

# **APPENDIX I**

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## Inglewood Transit Connector Construction Commitment Program

# Construction Commitment Program

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## **INGLEWOOD TRANSIT CONNECTOR PROJECT CONSTRUCTION COMMITMENT PROGRAM**

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### **1.0 INTRODUCTION**

The Inglewood Transit Connector (ITC) Project includes this Construction Commitment Program to proactively address the potential effects of the construction of the Project on the community. This Program addresses:

- Business and community support plans
- Construction staging and traffic control requirements
- Maintaining access to parking, businesses, residences, and pedestrian facilities
- Noise and vibration measures
- Air quality measures
- Other vital measures during construction
- Tree removal and replacement

A Project Task Force will be established for the ITC Project. The Project Task Force will include representation from the following entities:

- City of Inglewood (City)
- The ITC Joint Powers Authority (JPA) – that will be responsible for the oversight of the DBFOM Contractor during the design, construction and subsequent operations and maintenance of the ITC Project.

The DBFOM Contractor (responsible for the design, build/construct, finance, operations, and maintenance of the ITC Project)

### **2.0 BUSINESS AND COMMUNITY SUPPORT PROGRAM**

The Project Task Force will be responsible for developing a Business and Community Support Program for the purpose of assisting those businesses financially affected by the construction that addresses the following:

- Advertising support for local businesses in local or regional newspapers and social media.
- Notice of plans to all affected property owners of the schedule for specific planned construction activities, changes in traffic flow, and required short-term modifications to property access.
- Notice of plans to all affected property owners if utilities would be disrupted for short periods of time and ensuring major utility shut-offs are scheduled during low-use periods of the day.
- Methods by which business owners can convey their concerns about construction activities and the effectiveness of measures during the construction period so activities can be modified to reduce adverse effects.

- Access plans that ensure that all businesses, service providers, and residents are provided with adequate access during construction. Where there is a significant limited English population, signage shall be provided in various languages (as appropriate).
- Funding for temporary signage during construction to help businesses that are partially blocked or that have inconvenient access due to construction activity.

### **3.0 BUSINESS ASSISTANCE FUND PROGRAM**

The City is committed to providing financial assistance to small “mom and pop” businesses to help offset to the extent possible, business revenue losses or increased expenses that are directly attributable to disruptions during the ITC construction activities within the ITC Project area. The City will create a \$5 million dollar Business Assistance Fund (BAF) to provide financial assistance through grants to eligible businesses for eligible expenses as established by the BAF Program Administrator. Similar to the LA Metro BIF model, businesses may file multiple requests for financial assistance through the BIF; but in no event will the amount paid exceed the lesser total amount of \$50,000, or 60% of annual business revenue losses per business. The financial assistance is expected to cover eligible fixed operating expenses such as utilities, insurance, rent or mortgage (excluding the principal amount portion of the mortgage payment), fixed payroll, and certain other documented business-related expenses as determined by the BAF Program Administrator. The City will develop Administrative Guidelines to establish program eligibility requirements targeted to businesses that are directly impacted by the ITC Project construction, are located within the eligible geographic area in proximity to the ITC Project, and that meet the definition of small “mom and pop” businesses. Anticipated requirements to participate in the program, include:

- Businesses must be in continuous operation for at least two years within the eligible geographic area.
- Businesses must provide financial records (e.g., gross receipts, payroll taxes, bank statements or other financial information as requested) to demonstrate the business revenue losses or increased expenses are directly attributable to the ITC construction activities during the period of disruption.
- Businesses must be financially solvent and have a good faith plan and commitment to remain in business within the eligible geographical area; and
- Businesses must be in good standing with all local, state and federal taxing and licensing authorities.

### **4.0 COMMUNITY AFFAIRS LIAISON**

The Community Affairs Liaison shall be responsible for responding within 24 hours to any local complaint or question about construction activities. A website will be established with project construction information and contact information for the Community Affairs Liaison. A toll-free phone line (available 24 hours a day) and website will be made a part of all construction notices and shall be posted in prominent public facing locations around the Project area and in adjacent public spaces.

