

TRANSMITTAL 4

Berth 97- 109 [China Shipping] Container Terminal Project Mitigation Measures

AESTHETICS

MM AES-1: *Landscaping*

1. Reconfigure fence line bordering Front Street to create a 5-foot-wide planting strip alongside the edge of the street that will be planted with low shrubs and some trees. Plant species used for the relandscaping must be selected for their attractiveness, their relationship to existing planting themes in the surrounding area, and their environmental values. The plants installed must be of an adequate size to create an attractive planting composition within 5 years
2. Implement the recommendations of the Northwest Harbor Beautification Plan as applicable. The recommendations include landscaping two gateways to the Port: the area adjacent to the Channel Street on- and off-ramps from I-110 and SR-47; and the Harbor Boulevard on- and off-ramps from SR-47. Planting shall be designed to promote erosion control along all hillsides.

MM AES-2: *Crane Color Study*

Specify a gray color for the cranes that to make them visually distinct from the Vincent Thomas Bridge, reduce their contrast with the sky backdrop, and reduce their visual prominence and apparent mass. An appropriate shade of gray should be specified as the color for repainting the four cranes now at the site and as the factory-applied color for the six additional cranes proposed for installation.

MM AES-3: *Beautification Plans*

To offset the reduction in the quality of views from the upper portions of the Channel Street corridor, implement beautification plan improvements along the portion of John S. Gibson Boulevard and Pacific Avenue at the intersection of Channel Street. These improvements, which will include landscaping and creation of view areas of the Port, walkways, and bike paths, should be designed with the objectives of upgrading the visual quality of the eastern end of the Pacific Avenue corridor and creating an attractive gateway to the Port that links with the system of amenities the Port is developing along the western edge of Port lands. One of the key improvements proposed is removal of a large billboard and deteriorated building on the east side of Pacific Avenue adjacent to the China Shipping site and close to the intersection with Channel Street. Removal of the billboard and building will improve the visual quality of this area and will provide space for installation of landscaping and visitor amenities.

Additionally, the utility poles along this segment will be removed and all utility lines will be placed underground if feasible. Placement of utility lines underground will be subject to cost feasibility. If costs exceed \$1,000 per linear foot, the Port will reassess placement of utility lines underground and propose alternative measures, such as additional landscaping and/or reduced numbers of underground utility placements. The Port also will begin negotiations to remove and possibly relocate a truck resale facility on the northeast corner of the Pacific Avenue and Front Street intersection. When removed, the vacated area would be landscaped with vegetation consistent with the Pacific Avenue Corridor Improvements.

MM AES-4 Plaza Park

Implement plans to improve the role of Plaza Park as a place to enjoy views of the Port and of the Vincent Thomas Bridge. Design components should include a system of safe, attractive, pedestrian paths and stairways. This system should include signs, arrows, and other design elements that direct visitors up to the park to take advantage of the opportunities that it provides to view the Port. Improvements in the park itself should include new walkways and railings; a Harbor overview seating area; a Port and bridge overlook area with interpretive signage and improved view corridors; a visitor center; and upgraded landscaping, lighting, and other improvements to make the park a safe and attractive place from which Port and bridge views could be appreciated.

AIR QUALITY: CONSTRUCTION

MM AQ-1 Harbor Craft used during construction

Phase I: All diesel-powered derrick barges used for pile driving shall use emulsified diesel fuel.

Phases II and III: All harbor craft used during the construction phase of the project shall be, at a minimum, repowered to meet the cleanest existing marine engine emission standards or USEPA Tier 2. Additionally, where available, harbor craft shall meet the proposed USEPA Tier 3 (which are proposed to be phased-in beginning 2009) or cleaner marine engine emission standards.

The above harbor craft measure shall be met unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:

- + A piece of specialized equipment is unavailable in a controlled form within the State of California, including through a leasing agreement.
- + A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application is not yet approved, or the application has been approved, but funds are not yet available.
- + A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease.

MM AQ-2: Cargo Ships

Phases II and III: All cargo ships used for terminal crane deliveries shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area.

MM AQ-3: Fleet Modernization for On-Road Trucks

Phases II and III:

1. Trucks hauling materials such as debris or fill shall be fully covered while operating off Port property.
2. Idling shall be restricted to a maximum of 5 minutes when not in use.
3. USEPA Standards:

All on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 19,500 pounds or greater used onsite or to transport materials to and from the site shall comply with EPA

2004 on-road PM emission standards and be the cleanest available NOX (0.10 grams per brake horsepower-hour [g/bhp-hr] PM10 and 2.0 g/bhp-hr NO X). In addition, all on-road trucks shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions-control device used by the contractor shall achieve emissions reductions no less than what could be achieved by a Level 3 diesel emissions control strategy for a similar-sized engine as defined by CARB regulations.

