

MITIGATION LIST

USS IOWA PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR)

Prepared by:
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Air Quality

MM AQ-1. All tugboats utilized for transporting the USS *Iowa* (within the Port of Los Angeles and for the ocean tug used for one-time transport of the battleship from San Francisco Bay to Los Angeles) shall comply with the Port's Clean Air Action Plan Control Measure HC1, *Performance Standards for Harbor Craft* (further reduces emissions from engines). Additionally, all tugboats with C1 or C2 marine engines utilized for transport of the USS *Iowa* within the Port of Los Angeles and for the one time transport of the battleship from San Francisco Bay to Los Angeles shall utilize an EPA Tier-3 engine or cleaner, if available, in accordance with the Los Angeles Harbor Department's Sustainable Construction Guidelines (revised 2009).

MM AQ-2. The project shall implement the following measures as required by the Los Angeles Harbor Department's Sustainable Construction Guidelines (revised 2009) during project construction activities. These requirements shall be stipulated in the construction contracts and bid documents.

Best Management Practices

- Use of diesel oxidation catalysts and catalyzed diesel particulate traps.
- Maintain equipment according to manufacturers' specifications.
- Restrict idling of construction equipment and on-road heavy-duty trucks to a maximum of 5 minutes when not in use.
- Install high-pressure fuel injectors on construction equipment vehicles.
- Maintain a minimum buffer zone of 300 meters between truck traffic and sensitive receptors.
- Improve traffic flow by signal synchronization.
- Enforce truck parking restrictions.
- 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.
- Re-route construction trucks away from congested streets or sensitive receptor areas.
- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
- Use electric power in favor of diesel power where available.
- 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.

Fugitive Dust Control

South Coast Air Quality Management District (SCAQMD) Rule 403 requires a Fugitive Dust Control Plan to be prepared and approved for construction sites. Construction contractors are required to obtain a 403 Permit from the SCAQMD prior to construction. The following measures, at minimum, to reduce dust shall be included in the contractor's Fugitive Dust Control Plan:

- SCAQMD's Best Available Control Technology (BACT) measures shall be followed on all projects.
- Active grading sites shall be watered three times per day.
- Contractors shall apply approved non-toxic chemical soil stabilizers to all inactive construction areas or replace groundcover in disturbed areas.
- 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. ("Spilling Loads on Highways").

- 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 miles per hour or when visible dust plumes emanate from a site; disturbed areas shall be stabilized if construction is delayed.
- Open storage piles (greater than 3 feet tall and a total surface area of 150 square feet) shall be covered with a plastic tarp or chemical dust suppressant.
- Stabilize the materials while loading, unloading and transporting to reduce fugitive dust emissions.
- Belly-dump truck seals should be checked regularly to remove trapped rocks to prevent possible spillage.
- Comply with track-out regulations and provide water while loading and unloading to reduce visible dust plumes.
- Waste materials shall be hauled off-site immediately.
- Pave road and road shoulders where available.
- Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour 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.
- 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.

On-Road Trucks

- The following EPA Standards shall be applicable to import haulers only:
 - From January 1, 2012 on: All on-road heavy-duty diesel trucks with a GVWR of 19,500 pounds or greater used to move dirt to and from the construction site via public roadways at the Port of Los Angeles shall comply with EPA 2004 on-road emission standards for PM₁₀ and NOX (0.10 g/bhp-hr and 2.0 g/bhp-hr, respectively).
- The following EPA Standards shall be applicable to earth movers only:
 - From January 1, 2012 on: All heavy-duty diesel trucks with a GVWR of 19,500 pounds or greater used to move dirt within the construction site at the Port of Los Angeles shall comply with EPA 2004 on-road emission standards for PM₁₀ and NOX (0.10 g/bhp-hr and 2.0 g/bhp-hr, respectively).
 - A copy of each unit's certified EPA rating and each unit's CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

Off-Road Equipment

- The following Best Management Practices (BMPs) shall be applicable to Construction Equipment (excluding Vessels, Harbor Craft, and On-Road Trucks):
 - Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
 - Idling shall be restricted to a maximum of 5 minutes when not in use.
- Equipment Engine Specifications shall adhere to the following:
 - From January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp, except marine vessels and harbor craft, shall meet Tier-3

off-road emission standards at a minimum. In addition, all construction equipment greater than 50 hp shall be retrofitted with a CARB-verified Level 3 DECS.