The Community Affairs Liaison shall receive all public complaints, investigate the cause of the complaint and develop/implement feasible measures to address and resolve the cause of the complaint.

## 5.0 TRANSIT ACCESS AND CIRCULATION PROGRAM

The Project Task Force will be responsible for the following:

- Ensuring that access to bus transit stops and bus circulation are always maintained, unless infeasible and closure is approved by the City.
- Coordinating with Metro and any other transit service providers to:
  - Relocate bus stop(s) if necessary, during construction with appropriate wayfinding signage and information dissemination, with all temporarily relocated bus stops located as close as feasible to the original bus stop location.
  - Reroute transit bus lines if necessary, during construction with appropriate wayfinding signage and information dissemination.

## 6.0 CONSTRUCTION STAGING & TRAFFIC CONTROL PROGRAM

The Construction Staging and Traffic Control Program will be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and will address the following topics:

- Coordination with other public infrastructure projects within the City's boundaries
- Detour routes, including analysis of impacts to pedestrian, business, bicycle, and traffic flow
- Coordination of closures and restricted access during the construction period with special attention during periods of expected heavy traffic from events scheduled at SoFi Stadium and other venues in the Los Angeles Sports and Entertainment District at Hollywood Park, the Forum, and the Inglewood Basketball and Entertainment Center.
- Coordination with the City, police, and fire services department regarding maintenance of emergency access and response times
- Monitoring and coordination of construction materials deliveries
- Notification to businesses and residents on upcoming construction activities including but not limited to the establishment of a website with project construction information, signage, and web-based media.

The Traffic Control Program will be developed based on the following principles:

- Minimize traffic impacts on residential streets.
- Establish minimum traffic lane requirements for Manchester Boulevard, Florence Avenue, and Prairie Avenue during construction such that at least the full number of traffic lanes in the peak direction, and if feasible, one traffic lane in the off-peak direction is available, with additional capacity provided through appropriate detour routes. The directional traffic lanes may be reversible to maintain the peak directional capacity in either direction as necessitated by traffic demands. For all other streets potentially affected by construction, maintain at least one lane of traffic in each direction unless otherwise approved by the City.
- Maintain access to and from all alleys at one or both ends of the alley when possible. If an alley is obstructed such that a turnaround by any vehicle is not feasible, traffic flaggers shall be provided to

control access to/from the alley.

- Maintain access for all public safety vehicles (such as police, fire, and emergency response).
- Maintain bicycle and pedestrian access within the Project area or approved detours at all times.
- Provide adequate street access to City service vehicles, including but not limited to trash pickup and street sweeping service vehicles, during planned service times.
- Sidewalk closures should be avoided to the degree feasible and are permitted only when approved by the City. Accessible detours shall be provided if sidewalk closures are necessary.
- Use traffic control officers/flaggers as appropriate to minimize the degree and duration of impacts and maintain safety.
- Establish and maintain wayfinding signage.
- Maintain vehicular and pedestrian access to all businesses and residents impacted by construction activities including roadway closures.
- Hold quarterly community outreach meetings with businesses and residents to provide updates on temporary, full, or partial street closures necessary for construction. Website will be updated 45 to 60 days prior to planned dates of any street closures.
- All closures, full or partial, are subject to City review and approval which shall consider measures to minimize the degree and duration of street and lane closures.
- Entry and exit to the Market Street/Florence Avenue construction site shall be limited to right turns to/from Florence Avenue for large trucks, construction equipment, and material deliveries. An entrance off Locust Street between Florence Avenue and Regent Street will also be required to serve the contractor's offices and staging area. If required for phasing, the Locust Street entrance may also be used for large trucks, construction equipment, and material deliveries as approved by the City.