A copy of each unit's certified, USEPA rating, BACT documentation, and each unit's CARB or SCAQMD operating permit, shall be provided at the time of mobilization of each applicable unit of equipment.

The above USEPA Standards measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:

- + A piece of specialized equipment is unavailable in a controlled form within the State of California, including through a leasing agreement.
- + A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application is not yet approved, or the application has been approved, but funds are not yet available.
- + A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease.

MM AQ-4: *Fleet Modernization for Construction Equipment*

Phases II and III:

1. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
2. Idling shall be restricted to a maximum of 5 minutes when not in use.
3. Tier Specifications:
 - a. January 1, 2009, to December 31, 2011: All off-road diesel-powered construction equipment greater than 50 hp, except derrick barges and marine vessels, shall meet Tier 2 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions-control device used by the Contractor shall achieve emissions reductions no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similar-sized engine as defined by CARB regulations.
 - b. Post January 1, 2012: All off-road diesel-powered construction equipment greater than 50 hp, except derrick barges and marine vessels, shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions-control device used by the Contractor shall achieve emissions reductions no less than what could be achieved by a Level 2 or Level 3 diesel emissions-control strategy for a similar-sized engine as defined by CARB regulations.

A copy of each unit's certified Tier specification, BACT documentation and each unit's CARB or SCAQMD operating permit, shall be provided at the time of mobilization of each applicable unit of equipment.

The above “Tier Specifications” measures shall be met, unless one of the following circumstances exist, and the contractor is able to provide proof that any of these circumstances exists:

- + A piece of specialized equipment is unavailable in a controlled form within the State of California, including through a leasing agreement.
- + A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application is not yet approved, or the application has been approved, but funds are not yet available.
- + A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease.

MM AQ-5: *Best Management Practices*

Phases II and III:

The following types of measures are required on construction equipment (including on-road trucks):

1. Use of diesel oxidation catalysts and catalyzed diesel particulate traps
2. Maintain equipment according to manufacturers’ specifications
3. Restrict idling of construction equipment and on-road heavy-duty trucks to a maximum of 5 minutes when not in use
4. Install high-pressure fuel injectors on construction equipment vehicles
5. Maintain a minimum buffer zone of 300 meters between truck traffic and sensitive receptors
6. Improve traffic flow by signal synchronization
7. Enforce truck parking restrictions
8. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc.
9. Re-route construction trucks away from congested streets or sensitive receptor areas
10. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site
11. Use electric power in favor of diesel power where available.

LAHD shall implement a process by which to select additional BMPs to further reduce air emissions during construction. The LAHD shall determine the BMPs once the contractor identifies and secures a final equipment list.

MM AQ-6: *Additional Fugitive Dust Controls*

The calculation of fugitive dust (PM10) from Project earth-moving activities assumes a 75 percent reduction from uncontrolled levels to simulate rigorous watering of the site and use of other measures (listed below) to ensure Project compliance with SCAQMD Rule 403.

The construction contractor shall further reduce fugitive dust emissions to 90 percent from uncontrolled levels. The construction contractor shall designate personnel to monitor the dust control program and to order increased watering, as necessary, to ensure a 90 percent control level. Their duties shall include holiday and weekend periods when work may not be in progress.

The following measures, at minimum, must be part of the contractor Rule 403 dust control plan:

- Active grading sites shall be watered one additional time per day beyond that required by Rule 403.
- Contractors shall apply approved non-toxic chemical soil stabilizers according to manufacturer's specifications to all inactive construction areas or replace groundcover in disturbed areas (previously graded areas) inactive for ten days or more.
- Construction contractors shall provide temporary wind fencing around sites being graded or cleared.
- Trucks hauling dirt, sand, or gravel shall be covered in accordance with Section 23114 of the California Vehicle Code.
- Construction contractors shall install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving the construction site
- The grading contractor shall suspend all soil disturbance activities when winds exceed 25 mph or when visible dust plumes emanate from a site; disturbed areas shall be stabilized if construction is delayed.
- Pave road and road shoulders.
- Require the use of clean-fueled sweepers pursuant to SCAQMD Rule 1186 and Rule 1186.1 certified street sweepers. Sweep streets at the end of each day if visible soil is carried onto paved roads on-site or roads adjacent to the site to reduce fugitive dust emissions.
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM₁₀ generation.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.

MM AQ-7: *General Mitigation Measure.*

For any of the above mitigation measures (MM AQ-1 through AQ-6), if a CARB-certified technology becomes available and is shown to be as good as or better in terms of emissions performance than the existing measure, the technology could replace the existing measure pending approval by the Port.

MM AQ-8: *Special Precautions near Sensitive Sites.*

All construction activities located within 1,000 feet of sensitive receptors (defined as schools, playgrounds, daycares, and hospitals) shall notify each of these sites in writing at least 30 days before construction activities begin.

