

Appendix H
Trip Generation and Vehicle Miles Traveled (VMT) Memorandum



MEMORANDUM

To: Krys Saldivar
Public Works Manager–Traffic/Transportation
City of Tustin

From: Leo Espelet, P.E., T.E.
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Date: May 5, 2022

Subject: Myford II – Trip Generation and Vehicle Miles Traveled (VMT) Memorandum

The purpose of this memorandum is to provide a trip generation and vehicle miles traveled (VMT) analysis that addresses the change in project-related traffic associated with the new Myford II Warehouse Project (“Project”) in comparison with the existing land uses.

PROJECT DESCRIPTION

The proposed project is located at 14321 and 14351 Myford Rd in the City of Tustin, California, just west of the city’s border with the City of Irvine. The 7.18-acre site is currently bounded by commercial buildings to the north, west and south, and Myford Road to the east, within the Planned Community Industrial (PC IND) zoning designation. Two existing industrial and office buildings totaling approximately 136,098 square feet will be replaced by an approximately 148,437 warehouse building, with 19 truck dock doors. The proposed building also includes 5,000 square feet of office space. Access to the site would be provided via three unsignalized, full-access driveways on Myford Road. A copy of the proposed project site plan is included in **Attachment A**.

TRIP GENERATION COMPARISON

A trip generation comparison between existing and proposed project was completed to evaluate whether or not the net change in project-related trips would cause deficiencies on the existing roadway network. Trip generation estimates are based on daily and peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition).

- ITE Land Use 155: High-Cube Fulfillment Center Warehouse – Sort
- ITE Land Use 140: Manufacturing
- ITE Land Use 710: General Office Building
- ITE Land Use 760: Research and Development Center
- ITE Land Use 150: Warehousing

Table 1 summarizes the estimated net daily and peak hour PCE trips generated by the project.

Table 1 – Estimated Project Trip Generation

TRIP GENERATION RATES ¹									
Land Use	ITE Code	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
High-Cube Fulfillment Center Warehouse - Sort (Passenger Vehicles)	155	KSF	6.25	0.695	0.155	0.85	0.459	0.721	1.18
High-Cube Fulfillment Center Warehouse - Sort (Trucks)	155	KSF	0.19	0.010	0.010	0.02	0.009	0.011	0.02
Manufacturing	140	KSF	4.75	0.517	0.163	0.68	0.229	0.511	0.74
General Office Building	710	KSF	10.84	1.338	0.182	1.52	0.245	1.195	1.44
Research and Development Center	760	KSF	11.08	0.845	0.185	1.03	0.157	0.823	0.98
Warehousing (Passenger Vehicles)	150	KSF	1.11	0.121	0.029	0.15	0.034	0.116	0.15
Warehousing (Trucks)	150	KSF	0.60	0.010	0.010	0.02	0.016	0.014	0.03
PROJECT TRIP GENERATION									
Land Use	Quantity	Unit	Daily	Trip Generation Estimates					
				AM Peak Hour			PM Peak Hour		
In	Out	Total	In	Out	Total				
Existing Use									
Myford 14351									
Warehousing									
Passenger Vehicles	14.701	KSF	16	2	1	3	1	2	3
Trucks	14.701	KSF	9	0	0	0	0	0	0
Truck PCE Trips	PCE Factor	3.0	27	0	0	0	0	0	0
Total Myford 14351 Warehouse PCE Trips			43	2	1	3	1	2	3
General Office Building	45.588	KSF	494	61	8	69	11	54	65
Research and Development Center	20.719	KSF	230	18	4	22	3	17	20
Total Myford 14351 PCE Trips			767	81	13	94	15	73	88
Myford 14321									
Warehousing									
Passenger Vehicles	15.429	KSF	17	2	1	3	1	2	3
Trucks	15.429	KSF	9	0	0	0	0	0	0
Truck PCE Trips	PCE Factor	3.0	27	0	0	0	0	0	0
Total Myford 14321 Warehouse PCE Trips			44	2	1	3	1	2	3
General Office Building	16.918	KSF	183	23	3	26	4	20	24
Manufacturing	22.743	KSF	108	12	4	16	5	12	17
Total Myford 14321 PCE Trips			335	37	8	45	10	34	44
Total Existing PCE Trips			1,102	118	21	139	25	107	132
Proposed Use									
High-Cube Fulfillment Center Warehouse - Sort									
Passenger Vehicles	148.437	KSF	928	104	23	127	68	107	175
Trucks	148.437	KSF	28	1	1	2	1	2	3
Total Truck PCE Trips	PCE Factor	3.0	84	3	3	6	3	6	9
Total Proposed Project PCE Trips			1,012	107	26	133	71	113	184
New Net Trips (Proposed - Existing)			-90	-11	5	-6	46	6	52
¹ Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11 th Edition									

