APPENDICES

APPENDIX A

Appendix A: Initial Study, Notice of Preparation, and Responses to NOP

Part 1: Initial Study

California Environmental Quality Act INITIAL STUDY

Cypress Village Mixed Use Development Project

Lead Agency:



City of Covina 125 E. College Street Covina, CA 91723 (626) 384-5400 Contact: Lisette Sanchez-Mendoza (626) 384-5451 LSanchez-Mendoza@covinaca.gov

Prepared by:

Michael Baker

INTERNATIONAL

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Cypress Village Mixed Use Development Project

Submitted to:

City of Covina 125 E. College Street Covina, CA 91723 (626) 384-5400

Contact: Lisette Sanchez-Mendoza (626) 384-5451 LSanchez-Mendoza@covinaca.gov

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December 2019

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SECTION A. ENVIRONMENTAL CHECKLIST FORM

1.	Project Title:	Cypress Village
2.	Lead Agency Name and Address:	City of Covina
3.	Contact Person and Phone Number:	Lisette Sanchez-Mendoza, 626-384-5451
4.	Project Location:	As shown in <i>Figure 1 – Regional Location Map</i> , Covina is in the central San Gabriel Valley area, in the eastern perimeter of Los Angeles County. As shown in <i>Figure 2 – Project Location Map</i> , the project site is located on the east side of Azusa Avenue, between Cypress Street and Covina Boulevard and west of N. Conwell Avenue.
		The subject property consists of Los Angeles County Assessor's Parcel Numbers 8421-001-016 and 8421-001-061. It is assigned two street addresses: 1000 N. Azusa Avenue and 845 W. Cypress Street.
5.	Project Sponsor's Name and Address:	PKL Investments, LLC
		2863 Maricopa Street
		Torrance, CA 90503
6.	General Plan Designation:	General Commercial
7.	Zoning:	C-4: Highway Commercial

8. Description of Project:

Development of a mixture of retail shops and drive through/fast food service businesses on the western 2.92 acres along the Azusa Avenue frontage and development of 61 single-family detached homes on the eastern and southern 4.99 acres. *Figure 3 – Site Plan*, illustrates the proposed development plan.

The retail component would consist of four buildings, totaling 14,000 square feet of floor area, arranged in three distinct building sites. Two of the sites would be designed with a drive-thru circulation pattern to accommodate fast-food and beverage businesses with drive-thru service. Vehicular access to these commercial uses would be from three existing drive approaches along the Azusa Avenue frontage, and from an existing driveway along Cypress Street that serves existing fast food businesses on adjacent properties. A total of 158 surface parking spaces would be provided within the three commercial sites.

The residential component would consist of 61 single family homes, in two-story and threestory structures, with floor plans ranging from approximately 1,700 square feet to approximately 2,600 square feet. Homes would have three-four bedrooms, with optional bonus areas and loft spaces. The proposed density is 12.25 homes per acre. Vehicle parking would include 122 spaces within attached garages, along with 12 spaces located in driveways, 23 "head-in" spaces located along internal driveways, and 7 parallel spaces along the entrance



drive. Vehicular access to the 61 homes would be from Cypress Avenue, via a private, gated driveway located between Los Angeles County Fire Station 152 and an existing restaurant site.

The commercial and residential areas would be developed independently and may be constructed concurrently or at different time frames, in response to market demand. For purposes of analysis, both areas are anticipated to be completed and fully occupied by 2021.

The project will require the following City approvals:

General Plan Amendment (GPA) 19-001: To redesignate the eastern 5.31 acres from General Commercial to Medium-Density Residential, to allow for development of single-family homes at densities of 7-14 units per acre.

Zone Change (ZCH) 19-001: To rezone the eastern 5.31 acres from C-4, Highway Commercial to RD, Multi-Family Zone, and to approve a Specific Plan to establish custom development standards corresponding to the proposed residential development plan, and to provide guidance for a unified design program to aesthetically integrate the commercial and residential components.

Tentative Tract Map (TTM) 82315: To reconfigure the existing parcels to create a subdivision of private residential lots and common areas for the residential component, and three individual lots for the commercial component.

Site Plan Review (SPR) 19-002: To approve the layout of the overall development plan

Conditional Use Permit (CUP) 19-002: To allow for development of drive-through facilities in the commercial side of the project

9. Surrounding Land Uses and Setting:

The project site consists of 7.99 acres of developed land, with remnant improvements from a former Albertsons grocery store that was constructed in 1991 and vacated in November 2012. The former grocery store is 81,333 square feet in total floor area, in a box-shaped structure reaching a height of 44 feet. A large surface parking lot with numerous small landscape planters and several pole-mounted lighting clusters is located between the building and the Azusa Avenue frontage, while paved drives abut the northern and eastern sides of the building. There are numerous mature trees within the parking area planters. Masonry walls separate the project site from a townhome community to the north and a single-family neighborhood to the east. The property shows signs of deterioration due to years of vacancy and decline in maintenance. The southern 'leg' of the site that connects to Cypress Avenue is maintained with low grass cover. Vehicular access to the site is currently available via two drive approaches along the Azusa Avenue frontage and from another driveway that connects to Cypress Avenue. The Azusa Avenue frontage is improved with sidewalk, curb, gutter, and two street lights, and there is a strip of grass between the sidewalk and the parking lot. There are no overhead power poles along this frontage. The Cypress Avenue frontage of the project site is improved with sidewalk, curb and gutter, and there is a single street light at the southeast corner. Overhead power poles and lines are in the sidewalk area, just to the east, starting at the County Fire Station site.

Site topography is relatively level, with a gentle slope to the west. The site is not within a flood hazard zone. Water, sewer, storm drainage, energy and telecommunications infrastructure occur in the adjacent streets.

This is a fully urbanized part of the City of Covina, where the built environment consists of a mixture of low-rise residential and commercial land uses, along with a high school campus.



Azusa Avenue is a four-lane, north/south Primary Arterial street with a raised median and is also State Highway 39. On-street parking is generally permitted. The local segment of this street is maintained by the City of Azusa, who also has authority over physical improvements and traffic controls along Azusa Avenue. Cypress Street is a four-lane, east/west Collector Street with a two-way left turn lane in the project vicinity. On-street parking is generally permitted. There is a bus stop for Foothill Transit Route 280, at the Azusa Avenue/Cypress Street intersection. There are no bike lanes along either street frontages.

