nature and limited in hours by the City's Noise Ordinance (Section 10.28.040).

During Phase I and II of the project, the caisson drilling process will progress at the rate of 3 to 4 caissons being completed per day – this includes drilling, steel placement, and filling with concrete. The grading during segments #1, #2, and #3 will consist of excavators with a ramp out or an electrical conveyor belt for dirt removal and with dump trucks at the rate of approximately 28 trucks per day, removing the soils. There will be no pile driving during the entire construction process. The ram hoe will be required during the later part of the excavation process for approximately 10% of the grading operation at the lower elevations of the site.

For Phases III & IV, small hand tools and compressors will be used within the concrete structure. Noise will also be generated by daily deliveries of materials to the Site. The construction valet will manage the time of such deliveries so that they do not occur at the same time.

6.5 <u>Vibration Monitoring</u>

Vibration monitoring will be conducted as part of the Construction Management Plan. Vibration probes will be placed at 215 Carnation Avenue to monitor construction activities. A vibration monitoring program will be initiated and if found to exceed the threshold for structural damage, other construction methods will be employed to eliminate any occurrence of structural damage. Such alternative construction methods include, but are not limited to, use of lubricant during caisson drilling, use of different drill bits to change levels of torque for the caisson drilling, use of less vibration-intensive construction vehicles, and use of drilling, and/or insertion of expansive grout to fracture rock.

7.0 ENVIRONMENTAL COMPLIANCE/ PROTECTION

7.1 Erosion, Sediment Control and Beach Protection

Per the State's NPDES permit, the project is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) with erosion control measures to ensure soils resulting from grading and earthwork activities are prevented from leaving the Site and moving to receiving waters. As detailed in Appendix O of the project's Preliminary SWPPP, the following best management practices (BMPs) will be incorporated to prevent soils from spilling into Newport Harbor during grading operation:

- 1. BMP #3 (Erosion Control Plan)
- 2. SE-1 (Silt Fence),
- 3. SE-6 (Gravel Bag Berm)
- 4. SE-2 (Sediment Basin)
- 5. SE-4 (Check Dam)

In addition, an erosion control plan will be provided with the project's rough grading plan per the project's conditions of approval. Please refer to Storm Water Pollution Prevention Plan prepared by Hunsaker & Associates, Inc. for more detailed information.

7.2 Water Quality Control

The Project has prepared a Water Quality Management Plan which incorporates a variety of BMPs that will be used onsite to control predictable pollutant runoff. Please refer to conceptual Water Quality Management Plan (WQMP) prepared by Hunsaker & Associates, Inc., for more detailed information. The project also will incorporate the following practices:

- All debris and trash shall be disposed in suitable trash containers on land or on the work barge at the end of each construction day.
- Discharge of any hazardous materials into Newport Bay is prohibited.
- Silt curtains shall be deployed around work barges and around the pile sleeving or drilling operations where feasible to minimize the spread of turbid waters into adjacent eelgrass beds within and outside the project area.
- All construction debris shall be removed from the bay floor.

7.3 Environmental Protection

Existing vegetation that is to be retained will be fenced for protection during grading and construction.

Pursuant to this CMP and, therefore, as part of the project itself, the following measures will be taken:

- An updated pre-construction eelgrass and invasive algae survey shall be completed within 30 days of the initiation of the proposed dock/ gangway construction. The results of this survey will be used to update the results of the March 2007 eelgrass survey and to identify, if any, potential project-related eelgrass losses and the presence or absence of the invasive algae (Caulerpa taxifolia) in accordance with NMFS requirements.
- A post-construction project eelgrass survey shall be completed within 30 days of the completion of project construction in accordance with the Southern California Eelgrass Mitigation Policy (NMFS 1991 as amended, Revision 11). The report will be presented to the resources agencies and the Executive Director of the California Coastal Commission within 30 days after completion of the survey. If any eelgrass has been impacted in excess of that determined in the pre-construction survey, any additional impacted eelgrass will be mitigated at a ratio of 1.2:1.
- Eelgrass shall be mitigated based on two annual monitoring surveys that document the changes in bed (i.e., area extent and density)within the footprint of the boat dock, moored vessels(s), and/or related structures during the active-growth period of eelgrass (typically March through October). Mitigation shall be implemented pursuant to the requirements of the Southern California Eelgrass Mitigation Policy (NMFS 1991 as amended, Revision 11). A statement from the applicant indicating its understanding of the potential mitigation obligation that may follow the initial two year monitoring is required. If losses are identified, a final eelgrass mitigation plan shall be submitted to the City of Newport Beach and resources agencies for review and acceptance.
- The project marine biologist shall mark the positions of eelgrass beds in the vicinity of the dock and gangway construction area with buoys prior to the initiation of any construction activities.
- The project marine biologist shall meet with the construction crew prior to initiation of construction to orient them to specific areas where eelgrass presently exists.