As shown in the table, the proposed project is estimated to decrease the total site daily and morning peak-hour trip generation by 90 and 6 PCE trips, respectively, while increasing the afternoon peak-hour trips by 52 PCE trips. Based on this nominal increase during the afternoon peak-hour, but a decrease on trips on a daily basis and during the morning peak-hour, a full traffic study is not needed.

VMT ANALYSIS

Senate Bill 743 (SB 743) was approved by the California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "level of service" (LOS) for evaluating transportation projects. OPR has prepared a technical advisory ("OPR Technical Advisory") for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The Natural Resources Agency has adopted updates to CEQA Guidelines to incorporate SB 743 that requires use of VMT for the purposes of determining a significant transportation impact under CEQA. The City of Tustin is in the process of to adopt VMT-based metric guidelines to evaluate transportation impacts for CEQA. Until the City adopts a VMT policy, projects are likely to be evaluated on a case-by-case basis based on OPR Technical Advisory. The VMT assessment methodology for this project was determined in coordination with the City of Tustin staff.

LOW-VMT AREA SCREENING

Projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Because new development in such locations would likely result in a similar level of VMT, low VMT areas can be used to screen out projects from needing to prepare a detailed VMT analysis.

VMT data based on Orange County Transportation Analysis Model (OCTAM) shows the employment (commute) VMT per employee for the traffic analysis zone (TAZ) in which the project is located is below than the Citywide VMT per employee. The Project VMT per Employee is 23.1, which is lower than the Citywide VMT per employee of 23.6. The project site is in a low VMT area based on OCTAM.

Project Type Screening

Projects that generate less than 110 daily trips may be screened from conducting a VMT analysis based on the OPR Technical Advisory. As stated previously, the project is estimated to decrease the total daily trips generated by 90 PCE trips as compared to the existing uses on the site. Since the proposed project generates less 110 net daily traffic trips, the project has been determined to have a less than significant level of VMT impact.

TRUCK TRIPS RELATED TO SHIPPING ACTIVITIES

The OPR guidance indicates that, although heavy vehicle traffic can be included for analysis convenience, the SB 743 analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the federal government as it relates to commerce. Irrespective of this and considering that the end-user of this facility is unknown at this time (so the nature of the business enterprise and its probable origins and destinations are unknown), it is reasonable to assume that the ultimate end user will select this location, at least in part, as to how it effects their transportation costs. Most often businesses who have shipping as a significant part of their operations are sensitive to transportation costs and their relative proximity to customers and suppliers. Accordingly, it is reasonable to assume that warehouses are often located in a manner to reduce VMT given that it is the interest of the business.