Figure 4 – Aerial View of Site and Surroundings provides a view of the local land use pattern in the project vicinity. Surrounding land uses are described below.

North: U-Haul truck rental center and two-story townhomes community

South: Fast-food restaurants at the northeast corner of Cypress Street and Azusa Avenue, Los Angeles County Fire Station 152 at the northwest corner of Cypress Street and N. Conwell Street, and single-family homes on the south side of Cypress Street.

East: A neighborhood of one-story, single family homes, within unincorporated territory governed by the County of Los Angeles

West: A mixtures of commercial uses and mobile home communities on the west side of Azusa Avenue. To the southwest is the Northview High School.

10. Other Public Agencies Whose Approval is Required:

Los Angeles Regional Water Quality Control Board – National Pollutant Discharge Elimination System General Construction Permit

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Notification of the project proposal and commencement of the CEQA process was provided by certified mail to the following Native American tribal entities:

- Gabrielino-Tongva Nation
- Gabrielino Band of Mission Indians Kizh Nation
- Gabrielino-Tongva Indians of California Tribal Council
- Gabrielino-Tongva San Gabriel Band of Mission Indians
- San Fernando Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians

A request for consultation was received from the Gabrielino Band of Mission Indians – Kizh Nation on July 9, 2019. A consultation meeting was held with City staff and the project applicant on July 25, 2019. Further discussion regarding that consultation is provided in the response to Section D.XVIII, later in this Initial Study.





FIGURE 1 Regional Location Map

Michael Baker



Project Location Map

FIGURE 2

- 0

800

Fee: 400





Figure 3



Michael Baker

INTERNATIONAL

Aerial View of Site and Surroundings Feet

Source: NearMap February 2019

0

500



SECTION B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

\boxtimes Aesthetics	Agriculture and Forestry Resources	🖂 Air Quality
Biological Resources	Cultural Resources	□ Energy
□ Geology/Soils	🛛 Greenhouse Gas Emissions	🗌 Hazards & Hazardous Materials
□ Hydrology/Water Quality	□ Land Use/Planning	□ Mineral Resources
⊠ Noise	⊠ Population/Housing	⊠ Public Services
Recreation	\boxtimes Transportation/Traffic	🗌 Tribal Cultural Resources
⊠ Utilities/Service Systems	□ Wildfire	⊠ Mandatory Findings of Significance

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the project. To each question, there are four possible responses:

- **No Impact**. The project would not have any measurable environmental impact on the environment.
- Less Than Significant Impact. The project would have the potential for impacting the environment, although this impact would be below established thresholds that are considered to be significant.
- Less Than Significant Impact With Measures Incorporated. The project would have the potential to generate impacts which may be considered a significant effect on the environment, although measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The project would have impacts which are considered significant, and additional analysis is required to identify measures that could reduce these impacts to less than significant levels.



SECTION C. DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- □ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- □ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date



SECTION D. EVALUATION OF ENVIRONMENTAL IMPACTS

I. Aesthetics

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS: Except as provided in Public Resources Code Section 21099, wor	uld the proj	ect:		
a) Have a substantial adverse effect on a scenic vista?			\boxtimes	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				\boxtimes
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

Discussion

The proposed project is not classified as a "transit-oriented infill project" as set forth in Section 21099 of the Public Resources Code, and thus the provisions of that section do not apply to this project.

a) Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. As discussed in the project description of this Initial Study, the project site is located in a highly urbanized area, dominated by features of a built environment. Development surrounding the project site includes a mixture of building sizes and forms, including low-rise and two-level commercial buildings with varying architectural styles along Azusa Avenue, the low-rise Northview High School campus southwest of the Azusa Avenue and Cypress Street intersection, and one- and two-story, detached single-family homes across Cypress Street and east of the project site, along Conwell Avenue.

Many of the of the main arterial roads in the City of Covina that are oriented north and south provide distant views of the San Gabriel mountains on clear days to motorists traveling north. As such, motorists traveling north on Conwell Avenue and Azusa Avenue have distant views of the San Gabriel mountains, which begin approximately 5 miles north of the project site and extend further north. Views of these mountains are partially obstructed by their distance from the project site, as well as mature trees, overhead powerlines, and existing development along Conwell and Azusa Avenues. The existing mountain views motorists have while traveling north on Azusa Avenue are available only straight ahead, because utility poles, mature trees, and business signage obstruct views to the northeast



and northwest. Therefore, low-rise commercial buildings set back from Azusa Avenue do not substantially impact the existing, limited mountain views available to motorists. Motorists traveling north on Conwell Avenue have a view of the existing grocery store building on the project site, with the San Gabriel mountains visible above the building's roofline. This grocery store building is approximately 25 feet high, with a portion of the building's roofline extending to approximately 44 feet. As the proposed homes would range between 25.5 and 35.5 feet in height and the proposed commercial structures would be single-story, with heights ranging between 20.5 and 25 feet, the proposed project would not result in an increase in building height over current conditions and would not obstruct views of the San Gabriel mountains in the distance.

A scenic vista is defined as a publicly accessible, prominent vantage point that provides expansive views of highly valued landscapes or prominent visual elements composed of manmade or natural features. Conwell and Azusa Avenues, with their mountain views described above, could be considered public vantage points that provide a view of a highly valued landscape (i.e., the San Gabriel mountains); however, the mountain views are distant, not expansive, and extensively obstructed by existing development, utilities, and landscaping. Further, because the majority of the City is relatively flat, including the area surrounding the project site, the City of Covina General Plan Natural Resources and Open Space element does not identify any prominent vantage points through which the public can view an expansive scenic vista within or beyond the City (Covina 2000). Effects of this project on scenic vistas would be negligible and less than significant. No further analysis of this threshold is warranted.

b) Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The closest officially designated state scenic highway is part of the Angeles Crest State Scenic Highway, State Route (SR) 2, from near La Cañada-Flintridge north to the San Bernardino County line. This state scenic highway is approximately 18 miles northwest of the project site. SR 110, Arroyo Seco Historic Parkway, between mileposts 25.7 and 31.9 in Los Angeles, is approximately 14 miles west of the project site (Caltrans 2018). The distance between the project site and these officially designated scenic highways indicate that the proposed project would not be visible from a state scenic highway. As such, the proposed project would not adversely affect the viewshed from a state scenic highway. While SR 39 between Interstate 210 and SR 2 is listed as an eligible scenic highway by Caltrans, it is not officially designated as a state scenic highway. Nevertheless, this eligible scenic highway begins 1.5 miles north of the project site and continues north; therefore, the project site would not be visible from this eligible scenic highway.

