

### **3.5 TRAFFIC AND TRANSPORTATION IMPACTS**

#### **1. The Draft EIR/EIS is inadequate because the underlying traffic model is flawed and deficient.**

At best, the Project would likely just shift traffic around from various freeway segments, rather than improve the overall performance of the freeway network.<sup>1</sup> But it is impossible to evaluate the true potential vehicle traffic impacts of the Project because the traffic model that is utilized in the Draft EIR/EIS's transportation analysis is woefully deficient. For example, the traffic model fails to analyze traffic "spillback", but instead assumes that all vehicles will get through the various traffic bottlenecks.<sup>2</sup> The traffic model also does not include any background assumptions about induced demand. The Draft EIR/EIS may have substantially underestimated the Project's transportation impacts to the extent it fails to take into account all of the induced travel that would result from the Project's increase in capacity. Moreover, as discussed in greater detail below, the traffic model fails to reconcile its own future traffic assumptions with actual regional traffic trends.

The many deficiencies in the traffic model lead to numerous erroneous findings in the Draft EIR/EIS, including inaccurate estimates of time delay and induced travel. For example, the Draft EIR/EIS underestimates arterial traffic impacts on numerous non-freeway roadways in downtown Pasadena.<sup>3</sup> The Draft EIR/EIS also omits any analysis of certain important regional freeway segments, including the joiner of the 5 and 210 freeways.<sup>4</sup> Even assuming the traffic model accurately estimates induced travel, the time period analyzed in the EIR is too short; the EIR should have analyzed and forecasted traffic through 2050.<sup>5</sup>

The Draft EIR/EIS is inadequate because the traffic model is flawed and deficient, and the forecasted time period is too short. Given these inadequacies, the Final EIR/EIS should address the following issues:

- Explain how induced demand is calculated for the 710 tunnel options;
- If induced demand was in fact calculated, explain what assumptions were used to calculate induced demand for the tunnel options;
- Re-analyze the Project's true potential arterial traffic impacts on the studied non-freeway roadways in downtown Pasadena;
- Analyze how much congestion and delay is created north of the 5/210 merge, and on the 14 freeway; and
- Explain how the traffic analysis would change if the EIR/EIS had analyzed and forecasted traffic through 2050.

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<sup>1</sup> See June 24, 2015 Nelson Nygaard Analysis of SR 710 N Extension Project, pp. 5-6, available at [http://ww2.cityofpasadena.net/councilagendas/2015%20Agendas/Jul\\_13\\_15/agenda.asp](http://ww2.cityofpasadena.net/councilagendas/2015%20Agendas/Jul_13_15/agenda.asp) (hereinafter "Nelson Nygaard Report").

<sup>2</sup> Nelson Nygaard Report, pp. 10-12.

<sup>3</sup> *Id.*, pp. 17 & Figure 12 (Pasadena streets with 5,000 or more additional vehicles per day in 2035 with dual-bore tunnel alternative).

<sup>4</sup> *Id.*, p. 5.

<sup>5</sup> *Id.*, p. 13.

## **2. The Draft EIR/EIS fails to analyze whether the project is consistent with important regional and state transportation planning strategies.**

All the 710 tunnel alternatives appear to result in increased actual and per capita vehicle miles traveled (“VMT”) beyond the no-build alternative.<sup>6</sup> The Southern California Association of Governments’ 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy outlines the region’s transportation future, including targets for VMT and greenhouse gas emissions (hereinafter “SCAG RTP/SCS Strategy”). But the 710 tunnel alternatives analyzed in the Draft EIR/EIS result in higher daily regional VMT and higher per capita VMT than what is described in the SCAG RPT/SCS Strategy.<sup>7</sup> While the Draft EIR/EIS includes the RTP as a future project, the Draft EIR/EIS fails to adequately analyze the Project’s consistency with the RTP/SCS because it increases VMT and, as a result, greenhouse gas emissions.