CONCLUSION

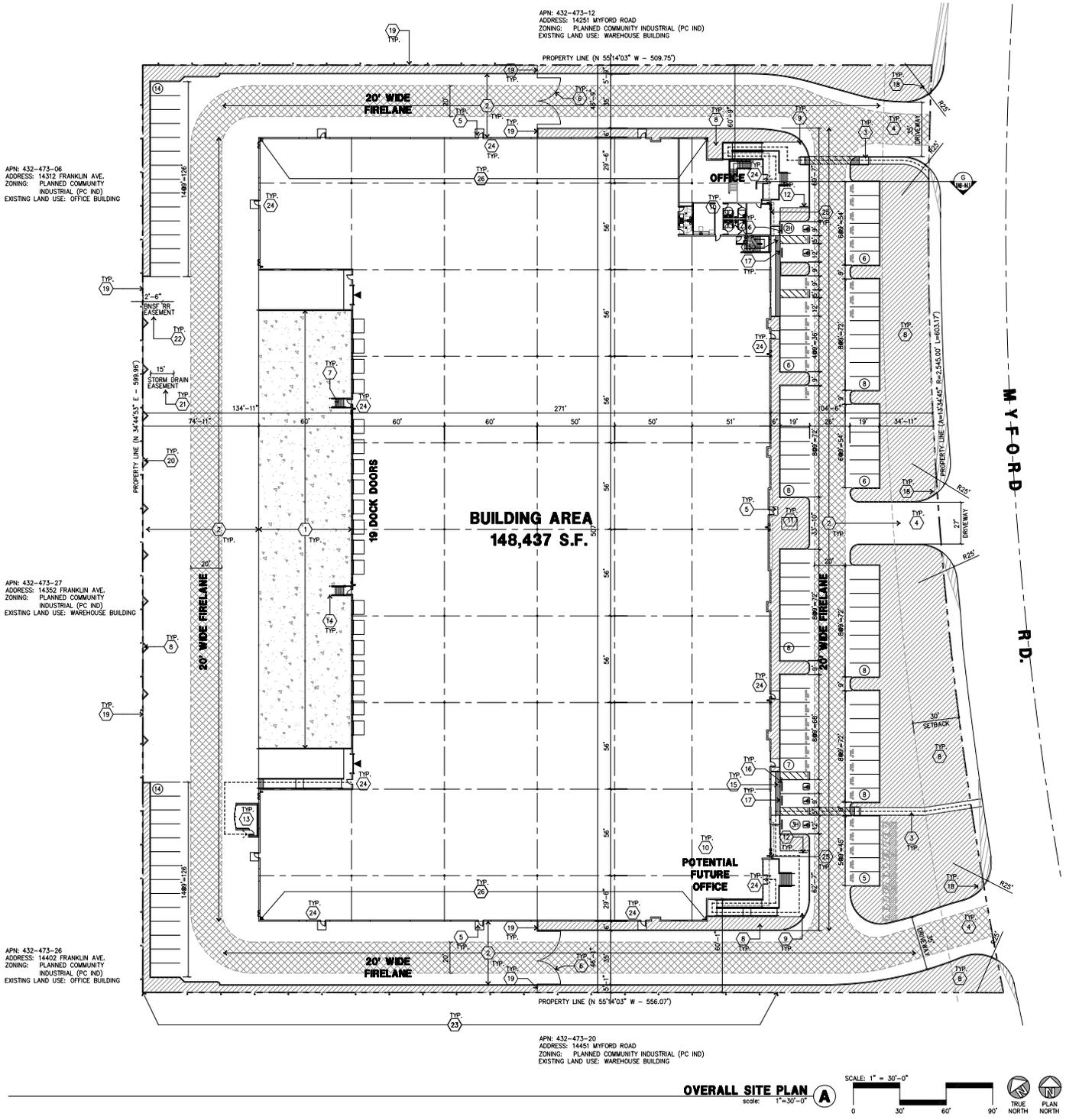
Based on the considerations noted above, the project the project site is in a low VMT area based on OCTAM and generates less than 110 net daily trips. As such the project would result in a less-than-significant finding under SB 743.