### **6.1 Preliminary Haul And Overload Routes**

- Haul routes and overload/oversized vehicle routes are subject to review and approval by the City.
- To the extent possible, truck deliveries and hauling of bulk materials such as aggregate, bulk cement, dirt, etc. to the Project area, and hauling of material from the Project area, shall be scheduled during off-peak hours to avoid the peak commuter traffic periods on designated haul routes.
- Truck deliveries and hauling of dirt, aggregate, bulk cement, and all other materials and equipment, shall be on designated routes only (freeways and nonresidential streets)

### **6.2-Pedestrian Access Program**

A Pedestrian Access Program will be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and will adhere to the following principles:

- Pedestrian access to buildings shall be maintained at all times.
- Maintain all crosswalks to the extent feasible. Whenever a crosswalk is removed from service, establish and maintain temporary accessible replacement crosswalks as close as practicable to the original crosswalk locations unless the City determines that a replacement crosswalk is not necessary

to maintain an adequate level of service. Replacement crosswalks shall be identified and controlled by wayfinding signs approved by the City.

- Establish and maintain pedestrian wayfinding signage.
- Maintain sidewalk access for pedestrians, including providing temporary sidewalks if existing sidewalks are disrupted during construction. Any sidewalk closures are subject to review and approval by the City.
- Sidewalks that are being maintained in a temporary condition shall meet all applicable safety standards, including but not limited to the requirements of the Federal Americans with Disabilities Act and similar California laws.
- Protect pedestrians from construction-related debris, dust and noise; such protection may include the use of dedicated pedestrian barriers.
- Coordinate with the Inglewood Unified School District (IUSD) and the City to provide crossing guards at locations requested by IUSD or the City when crosswalks or sidewalks are closed. Identify temporary alternative routes to schools, working closely with IUSD and the City and disseminate this information to schools and stakeholders affected by construction.

## **7.0 PARKING MANAGEMENT PLAN**

A Parking Management Plan will be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and shall adhere to the following principles:

- Parking, staging, or queuing of Project-related vehicles, including workers' personal or project-assigned vehicles, trucks, and heavy vehicles, shall be prohibited on City streets at all times, outside of a permitted workspace unless otherwise approved by the City. If the use of residential permit parking spots is necessary for construction, provide for equivalent overnight replacement parking for removed residential permit parking spots at the nearest possible location to the location where parking has been removed.
- Replace loss of metered parking spaces by making available an equivalent number of parking spaces in an off-street parking facility located near the lost parking. The parking spaces shall be provided for public use at a rate no greater than the metered parking rate.
- Provide public notice of the availability of the alternative parking spaces through outreach to businesses and residents with signage.

## **8.0 AIR QUALITY PROGRAM**

- At a minimum, use equipment that meets the U.S. Environmental Protection Agency (USEPA)'s Final Tier 4 emissions standards for off-road diesel-powered construction equipment with 50 horsepower (hp) or greater, for all phases of construction activity, unless it can be demonstrated to the City Planning Division with substantial evidence that such equipment is not available. To ensure that Final Tier 4 construction equipment or better shall be used during the proposed Project's construction, the City shall include this requirement in applicable bid documents, purchase orders, and contracts. The City shall also require periodic reporting and provision of written construction documents by construction contractor(s) and conduct regular inspections to the maximum extent feasible to ensure and enforce compliance.