The Draft EIR/EIS also does not appear to analyze the Project’s consistency with the Caltrans Strategic Management Plan 2015-2020, and particularly the agency’s stated goals and performance metrics.<sup>8</sup>

The Draft EIR/EIS is inadequate to the extent it fails to analyze whether the Project is consistent with the assumptions and targets of SCAG and Caltrans transportation planning strategies. Given these inadequacies, the Final EIR/EIS should address the following issues:

- Explain whether and how the analyses of the No-Build and Build alternatives incorporate total and per capita VMT targets in the SCAG RPT/SCS Strategy;
- Analyze whether the increased VMT is consistent with the SCAG RPT/SCS Strategy; and
- Analyze whether the tunnel build options are consistent with the Caltrans Strategic Management Plan 2015-2020, and the agency’s stated goals and performance metrics.

## **3. The Draft EIR/EIS fails to reconcile future traffic assumptions with actual regional traffic trends.**

Table 1-9 in the Draft EIR/EIS provides an intersection Level of Service (“LOS”) analysis comparing existing to future year no-build scenarios. Table 1-9 assumes an ever-increasing amount of auto traffic on streets throughout the study area. Similarly, Section 3.5-12 of the Draft EIR/EIS states:

Total daily miles traveled, total daily hours traveled, and daily persons traveling across the east-west screenline (refer to Figure 1-3) will all increase substantially in both the study area and the region from 2012 to 2020/2025 and 2035 under the No Build Alternative. Table 1.6 shows substantially increased freeway volumes in 2035 with the No Build Alternative. Even with the implementation of planned transportation improvements in the No Build Alternative other than the SR 710 North Study improvements, increasing travel demands would exceed freeway system capacity, and

<sup>6</sup> See Technical Report, SR 710 North Study, Table 4-8, pg 4-15.

<sup>7</sup> See Nelson-Nygaard Report, pp. 1-2.

<sup>8</sup> *Id.*, p. 21.

traffic operations on the already congested freeway network in the study area would continue to decline.

The Draft EIR/EIS paints a dire future traffic picture if the 710 tunnel is not built. But the future traffic assumptions contained in the Draft EIR/EIS directly conflict with actual recent trends in regional traffic. For example, traffic data published by Google Earth shows a recent decline in traffic volume for certain freeway segments within in the study area:

On Highway 110, west of Orange Grove Avenue, between 2004 and 2012, there was a steady decline in daily traffic volumes from 82,000 to 76,000. During the same timeframe, near South Avenue 52, there was a decline from 111,000 to 103,600. On Glendale Freeway, just south of Verdugo Road, daily traffic volumes remained steady; between 2005 and 2012, they declined a little bit from 144,000 to 143,000. Huntington Drive, near Eastern Avenue, between 2000 and 2012, declined from 37,400 to 36,000. The I-10, west of Eastern Avenue, between 2005 and 2012 declined from 236,000 to 223,000.<sup>9</sup>

Moreover, other public records “show that traffic levels on area streets have remained fairly steady over the last 30 years, despite significant ongoing growth and development in the area. In many cases, traffic counts are lower today than in 1999.”<sup>10</sup>

As discussed elsewhere in WPRA’s comments, the Draft EIR/EIS’s VMT projection models fail to consider new technologies. The Draft EIR/EIS also misrepresents and overstates population growth claims. The Draft EIR/EIS is not consistent with the SCAG RTP.

The Draft EIR/EIS is inadequate to the extent it fails to reconcile future traffic assumptions with actual regional traffic trends. Given these inadequacies, the Final EIR/EIS should address the following issues:

- Explain why future traffic trends are expected to differ substantially from past trends;
- Analyze whether stakeholders within the study area should expect traffic to grow with population and jobs, when they have not historically;
- Describe the empirical basis for the Draft EIR/EIS’s future traffic projections; and
- Re-analyze the Project’s potential transportation impacts using traffic growth assumptions that are more consistent with actual past trends.

#### **4. The Draft EIR/EIS fails to consider important new local and state transportation performance measures.**

The Draft EIR/EIS fails to consider significant new City of Pasadena Transportation Performance Measures, which are intended to be part of the City’s General Plan update process

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<sup>9</sup> Ian Lockwood Report, Toole Design Group, July 2015, p. 22-23, attached hereto as Exhibit A (hereinafter “Lockwood Report”).

<sup>10</sup> Nelson Nygaard Report, p. 23.

and development impact analysis process.<sup>11</sup> The Performance Measures were developed with significant community involvement and will be used to assess the impacts on the City's transportation systems. SB 743 compliance and Pasadena Transportation Performance Measures could be in conflict with traffic concentration and dispersal at and near the tunnel portals. City goals for pedestrian, bicycle and transit facilities and access could be affected. For example, the effectiveness of the proposed South Orange Grover Boulevard "road diet" could be reduced by additional traffic on this arterial due to dispersal of freeway traffic and freeway toll evasion.