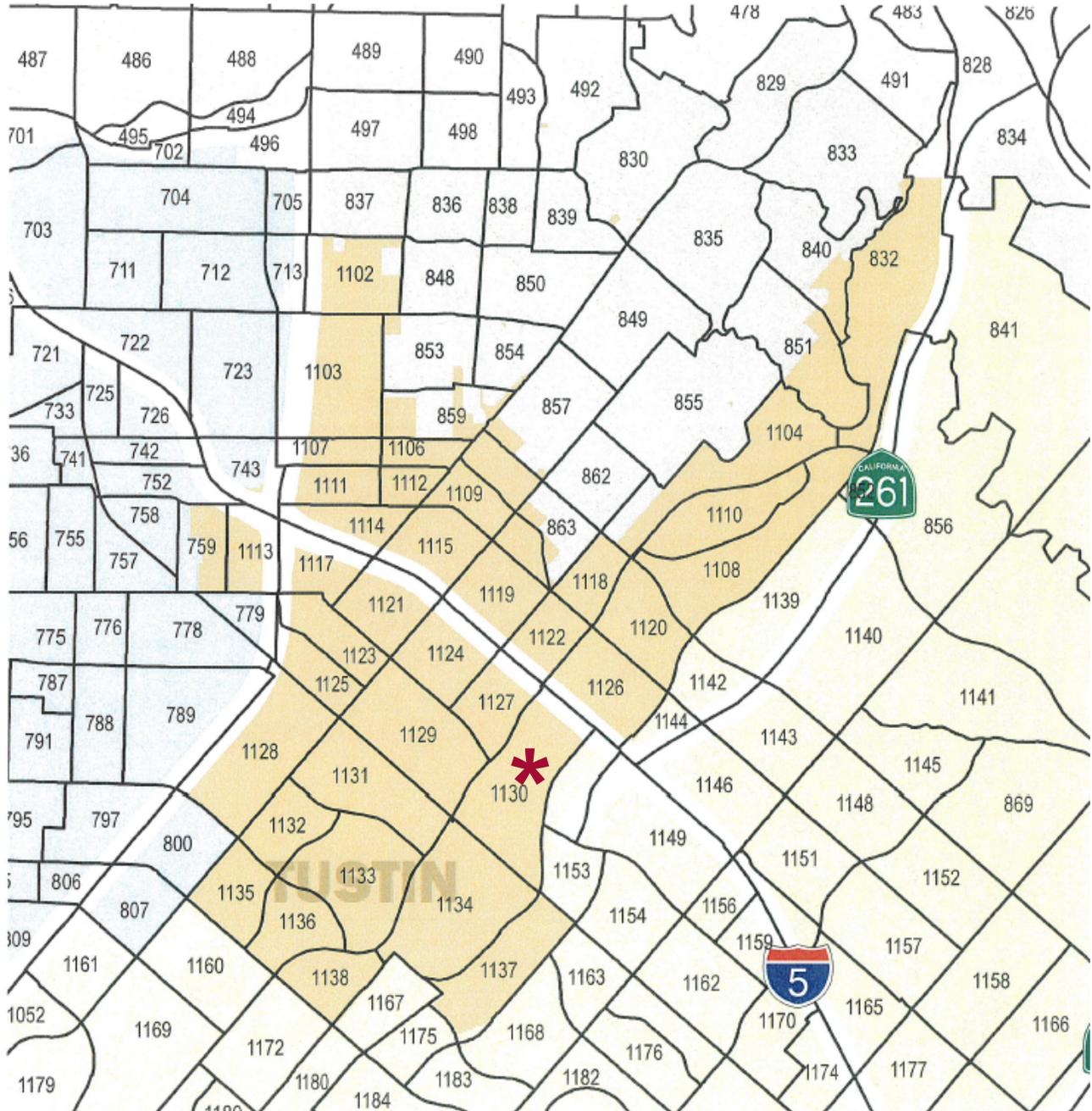
ATTACHMENTS

- Attachment A – Proposed Project Site Plan
- Attachment B – City of Tustin VMT Map

ATTACHMENT A – PROPOSED PROJECT SITE PLAN



ATTACHMENT B – CITY OF TUSTIN VMT MAP



* PROJECT LOCATION

OCTAM 5.0** Base Year/2016 Statistics

Zone	Total VMT	Home-based VMT per Capita	Employment (commute) VMT per employee
1130	338,587	0.0	23.1
Citywide (Tustin)	4,389,509	15.1	23.6