Regional Construction Analysis

- 3-year, intense construction period
- Sources: heavy-duty construction equipment, workers and haul truck trips, evaporative, and fugitive dust.
- CalEEMod (off-road sources, area sources)
- EMFAC2017 (on-road sources)

Mitigation Measures

- Prepare and Implement a Construction Emissions Minimization Plan
- Tier 4 off-road for equipment rated at 50 hp or greater
- 2010 model year or newer haul trucks
- Limit idling time to 5 minutes and post signs at the entrance and throughout the site stating so.
- Provide incentives for vendors and material delivery trucks to use ZE or NZE

= Significant and Unavoidable for NOx

Localized Construction Analysis

- Onsite
- Project Site > 5 acres; AERMOD Dispersion Modeling
- Background + Project Construction + Adjusted Baseline (The Forum and HPSP trips)
- Project-generated construction concentrations for PM10 and PM2.5 compared to SCAQMD's allowable incremental increase thresholds
- Project-generated construction emission concentration of NO_2 and CO to applicable CAAQS and NAAQS

  = Less Than Significant

Localized Construction Analysis (continued)

- Offsite
  - Study area (~1.5 miles from the Project Site)
  - Project-generated construction emission concentration of NO_2 and CO to applicable CAAQS and NAAQS
  - Existing background concentrations at LAX-Hastings and Long Beach North Monitoring Stations
  - Background + Project + Adjusted Baseline (The Forum and HPSP trips)
  - Project Design: Heavy duty construction trucks (import, export, delivery, etc.) prohibited from traveling to and from the Project Site during the pre-and post-event hours on days with major events at HPSP and/or The Forum

  = Less Than Significant

Regional Operations

- Full operations in 2025
- Scenarios: Non-Event Day (ancillary uses only, 4,000 attendee plaza event, 2,000 attendee Corporate/Community Event, 7,500 attendee other event, 8,500 attendee family show, 9,500 attendee concert, 14,500 attendee concert, 18,500 attendee sold out concert, and 18,000 basketball game.
- CalEEMod (area sources and off-road); custom energy analysis; stationary sources (emergency generators, cooling tower, and charbroiler)
- EMFAC2017 for on-road mobile sources: workers, players and supporting staff, event attendees, customers to ancillary uses, hotel guests, media trucks, and delivery trucks.
- OFFROAD2017-Orion for TRUs
- Utilized speed bins including PeMS data for highway speed.
- Operational Off-road Equipment: non-diesel forklifts and aerial lifts in loading dock, electric plug ins for media trucks (with generators)

Regional Operations (continued)

Mitigation Measures

- Implement Transportation Demand Measure (TDM); qualitative
- Emergency Generator and Fire Pump Generator Maintenance & Testing on three separate non-event days.
- Provide incentives for vendors and material delivery trucks to use ZE or NZE
- Significance Threshold per Scenarios:
  - Non-Event Day (ancillary uses only + emergency generator testing) = Exceeds NOx
  - 4,000 attendee plaza event = None
  - 2,000 attendee Corporate/Community Event = None
  - 7,500 attendee other event = Exceeds VOC
  - 8,500 attendee family show = Exceeds VOC and PM10
  - 9,500 attendee concert = Exceeds VOC, NOx, and PM10
  - 14,500 attendee concert = Exceeds VOC, NOx, CO, PM10, and PM2.5
  - 18,500 attendee sold out concert = Exceed VOC, NOx, CO, PM10, and PM2.5
  - 18,000 basketball game = Exceeds VOC, NOx, CO, PM10, and PM2.5

= Significant & Unavoidable for VOC, NO_X, CO, PM10, and PM2.5

Localized Operation Analyses

- 2024 buildout year with full operations in 2025
- Study area (~1.5 miles from the Project Site)
- Project Site > 5 aces → AERMOD Dispersion Modeling
- Emissions determined based off of road segment lengths, vehicle counts, and emission factors (g/mi) based on speed of travel
  - Onsite
    - Area sources - Parking Garage Idling
    - Point sources - Stationary Sources: emergency generators and cooling tower
    - Offroad Equipment: forklifts and aerial lifts in loading dock, generators from media trucks
    - Project-generated operation concentrations for PM10 and PM2.5 compared to SCAQMD's allowable incremental increase thresholds

    = Less Than Significant

Localized Significance Threshold (LST) – Operations

- Offsite
  - Project-generated construction emission concentration of NO2 and CO to applicable CAAQs and NAAQs
  - Existing background concentrations at LAX-Hastings and Long Beach North Monitoring Stations
  - Background + Project + Adjusted Baseline (The Forum and HPSP trips)
  - Vehicles modeled as line area sources to not interfere with receptors in the exclusion zone
  - All vehicle trips assigned to a series of line area sources that extend from Crenshaw Blvd to the 405 (E-W) along Century Blvd and from Florence to the 105 (N-S) along Prairie Ave
  - Project Design: On days when major events are held at NFL Stadium and The Forum, delivery trucks would not be allowed to travel to and from the Project Site during the two hours before and one hour after an event of more than 9,500 attendees at the Project Site.

  = Less Than Significant

Intersection CO Hotspot Analysis

- Model – CALINE4
- Guidance – Caltrans CO Protocol
- Scenarios Modeled – Adjusted Baseline, Baseline Plus Project, Baseline with Forum Plus Project, and Baseline with Forum, NFL Stadium, and Plus Project
- Model four worst intersections for each scenario – determined by highest traffic volumes and worst level of service (LOS)

= Less Than Significant

Health Risk Assessment

- Use same AERMOD sources as those in LST analysis
- Incremental increase in lifetime cancer risk
  - Construction-related activities + Operation-related activities (30 years)
  - Health Risk Assessment using 2015 OEHHA Guidance
  - Receptors: Residential, Worker, School (Child), Early Childhood Education (Child)
  - Future HPSP residential units assumed occupied
  - Operations included Mobile Source Air Toxic (MSAT) emissions

  = Less Than Significant
- Cancer Burden
  - 70-year exposure duration
  - Using Block Group receptors & populations to ensure cancer burden <0.5 for areas in which cancer risk > 1.0 in one million

  = Less Than Significant

Health Impact Analysis – Regional Effects

- Photochemical modeling for ozone and PM2.5 using CMAQ
- Regional meteorology processed using WRF modeling
- Regional background emissions obtained from AQMP emissions inventory data for 2025
- Project emissions incorporated into the model
- CMAQ runs for "background/baseline" and "background/baseline + Project"
- CMAQ results input into BenMAP software to determine end point health effects
- Proposed Project would result in operational VOC, NO_X, CO, PM10, and PM2.5 emissions that would exceed the applicable regional emissions significance threshold for several event types.

*** No applicable significance threshold**