The Pasadena Transportation Performance Measures were developed in part in response to California Senate Bill 743, which changes the way that transportation impacts are to be analyzed under CEQA. SB 743 compliance will require significant changes in the criteria permitted in these analyses. The Draft EIR/EIS references SB 743 on page 1-52, together with other recent state legislation, but states only that it "could affect the alternatives under consideration" without further discussion or analysis. Meanwhile the Draft EIR/EIS Transportation Technical Report continues to use intersection LOS analysis, which is strongly disfavored under SB 743.

By focusing solely on LOS, the Draft EIR/EIS is clearly "out of synch" with current trends in California transportation planning.<sup>12</sup> The Draft EIR/EIS fails to comply with new SB 743-compliant State transportation guidelines and ignores Pasadena's new Transportation Performance Measures. Given these inadequacies, the Final EIR/EIS should address the following issues:

- Explain why the EIR/EIS continues to use LOS analysis in light of SB 743;
- Re-analyze the Project under Pasadena's Transportation Performance Measures; and
- Re-analyze the Project for compliance with SB 743.

##### **5. The Draft EIR/EIS erroneously concludes that the build alternatives would be consistent with Pasadena's General Plan.**

The Draft EIR/EIS states that the tunnel alternatives are "generally consistent" with Pasadena's General Plan and provide "transportation improvements consistent with the policies, goals and objectives included in the Plan".<sup>13</sup> But the General Plan's transportation objectives emphasize alternatives to driving, and promote non-auto travel modes such as pedestrian, bicycle, and transit access. All of the Build Alternatives will extensively impact Pasadena, and their compatibility (or lack thereof) with the General Plan and its land use and transportation elements should be appropriately analyzed in the Final EIR/EIS.

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<sup>11</sup> Pasadena's new transportation performance measures are available online at [http://cityofpasadena.net/Transportation/Transportation\\_Impact\\_Review/](http://cityofpasadena.net/Transportation/Transportation_Impact_Review/).

<sup>12</sup> See Lockwood Report, pp. 19-21 (Draft EIR/EIS ignores new SB 743-compliant State transportation guidelines and new Pasadena transportation performance measures).

<sup>13</sup> See Draft EIR/EIS, p.3.1-14.

**6. The Draft EIR/EIS fails to analyze intersections and freeway segments in close proximity to the build alternatives.**

Based on LOS impact analysis and modeling,<sup>14</sup> the Draft EIR/EIS assumes, counterintuitively, that only a few intersections and freeway segments would be affected by the Build Alternatives.<sup>15</sup> 156 intersections were examined for all of the Build Alternatives, with an additional 33 intersections analyzed for the TSM/TDM alternative. Of these, a high of 18 intersections were deemed to have adverse effects under the TSM/TDM alternative and a low of 6 intersections under the single-bore/toll/express bus alternative, and not all of them are recommended for mitigation for a variety of reasons, including cost.

Some of these intersections are far away from the areas directly affected by the Build Alternatives, including for example, Rosemead Boulevard/Colorado Boulevard and Durfee Avenue/Valley Boulevard in the TSM/TDM alternative; Rosemead Boulevard/Mission Drive in the LRT alternative; and San Gabriel Boulevard/Huntington Drive in the dual-bore/no trucks/no toll alternative.<sup>16</sup> Meanwhile, however, the Draft EIR/EIS ignores numerous intersections within the areas that would likely be highly impacted by the Build Alternatives that show less than the threshold for mitigation. Amazingly, almost none of the identified affected intersections are located within the City of Pasadena.