AIR QUALITY: OPERATION

MM AQ-9: *Alternative Maritime Power (AMP).*

China Shipping ships calling at Berths 97-109 must use AMP at the following percentages while hoteling in the Port:

- + January 1 to June 30, 2005: 60 percent of total ship calls (ASJ Requirement)
- + July 1, 2005: 70 percent of total ship calls (ASJ Requirement)
- + January 1, 2010: 90 percent of ship calls
- + January 1, 2011, and thereafter: 100 percent of ship calls

Additionally, by 2010, all ships retrofitted for AMP shall be required to use AMP while hoteling at a 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship.

MM AQ-10: *Vessel Speed Reduction Program.*

All ships calling at Berths 97-109 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule:

- + 2009 and thereafter: 100 percent

MM AQ-11: *Low-Sulfur Fuel.*

All ships (100 percent) calling at Berth 97-109 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin (including hoteling for non-AMP ships) beginning on Day 1 of operation. Ships with mono-tank systems or having technical issues prohibiting use of low-sulfur fuel would be exempt from this requirement. The tenant shall notify the Port of such vessels prior to arrival and shall make every effort to retrofit such ships within 1 year. The following annual participation rates were assumed in the air quality:

- + 2009 and thereafter: 30 percent of auxiliary engines, main engines, and boilers
- + 2010: 50 percent of auxiliary engines, main engines, and boilers
- + 2013 and thereafter: 100 percent of auxiliary engines, main engines, and boilers

MM AQ-12: *Slide Valve.*

Ships calling at Berths 97-109 shall be equipped with slide valves or equivalent on main engines in the following percentages:

- + 2009: 25 percent
- + 2010: 50 percent
- + 2012: 75 percent
- + 2014 and thereafter: 100 percent
- +

MM AQ-13: *Reroute Cleaner Ships*

When scheduling vessels for service to the Port of Los Angeles, Tenant shall ensure that 75 percent of all ship calls to the Berth 97-109 Terminal meet IMO MARPOL Annex VI NO_x emissions limits for Category 3 engines.

MM AQ-14: *New Vessel Build*

The purchaser shall confer with the ship designer and engine manufacture to determine the feasibility of incorporating all emission reduction technology and/or design options and when ordering new ships bound for the Port of Los Angeles. Such technology shall be designed to reduce criteria pollutant emissions (NO_x, SO_x and PM) and GHG emission (CO, CH₄, O₃, and CFCs). Design considerations and technology shall include, but are not limited to:

1. Selective Catalytic Reduction Technology
2. Exhaust Gas Recirculation
3. In-line fuel emulsification technology
4. Diesel Particulate Filters (DPFs) or exhaust scrubbers
5. Common Rail
6. Low NO_x Burners for Boilers
7. Implement fuel economy standards by vessel class and engine
8. Diesel-electric pod propulsion systems

MM AQ-15: *Yard Tractors at Berth 97-109 Terminal*

All yard tractors operated at the Berth 97-109 terminal shall run on alternative fuel (LPG) beginning September 30, 2004, until December 31, 2014 (*ASJ Requirement*).

Beginning in January 1, 2015, all yard tractors operated at the Berth 97-109 terminal shall be the cleanest available NO_x alternative-fueled engine meeting 0.015 gm/hp-hr for PM.

MM AQ-16: *Yard Equipment at Berth 121-131 Rail Yard.*

All diesel-powered equipment operated at the Berth 121-131 terminal rail yard that handles containers moving through the Berth 97-109 terminal shall implement the following measures:

- + Beginning January 1, 2009, all equipment purchases shall be either (1) the cleanest available NO_x alternative-fueled engine meeting 0.015 gm/hp-hr for PM or (2) the cleanest available NO_x diesel-fueled engine meeting 0.015 gm/hp-hr for PM. If there are no engines available that meet 0.015 gm/hp-hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest VDECS.
- + By the end of 2012, all equipment less than 750 hp shall meet the USEPA Tier 4 on-road or Tier 4 non-road engine standards.
- + By the end of 2014, all equipment shall meet USEPA Tier 4 non-road engine standards.

MM AQ-17: *Yard Equipment at Berth 97-109 Terminal*

- + September 30, 2004: All diesel-powered toppicks and sidepicks operated at the Berth 97-109 terminal shall run on emulsified diesel fuel plus a DOC (*ASJ Requirement*).
- + January 1, 2009:
 - All RTGs shall be electric.
 - All toppicks shall have the cleanest available NO_x alternative fueled engines meeting 0.015 gm/hp-hr for PM.
 - All equipment purchases other than yard tractors, RTGs, and toppicks shall be either (1) the cleanest available NO_x alternative-fueled engine meeting 0.015 gm/hp-hr for PM or (2) the cleanest available NO_x diesel-fueled engine meeting 0.015 gm/hp-hr for PM. If there are no engines available that meet 0.015 gm/hp-hr for PM, the new

engines shall be the cleanest available (either fuel type) and will have the cleanest VDEC.