The project site is currently characterized by an existing large, rectangular grocery store building constructed in 1991 with nondescript architecture. The Azusa Avenue frontage of the project site is characterized by a surface parking lot, which served the former grocery store, and sporadic placement of decorative trees (which are not protected tree species), shrubs, and ground cover. In general, the existing landscaping in front of the building, along Azusa Avenue, and along the Cypress Street access driveway varies in size, species, and health/condition. The area east of the access driveway on Cypress Street is characterized by ruderal plant species and bare soil. Other characteristics of the site include overhead lights in the parking area, currently blank signs at the Cypress Street and Azusa Avenue entrances that are approximately 25 feet tall, and unattended landscaping and bare soil along the Azusa Avenue frontage. Therefore, no historic buildings, rock outcroppings, or other scenic resources, such



as protected trees, streams, or slopes, currently exist on the project site. Because of the project site's distance from the nearest officially designated scenic highway, and the lack of scenic resources on the project site, the proposed project would have no impact on scenic resources such as trees, rock outcroppings, or historic buildings within a state scenic highway.

c) Except as provided in Public Resources Code Section 21099, would the project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Potentially Significant Impact. The proposed project would be located in a fully urbanized area, where there is a variety of nonresidential and residential land uses and extensive urban infrastructure improvements. For purposes of determining impact significance for projects within urbanized areas, a project is evaluated for whether it would conflict with applicable zoning or other regulations governing "scenic quality." The term "scenic quality" is not specifically defined in the threshold language of Appendix G of the CEQA Guidelines; however, for assessment of impacts involving changes in visual character and quality, this is interpreted as pertaining to zoning standards involving building height and bulk, design character, landscape elements, and consistency with the scale, massing and character of surrounding development. The City of Covina's municipal code regulations for areas zoned C-4 (Commercial Zone Highway) do not pertain to protection of existing scenic qualities.

The proposed project would include a mixture of retail and drive-through/fast food service businesses on the western portion of the project site, with 61 single-family homes on the eastern and southern portion of the project. The City of Covina municipal code prohibits development of single-family residential homes in areas zoned C-4.¹ As such, the project conflicts with current zoning designations for the site. Therefore, the project is proposing a specific plan to establish custom development standards corresponding to the proposed residential development plan, a general plan amendment to redesignate the eastern portion of the project site from General Commercial to Medium-Density Residential, and a zone change to redesignate the eastern portion of the project site from Commercial Zone Highway to Multi-Family Zone.

The proposed lots supporting commercial development would remain designated as C-4, separated from the proposed residential development on the eastern portion of the project site by a proposed 6-foot-high masonry wall. The proposed commercial buildings, which would range between 20.6 and 25 feet in height, would not exceed the building height restrictions for C-4 zones that abut residential zoned lands (35-foot maximum), nor would they conflict with standards for yards (a minimum of 10 feet of landscaping abutting the street), or lot dimensions (a minimum 150-foot lot depth). However, further analysis is required to determine if the proposed commercial buildings would conflict with regulations and design guidelines governing signage in commercial zones and whether this signage would degrade the aesthetic character and quality of the area. This analysis will be provided in the EIR to be prepared for this project.

The 61 proposed single-family homes would be located along the eastern and northeastern boundaries of the project site, adjacent to existing single-family, detached homes along Conwell Avenue to the east and multi-family homes on West Covina Boulevard to the north. The proposed two- and three-

¹ City of Covina municipal code 17.44.040



story single-family homes would be located closer to the eastern (15 feet) and northeastern (12 feet) project site boundaries than the existing grocery store building (which is approximately 35 feet from the eastern and northern boundaries). Therefore, there is the potential for adverse aesthetic impacts along the project's interface with existing homes to the north and east, specifically related to the proximity of the proposed homes to the project site boundary, the proposed building heights, and proposed privacy and screening features. As such, further analysis is required to evaluate the proposed building height, bulk, coverage, setbacks, landscaping, and screening features to determine if the project would degrade the visual character and quality of the site and surroundings. This analysis will be provided in the EIR to be prepared for this project.

d) Except as provided in Public Resources Code Section 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Impact. The proposed project is primarily vacant, with an unoccupied grocery store building, a surface parking lot, and ornamental landscaping areas spread throughout the site, all of which are in disrepair. Existing sources of light on the project site include building security lights on the grocery store building and pole-mounted parking lot lights. The area is highly urbanized and therefore already impacted by night lighting from streetlights along Azusa Avenue and Cypress Street, traffic signals at the corner of Azusa Avenue and Cypress Street, vehicle headlights, and existing overhead parking area lights and building security lights located at the restaurants on the northeast corner of Azusa Avenue and Cypress Street. Further, homes in the residential neighborhood east of the project site emit nighttime light via accent lights and security lights. Finally, the Los Angeles County Fire Department building immediately adjacent to the project site emits light via building security lights and the occasional departure of emergency vehicles.

The proposed project would contain multiple new sources of night light, such as security lighting on internal walkways, residential common areas, and building exteriors; accent lighting on residential and commercial buildings and in landscaped areas; lighting at the gated entry to the residential area; and potential lighted signs in commercial building drive-throughs. Given the proximity of these light sources to existing homes north, east, and south of the project site, further analysis of the specific type and placement of lighting is required to determine whether the proposed project would create substantial light or glare that could adversely affect day or nighttime views. This further analysis will be provided in the EIR to be prepared for this project.