The Draft EIR/EIS is inadequate because it fails to analyze important intersections and freeway segments in close proximity to the Build Alternatives. Given this inadequacy, the Final EIR/EIS should analyze more intersections and freeway segments in close proximity to the Build Alternatives, including all intersections around the North Portal, and more intersections to the west and south of the tunnel in Pasadena (e.g. Orange Grove, Arroyo Seco, S. Pasadena Ave / St. John / Fremont corridor, Ave. 64)

**7. The Draft EIR/EIS erroneously minimizes the impacts of the build alternatives on new traffic trips.**

The Draft EIR/EIS states: “The Build Alternatives would not generate new vehicular traffic trips because it [sic] would not construct new homes or businesses.”<sup>17</sup> However, to state that only homes or business constructed by the Project itself are significant, is an extremely limited view of the effects of new freeway capacity and grossly oversimplifies the effects of land use and behavioral changes resulting from new road capacity. The “generated traffic” effects of new freeway capacity are complex and varied. Some generated traffic results from existing but diverted trips. Other results include increased total vehicle travel, reduced travel choices, and changes in land use patterns.<sup>18</sup>

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<sup>14</sup> As discussed above, LOS is strongly disfavored under SB 743. For this reason alone, the Draft EIR/EIS traffic study is inadequate and should be revamped to comply with current statewide trends in transportation planning.

<sup>15</sup> See Transportation Technical Report, p. 7.1 *et. seq.*, Tables 7.1-7.18.

<sup>16</sup> Notably, because the results of all intersections are “averaged”, it makes the summary results appear much less impactful than they really are.

<sup>17</sup> *Id.*, p. 21.

<sup>18</sup> See, e.g., “Generated Traffic and Induced Travel”, Todd Litman, Victoria Transport Policy Institute, January 2015.

Newly-constructed freeway capacity will, over time, become more and more congested until it reaches an equilibrium point balancing capacity with the willingness of drivers to use it in congested conditions, whereupon congestion again limits the benefit of the new capacity. The increased use of the facility results in part from *triple convergence*, or shifts of current trips from other routes, times and modes; and over the longer term, *induced demand* – new trips resulting from the driving trip becoming more appealing, drivers choosing more distant destinations, and land use changes resulting from improved access. One example of these phenomena is SR 210 (the portion of the 210 east of SR 57).

Completed in the early 2000's, the new capacity undoubtedly contributed to the growth of suburbs such as Rialto and Rancho Cucamonga and the feasibility of commuting from the San Bernardino-Redlands-Victorville area to Los Angeles and the western San Gabriel Valley. SR 210, the last example of a totally new freeway in urban Southern California, became one of the most congested corridors in the region within a few years.

The Draft EIR/EIS is inadequate to the extent it improperly minimizes the impacts of the build alternatives on new traffic trips. Therefore, the Final EIR/EIS should thoroughly analyze the generated traffic effects of the Project's proposed new freeway capacity.

**8. The Draft EIR/EIS erroneously minimizes the shift of trips to new facilities and the decrease in congestion reduction benefits over time.**

The Draft EIR/EIS states: “there is a possibility that some traffic currently using other routes would use the new facilities, thereby increasing VMT and vehicle emissions in the project area.”<sup>19</sup> This statement improperly downplays the effect of the phenomenon of *triple convergence* – migration of trips to a new facility from other routes, other times and other modes. The Freeway Alternative would attract vehicle trips from other freeway and surface street routes, encourage off-peak commutes to move more into mainstream commuting hours, and encourage some users of transit and other alternative modes to shift to driving.

While there are also other reasons why there is often increased congestion despite increased vehicle capacity (such as increased development, economic and demographic changes, and others), triple convergence could permanently offset much of the purported mobility increase from the tunnel alternatives. The RAND Corporation explains how triple convergence erodes congestion-reduction benefits of new transportation projects:

When a congestion-reduction strategy is implemented and traffic delays are reduced, travelers who had previously altered their travel patterns to avoid congestion will notice the improvement and return to driving along the once-busiest routes during the peak hours. Some will shift from other times of travel, some from other routes of travel, and some from other modes of travel (such as subways or commuter rail). This pattern, often described as *triple convergence*, slowly erodes the initial congestion-reduction benefits offered by most strategies. Triple convergence explains, for example, why traffic flow improves for a short time when new lanes are added to a freeway but then returns to being congested within just a few years.<sup>20</sup>

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<sup>19</sup> *Id.*, pp. 21, 3.5-21.

<sup>20</sup> See RAND research publication available at [http://www.rand.org/pubs/research\\_briefs/RB9385/index1.html](http://www.rand.org/pubs/research_briefs/RB9385/index1.html).