- From January 1, 2015 on: All off-road diesel-powered construction equipment greater than 50 hp, except marine vessels and harbor craft, shall meet Tier-4 off-road emission standards at a minimum.

The above “Equipment Engine Specifications” 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 as specified in the LAHD Sustainable Construction Guidelines, versus 3(a), 3(b) or 3(c), within 200 miles of the Port of Los Angeles, including through a leasing agreement. If this circumstance exists, the equipment must comply with one of the options contained in the *Step Down Schedule* as shown in Table A below. At no time shall equipment meet less than a Tier 1 engine standard with a CARB-verified Level 2 DECS.
- The availability of construction equipment shall be reassessed in conjunction with the years listed in the above Tier Specifications (Prior to January 15, 2015) on an annual basis.

Sustainable Construction Guidelines

The LAHD has developed *Sustainable Construction Guidelines* for reducing air emissions from all LAHD-sponsored construction projects (LAHD 2009). The Guidelines include the use of Best Management Practices (BMP) and control measures. Although no air quality impacts from construction activities would occur, the applicable BMPs and control measures for project construction include the following:

- Construction equipment shall be properly tuned and maintained in accordance with manufacturer’s specifications.
- During construction, trucks and vehicles in loading and unloading queues must be kept with their engines off when not in use for more than 5 minutes to reduce vehicle emissions. Construction activities shall be phased and scheduled to avoid emissions peaks, where feasible, and discontinued during second-stage smog alerts.
- Where available, use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
- Construction activities that affect traffic flow on the arterial roadways shall be scheduled to off-peak hours to the extent possible. Additionally, construction trucks shall be directed away from congested streets or sensitive receptor areas.
- Where possible, enforce truck parking restrictions; provide on-site services to minimize truck traffic in or near residential areas, including services such as meal or cafeteria.
- Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- On-road heavy-duty trucks shall comply with EPA 2004 on-road emission standards for PM10 and NOx and shall be equipped with a CARB verified Level 3 device. Emission standards will increase to EPA 2007 on-road emission standards for PM10 and NOx by January 1, 2012.
- Construction equipment (excluding on-road trucks, derrick barges, and harbor craft) shall meet U.S. EPA Tier-2 nonroad standards. The requirement increased to Tier 3 by January 1, 2012, and will increase to Tier 4 by January 1, 2015.

In addition, construction equipment shall be retrofitted with a CARB certified Level 3 diesel emissions control device.

Traffic

TRA-1. Develop and implement a Traffic Management Plan (TMP) throughout proposed project construction. In accordance with the City’s policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor shall prepare a TMP to be approved by the city and county engineers before construction. The TMP shall include:

- a street layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage;
- a tentative start date and construction duration period for each phase of construction;
- the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction; and
- written approval to implement traffic control from other agencies, as needed.

Additionally, the traffic control plan will include the following stipulations:

- Provide access for emergency vehicles at all times.
- Avoid creating additional delay at intersections currently operating at congested conditions, either by choosing routes that avoid these locations, or constructing during nonpeak times of day.
- Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Maintain pedestrian and bicycle access and circulation during proposed project construction where safe to do so. If construction encroaches on a sidewalk, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway.
- Traffic controls may include flag persons wearing Occupational Safety and Health Administration–approved vests and using a “Stop/Slow” paddle to warn motorists of construction activity.
- Maintain access to Metro, LADOT, MAX, and LAHD transit services and ensure that public transit vehicles are detoured.
- Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area.
- Construction warning signs will be posted, in accordance with local standards or those set forth in the Manual on Uniform Traffic Control Devices (Federal Highway Administration 2001) in advance of the construction area and at any intersection that provides access to the construction area.
- During lane closures, notify LAFD and LAPD, as well as the Los Angeles County Sheriff’s and Fire Departments, of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary.
- Provide written notification to contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites. Submit a copy of all such written notifications to the City of Los Angeles Planning Department.
- Repair or restore the road right-of-way to its original condition or better upon completion of the work.

TRA-2. Implement Gaffey Street/1st Street intersection improvements. Re-stripe the 1st Street eastbound approach and departure, to shift the shared through lane to the curb right-turn lane, yielding a dual left-turn lane and a shared through/right-turn lane; and modify the east-west phasing to lead/lag protected left-turn phases. This mitigation would be implemented only if the project year 2042 LOS is reached, if operations continue beyond the term of the lease, and only if LADOT accepts such an

improvement at that time. This mitigation would reduce long-term operational impacts to V/C ratios and levels of service for this intersection.