- + By the end of 2012: all terminal equipment less than 750 hp other than yard tractors, RTGs, and topicks shall meet the USEPA Tier 4 on-road or Tier 4 non-road engine standards.
- + By the end of 2014: all terminal equipment other than yard tractors, RTGs, and topicks shall meet USEPA Tier 4 non-road engine standards
- + In addition to the above requirements, the tenant at Berth 97-109 shall participate in a 1-year electric yard tractor [truck] pilot project. As part of the pilot project, two electric tractors will be deployed at the terminal within 1 year of lease approval. If the pilot project is successful in terms of operation, costs and availability, the tenant shall replace half of the Berth 97-109 yard tractors with electric tractors within 5 years of the feasibility determination.

MM AQ-18: *Yard Locomotives at Berth 121-131 Rail Yard*

Beginning January 1, 2015, all yard locomotives at the Berth 121-131 Rail Yard that handle containers moving through the Berth 97-109 terminal shall be equipped with a diesel particulate filter (DPF).

MM AQ-19: *Clean Truck Program*

The tenant shall comply with the Port's Clean Truck Program. Based on participation in the Clean Truck Program, Heavy-duty diesel trucks entering the Berth 97-109 terminal shall meet the USEPA 2007 emission standards for on-road heavy-duty diesel engines (USEPA, 2001) in the following percentages:

- + 2009: 50 percent USEPA 2007
- + 2010: 70 percent USEPA 2007
- + 2011: 90 percent USEPA 2007
- + 2012: 100 percent USEPA 2007

MM AQ-20: *LNG Trucks.*

Heavy-duty trucks entering the Berth 97-109 Terminal shall be LNG fueled in the following percentages.

- + 50 percent in 2012 and 2013
- + 70 percent in 2014 through 2017
- + 100 percent in 2018 and thereafter

MM AQ-21: *Truck Idling Reduction Measure*

Within 6 months of the effective date and thereafter for the remaining term of the Berth 97-109 Permit and any holdover, the Berth 97-109 terminal operator shall ensure that truck idling is reduced to less than 30 minutes in total or 10 minutes at any given time while on the Berth 97-109 terminal through measures that include, but are not limited to, the following: (1) operator shall maximize the durations when the main gates are left open, including during off-peak hours (6 pm to 7 am), (2) operator shall implement a container tracking and appointment-based truck delivery and pick-up system to minimize truck queuing (trucks lining up to enter and exit the terminal's gate), and (3) operator shall design the main entrance and exit gates to exceed the average hourly volume of trucks that enter and exit the gates (truck flow capacity) to ensure queuing is minimized

NEW/ALTERNATIVE TECHNOLOGY

The following measures are lease measures that would be included in the lease for Berth 97-109 due to projected future emissions levels associated with the proposed Project. The measures do not meet all of the criteria for CEQA or NEPA mitigation measures but are considered important lease measures to reduce future emissions. This lease obligation is distinct from the requirement of further CEQA or NEPA mitigation measures to address impacts of potential subsequent discretionary Project approvals.

MM AQ-22: *Periodic Review of New Technology and Regulations.*

The Port shall require the Berth 97-109 tenant to review, in terms of feasibility, any Port-identified or other new emissions-reduction technology, and report to the Port. Such technology feasibility reviews shall take place at the time of the Port's consideration of any lease amendment or facility modification for the Berth 97-109 property. If the technology is determined by the Port to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.

Potential technologies that may further reduce emission and/or result in cost-savings benefits for the tenant may be identified through future work on the CAAP. Over the course of the lease, the tenant and the Port shall work together to identify potential new technology. Such technology shall be studied for feasibility, in terms of cost, technical and operational feasibility.

As partial consideration for the Port agreement to issue the permit to the tenant, the tenant shall implement not less frequently than once every 7 years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which shall not be unreasonably withheld.

MM AQ-23: *Throughput Tracking.*

If the Project exceeds project throughput assumptions/projections anticipated through the years 2010, 2015, 2030, or 2045, staff shall evaluate the effects of this on the emissions sources (ship calls, locomotive activity, backland development, and truck calls) relative to the EIS/EIR. If it is determined that these emissions sources exceed EIS/EIR assumptions, staff would evaluate actual air emissions for comparison with the EIS/EIR and if the criteria pollutant emissions exceed those in the EIS/EIR, then new or additional mitigations would be applied through MM AQ-22.

MM AQ-24: *General Mitigation Measure.*

For any of the above mitigation measures (MM AQ-9 through AQ-21), if any kind of technology becomes available and is shown to be as good or as better in terms of emissions reduction performance than the existing measure, the technology could replace the existing measure pending approval by the Port of Los Angeles. The technology's emissions reductions must be verifiable through USEPA, CARB, or other reputable certification and/or demonstration studies to the Port's satisfaction.