- Such equipment will be outfitted with Best Available Control Technology devices including a California Air Resources Board (CARB)-certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPF are capable of achieving at least 85 percent reduction in particulate matter emissions. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Final Tier 4 emissions standards for a similarly sized engine, as defined by the CARB's regulations. Successful contractors must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. The proposed Project representative will make available to the lead agency and Southern California Air Quality Management District (SCAQMD) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used during construction. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, best available control technology (BACT) documentation, and CARB or SCAQMD operating permit shall be maintained on site at the time of mobilization for each applicable piece of construction equipment.
- If any of the following circumstances listed below exist and the Contractor provides written documentation consistent with project contract requirements, the Contractor shall submit an Alternative Compliance Plan that identifies operational changes or other strategies that can reduce a comparable level of NOx emissions as Tier 4-certified engines during construction activities:
  - The Contractor does not have the required type of off-road construction equipment within its current available inventory as to a particular vehicle or equipment by leasing or short-term rent, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply.
  - The Contractor has been awarded funding by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle that would comply, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply.
  - The Contractor has ordered equipment or vehicle to be used on the construction project in compliance at least 60 days before that equipment or vehicle is needed at the Project alignment, but that equipment or vehicle has not yet arrived due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and with due diligence to lease or short-term rent the equipment or vehicle that would comply, but the equipment or vehicle is not available for lease or short-term rent within 120 miles of the Project area, and the Contractor has submitted documentation to the City showing that the requirements of this exception provision apply.
  - Construction-related diesel equipment or vehicle will be used on the Project for fewer than 20 calendar days per calendar year. The Contractor shall not consecutively use different equipment or vehicles that perform the same or a substantially similar function in an attempt to use this exception to circumvent the intent of this measure.

- Documentation of good faith efforts and due diligence regarding the previous exceptions shall include written record(s) of inquiries (i.e., phone logs) to at least three leasing/rental companies that provide construction on-road trucks and off-road equipment, documenting the availability/unavailability of the required types of truck/equipment. The City will, from time-to-time, conduct independent audit of the availability of such vehicles and equipment for lease/rent within a 120-mile radius of the Project area, which may be used in reviewing the acceptability of the Contractor's good faith efforts and due diligence.
- Equipment such as concrete/industrial saws, pumps, aerial lifts, light stands, air compressors, and forklifts shall be electric or alternative-fueled (i.e., nondiesel). Pole power shall be utilized to the maximum extent feasible in lieu of generators. If stationary construction equipment, such as diesel-powered generators, must be operated continuously, such equipment must be Final Tier 4 construction equipment or better and located at least 100 feet from air quality sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.
- At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year trucks (e.g., material delivery trucks and soil import/export with a gross vehicle weight rating of at least 14,001 pounds), or best commercially available equipment, that meet CARB's 2010 engine emissions standards at 0.01 g/hp-hour of particulate matter and 0.20 g/hp-hour of NOx emissions or newer, cleaner trucks, unless the Contractor provides written documentation consistent with project contract requirements the circumstances exist as described above and the Contractor submits the Plan. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards. The City shall include this requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards and make the records available for inspection.
- Require the use of electric or alternatively fueled (e.g., natural gas) sweepers with high-efficiency particulate air (HEPA) filters.
- A publicly visible sign shall be posted with the Community Affairs Liaison's contact information to contact regarding dust complaints. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
- Dust shall be controlled per local ordinances. The Contractor shall be responsible for excessive dust or construction debris that results in impacts to adjacent residences or private vehicles, including taking responsibility for clean-up and addressing complaints brought to the project.
- All trucks carrying fill materials, debris, or similar materials shall secure and cover loads to prevent dust or debris while travelling on public right of ways.
- All trucks removing materials from the site will be loaded within the site perimeter and will be required to cover loads as deemed necessary for dust control.
- Material stockpiles and construction area surfaces shall be covered and/or watered as needed to prevent dust at designated construction areas.
- All roadways, driveways, sidewalks, etc., being installed as part of the Project should be completed as soon as practicable; in addition, building pads should be laid as soon as practicable after grading.