- Support vessels and barges shall maneuver and work over eelgrass beds only during tides of above +2 feet mean lower low water (MLLW) or higher to prevent grounding within eelgrass beds, damage to eelgrass from propellers, and to limit water turbidity.
- Anchors and anchor chains shall not impinge upon eelgrass habitat.
- Construction activities associated with the elevated walkway leading to the gangway and construction personnel shall avoid impacts to rocky intertidal habitat and to eelgrass beds and sand dollar habitat within the Carnation Cove by, among other things, (a) posting signage at key at access points in front of beach and on the elevated walkway stating that access is limited to the elevated walkway during construction; (b) using yellow tape to prevent access to rocky intertidal habitat, eelgrass beds, and sand dollar habitat; and (c) prohibiting access to the water and rocky shoreline within the cove.
- Residents shall be informed of the sensitivity of the cove as a unique marine biological habitat to assist in ensuring the long-term protection of the cove's marine biological resources.
- A silt curtain will be placed around all water-side construction activity during the construction of the dock system to limit the spread of turbidity. If prolonged turbidity is observed outside the silt curtain then the silt curtain shall be re-deployed and re-positioned in a manner to correct the problem. Removal and emplacement of the piles will be conducted using Best Available Technology (BAT) that limits the resuspension of sediments and the creation of turbidity plumes.
- Silt curtains will be emplaced and maintained in working condition throughout the period of construction by the marine contractor. If turbidity plumes are observed in the vicinity of the cove in front of the development, an additional silt curtain will be immediately placed in front of the cove's entrance until the turbidity plume has dissipated.
- Debris bins will be placed at the project site. Material collected will be removed on a daily basis. The amount, type, and location of any large debris (piles, dock parts, concrete, etc) that is deposited on the seafloor will be documented and removed prior to the completion of the project. The project marine biologist shall also inspect the seafloor following the completion of construction to ensure that all debris has been removed.
- The project marine biologist will perform weekly on-site inspections to ensure that BMPs and mitigation measures are being implemented during construction.

- Post-construction marine biological surveys (per permit conditions) shall be performed to map eelgrass cover in the project area using the same methodology as the pre-construction survey and also to document the condition and density of the sand dollar beds within the cove.
- A qualified biologist shall conduct a pre-construction survey for active nests of covered species at least seven (7) days prior to any habitat disturbance that occurs during the nesting season (February 1 to August 31). If no active nests are found, no further actions are required. However, if nesting activity is observed during the pre-construction survey, the nest site must be protected until nesting activity has ended or as otherwise directed by a qualified biologist in order to ensure compliance with the MBTA and California fish and Game Code.
- Bluff landscaping shall consist of native, drought tolerant plant species determined to be consistent with the California coastal buff environment. Invasive and non-native species shall be removed. Irrigation of bluff faces to establish re-vegetated areas shall be temporary and used only to establish the plants. Upon establishment of the plantings, the temporary irrigation system shall be removed.
- A qualified botanist shall perform focused surveys to determine the presence/absence for the nine sensitive plant species. The focused surveys shall be performed during the appropriate blooming window identified for each species. Survey methods shall follow CDFG guidelines. If any State-listed threatened or endangered plant species are impacted by project development, an incident take permit pursuant to Section 2081 of the Fish and Game Code shall be obtained prior to issuance of a grading permit.

8.0 CONSULTANTS/ REFERENCES

Biological Consultants: Coastal Resources Management, Inc. PMB 327, 3334 E. Coast Highway, Corona del Mar, CA 92625 949-412-9446

Keane Biological Consulting 2892 Bellflower Blvd., Suite 480 Long Beach, CA 90815 562-708-7657

Concrete and Shoring Consultant: Ekedal Masonry 537 Newport Center Dr., Suite 288 Newport Beach, CA 92660 947-729-8082

Contractor Consultant: Finton Associates, Inc 3186-E Airway Ave., Costa Mesa, CA 92626 949-673-9587

Grading Consultant: Sukut Construction, Inc. 4010 W. Chandler Ave., Santa Ana, CA 92704 714-540-5351

Soils Engineer: Neblett & Associates, Inc. 4911 Warner Ave., Suite 218 Huntington Beach, CA 92649 714-840-8286

Structural Engineering Consultant: KNA Engineering 30101 Agoura Court, Suite 120 Agoura Hills, CA 91301 818-865-2026

List of References:

Hunsaker & Associates Irvine, Inc., Storm Water Pollution Prevention Plan (SWPPP) for "Carnation Villas" Tentative Tract No. 16882, dated December 18, 2007.

Hunsaker & Associates Irvine, Inc., Conceptual Water Quality Management Plan for "Carnation Villas" Tentative Tract 16882, dated January 17, 2008.

Appendix A

Construction Schedule



Appendix B

Construction Plan



Appendix C

Construction Building Sections