GREENHOUSE GAS MEASURES

MM AQ-25: *LEED*

The main terminal building shall obtain the Leadership in Energy and Environmental Design (LEED) gold certification level.

MM AQ-26: *Compact Fluorescent Light Bulbs*

All interior buildings on the premises shall exclusively use compact fluorescent light bulbs for ambient lighting within all terminal buildings. The tenant shall also maintain and replace any Port-supplied compact fluorescent light bulbs.

MM AQ-27: *Energy Audit*

The tenant shall conduct a third party energy audit every 5 years and install innovative power saving technology where feasible, such as power factor correction systems and lighting power regulators. Such systems help to maximize usable electric current and eliminate wasted electricity, thereby lowering overall electricity use.

MM AQ-28: *Solar Panels*

The applicant shall install solar panels on the main terminal building.

MM AQ-29: *Recycling*

The tenant shall ensure a minimum of 40 percent of all waste generated in all terminal buildings is recycled by 2012 and 60 percent of all waste generated in all terminal buildings is recycled by 2015. Recycled materials shall include: (a) white and colored paper; (b) post-it notes; (c) magazines; (d) newspaper; (e) file folders; (f) all envelopes including those with plastic windows; (g) all cardboard boxes and cartons; (h) all metal and aluminum cans; (i) glass bottles and jars; and; (j) all plastic bottles.

MM AQ-30: *Tree Planting*

The applicant shall plant shade trees around the main terminal building, and the tenant shall maintain all trees through the life of the lease.

BIOLOGICAL MEASURES: CONSTRUCTION

BIO-1: *Mitigation Credits*

Compensate for loss of marine habitat (EFH) and loss of benthic communities in the West Basin through use of existing mitigation bank credits.

BIOLOGICAL MEASURES: OPERATION

MM BIO-2: *Vessel Speed Reduction Program.*

All ships calling at Berths 97-109 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 100 percent starting in 2009.

MM BIO-3: *Noise Reduction during Pile Driving*

The contractor shall be required to use sound abatement techniques to reduce both noise and vibrations from pile driving activities. Sound abatement techniques shall include, but are not limited to, vibration or hydraulic insertion techniques, drilled or augured holes for cast-in-place piles, bubble curtain technology, and sound aprons where feasible. At the initiation of each pile driving event, and after breaks of more than 15 minutes the pile driving shall also employ a “soft-start” in which the hammer is operated at less

than full capacity (i.e., approximately 40–60% energy levels) with no less than a 1-minute interval between each strike for a 5-minute period..

In addition, a qualified biologist hired by the Port shall be required to monitor the area in the vicinity of pile driving activities for any fish kills during pile driving. If there are any reported fish kills, pile driving shall be halted and the USACE and NMFS shall be notified via the Port's Environmental Management Division. The biological monitor shall also note (surface scan only) whether marine mammals are present within 100 meters of the pile driving, and if any are observed, temporarily halt pile driving until the observed mammals move beyond this distance.

CULTURAL RESOURCES: CONSTRUCTION

MM CR-1:

In the unlikely event that any artifact, or an unusual amount of bone, shell, or non-native stone is encountered during construction, work shall be immediately stopped and relocated to another area. The contractor shall stop construction within 10 meters (30 feet) of the exposure of these finds until a qualified archaeologist can be retained by the Port to evaluate the find (see 36 CFR 800.11.1 and pertinent CEQA regulations). Examples of such cultural materials might include concentrations of ground stone tools such as mortars, bowls, pestles, and manos; chipped stone tools such as projectile points or choppers; flakes of stone not consistent with the immediate geology such as obsidian or fused shale; historical trash pits containing bottles and/or ceramics; or structural remains. If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with SHPO Section 106 and CEQA Guidelines. All construction equipment operators shall attend a preconstruction meeting presented by a professional archaeologist retained by the Port that shall review types of cultural resources and artifacts that would be considered potentially significant, to ensure operator recognition of these materials during construction.

Prior to beginning construction, the Port shall meet with applicable Native American Groups, including the Gabrielino/Tongva Tribal Council to identify areas of concern. A trained archaeologist shall monitor construction at identified areas. In addition to monitoring, a treatment plan shall be developed in conjunction with the Native American Groups to establish the proper way of extracting and handling all artifacts in the event of an archaeological discovery.

GEOLOGICAL RESOURCES

GEO-1: Emergency Response Planning. The terminal operator shall work with Port engineers and Port police to develop tsunami response training and procedures to assure that construction and operations personnel will be prepared to act in the event of a large seismic event. Such procedures shall include immediate evacuation requirements in the event that a large seismic event is felt at the proposed Project site, as part of overall emergency response planning for this proposed Project.

GROUND TRANSPORTATION

MM TRANS-1: *Avalon Boulevard and Harry Bridges Boulevard*

Provide an additional eastbound and westbound left-turn lane on Harry Bridges Boulevard. This measure shall be implemented by 2015.