The Draft EIR/EIS is inadequate to the extent it improperly minimizes the migration of trips to new facilities and the decrease in congestion reduction benefits over time. Therefore, the Final EIR/EIS should thoroughly analyze potential triple convergence impacts associated with the Freeway Alternative.

**9. The Draft EIR/EIS fails to adequately analyze the permanent parking impacts in BRT and LRT station areas.**

BRT and LRT operations create permanent demand for parking near stations. The Transportation Technical Report references possible parking structure construction near some LRT stations (Floral, Alhambra, Huntington and South Pasadena) with suggested numbers of spaces, and makes a determination that there would be “surplus” parking spaces in each instance.<sup>21</sup> In other cases, notably the proposed Fillmore LRT station (near the existing Fillmore Gold Line station), there is no additional parking proposed. However, existing structure parking for Metro riders near the Gold Line Fillmore station is fully subscribed and parking overflows onto adjacent streets. The Final EIR/EIS should analyze the impact of additional LRT capacity on parking at this station. Counterintuitively, the Transportation Technical Report does not identify a need for any additional parking capacity at the Fillmore station.

The Draft EIR/EIS also states that “Off-street parking provided at the Alhambra, Floral, Huntington, and South Pasadena Stations is anticipated to exceed the projected demand for parking at each respective station. As such, no parking overflow from the proposed LRT stations is anticipated to occur in the vicinity of these stations.” But this statement runs contrary to the experience at many existing LRT stations. Station parking impacts in residential areas often generate demand for and implementation of limited-hours parking or permit parking. The Draft EIR/EIS fails to analyze these potential impacts.

**10. The Draft EIR/EIS fails to analyze LRT alternatives.**

The Draft EIR/EIS states: “The LRT would improve mobility and accessibility in the study area” and makes a number of similar statements about LRT benefits throughout.<sup>22</sup> To be clear, WPRA supports the idea of an LRT line as part of a multi-modal alternative. But the LRT line analyzed in the Draft EIR/EIS is deficient. The problems with the proposed LRT line include:

- The proposed LRT is above grade at the south and has a large impact on the communities there (Metro should work with the El Sereno community to find better solutions such as undergrounding);
- It goes to but doesn't connect with the Gold line at either end, thus provides no meaningful connectivity to the transit network;
- It does not address further extension of the line (as part of the EIR or in the future) to provide meaningful future connectivity; and
- Metro did not seriously consider other worthwhile LRT options in the San Gabriel Valley.

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<sup>21</sup> See Draft EIR/EIS, pp. 3.1-5, 3.1-7; see also Transportation Technical Report Sec. 6.

<sup>22</sup> Draft EIR/EIS, p. 3.2-6.

Again, WPRA supports the idea of an LRT line as part of a multi-modal alternative. WPRA supports, for example, a north-south LRT route from downtown Los Angeles through Glendale and to the Burbank airport, and an east-west route connecting the Gold Line in Pasadena to Glendale and the Burbank airport. Accordingly, the Final EIR/EIS should analyze alternative means of providing LRT service to the Western San Gabriel Valley, not just a north-south alignment generally paralleling the proposed SR-710.

**11. The Draft EIR/EIS fails to properly describe and analyze TSM/TDM alternative improvements for the tunnel alternatives and erroneously claims that traffic impacts would be reduced in residential areas.**

The Draft EIR/EIS states: “The Freeway Tunnel Alternative includes the TSM/TDM Alternative improvements that would increase accessibility to regional public transportation services, which could reduce traffic impacts in residential areas. Therefore, the Freeway Tunnel Alternative would be consistent with Policy 20.2.”<sup>23</sup> But the Draft EIR/EIS fails to analyze the effect of the tunnel alternatives facilitating regional access to the study area, toll diversion to arterials and local streets if a tolled alternative is chosen, and the concentration of vehicles around the portal areas and possible spillover to local streets. The statement that the Freeway Tunnel Alternative “would reduce traffic impacts in residential areas” is completely unsupported and illogical.

Moreover, the TSM/TDM measures for the tunnel alternatives, in some places, exclude the extension of St. John Avenue from Del Mar to California, in other places include it, and in others (as here) omit any reference. The St. John extension may be of considerable importance for access to Huntington Hospital and for southbound traffic; and would also affect Maranatha and Sequoyah schools, the Ambassador Auditorium, Ambassador West, and other destinations. Therefore, the Draft EIR/EIS is inadequate to the extent it is internally inconsistent in describing the TSM/TDM alternatives for the tunnel alternatives and assumes (without any support) that residential traffic impacts would be reduced.