II. Agriculture and Forestry Resources

Potentially	Less Than Significant	Less Than	
Significant	Impact with Mitigation	Significant	No
Impact	Incorporated	Impact	Impact

AGRICULTURE AND FORESTRY RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?		
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?		\boxtimes
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?		
d)	Result in the loss of forest land or conversion of forest land to non-forest use?		\boxtimes
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?		\boxtimes

Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. According to the City of Covina's Zoning Map (2015), there are only two zones designated as agriculture and residential zones (A-1 and A-2) in the City of Covina. The two parcels in the City with either A-1 or A-2 zoning designations are located near the Walnut Creek Regional Park, along East Puente Street, on the east side of the City. These two parcels are approximately 3 miles southeast of the project site and are currently not used for agricultural purposes. Further, the City's General Plan Land Use Element does not identify any agricultural areas within the City (Covina



2000). The proposed project is in a fully urbanized area and is surrounded by commercial and residential land uses. The project site is currently developed, with a grocery store building (currently vacant), a surface parking lot, decorative landscaping, and driveways. While the City of Covina has not been surveyed as part of the California Department of Conservation's Important Farmland Finder, the County Assessor shows that the grocery store building was constructed in 1991 (LA County 2019). As such, there are no natural, undisturbed areas on the project site and the land does not support any agricultural activities. Therefore, the project would not convert prime farmland, unique farmland, or farmland of statewide importance to non-agriculture use, and there would be no impact.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The only parcels in the City with either A-1 or A-2 zoning designations are located near the Walnut Creek Regional Park, along East Puente Street, on the east side of the City. These two parcels are approximately 3 miles southeast of the project site and are currently not used for agricultural purposes. Further, the City's General Plan Land Use Element does not identify any agricultural areas within the City (Covina 2000). The project site is zoned as Commercial (Highway) (C-4), a zone that does not support agricultural uses other than community gardens and plant nurseries. Additionally, the project site does not have a land use restriction, such as a Williamson Act contract, that serves to preserve farmland or agricultural uses. As such, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and there would be no impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is developed land, containing a former grocery store building, a surface parking lot, and decorative landscaping in various conditions. The project site does not contain any forest land or timberland and is not zoned for timberland production. Therefore, the project would not conflict with existing zoning for, or cause the rezoning of, forest land, timberland, or timberland production areas, and there would be no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site has been fully developed for decades and does not contain any forest resources. Because the project site does not contain any forest land, the project would not result in the loss of forest land. There would be no impact.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site is in an urbanized area and has been developed for decades. As such, there is no farmland or forest land on or adjacent to the project site that could be converted to non-agricultural or non-forest land uses as a result of the proposed project. Therefore, the project would have no impact.



III. Air Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	\boxtimes			
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	\boxtimes			
c) Expose sensitive receptors to substantial pollutant concentrations?	\boxtimes			
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				

Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have both established ambient air quality standards for certain pollutants. These standards define the maximum amount of a certain pollutant that can be present in outdoor air without harm to the public's health. Areas that meet these ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as non-attainment areas.

The project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Currently, the SCAB is considered to have non-attainment for several criteria pollutants, including ozone, particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) for California Ambient Air Quality Standards (CAAQS); and ozone, fine particulate matter (PM_{2.5}), and lead for Federal Ambient Air Quality Standards (FAAQS) (CARB, 2018). Because of the violations of ambient air quality standards, SCAB is required to create an Air Quality Management Plan (AQMP), which analyzes air quality on a regional level. In partnership with other entities, SCAB sets goals for reductions in criteria pollutants, greenhouse gases, and toxic risks; as well as goals for efficiencies in energy use, transportation, and goods movement. The latter goals are included because the AQMP states that the principle contributor to air quality challenges are mobile sources, such as vehicles and equipment traveling along transportation corridors and goods movement facilities. The current AQMP was adopted in 2016.

The proposed project would produce emissions during both short-term construction (through site preparation, grading, and construction) and long-term operation (through vehicle emissions from residents and users of the commercial facilities, and maintenance activities using combustion-powered equipment). Such emissions could generate criteria pollutants which could contribute to the SCAB's



existing non-attainment status and could contribute to adverse air quality impacts in the immediate area. Therefore, these emissions could conflict with the ACMP. As such, further analysis is required to quantify the proposed project's emissions of criteria pollutants and to determine if the project's emissions would conflict with the goals and strategies outlined in the AQMP (2016). This analysis will be included in the EIR to be prepared for this project. If it is determined that the project would conflict with the AQMP, mitigations measures will be developed to reduce air quality impacts to less than significant levels, if possible.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Potentially Significant Impact. The project is located within the SCAB, which is in non-attainment for ozone, particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) under CAAQS, and for ozone, fine particulate matter (PM_{2.5}), and lead under FAAQS (CARB, 2018). Further analysis is required to quantify the proposed project's emissions of the above pollutants and to determine whether the project's emissions of these pollutants would result in a cumulatively considerable net increase. This analysis, as well as mitigation measures, if necessary, will be included in the EIR to be prepared for this project.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. As stated in the response to air quality threshold 3a), state and federal ambient air quality standards define the maximum amount of a certain pollutant that can be present in outdoor air without harm to the public's health. These standards are designed specifically to protect those who are most severely impacted by air pollution, such as the elderly, those with cardiovascular or respiratory diseases, and children. Therefore, most sensitive receptors are located in schools, residential areas, and hospitals and treatment centers.

Sensitive receptors that could be impacted by the air quality impacts associated with the proposed project include residential neighborhoods north, east, and south of the project site, employees of the Los Angeles County fire station south of the project site, and employees and students at Northview High School, southwest of the Cypress Street and Azusa Avenue intersection.

Because the proposed project would produce emissions during both construction and operation, the project has the potential to generate both short-term and long-term air emissions that could impact nearby sensitive receptors. Therefore, further analysis is required to quantify the propose project's emissions of pollutants and to determine if such emissions would expose nearby sensitive receptors to substantial pollutant concentrations. This analysis, as well as mitigation measures, if necessary, will be included in the EIR to be prepared for this project.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. During the construction phase of the proposed project, established requirements addressing construction equipment operations and construction material use, storage, and disposal act to minimize odors that may result from construction activities. Further, odors resulting from construction vehicle emissions would be localized and short-term in nature and would



not result in persistent impacts that would substantially affect neighboring residential and commercial uses. As such, the odors resulting from project construction would be less than significant.

The SCAQMD CEQA Air Quality Handbook (1993) identifies certain land uses as sources of odors: agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed project would not include any of the land uses identified by the SCAQMD as odor sources. While restaurants are not included on this list of land uses identified by SCAQMD as odor sources, the District regulates emissions from restaurant operations through SCAQMD Rule 1138 (Control of Emissions from Restaurant Operations, 1997). This rule requires the use of catalytic oxidizers in restaurants, to reduce particulate matter and volatile organic compounds, which contribute to odors.