- To the extent feasible, allow construction employees to commute during off-peak hours.
- Make access available for on-site lunch trucks during construction, as feasible, to minimize off-site construction employee vehicle trips.
- Every effort shall be made to utilize grid-based electric power at any construction site, where feasible.
- Contractors shall maintain and operate construction equipment to minimize exhaust emissions. All construction equipment must be properly tuned and maintained in accordance with the manufacturer's specifications and documentation demonstrating proper maintenance, in accordance with the manufacturer's specifications, shall be maintained on site. Tampering with construction equipment to increase horsepower or to defeat emission control devices must be prohibited.
- Require in all applicable bid documents, purchase orders, and contracts of the requirement to notify all construction vendors, contractors, and/or haul truck operators that vehicle and construction equipment idling time will be limited to no longer than five minutes, consistent with the CARB's policy. For any idling that is expected to take longer than five minutes, the engine should be shut off. Notify construction vendors, contractors, and/or haul truck operators of these idling requirements at the time that the purchase order is issued and again when vehicles enter the Project area. To further ensure that drivers understand the vehicle idling requirement, post signs at the proposed Project entry gates and throughout the Project alignment, where appropriate, stating that idling longer than five minutes is not permitted.

## **9.0 VISUAL RESOURCES PROGRAM**

Construction activities during evening and nighttime hours may require the use of temporary lighting. To minimize the impact of temporary lighting on adjacent properties, the following measures shall be implemented:

- Temporary lighting will be limited to the amount necessary to safely perform the required work and will be directed downwards and shielded. Care shall be taken in the placement and orientation of portable lighting fixtures to avoid directing lights toward sensitive receptors, including automobile drivers. Motorists and sensitive receptors shall not have direct views of construction light sources. Light sensitive receptors include but are not limited to residential areas and transient occupancy uses.
- Light trespass shall not exceed one foot-candle above ambient light level as measured at any adjacent residential and transient properties.
- Construction night lighting shall be shielded to prevent a direct view of the light sources from residential properties with a property boundary that is within 150 feet of the construction site.
- Temporary sidewalks and any sidewalk adjacent to construction activities shall be illuminated to City Standards to protect public safety.

To minimize the visual effects of construction the following measures shall be implemented:

- Visually obtrusive erosion control devices, such as silt fences, plastic ground cover, and straw bales should be removed as soon as the area is stabilized.
- Stockpile areas should be located in less visibly sensitive areas and pre-approved by the City. Stockpile locations, laydown, and staging areas shall be accessed by construction vehicles with minimal

disruption near residential neighborhoods.

- When not in use or being staged, heavy equipment shall be located as far as practicable from residential areas, businesses and pedestrian pathways.

## 10.0 HAZARDOUS MATERIALS PROGRAM

The following practices will be followed during construction to address the potential for encountering hazardous materials during construction of the Project.

- **Building Demolition Plan** – Prior to any demolition occurring, conduct an evaluation of all buildings built prior to 1980 to be demolished to identify the presence of asbestos containing materials (ACMs) and lead-based paint (LBP). Remediation shall be implemented in accordance with the recommendations of these evaluations to ensure that no ACMs or LBP remain present and to ensure ACMs and LBP are removed to levels established for public safety.
- **Hazardous Materials Contingency Plan** – Prior to construction, prepare a plan addressing the potential for discovery of unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes encountered during construction. This Plan shall address UST decommissioning, field screening and materials testing methods, contaminant management requirements, and health and safety requirements to ensure no exposure to hazards or hazardous materials occurs on site and to ensure any materials encountered during construction are removed to levels established for public safety.
- **Soil Management Plan** – After final construction plans are prepared showing the lateral and vertical extent of soil excavation during construction are prepared, prepare a Soil Management Plan to establish soil reuse criteria, define a sampling plan for stockpiled materials, describe the disposition of materials that do not satisfy the reuse criteria, and specify guidelines for imported materials.
- **Health and Safety Plan** – Prior to construction, prepare a Health and Safety Plan to address the potential for exposure to the constituents of concern identified in the limited Phase II ESA.
- **Utility Relocation Work** – Utility relocations adjacent to Kelso Elementary School shall be minimized to the extent possible. Any needed relocations shall remain within the public right of way and preferably shall be relocated further away from school property where feasible. The Project will strive to prioritize avoiding utility relocation work adjacent to the School that poses a potential hazard, such as gas or water lines that operate under pressure, versus lower risk dry utilities and gravity wet utilities.