**12. The Transportation Analysis is inadequate in many other ways.**

The transportation analysis in the Draft EIR/EIS suffers from numerous other deficiencies, including a grossly inadequate cumulative impacts assessment, improper assumptions concerning the tunnel alternative, and the failure to consider tolling alternatives and the potential impacts of toll diversion. All the issues raised below should be addressed in the Final EIR/EIS.

a) *The Draft EIR/EIS Transportation Cumulative Impacts Assessment is grossly inadequate.*

CEQA and NEPA both require that an EIR/EIS include a robust cumulative impacts assessment. The Draft EIR/EIS states that it analyzed potential direct and indirect impacts by “considering the impacts of the SR 710 North Study and other current or proposed actions in the area to establish whether, in the aggregate, they could result in cumulative environmental impacts.” As shown in Section 3.25, however, the Draft EIR/EIS cumulative impacts assessment is grossly

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<sup>23</sup> Policy 20.2 states: “Traffic Congestion: Reduce traffic congestion and protect residential neighborhoods from traffic impacts”. See generally Draft EIR/EIS, pp. 3.1-47, 3.5-17, 3.7-79.

inadequate. The cumulative impacts analysis should be completely revamped in the Final EIR/EIS.

b) *The Draft EIR/EIS improperly assumes that the freeway tunnel alternative would improve mobility on local streets.*

The Draft EIR/EIS states: “The freeway tunnel facilities in the Freeway Tunnel Alternative would improve north-south travel in the study area and efficiency of the regional freeway network. The facilities would also improve mobility on local arterials by providing an alternative travel path to accommodate regional traffic volumes.”<sup>24</sup> But this conclusion does not reflect potential toll diversion from the tunnel to local arterials and streets (if tolled) or local congestion from tunnel queuing and exiting and crashes, especially with the lower-capacity single bore tunnel.

c) *The Draft EIR/EIS does not adequately consider tolling alternatives and the potential impacts of toll diversion.*

The Draft EIR/EIS does not discuss tolling alternatives. There is no indication whether potential tolling for the single and dual bore tunnel alternatives refers to standard fixed-fee tolling; variable-priced tolling by time of day, congestion level, vehicle size, or other variations; or to HOT-lane tolling with or without some types or occupancies of vehicles exempt from the toll (state law may exempt all but single-occupant vehicles from the toll). These variations have significant operational differences that would affect the performance and impacts of the freeway tunnel alternatives.

The Draft EIR/EIS states: “the overall daily VMT on arterials in the study area would be reduced under all the Build Alternatives compared to the No Build Alternative. The single- and dual-bore design variations in the Freeway Tunnel Alternative would reduce the total VMT on arterials by shifting trips to freeways.”<sup>25</sup> Those freeway tunnel alternatives that include tolling may divert a considerable amount of toll avoidance traffic to local arterials and streets, offsetting some of the purported reductions. It is unclear which “freeways” other than the 710 would have trips shifted to them. Modeling conducted for the SR-99 tunnel in Seattle (Alaskan Way Viaduct replacement) indicated a potential diversion from the tolled freeway segment to local streets under a \$1.25 peak/\$1.00 off-peak tolling scenario to range from 20% diversion in peak hours to 38% diversion in off-peak hours.<sup>26</sup>

The tolls assumed in the Draft EIR/EIS also are very low. The Draft EIR/EIS assumes only a \$1.00 toll for the dual-bore option and only a \$4.00 toll for the single-bore option. Thus, the toll model in the Draft EIR/EIS grossly underestimates the toll diversion estimate, assuming the model considers this at all. Since tolls will likely be considerably higher for the SR 710 tunnel

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<sup>24</sup> Draft EIR/EIS, p. 3-2-7.

<sup>25</sup> Draft EIR/EIS, pp 3.5-21.