The proposed residential development would generate emissions, including those leading to odors, on an occasional and temporary basis, through activities such as the use of outdoor barbeques and combustion-powered landscaping machinery. Each home would have covered or enclosed trash receptacles. This method of trash storage would limit rain intrusion and direct air exposure, and thus minimize the release of trash odors into the atmosphere. This practice is also regulated by SCAQMD's Rule 402 (Nuisance), which restricts the discharge of any source of air contaminants which cause nuisance or annoyance to any considerable numbers of persons or to the public. As such, odors associated with daily residential activities would be less than significant.

The proposed commercial buildings could generate odors from restaurant exhaust and occasionally from sources such as combustion-powered landscaping machinery and truck deliveries to the restaurant and retail buildings. Because emissions from restaurants operations are specifically regulated by SCAQMD's Rule 1138, and because fast-food restaurants are not identified by SCAQMD as an odor source in the CEQA Air Quality Handbook, the odors resulting from occupation of the proposed commercial buildings (including restaurant operations) would not adversely affect a significant number of people, and the impacts would be less than significant.



IV. Biological Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES: <i>Would the project:</i>		· · · · · ·		•
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				\boxtimes
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				\boxtimes
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			\boxtimes	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				\boxtimes
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				\boxtimes

Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The project site is within a fully urbanized area, where there is no natural habitat of any kind, or any kind of water resources that could support sensitive fish or wildlife species. A majority of the site is dominated by impervious surfaces. The only vegetation on the site consists of non-native, ornamental trees and groundcover, and a strip of non-native grass east of the site's Cypress Avenue



driveway There is no natural habitat or contiguous vegetative community on the project site. The U.S. Fish and Wildlife Service (USFWS) states that the following special-status species have been observed in the general area of this part of the San Gabriel Valley: the Coastal California Gnatcatcher (*Polioptila californica californica*, threatened), the Least Bell's Virio (*Vireo bellii pusillus*, endangered), and the Southwestern Willow Flycatcher (*Empidonax traillii extimus*, endangered) (USFWS 2019a). Given the urban characteristics of the project site and surrounding area, these avian species have not been reported in the vicinity of the project site. (They would likely be found in natural areas outside of the city limits.) Further, the Covina General Plan Natural Resource and Open Space Element states that the City does not contain any "significant, endangered wildlife" due to the "long-term urbanization" of the City and subsequent lack of natural wildlife habitat (Covina 2000, page D-3). The presence of these endangered and threatened species on the project site is also unlikely considering that these species prefer to breed and forage in low-elevation riparian woodland and shrub habitat and coastal sage scrub, none of which occur on or adjacent to the project site (USFWS 2019b). Since there would not be a substantial adverse effect on any species identified as a candidate, sensitive, or special status species, the project would have no impact in this regard.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact. The project site is complete disturbed and is almost covered in impervious surfaces except for a patch of grass and bare earth east of the Cypress Avenue driveway and sporadically placed decorative landscaping. There is no riparian habitat, wetlands, or other sensitive natural community on or adjacent to the project site. The project site contains no critical habitat designated by the USFWS or sensitive natural community designated by the California Department of Fish and Wildlife (CDFW) (USFWS 2019a; CDFW 2018). As the project site was cleared of natural vegetation decades ago, the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community, and there would be no impact.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Section 404 of the Clean Water Act defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." The project site does not contain any wetlands, rivers, streams, or riparian habitat, nor are such features present immediately surrounding the project site. Therefore, the project would no effect on state or federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. There are no waters or streams on the site. Thus, the project would not impact or interfere with the movement of any native resident or migratory fish. Wildlife corridors are typically made up of undeveloped wildlife habitat and open space linkages between larger patches of wildlife habitat. Habitat linkages may also include more tenuous linkages, like narrow vegetated



pathways or islands of habitat that act as stepping stones between larger habitat areas for some species. The project site has been highly disturbed for decades and is surrounded by urban land uses where there is little or no opportunity for overland movement of land-based wildlife species. There is a small patch of land, characterized by non-native grass cover and bare earth, between the Cypress Avenue driveway and the Los Angeles County Fire Department building immediately east of the project site; however, there is no natural habitat available on this small patch of land.

The project site currently contains trees and shrubs placed sporadically throughout the site that may provide suitable nesting habitat for bird species. All of these trees and shrubs are ornamental in nature and would be removed by the proposed project. It is possible that during the site clearance phase of construction, removal of one or more trees might result in damage or destruction to an active bird nest, which may be occupied by a type of bird species protected under the federal Migratory Bird Treaty Act or California Fish and Game Code Section 3503. The Migratory Bird Treaty Act prohibits the take, possession, import or export, transport, sale, or purchase of any migratory bird, including the parts, nests, or eggs of such a migratory bird, unless permitted. Further, California Fish and Game Code Section 3503 states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." The project developer is obligated to comply with the Migratory Bird Treaty Act and the California Fish and Game Code, which typically involves compliance actions such as pre-construction surveys of existing trees on the project site to check for nesting migratory birds and avoidance measures, such as timing construction activities to avoid nesting seasons or monitoring by a qualified biologist during construction activities. Therefore, compliance with existing state and federal laws pertaining to the protection of nesting birds through avoidance measures would result in less than significant impacts to migratory avian wildlife.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Covina has a tree preservation chapter of its municipal code (Chapter 17.83) that seeks to preserve large, mature, native trees, specifically oak trees and trees designated as heritage trees by City Council. Heritage trees are defined in the Covina municipal code (Section 17.83.020) as protected trees that are either species of oak with a diameter at standard height of 10 inches or greater, or individual trees or groups of trees that are designated as a heritage tree(s) by City Council. There are only ornamental species of trees and shrubs located on the project site, as well as low, ruderal plant species on the south side of the project site, east of the Cypress Avenue driveway. Because the only trees on the project site are ornamental species, not oak trees, and no heritage trees exist on the project site, the project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is located in an urbanized area that does not contain any natural, undisturbed habitat. Further, the project site itself has been previously disturbed and contains no natural habitat resources. The project is not located within a Habitat Conservation Plan or Natural Community Conservation Plan area, or in an area covered by another local, regional or state habitat conservation plan. As such, the project would not conflict with such plans or other approved local, regional, or state habitat conservation plans, and there would be no impact.



