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Mr. Richard Ayala
City of Ontario
303 E. B Street
Ontario, CA 91764

SUBJECT: MEREDITH INTERNATIONAL CENTRE GENERAL PLAN AMENDMENT RESPONSE TO SCAQMD COMMENTS

Dear Mr. Richard Ayala:

Urban Crossroads, Inc. is pleased to submit the following responses to comments provided by the South Coast Air Quality Management District (SCAQMD) dated March 13, 2015 on the *Draft Environmental Impact Report (DEIR) for the Proposed Meredith Centre General Plan Amendment*. The attachment to this letter contains the SCAQMD's comment letter in its entirety.

RESPONSE TO COMMENT #1

As stated in the DEIR's Air Quality Impact Analysis Report:

"SCREEN3, is a U.S. EPA approved air quality model that contains algorithms associated with the USEPA's *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources*. SCREEN3 was used to calculate localized pollutant concentrations for construction and operational activity. SCREEN3 uses dispersion screening techniques to estimate impacts of point, area, and volume stationary sources. It should be noted that the SCREEN3 model was utilized in lieu of the more robust AERMOD and Industrial Source Complex (ISC) model in order to account for worst-case conditions, and since precise construction phasing information is not available at this time."

Furthermore, the comment states that the Lead Agency used two different methods of modeling to analyze localized air quality impacts and health risk impacts from the Proposed Project and should use the same model for both.

It should be noted that the localized threshold (LSTs) analysis and the HRA do not assess the same pollutants or impacts.

The localized air quality impact assessment analyzes the relevant short-term (i.e., 1-hour, 8-hour, and 24-hour) impacts associated with carbon monoxide (CO), NOX, PM10, and PM2.5. The HRA analyzes the long-term (i.e., average yearly concentration over a given exposure duration) impacts associated with DPM. Unlike the LST analysis, the HRA does not consider fugitive dust emissions because there are no cancer potency factors or reference exposure levels established by the Office of Environmental Health Hazard Assessment (OEHHA) for fugitive dust. Because both analyses evaluate different impacts, and further since the specific locations of construction disturbance and activity could occur at

any disturbed area on-site, it is most appropriate to use SCREEN3 for construction LST purposes since SCREEN3 is a screening model that would overstate impacts as compared to AERMOD. Use of SCREEN3 as a screening tool to represent "worst-case" conditions is supported by the USEPA's *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources*.

It should be noted that SCREEN3 is based on the ISC3 platform, both developed by the EPA. Furthermore, the ISC3 platform is in fact the basis for the SCAQMD's own development and application of LSTs. As noted in Chapter 2 *Methodology* of the SCAQMD's *Final Localized Significance Threshold Methodology* (June 2003, Revised July 2008), the ISC3 model was used to determine pollutant concentrations in the development of LSTs. As such, although AERSCREEN may be the preferred model for use by EPA, the EPA is not the lead agency and furthermore use of SCREEN3 for the project is actually consistent with the ISC3 methods utilized by SCAQMD for purposes of LSTs. As such use of SCREEN3 and ISC3 procedures is appropriate as evidenced by the fact that the SCAQMD itself has not revised its own LST guidance and thresholds which are based on the applicable ISC3 algorithms used in SCREEN3.

RESPONSE TO COMMENT #2

Comment noted, the HRA model runs were re-run with meteorological data from the Upland Monitoring station (for years 2008-2012). All non-regulatory model options were disabled consistent with SCAQMD guidance. The revised results are discussed below.

For Planning Area 1 Option A, the risk to the maximally exposed resident would be 8.61 in one million, the risk to the maximally exposed worker would be 1.12 in one million, and the risk to the maximally exposed school child would be 0.12 in one million, all of which are still below the applicable threshold of 10 in one million consistent with what was disclosed in the DEIR.

For Planning Area 1 Option A, the risk to the maximally exposed resident would be 9.85 in one million, the risk to the maximally exposed worker would be 1.28 in one million, and the risk to the maximally exposed school child would be 0.54 in one million, all of which are still below the applicable threshold of 10 in one million consistent with what was disclosed in the DEIR.