MM TRANS-2: *Alameda Street and Anaheim Street*

Provide an additional eastbound through-lane on Anaheim Street. This measure shall be implemented by 2015.

MM TRANS-3: *John S. Gibson Boulevard and I-110 NB Ramps*

Provide an additional southbound and westbound right-turn lane on John S. Gibson Boulevard and I-110 NB ramps. Reconfigure the eastbound approach to one eastbound through-left-turn lane, and one eastbound through-right-turn lane. Provide an additional westbound right-turn lane with westbound right-turn overlap phasing. This measure shall be implemented by 2015.

MM TRANS-4: *Fries Avenue and Harry Bridges Boulevard*

Provide an additional westbound through-lane on Harry Bridges Boulevard. Provide an additional northbound, eastbound, and westbound right-turn lane on Fries Avenue and Harry Bridges Boulevard. This measure shall be implemented by 2015.

MM TRANS-5: *Broad Avenue and Harry Bridges Boulevard*

Provide an additional eastbound and westbound left-turn lane on Harry Bridges Boulevard. This measure shall be implemented by 2015.

MM TRANS-6: *Navy Way and Seaside Avenue*

Provide an additional eastbound through-lane on Seaside Avenue. Reconfigure the westbound approach to one left-turn lane and three through-lanes. This measure shall be implemented by 2030.

TRANS-7: *Avalon Boulevard and Harry Bridges Boulevard*

Add dual eastbound left-turn lanes and provide an additional eastbound through-lane on Harry Bridges Boulevard. Provide an additional westbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2015.

TRANS-8: *Harbor Boulevard and SR-47 WB On-Ramp*

Provide an additional southbound through-lane on Harbor Boulevard. This measure shall be implemented by 2030.

TRANS-9: *Harbor Boulevard and Swinford Street*

Provide an additional northbound through-lane on Harbor Boulevard. This measure shall be implemented by 2015.

TRANS-10: *John S. Gibson Boulevard and I-110 NB Ramps*

Add dual westbound left-turn lanes and provide overlap phasing for westbound right-turn lane. Provide additional southbound through-lane on John S. Gibson Boulevard. Provide additional eastbound through-lane on I-110 NB ramp. Provide free right-turn phasing for northbound right-turn lane. This measure shall be implemented by 2045.

TRANS-11: *Figueroa Street and C Street/I-110 Ramps*

Provide an additional eastbound through-lane on I-110 ramps. Provide triple westbound left-turn lanes on C Street. This measure shall be implemented by 2045.

TRANS-12: *Pacific Avenue and Front Street*

Add dual northbound left-turn lanes on Pacific Avenue. This measure shall be implemented by 2045.

TRANS-13: *Neptune Avenue and Harry Bridges Boulevard*

Provide an additional eastbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2030.

TRANS-14: *John S. Gibson Boulevard and Channel Street*

Add dual northbound left-turn lanes on John S. Gibson Boulevard. This measure shall be implemented by 2015.

GROUNDWATER RESOURCES

GW-1: *Site Remediation*

Unless otherwise authorized by the lead regulatory agency for any given site, LAHD shall remediate all encountered contaminated soils or contamination within the excavation zones on the Project site boundaries prior to or during subsurface construction activities. Remediation shall occur in compliance with local, state, and federal regulations, as described in Section 3.7.3, and as directed by the Los Angeles Fire Department, DTSC, and/or RWQCB.

Soil remediation shall be completed such that contamination levels in subsurface excavations are below health screening levels established by OEHHA and/or applicable action levels established by the lead regulatory agency with jurisdiction over the site. Only clean soil would be used as backfill. Soil contamination waivers may be acceptable as a result of encapsulation (i.e., paving) in backland areas and/or risk-based soil assessments but would be subject to the discretion of the lead regulatory agency. Excavated contaminated soil shall not be placed in another location onsite; it must be properly disposed of offsite. All imported soil to be used as backfill in excavated areas should be sampled to ensure that the soil is free of contamination.

Existing groundwater contamination throughout the proposed Project boundary shall continue to be monitored and remediated as encountered, simultaneous and/or subsequent to site development, and/or in accordance with direction provided by the RWQCB.

Unless otherwise authorized by the lead regulatory agency for any given site, areas of excavation with soil contamination that shall be remediated prior to, or in conjunction with, Project construction.

HAZARDOUS MATERIALS

HAZ-1: *Risk Analysis*

The Los Angeles Harbor Department will perform a Risk Analysis of the Berth 118-120 facilities that would consider the location of the Regional Center. Based on the results of the risk analysis, recommendations to ensure an acceptable level of public safety would be implemented. These include,

but are not limited to, alternative building configurations and buffer zones that will be incorporated into the design of this alternative to reduce potential impacts to users of the Regional Center to an acceptable level.