## 11.0 NOISE AND VIBRATION CONTROL PROGRAM

### 11.1 Construction Noise Control Plan

A Construction Noise Control Plan shall be developed in coordination with a certified acoustical/vibration consultant and shall be approved by the City's Director of Public Works prior to construction. The Plan shall include measures demonstrating that construction noise levels will be below the Federal Transit Administration's (FTA's) General Assessment Construction Noise Criteria. The following construction noise reduction measures shall be incorporated into the plan:

- Install temporary noise barriers that reduce sound at receptors;

- For any idling that is expected to take longer than five minutes, the engine shall be shut off;
- All equipment shall be equipped with optimal muffler systems;
- Use solar, battery powered, or hybrid equipment whenever practical;
- Locate staging areas as far away from sensitive receptors as feasible;
- Locate stationary noise sources as far away from sensitive receptors as feasible;
- Enclose stationary noise sources, such as diesel-or gasoline-powered generators, with acoustical barriers where necessary and required;
  - If stationary equipment cannot be enclosed within a shed or barrier, such equipment must be muffled and located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.
- Pole power shall be utilized to the maximum extent feasible in lieu of generators.
- Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust and external jackets shall be used where feasible to lower noise levels. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. Additionally, use of “quiet” pile driving technology (such as auger displacement installation), where feasible in consideration of geotechnical and structural requirements and conditions shall be considered.
- Staging of construction material deliveries behind fencing to minimize noise emitting from idling vehicles.
- On site-signage reminding works to minimize noise generation.
- When not in use or being staged, heavy equipment shall be located as far as practicable from sensitive receptors.
- For project foundations, consider the use of drilled piles or sonic pile drivers or vibratory pile drivers instead of traditional impact pile drivers, as permitted by geological conditions.
- Sequence noisy activities to occur during the same general time period during daytime hours to the extent practical.
- Select quieter demolition methods where appropriate and feasible such that demolition activities can remain within the project specified noise levels.
- Unless deemed infeasible for a particular construction activity, the Contractor shall utilize rubber tire earth moving equipment in lieu of track mounted earth moving equipment.
- Construction material deliveries shall take place within designated construction staging areas as far from residential sites as practical to minimize noise impacts
- Provide signage at active construction sites and staging areas reminding workers, equipment operators and delivery vehicles to minimize noise levels to the extent possible.
- Rumble strips or signage shall be provided at roadway access points into contractor laydown and

staging areas to slow construction vehicles and limit vehicle noise .

- Coordinate with Inglewood Unified School District administrators to avoid disruptive noise during school hours including scheduling heavy equipment such as cranes, haul trucks, concrete trucks, concrete pumps, pneumatic equipment, earth moving vehicles or similar to operate outside of school hours. The City shall require that the Project's construction noise during school hours would be limited to 5 dBA Leq 1-hour above the measured ambient noise levels at Kelso School property line as identified in the RDEIR. Activities that would exceed this threshold shall be scheduled to occur outside of normal school hours or mitigated with specific mitigation measures such as temporary sound walls, sound blankets, or other sound-attenuating devices. The City shall monitor the Project's construction noise levels during school hours to assure compliance. As requested by the District, monthly noise monitoring reports on noise levels during school hours at Kelso School will be provided to the District.