RESPONSE TO COMMENT #3

It should be noted that the SCAQMD's characterization of receptor placement as random is misleading. The DEIR's HRA includes individual discreet receptors placed geospatially at existing residents, businesses, and schools.

In regards to school receptors, placing a receptor at the baseball field or playground is not appropriate when determining long-term exposure concentrations – since there would be no long-term exposure at these locations. The HRA discloses the maximally impacted receptors in the project vicinity so there is no need to arterially manufacture a receptor grid for any of the scenarios evaluated.

RESPONSE TO COMMENT #4

The HRA utilized relevant and appropriate procedures to quantify risk. Under available risk assessment guidance from USEPA [1], variable exposure adjustments can be utilized to quantify risk. The HRA uses acceptable levels of risk or thresholds, including the exposure duration.

In the HRA, exposure duration is discussed relative to residential occupancy. As noted, the HRA is based on USEPA guidance to develop viable, realistic and accurate dose estimates based on reasonable maximum exposures, which are defined as the "highest exposure that is reasonably expected to occur." USEPA's long-standing guidance for the quantification of dose estimates is based on what is defined as "reasonable." According to the USEPA:

> *Reasonableness refers to the findings of the risk assessment in the context of the state-of-the science, the default assumptions and the science policy choices made in the risk assessment. It demonstrates that the risk assessment process followed an acceptable, overt logic path and retained common sense in applying relevant guidance. The assessment is based on sound judgment. Reasonableness is achieved when: a) the risk characterization is determined to be sound by the scientific community, EPA risk managers, and the lay public, because the components of the risk characterization are well integrated into an overall conclusion of risk which is complete, informative, well balanced, and useful for decision making b) the characterization is based on the best available scientific information c) the policy judgments required to carry out the risk analyses use common sense given the statutory requirements and Agency guidance d) the assessment uses generally accepted scientific knowledge e) appropriate plausible alternative estimates of risk under various candidate risk management alternatives are identified and explained.*

The USEPA (Risk Assessment Guidance for Superfund -Volume 1: Human Health Evaluation Manual[2]) introduced the concept of reasonable maximum exposures (RMEs). This approach is intended to estimate a conservative exposure case (i.e., well above the average case) that is representative of the range of possible exposures. Activity patterns for population mobility are specifically addressed in the Exposure Factors Handbook (U.S. EPA, 1997[3]), whereby lifetime risk values for residents account for an exposure duration of 30 years (95th percentile).

Additionally, as identified by OEHHA[4], the Integrated Public Use Microdata Series (IPUMS-USA) census data[5] was reviewed to determine an appropriate assumption for length of residency to determine the exposure duration used in the analysis. The IPUMS-USA database consists of more than 50 samples of

1 http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=12464#Download
2 http://www.epa.gov/oswer/riskassessment/ragsa/pdf/rags_a.pdf
3 http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=12464#Download
4 http://oehha.ca.gov/air/hot_spots/SRP/Appendix%20L.pdf
5 Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010

the American population drawn from 15 federal censuses and from the American Community Surveys (ACS). ACS is a nationwide survey that collects and produces population and housing information every year from 3 million selected housing unit addresses across every county in the nation. IPUMS-USA samples, which draw on every surviving census from 1850 to 2000 and the 2000 to 2009 ACS samples, collectively constitute the quantitative information on long-term changes in the American population. Based on this review, the most recent IPUMS-USA ACS data (2006 to 2009) show that the percentage of California households with a residency period of 30 years or greater is less than 9 percent, meaning that over 91 percent of California residents had lived in their current location for less than 30 years. This data also showed that over 63 percent of Californians have lived at their current residence for 9 years or less.