V. Cultural Resources

	Potentially Significant	Less Than Significant	Less Than Significant	No
	Impact	Incorporated	Impact	Impact
CULTURAL RESOURCES:				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to \S 15064.5?				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			\boxtimes	

Discussion

- a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?
- b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant With Mitigation Incorporated. A historical assessment of the community and the existing grocery store building within the project limits was conducted to determine whether the existing grocery store structure and/or site improvements contains features that constitute or contribute to a historic resource, as defined in CEQA Guidelines Section 15064. Because the existing grocery store and related site improvements were developed in 1991, replacing previous urban uses, these improvements are much less than 50 years old, which is a key criteria in determining whether a site or structure could be a historic resource, as defined in the National Register and California Register. The South Central Coastal Information Center (SCCIC), as part of the California Historical Resources Information System, California State University, Fullerton, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resources records and reports for Los Angeles County. At Michael Baker International's request, SCCIC staff conducted a records search on July 19, 2019. As part of the records search, the following federal and California inventories were reviewed:

- California Inventory of Historic Resources (OHP 1976).
- California Points of Historical Interest (OHP 1992 and updates).
- California Historical Landmarks (OHP 1996).
- Directory of Properties in the Historic Property Data File (OHP 2012). The directory includes the listings of the National Register of Historic Places (National Register), National Historic Landmarks, California Register of Historical Resources (California Register), California Historical Landmarks, and California Points of Historical Interest.



The SCCIC search determined that there have been two prior cultural resources investigations for properties within ¹/₄ mile of the project site, but there are no cultural resources identified within the project site or within a quarter-mile search radius.

Given the extensive ground disturbances throughout the site from past development projects and the current site improvements, it is considered unlikely that archaeological materials remain within the near surface soils where soil disturbance has occurred. While shallow excavations (generally less than 10 feet deep) would be required to prepare building foundations and install site infrastructure, past disturbance from construction of a large grocery store, a parking lot, and associated site infrastructure makes the potential to uncover previously unidentified archaeological resources unlikely. The excavation work could extend into previously undisturbed alluvial soils. Therefore, in the event of an accidental discovery of an archaeological resource, construction would cease until a qualified archaeologist can review the artifact and determine next steps for removal and or preservation if necessary, pursuant to Mitigation Measure V-1. As such, the project would not result in a substantial adverse change in the significance of a historical resource or an archaeological resource and project impacts would be less than significant.

Please refer to Section XVIII of this Initial Study, for a discussion of concerns regarding potential impacts to tribal cultural resources, as defined in Section 21074 of the California Public Resources Code.

Mitigation Measure V-1

If suspected prehistoric or historical archaeological deposits are discovered during construction, all work within 25 feet of the discovery shall be redirected and a Secretary of the Interior Professional Qualified archaeologist and/or Registered Professional Archaeologist shall assess the situation and make recommendations regarding the treatment of the discovery. Impacts to significant archaeological deposits should be avoided if feasible, but if such impacts cannot be avoided, the deposits should be evaluated for their eligibility for the California Register of Historical Resources. If the deposits are not California Register eligible, no further protection of the find is necessary. If the deposits are California Register eligible, impacts shall be avoided or mitigated. Acceptable mitigation may consist of but is not necessarily limited to systematic recovery and analysis of archaeological deposits, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. The project would not likely disturb any human remains, including those interred outside of dedicated cemeteries. The research conducted at the SCCIC found no indications of any past human burial activities on or near the project site. Shallow excavations of approximately five feet deep are proposed beneath and for a distance of approximately five feet beyond proposed building foundations, as described in the preliminary geotechnical report prepared for this project (GeoConcepts, Inc. 2015) and additional shallow grading would be required to install underground infrastructure such as sewer lines and drainage basins. The excavation work could extend into previously undisturbed alluvial soils. However, given the extent of past disturbance on the project site from the construction of the existing grocery store building, parking areas, and related site infrastructure, the likelihood of disturbing subsurface human remains in predevelopment, native soil



is estimated to be very low. Further, the research conducted by the SCCIC, as described above, and the information included in the Phase I Environmental Site Assessment conducted by Partner Engineering and Science did not identify any known instances of human remains or human burial grounds (SCCIC, 2019; Partner, 2014).

Nonetheless, in the event of an accidental discovery of human remains during project excavation, construction contractor compliance with Section 7050.5 of the California Health and Safety Code would ensure that such remains are properly identified and treated. Compliance would start with ensuring that there is no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Los Angeles County Coroner has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. Project personnel/construction workers shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will immediately identify a Native American most likely descendant to inspect the site and provide recommendations within 48 hours for the proper treatment of the remains and associated grave goods. With compliance with existing California Health and Safety Code regulations, the proposed project would have less than significant impacts related to disturbing human remains.



VI. Energy

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact	
ENERGY: Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			\boxtimes		
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				\boxtimes	

Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. The main forms of available energy resources are electricity, natural gas, and oil. A description of the California Building Energy Efficiency Standards and California Green Building Standards Code (CALGreen), with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Building Energy Efficiency Standards (Title 24, Parts 6 and 11)

The 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6s and 11), commonly referred to as "Title 24," became effective on January 1, 2017. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2016 Title 24 standards are 28 percent more efficient than previous standards for residential development.² The standards offer developers better windows, insulation, lighting, ventilation systems, and other features to reduce energy consumption in homes and businesses. Further, the 2019 Building Energy Efficiency Standards, which take effect on January 1, 2020, will require photovoltaic (PV) systems in newly constructed low-rise residential buildings such as the two- and three-story homes in the proposed project. These systems are required to generate at least the dwelling's annual electrical usage, unless there is substantial existing shading that would obstruct solar panels or if battery storage is also provided. With PV systems, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.³

² California Energy Commission, 2016 Energy Standards Overview, https://www.lgc.org/wordpress/wp-content/uploads/2016/02/2016-Energy-Standards-Overview-California-Energy-Commission.pdf, accessed April July 3, 2019.

³ California Energy Commission, 2019 Building Energy Efficiency Standards,

https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed July 3, 2019.