In order to ensure that construction noise levels will be below the established standards, the following shall be incorporated into the Plan:

- A monitoring plan shall be implemented during demolition and construction activities. Warning thresholds shall be defined that are 5 dBA below the specified noise limits to allow sufficient time for the Contractor to take actions to reduce noise. A monitoring record that documents all alarms and actions taken to comply with these measures shall be provided to the City upon request.
- In the event the warning level (dBA) is exceeded, construction activities shall be temporarily halted in the vicinity of the area where the exceedance occurs. The source of the noise exceeding the warning level shall be identified followed by actions to be implemented to reduce noise levels below the established standards. Noise measurements shall be gathered after actions are taken to verify noise levels are below the warning level before construction activities restart. The following are examples of actions that can be taken to reduce construction noise levels:
  - Halting/staggering concurrent construction activities in certain locations;
  - Reducing the speed or intensity of the of heavy-duty construction equipment being operated simultaneously.
  - Operate equipment at the lowest possible power levels.
  - Modifying equipment, such as dampening of metal surfaces or other redesign to minimize metal-to-metal impacts.

## 11.2 Construction Vibration Reduction Plan

Prior to the issuance of any demolition or construction permit for each phase of the Project, a Construction Vibration Reduction Plan shall be prepared to minimize construction vibration at nearby sensitive receptors from vibration created by construction activities. The Plan shall be developed in coordination with a certified acoustical/vibration consultant and shall be approved by the City's Director of Public Works. The Plan shall include but not be limited to the following elements to ensure impacts from ground borne vibration are less than significant:

- A Pre-Demolition and Construction Plan that includes but is not limited to:
  - Photos of current conditions of buildings and structures that could be damaged from construction activities. This crack survey shall include photos of existing cracks and other material

- conditions present on or at the surveyed buildings. Images of interior conditions shall be included if possible. Photos in the report shall be labelled in detail and dated.
- Identify representative cracks in the walls of existing buildings, if any, and install crack gauges on such walls of the buildings to measure changes in existing cracks during project activities.
  - Crack gauges shall be installed on multiple representative cracks, particularly on sides of the building facing the Project.
  - Determine the number and placement of vibration sensors at the affected buildings in consultation with a qualified architect. The number of units and the locations of these sensors shall take into account proposed demolition and construction activities to ensure that adequate measurements can be taken illustrating vibration levels during the course of the Project, and if/when levels exceed the established threshold.
  - A line and grade pre-construction survey at the affected buildings shall be conducted.
- A Vibration Plan During Demolition and Construction that includes the following:
    - Regularly inspect and photograph crack gauges, maintaining records of these inspections to be included in postconstruction reporting. Gauges shall be inspected every two weeks, or more frequently during periods of active project actions in close proximity to crack monitors.
    - The vibration monitoring system shall measure and continuously store the peak particle velocity (PPV) in inches/second. Vibration data shall be stored on a one-second interval. The system shall also be programmed for two preset velocity levels: a regulatory level that represents when PPV levels would exceed the FTA's threshold of significance for a building given its conditions, and a warning level that is 0.05 inch/second (PPV) less than the regulatory level. The system shall also provide real-time alert when the vibration levels exceed either of the two preset levels.
    - In the event the warning level (PPV) is triggered, the contractor shall identify the source of vibration impacts and establish steps to reduce the vibration levels, including but not limited to halting or staggering concurrent activities and using lower vibratory techniques.
    - In the event the regulatory level (PPV) is triggered, halt the construction activities in the vicinity of the trigger area and visually inspect the building for any damage. Results of the inspection must be logged. Identify the source of vibration generation and provide steps to reduce the vibration level. Vibration measurement shall be made with the new construction method to verify that the vibration level is below the warning level (PPV). Construction activities may then restart.
    - In the event work occurs in the proximity of identified historic uses, the system shall be programmed for two preset velocity levels: a regulatory level that represents when PPV levels would exceed the FTA threshold of significance 0.12 inch/second for a building given its conditions, and a warning level that is 0.012 inch/second (PPV) less than the regulatory level.
    - Collect vibration data from receptors and report vibration levels to the Joint Powers Authority and/or the City on a daily basis. The reports shall include annotations regarding project activities as necessary to explain changes in vibration levels.