<sup>26</sup> See Washington State Department of Transportation study, accessible at [http://www.wsdot.wa.gov/Projects/Viaduct/Media/Default/Documents/ACTT/Advisory\\_Recommendations\\_March\\_2014.pdf](http://www.wsdot.wa.gov/Projects/Viaduct/Media/Default/Documents/ACTT/Advisory_Recommendations_March_2014.pdf). See also Metro Planning and Programming Committee Meeting, April 18, 2012, Subject: Public-Private Partnership Program, Attachment B to Metro Draft Memo, at p. 18 (discussing 35% diversion rate); 2006 Parsons Brinckerhoff study (discussing toll diversion rates from 20-35%).

alternatives, toll diversion to local arterials and streets can be assumed to be a serious concern. The Final EIR/EIS should adequately consider and evaluate the effects of toll diversion on arterials and local streets, including a detailed sensitivity analysis based on toll costs.

d) *The Draft EIR/EIS does not analyze reasonable tunnel alternative options.*

There is inadequate or no justification as to why some tunnel operational options were included in the Draft EIR/EIS and why some options were excluded from further consideration.<sup>27</sup> Options for all single-bore alternatives, whether tolled or not, should exclude heavy trucks. With only two lanes each way there is a greatly increased chance of a heavy truck-related crash blocking both lanes and the shoulder, hindering or precluding emergency response and evacuation. The Draft EIR/EIS fails to address this considerable safety issue. In addition, express bus alternatives should be included for all operational variations of both the single bore and dual bore alternatives. Express bus service is a major transit improvement effort of Metro's. Express buses would not add a significant number of vehicles to the overall traffic count, could provide additional transit service options and connections (for example, to Cal State LA, County Hospital complex and Union Station via connection to the El Monte Busway) thereby helping to meet multi-modal transportation goals of the region and of the corridor and the cities in the study area. These deficiencies are discussed in more detail in Section 2.3 of this document.

e) *The Draft EIR/EIS does not adequately analyze ramp metering.*

Ramp metering is proposed for the Valley Blvd and St. John Ave. on-ramps. Transitions between SR 134 and I-210 are already difficult in peak hours without additional SR 710 traffic. Freeway-to-freeway metering between SR 134, I-210 and the proposed SR 710 should also be analyzed in the Final EIR/EIS.

f) *The Draft EIR/EIS TSM/TDM options for the non-tunnel alternatives fail to address significant transportation problems and safety hazards in the Pasadena 210 Freeway stub area and at the termination of the I-710 Freeway in El Sereno.*

In anticipation of future roadbuilding, the "210 stub" was excavated in western Pasadena in 1955. This "stub" has left a scar in the City and has divided the community for more than 60 years. It also resulted in numerous transportation and safety problems in the area that require correction.

Assuming that the SR-710 tunnels are not built, steps should be taken to improve transportation in the region of the 210 Stub, both to restore the transportation network and to improve driver, biker and pedestrian safety. The 210 Stub improvements should accomplish the following objectives:

- Establish a block structure and street network to restore the connections and relationships between the neighborhoods to the east, south, and west;
- Restore the multiple routing options and access for the public;

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<sup>27</sup> See Draft EIR/EIS, pp 2-63, 2-69.

- Implement a Complete Streets approach that facilitates multi-modal transportation options;
- Increase safety by eliminating the current dangerous on/off ramp configurations into and out of the Stub; and
- To the extent possible, recapture as much valuable land and development potential as feasible.

A community-led effort called the “Connecting Pasadena Project” (CPP) led an effort in 2014-2015 to draft master planning alternatives that accomplish the above objectives. A copy of the report<sup>28</sup> is attached and discussed in Section 2.3 of this document. This plan should be considered for addition to the TSM/TDM alternative.

Plans for redesigning a similar 710 stub in El Sereno have also been developed throughout the years. Recently, Nelson Nygaard and the Beyond the 710 coalition have developed a plan for this area that both addresses transportation concerns and serves the community. This plan should also be considered as part of the TSM/TDM alternative.

*g) The Draft EIR/EIS fails to adequately explain and justify modifications made to the heavy duty truck (HDT) model.*

The SR-710 Transportation Technical Report, Section 3.4.2 Port and Domestic Intermodal Trucks, states as follows:

In the SR 710 North model, external truck trips were adjusted from the SCAG Version 6.1 model. Comparing the 2008 RTP and 2012 RTP models yields a forecasted growth rate of 10 percent for daily external truck trips. However, this forecast is not consistent with field data, and adjustments were made consistent with an analysis of available data. Within Los Angeles County, heavy-duty truck (HDT) volumes decreased by 10 percent from 2008 to 2011, based on Caltrans counts and PeMS data. The HDT model, which estimates the regional trucks based on households and employment types, is generating additional trucks for the port and intermodal zones. To correct the HDT model, the auto and truck trips generated by the HDT model were adjusted. Truck time-of-day factors were adjusted to better match observed truck counts in the study area.