California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC or Title 24), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code are intended to address a variety of aspects of sustainable building practices involving water and energy conservation, solid waste reduction, pollution reduction, etc. Those provisions pertaining to energy conservation include:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel. These would be used for vehicle trips by construction workers, truck trips for hauling and delivering materials, and the operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity for temporary on-site lighting, for welding, and for supplying energy to areas of the sites where the energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment. Construction methods used to build the proposed project would be typical of current construction practices and would not require use of more energy-intensive machinery or higher than normal volumes of trucks and passenger vehicle trips.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with construction equipment being operated at different locations on the project site, rather than at a single location. All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation administered by the California Air Resources Board (CARB). The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits. As another benefit of these restrictions, off-road diesel-powered vehicles would consume less fuel and combust the fuel more efficiently . The project would also be subject to mandates on portable diesel generators and the Environmental Protection Agency's (EPA's) strict on-road emissions standards for heady-duty engines. These regulations contain strict air emissions



standards that result in efficient engine fuel consumption (compared to the previous standards) rates during operations. In addition, technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help reduce demand on the oil and emissions associated with construction in California over the next few years. As such, temporary energy use during construction of the proposed project would not result in a significant increase in peak or base demands on regional energy supplies or require additional capacity from local or regional energy supplies, and it would not result in a wasteful, inefficient, or unnecessary consumption of energy resources during project construction.

Operational Energy Use

After the proposed project is completed, Southern California Edison (SCE) would provide electricity and Southern California Gas Company (SoCal Gas) would provide natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, retail shops, and drive-through/fast food restaurants. The project does not include any unusual project characteristics or require special equipment that would be more energy intensive than typical residential and commercial uses. The commercial and residential project components would be required to include ENERGY STAR-rated appliances, energy-efficient boilers and heating, ventilation, and air conditioning (HVAC) systems, water-efficient landscaping and irrigation systems. Also, the new homes would be installed with solar photovoltaic panels in compliance with the most current Title 24 energy efficiency standards. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in consumption of oil-based fuels associated with vehicle trips generated by the proposed residential, retail, and drive-through/fast food restaurants. With regard to transportation fuel use, the proposed project would not have control over fuel consumption factors such as vehicle type(s), engine efficiency, vehicle miles traveled, etc., for residents, employees, and patrons accessing the project site. However, due to CARB's increasing vehicle efficiency standards, it is assumed the long-term transportation fuel consumption from project operations would steadily decline over time and ensure that vehicle fuel consumption is not wasteful or inefficient.

The proposed project would be subject to all relevant provisions of the most recent update of the California Building Energy Efficiency Standards (Title 24) and CALGreen Code. Compliance with the Title 24 and the CALGreen Code energy efficiency standards would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

Based on the discussion above regarding construction and operational energy use, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. Project impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. As noted in the preceding response, the California Code of Regulations Title 24, Part 6– Energy Efficiency Standards, and the California Code of Regulations Title 24, Part 11–the CALGreen Code–mandate a variety of energy conservation and efficiency standards to be implemented through building design and construction. The City of Covina enforces these standards through their local building code, plan check and permit procedures. In addition, electricity supplied to the project by



Southern California Edison (SCE) would comply with the State's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030.

At the local level, Covina has approved the 2019 Energy Action Plan (EAP) Update⁴, which was prepared by the San Gabriel Valley Energy Wise Partnership (SGVEWP) between 30 member cities, SCE, and Southern California Gas Company. The 2019 EAP, an update to the 2012 EAP⁵, revised the City's energy reduction goals. Through the SGVEWP, member cities are able to participate in the SCE Energy Leader Model, which recognizes cities for increasing their energy efficiency in municipal facilities and communities, and participating in demand response programs and long-term strategic planning. Implementation of the EAP has allowed Covina to reach the highest level of energy efficiency, Platinum, under the Energy Leader Model.

The 2019 Covina EAP builds on the community goals and policies in the 2012 EAP and adds additional goals and policies for City-owned properties. *Table VI-1, Covina Energy Action Plan Consistency*, discusses project consistency with several energy policies outlined in the City's EAP.

Policy	Project Compliance	
Policy 2.2 : Encourage the use of innovative energy- efficient appliances and equipment in businesses that will reduce operational expenditures and improve the efficiencies of business operations.	 Consistent. The project would comply with the State's Building Energy Efficiency Standards and CALGreen, which require the use of energy-efficient appliances, mechanical equipment, HVAC systems, and/or solar PV panels per the most current Title 24 standards. The proposed commercial and residential buildings will include energy-efficient appliances, lighting, and mechanical equipment in their design. In addition, the proposed residences will be required to incorporate PV solar systems into their design to reduce the building's energy demand on the local grid, as required under 2019 Title 24 standards. Consistent. The project would include landscaping throughout the project site that would help shade the proposed commercial and residential buildings, which could result in some cooling of the interior of these structures and a corresponding reduction in the energy consumption/demand for HVAC systems. 	
Policy 3.1 : Maximize the energy-efficient design and orientation of new, remodeled, and renovated buildings through voluntary sustainable building standards.		
Policy 3.2 : Encourage the use of energy-efficient appliances and equipment in new buildings.		
Policy 5.1 : Maximize the cooling of buildings through strategic tree planting and shading to reduce building electricity demands.		
Policy 6.2: Support water-efficient landscaping practices to reduce electricity demand for water transport and treatment.	Consistent. The project would be required to comply with the State's Model Water Efficient Landscape Ordinance (Title 23, Chapter 2.7 of the California Code of Regulations) to reduce the water demand from the proposed landscaping at the project site. Compliance with the State's Model Water Efficient Landscape Ordinance would help reduce electricity demand for water transport and treatment to supply the project's irrigation water.	

Table VI-1 – Covina Energy Action Plan Consistency

Source: City of Covina, Energy Action Plan Update, 2019.

As discussed above in Table VI-1 and in Section VI(a), the proposed project would include energyefficient appliances, heaters, and HVAC systems; water-efficient landscaping and irrigation systems;

⁴ City of Covina, 2019 Energy Action Plan Update, 2019.