NOISE: CONSTRUCTION

MM NOI-1: *Construction Limitations*

- a) Construction Hours. Limit construction hours.
- b) Construction Days. Do not conduct noise-generating construction activities on weekends or holidays unless critical
- c) Temporary Noise Barriers. Should be located between noise-generating construction activities and sensitive receivers.
- d) Properly muffle and maintain all construction equipment powered by internal combustion engines.
- e) Idling Prohibitions. Prohibit unnecessary idling of internal combustion engines near noise-sensitive areas.
- f) Equipment Location. Locate all stationary noise-generating
- g) Quiet Equipment Selection. Select quiet construction equipment whenever possible. Comply with City of Los Angeles Noise Ordinance.
- h) Notification. Notify residents adjacent to the proposed Project site of the construction schedule in writing.
- i) IHC Hydrohammer. The contractor shall use an IHC Hydrohammer pile driver or equivalent when constructing the berths.
- j) Reporting. The Port shall clearly post the telephone number where complaints regarding construction-related disturbance can be reported.

NOISE: OPERATION

MM NOI-2: *Noise Walls*

Mitigation measures to reduce operational impacts would include installation of noise walls at the project site or residential property lines, if feasible, and/or soundproofing of impacted noise-sensitive structures.

PUBLIC SERVICES AND UTILITIES: CONSTRUCTION

PS-1: *Recycling Construction Materials*

Demolition and/or excess construction materials shall be separated onsite for reuse/recycling or proper disposal. During grading and construction, separate bins for recycling of construction materials shall be provided onsite.

PS-2: *Materials with Recycled Content*

Materials with recycled content shall be used in Project construction. Chippers onsite during construction shall be used to further reduce excess wood for landscaping cover.

PUBLIC SERVICES AND UTILITIES: OPERATION

PS-3: *Long Term Solid Waste Management*

To ensure adequate long-term solid waste management, the proposed Project will be required to comply with policies and standards set forth in the City's Solid Waste Integrated Resources Plan (SWIRP) following 2025.

Modifications to or Additional Mitigation Measures in the Final SEIR

The following mitigation measures were either added to or modified in the Final SEIR. New text is denoted by underlining while deleted text is denoted by ~~striketrough~~.

MM AES-1

3. Reconfigure fence line bordering Front Street to create a 5-foot-wide planting strip alongside the edge of the street that will be planted with low shrubs and some trees. Plant species used for the relandscaping must be selected for their attractiveness, their relationship to existing planting themes in the surrounding area, and their environmental values. The plants installed must be of an adequate size to create an attractive planting composition within 5 years
4. Implement the recommendations of the Northwest Harbor Beautification Plan as applicable. The recommendations include landscaping two gateways to the Port: the area adjacent to the Channel Street on- and off-ramps from I-110 and SR-47; and the Harbor Boulevard on- and off-ramps from SR-47. Planting shall be designed to promote erosion control along all hillsides.

MM AQ-5: Best Management Practices (BMPs)

The following types of measures are required on construction equipment (including on-road trucks):

1. Use of diesel oxidation catalysts and catalyzed diesel particulate traps
2. Maintain equipment according to manufacturers' specifications
3. Restrict idling of construction equipment and on-road heavy-duty trucks to a maximum of 5 minutes when not in use
4. Install high-pressure fuel injectors on construction equipment vehicles
5. Maintain a minimum buffer zone of 300 meters between truck traffic and sensitive receptors
6. Improve traffic flow by signal synchronization
7. Enforce truck parking restrictions
8. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc.
9. Re-route construction trucks away from congested streets or sensitive receptor areas
10. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
11. Use electric power in favor of diesel power where available.

LAHD shall implement a process by which to select additional BMPs to further reduce air emissions during construction. The LAHD shall determine the BMPs once the contractor identifies and secures a final equipment list. ~~The LAHD shall implement a process to add BMPs to reduce air emissions from all LAHD-sponsored construction~~

MM AQ-6: Additional Fugitive Dust Controls

The construction contractor shall reduce fugitive dust emissions by 90 percent from uncontrolled levels. The Project construction contractor shall specify dust-control methods that will achieve this control level in a SCAQMD Rule 403 dust control plan. Their duties shall include holiday and weekend periods when work may not be in progress.