Furthermore, in a study prepared by the Real Estate Research Institute (Duration of Residence in the Rental Housing Market, January 2002[6]) the duration of residency in rental housing was evaluated. The study utilized data from the Bureau of Labor Statistics' (BLS) Consumer Price Index (CPI) to construct the duration of rental occupancy for metropolitan areas from 1987 to 1998. The American Housing Survey and related metropolitan economic data were additionally employed to proxy time-varying covariates of duration of residence. Results of the study showed that the duration of residency across individual units and market segments for 3, 5, and 10 years were 62.6, 78.6, and 96.7 percent, respectively. Clearly, 30 years is a reasonable estimate of the 90th or 95th percentile of residency duration in a population because the BLS CPI data shows that 96.7 percent of all renters stay in the same rental unit for 10 years or less.

This information supports the use of a 30-year exposure period in the HRA instead of the 70-year exposure period recommended by the SCAQMD. Furthermore, SCAQMD has provided no evidence or cited any data sources to support their assertion that residents of the Project would stay in their apartment units for 70 years. As indicated above, BLS CPI data shows that 96.7 percent of all renters stay in the same rental unit for 10 years or less. As such, the HRA's analysis based on a 30-year exposure scenario is not only reasonable, but extremely conservative.

RESPONSE TO COMMENT #8

The HRA recommended the use of particulate filters to limit indoor pollutant concentrations by applying recognized control efficiencies with implementation of MERV 16 or equivalent filters that would reduce potential impacts to less than significant levels as discussed in the MND and the HRA. The control efficiencies utilized to identify ventilation performance standards were based on the reported minimum efficiency reporting values (MERV) as identified in the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2. Based on the reported effectiveness of these filters, a recommendation to limit the infiltration of particulates into residential

6 http://lusk.usc.edu/sites/default/files/working_papers/wp_2002-5.pdf

occupancies was identified as the appropriate mitigation measure to reduce carcinogenic risk estimates to less than the threshold of 10 in one million, with implementation of the applicable filtration system, the maximum risk levels are projected to be 7.14 in one million which is less than the acceptable threshold of 10 in one million and thus a less than significant level. This was accomplished by requiring corresponding particulate filters that conform to ASHRAE Standards.

A consideration of time spent in or outdoors need not be considered in the HRA. Regulatory guidance from SCAQMD, OEHHA, and USEPA assumes that source-receptor locations are static, whereby exposures are assumed to be continuous based on the averaging time under consideration. It is important to note that the analysis assumes a "static" exposure scenario of constant exposure 24 hours per day, 7 days per week for a long-term duration (30 years). Notwithstanding that, the time spent indoors at residences is over 90% of the 24 hour day. The latest version of the US EPA's Exposure Factor Handbook: 2011 Edition includes empirical data that suggests on average over 21 hours per day are spent indoors at the residence for all age groups (See Table ES-1 Page xx of the document). A link to the full document is as follows: http://www.epa.gov/ncea/efh/pdfs/efh-complete.pdf.

As previously noted, please refer to SCAQMD's Pilot Study of High Performance Air Filtration for Classrooms Applications to address their concern for filter efficiency associated with a scenario of open doors and windows. The SCAQMD report clearly concludes that adequate particulate removal is achieved with "doors and windows that are frequently open to outside air" for a MERV 16 filtration system, which is consistent to that proposed by the Project. Therefore regardless of a positive or negative air pressure system, the Project will meet the filter efficiencies and thereby reductions achieved for indoor particulate concentrations that would be less than all of the established, applicable thresholds of significance. Based upon this reduction achieved by the proposed filtration system, there is no need to consider whether a positive or negative air pressure system is needed; thus, the nature of such a pressure system has no bearing on the findings of the HRA. Also, as the SCAQMD notes in this their Pilot Study report, filter efficiencies are achieved regardless of outside air infiltration. Therefore, there is no need for a positive or negative pressure system.

The maintenance and continued operation of the filter will be the responsibility of the building owner and will be monitored as required by Mitigation Measure MM FHRA-1, which is included in the Mitigation Monitoring and Reporting Program (MMRP).