- Post-Construction Reporting and Repairs:
  - Provide a report to the Joint Powers Authority and/or City regarding crack and vibration monitoring conducted during demolition and construction. In addition to a narrative summary of the monitoring activities and their findings, this report shall include photographs illustrating the post-construction state of cracks and material conditions that were presented in the pre-construction assessment report, along with images of other relevant conditions showing the impact, or lack of impact, of project activities. The photographs shall sufficiently illustrate damage, if any, caused by the Project and/or show how the Project did not cause physical damage to the buildings. The report shall include analysis of vibration data related to project activities, as well as summarize efforts undertaken to avoid vibration impacts. Finally, a postconstruction line and grade survey shall also be included in this report.
  - Perform repairs to buildings if damage is caused by vibration or movement during the demolition and/or construction activities. Repairs may be necessary to address, for example, cracks that expanded as a result of the Project, physical damage visible in post-construction assessment, or holes or connection points that were needed for shoring or stabilization. Repairs shall be directly related to project impacts and will not apply to general rehabilitation or restoration activities of the buildings.
- To minimize the risk of potential structural and building damage:
  - Limit the location of pile driving and vibratory roller activity to not be within 55 feet and 30 feet of the nearest off-site sensitive receptor, respectively.
  - Limit the number of jackhammers operating simultaneously to one (1) piece operating within 45feet of off-site sensitive receptors.
  - In the event impact pile driving is required, equipment shall only be used from the hours of 7:00 AM to 7:00 PM. If feasible, pile driving should use alternative technology such as vibration or hydraulic insertion.
- To minimize the risk of related to human annoyance:
  - Limit the location of pile driving to 310 feet of off-site vibration sensitive receptors.
  - Limit the location of vibratory roller to 150 feet of off-site vibration sensitive receptors.
  - Limit the location of large bulldozer to 85 feet of off-site vibration sensitive receptors.
  - Limit the location of caisson drilling to 85 feet of off-site vibration sensitive receptors.
  - Limit the location of loaded trucks to 75 feet of off-site vibration sensitive receptors.
  - Limit the location of jackhammers to 45 feet of off-site vibration sensitive receptors.
  - Limit the location of small bulldozer to 25 feet of off-site vibration sensitive receptors.



## 12.0 TREE REMOVAL AND REPLACEMENT PLAN

A Tree Removal and Replacement Plan will be developed by members of the Project Task Force, subject to review and acceptance by the City and/or the JPA, and shall adhere to the following principles:

- Tree removal and replacement shall comply with the City of Inglewood Municipal Code and the ITC Design Standards and Guidelines.
- Removal of existing healthy and flourishing trees will be avoided where feasible.
- New permanent replacement trees shall be a 36-inch box of the same species as those removed, if appropriate for the location and not in conflict with new infrastructure. Alternative locations shall be approved by the City's Public Works Department.
- New permanent replacement palm trees shall be a minimum of 20 feet in height.
- The Contractor shall permanently replace trees within 12 (12) months of restoration and completion of that portion of streets that may impact the tree. To the extent feasible, the Contractor shall permanently replace trees on an ongoing basis so long as doing so does not conflict with future construction.
- If construction of the project requires pruning of native tree species, the pruning shall be performed in a manner that does not cause permanent damage or adversely affect the health of the trees.

The Contractor shall maintain all permanent trees and other landscaping installed by the Contractor for a period of three (3) years from the date of planting and shall warranty the trees and landscaping for one (1) year after planting. Prior to the end of the one-year warranty period, the City and the Contractor will conduct an inspection of all permanent replacement trees and landscaping for general health as a condition of final acceptance by the City. If, in the City's determination, a permanent replacement tree or landscaping does not meet the health requirements of the City, then the Contractor shall replace that tree within thirty (30) days. For any permanent trees or landscaping that must then be removed, the original warranty shall be deemed renewed commencing from when the tree or landscaping is replaced.