Measures to reduce fugitive dust include, but are not limited to, the following:

- Active grading sites shall be watered one additional time per day beyond that required by Rule 403.
- Contractors shall apply approved non-toxic chemical soil stabilizers according to manufacturer's specifications to all inactive construction areas or replace groundcover in disturbed areas (previously graded areas) inactive for ten days or more.
- Construction contractors shall provide temporary wind fencing around sites being graded or cleared.
- Trucks hauling dirt, sand, or gravel shall be covered ~~or shall maintain at least 2 feet of freeboard~~ in accordance with Section 23114 of the California Vehicle Code.
- Construction contractors shall install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving the construction site
- The grading contractor shall suspend all soil disturbance activities when winds exceed 25 mph or when visible dust plumes emanate from a site; disturbed areas shall be stabilized if construction is delayed.
- Pave road and road shoulders.
- Require the use of clean-fueled sweepers pursuant to SCAQMD Rule 1186 and Rule 1186.1 certified street sweepers. Sweep streets at the end of each day if visible soil is carried onto paved roads on-site or roads adjacent to the site to reduce fugitive dust emissions.
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM₁₀ generation.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.

MM AQ-11. Low-Sulfur Fuel. ~~Ships owned by the terminal operator calling at Berths 97-109 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nautical miles (nm) of Point Fermin (including hoteling for non-AMP ships) at the following annual participation rates: All ships (100 percent) calling at Berth 97-109 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin (including hoteling for non-AMP ships) beginning on Day 1 of operation. Ships with mono-tank systems or having technical issues prohibiting use of low-sulfur fuel would be exempt from this requirement. The tenant shall notify the Port of such vessels prior to arrival and shall make every effort to retrofit such ships within 1 year. The following annual participation rates were assumed in the air quality:~~

- + 2009 and thereafter: 30 percent of auxiliary engines, main engines, and boilers
- + 2010: 50 percent of auxiliary engines, main engines, and boilers
- + 2013 and thereafter: 100 percent of auxiliary engines, main engines, and boilers

MM AQ-17: Yard Equipment at Berth 97-109 Terminal.

- + September 30, 2004: All diesel-powered toppicks and sidepicks operated at the Berth 97-109 terminal shall run on emulsified diesel fuel plus a DOC (*ASJ Requirement*).
- + January 1, 2009:
 - All RTGs shall be electric.
 - All toppicks shall have the cleanest available NO_x alternative fueled engines meeting 0.015 gm/hp-hr for PM
 - All equipment purchases other than yard tractors, RTGs, and toppicks shall be either (1) the cleanest available NO_x alternative-fueled engine meeting 0.015 gm/hp-hr for PM or (2) the cleanest available NO_x diesel-fueled engine meeting 0.015 gm/hp-hr for PM. If there are no engines available that meet 0.015 gm/hp-hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest VDEC.
- + By the end of 2012: all terminal equipment less than 750 hp other than yard tractors, RTGs, and toppicks shall meet the USEPA Tier 4 on-road or Tier 4 non-road engine standards.
- + By the end of 2014: all terminal equipment other than yard tractors, RTGs, and toppicks shall meet USEPA Tier 4 non-road engine standards.
- + In addition to the above requirements, the tenant at Berth 97-109 shall participate in a 1-year electric yard tractor [truck] pilot project. As part of the pilot project, two electric tractors will be deployed at the terminal within 1 year of lease approval. If the pilot project is successful in terms of operation, costs and availability, the tenant shall replace half of the Berth 97-109 yard tractors with electric tractors within 5 years of the feasibility determination.

MM AQ-21: Truck Idling Reduction Measure. Within 6 months of the effective date and thereafter for the remaining term of the Berth 97-109 Permit and any holdover, the Berth 97-109 terminal operator shall ensure that truck idling is reduced to less than 30 minutes in total or 10 minutes at any given time while on the Berth 97-109 terminal through measures that at the terminal. Potential methods to reduce idling include, but are not limited to, the following: (1) operator shall maximize the durations when the main gates are left open, including during off-peak hours (6 pm to 7 am), (2) operator shall implement a container tracking and appointment-based truck delivery and pick-up system to minimize truck queuing (trucks lining up to enter and exit the terminal's gate), and (3) operator shall design the main entrance and exit gates to exceed the average hourly volume of trucks that enter and exit the gates (truck flow capacity) to ensure queuing is minimized

MM BIO-3: Noise Reduction during Pile Driving The contractor shall be required to use sound abatement techniques to reduce both noise and vibrations from pile driving activities. Sound abatement techniques shall include, but are not limited to, vibration or hydraulic insertion techniques, drilled or augured holes for cast-in-place piles, bubble curtain technology, and sound aprons where feasible. At the

initiation of each pile driving event, and after breaks of more than 15 minutes, the pile driving shall also employ a “soft-start” in which the hammer is operated at less than full capacity (i.e., approximately 40–60% energy levels) with no less than a 1-minute interval between each strike for a 5-minute period..

In addition, a qualified biologist hired by the Port shall be required to monitor the area in the vicinity of pile driving activities for any fish kills during pile driving. If there are any reported fish kills, pile driving shall be halted and the USACE and NMFS shall be notified via the Port’s Environmental Management Division. The biological monitor shall also note (surface scan only) whether marine mammals are present within 100 meters of the pile driving, and if any are observed, temporarily halt pile driving until the observed mammals move beyond this distance.