However, this statement is very unclear. This lack of clarity does not lend confidence that the Draft EIR/EIS has utilized an appropriate truck growth model.

One interpretation is that the SCAG Version 6.1 model has been modified so that the forecasted growth rate of “10 percent” for daily external truck trips has been changed to a “negative 10 percent” in order to match the “negative 10 percent” HDT growth shown in field data from 2008 to 2011. While this volume decrease might be appropriate for 2008 to 2011, it is inappropriate if it was applied to years 2011 and later. The years 2008 to 2011 were coincident with one of the worst economic recessions in the past 100 years. Thus, growth trends during this time are not

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<sup>28</sup> “Connecting Pasadena Project (CPP), Report to Pasadena City Council”, April 13, 2015.

appropriate in later years and moving forward given that the economy has significantly recovered and continues to do so.

Based on the foregoing, the Final EIR/EIS should address the following questions:

- What are the source data and document(s) for the negative 10% truck growth rate between 2008 and 2011?
- What was the truck growth rate used for years 2011 and later? What are the source data and document(s) used to justify these growth rates?
- How are growth rates adjusted to account for the transition from the recession to today's growing economy?

h) *The Draft EIR/EIS fails to adequately analyze impacts on emergency services near the tunnel portals.*

The Draft EIR/EIS only discusses emergency services impacts that would occur during construction, and only with respect to driveways of emergency service facilities near the Project.<sup>29</sup> But driveways are hardly the only important part of access to emergency facilities and the operation of emergency vehicles. Huntington Memorial Hospital, in particular, would be impacted by the removal of direct freeway access to and from California Avenue and Del Mar Avenue in the freeway tunnel alternatives, by additional traffic resulting from tunnel portal congestion and queuing, and potentially from toll evasion. The Draft EIR/EIS itself recognizes increased traffic and the adverse impact on the road system from the Huntington Memorial Hospital Master Development Plan. Clearly, cumulative impacts with the freeway tunnel alternatives require further analysis in the Final EIR/EIS.

i) *The Draft EIR/EIS fails to adequately analyze cut-through traffic in the Fremont corridor.*

One of the primary justifications for the SR-710 Project is to reduce cut-through traffic, particularly within the Pasadena Avenue / Fremont Corridor. However, the Draft EIR/EIS transportation model did not adequately study this corridor in the cut-through traffic analysis. Figure 4-3 of the Transportation Technical Report does not show this route as one of the street segments analyzed, whereas Section 4.1.2.3 lists one segment on Fremont. Therefore, it is unclear whether the Pasadena Avenue/Fremont Corridor was included or analyzed. Even if it was included, the Draft EIR/EIS did not perform any kind of sensitivity analysis for how cut-through traffic would change based on traffic in the tunnel or toll pricing. It is axiomatic that when the tunnel is full (and it will be), people will cut-through on city streets. The Final EIR/EIS should analyze the Pasadena Avenue /Fremont Corridor in the cut-through traffic analysis.

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<sup>29</sup> See Draft EIR/EIS, p. 4-25. The Draft EIR/EIS concludes that the Build Alternatives would not result in adverse long-term traffic and transportation impacts to emergency service facilities, and could help to reduce congestion in the future and consequently reduce the response times of emergency vehicles. *Id.*

j) *The Draft EIR/EIS does not analyze Tunnel Alternative impacts on Rose Bowl traffic.*

The Rose Bowl is a national sports destination venue which generates significant local traffic impacts during major events such as football games and the planned three-day music festival. Although the Rose Bowl is located within close proximity of the 710 corridor, the Draft EIR/EIS fails to analyze the traffic impacts of events at the Rose Bowl. The Final EIR/EIS should address Rose Bowl traffic impacts.

k) *The Transportation Technical Report<sup>30</sup> fails to demonstrate that the new SCAG transportation model was adequately validated.*

The Final EIR/EIS should address this issue.

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<sup>30</sup> See Transportation Technical Report, Table 3-2, at p. 3-3.