⁵ City of Covina, City of Covina Energy Action Plan, December 2012.



and solar photovoltaic electrical power generating systems for the new homes,6 and these features would comply with applicable State and local energy regulating policies. The project's energy consumption would be typical of these types of commercial and residential development projects in Southern California and would not result in an increased energy demand beyond the capacity of SCE or Southern California Gas Company. As such, the project would not conflict with or obstruct any plans for renewable energy or energy efficiency.

⁶ As required under 2019 Title 24 standards.


VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS:		· · ·	• •	
 a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				\boxtimes
ii) Strong seismic ground shaking?			\boxtimes	
iii) Seismic-related ground failure, including liquefaction?			\boxtimes	
iv) Landslides?				\boxtimes
b) Result in substantial soil erosion or the loss of topsoil?			\boxtimes	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
 d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? 				\boxtimes
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			\boxtimes	

The responses to the following thresholds are based, in part, on a preliminary geotechnical engineering investigation of the project site conducted by Geo Concepts Inc. (GCI) in December 2015, which is provided in Appendix B of this Initial Study.



Discussion

a)i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The State Mining and Geology Board defines an active fault as one that has had surface displacement within the Holocene Epoch (roughly the last 11,000 years) and defines a potentially active fault as any fault that has been active during the Quaternary Period (approximately the last 1,600,000 years). These definitions are used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazard Zones Act of 1972 and as revised in 1994 as the Alquist-Priolo Geologic Hazard Zones Act of 1972 and as revised in 1994 as the following active faults as those capable of producing seismic waves / ground shaking on the project site: the San Andreas fault zone, the Whittier-Elsinore fault zone, the San Fernando fault zone, the Raymond fault, the Sierra Madre fault zone, and the San Gabriel fault. The nearest of these is the Clamshell fault (a segment of the Sierra Madre fault zone), which is approximately 6 miles northwest of the project site.

GCI's review of geological maps and field exploration of the site determined that the project is not located within an Alquist-Priolo Earthquake Fault Zone and that there is no indication of any faults underneath the project site. Further, the project site is flat and is already disturbed. Grading would extend to roughly 5 feet below the proposed building foundations, which is not expected to be substantial enough to trigger a rupture along any of the faults noted earlier. As such, the project would have no direct or indirect impact associated with fault rupture. Potential ground shaking effects that could occur during movement along one or more of the active faults identified earlier are addressed in the next response (threshold 7a)ii).

a)ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less Than Significant Impact. As stated in response to threshold 7a)i), several active faults in the region may result in strong seismic ground shaking on the project site; however, strong ground shaking during a seismic event is a hazard risk that affects all of southern California, given the number of active faults in the region. The California Building Code (CBC) addresses this hazard by defining specifications for structural design to address and mitigate the anticipated levels of ground shaking affecting a site, given its location and geologic conditions. The City of Covina has incorporated by reference the CBC into the City's building code (Chapter 14 of the City's Municipal Code). Further, GCI offers a series of recommendations to reduce the risks posed by seismic ground shaking hazards, such as removing existing fill to the top layer of competent alluvial materials (removal to a depth of at least 5 feet below proposed foundations) and replacing with compacted fill to provide a stable support for building foundations. This would also prevent problems due to liquefaction and settlement. The proposed project is required to comply with these recommendations as part of the grading permit approval process with the City of Covina. Further, the project is required to comply with all applicable seismic design criteria set forth in the CBC. Thus, with the required adherence to the City of Covina Building Code, potential impacts involving strong seismic ground shaking would be less than significant.



a)iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

including liquefaction?

Less Than Significant Impact. Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to fluid when subjected to high-intensity ground shaking. Liquefaction occurs when there is the presence of shallow groundwater, low-density fine, clean, sandy soils, and high-intensity ground motion. Effects of liquefaction can include sand boils, settlement, and load-bearing capacity failures below foundations.

The State of California has prepared Seismic Hazard Zone Reports to map areas where groundwater and geological conditions create the conditions for liquefaction, as well as areas with historic occurrence of liquefaction. As stated in the GCI geotechnical report, the project site is not within a liquefaction hazard zone on the State of California Seismic Hazard Zone Map. Further, ground rupture is not likely on the project site because, as stated in the GCI geotechnical report, ground rupture is the result of the movement of an active fault, and no active fault is mapped on the project site. Further, the City of Covina General Plan states that liquefaction has not historically posed a risk to structures in the City because the water table is generally more than 50 feet deep and there are no areas of loose, cohesionless soils (Covina 2000). These conditions are confirmed by the GCI geotechnical report, which shows the project site is primarily underlain with alluvium soil, and groundwater resources are 150-200 feet below the project site. Therefore, because the project is outside of a liquefaction hazard zone, is away from known active faults, and the groundwater table is more than 150 feet below the site, the project would not directly or indirectly cause substantial adverse effects involving seismicrelated ground failure.

a)iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. The State of California has prepared Seismic Hazard Zone Reports to map areas with increased risks from earthquake-induced landslides. The project site is not located within an earthquake-induced landslide hazard zone on the State of California Hazard Map. The project site is relatively flat and does not have any topography that would create the potential for landslides. As such, the project would not directly or indirectly cause potential substantial adverse effects related to landslides.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. During demolition and removal of existing site improvements, such as the grocery store and the parking lot, grading and demolition activities would temporarily expose soil to the risk of erosion resulting from wind or rainfall. The City of Covina requires that projects greater than 1 acre submit an erosion and sediment control plan prior to receiving a grading permit, which details erosion control measures to be used during project construction and demolition. Further, the project applicant must submit grading plans to the Los Angeles Regional Water Quality Control Board in order to comply with its General Construction. The grading plan, as well as the required stormwater pollution prevention plan, are required to demonstrate that stormwater runoff containing sediment is reduced to the maximum practical extent and that best management practices are being applied from the commencement of demolition and construction through project

completion. Compliance with these existing regulatory standards would generally avoid or reduce potential erosion impacts during construction to less than significant.

Once completed, the majority of the project site would be covered by impervious surfaces, such as pavement and buildings, which would prevent soil erosion. Pervious areas of the project site would occur within landscape planters in the commercial site and within landscaped private yards and common areas in the residential site. The combination of impervious surfaces and landscaped pervious areas would almost eliminate any potential erosion impacts. As such, potential erosion impacts during project occupation would be less than significant.

The project site has been fully disturbed by past development, with artificial fill covering much of the site. As such, very little or no native topsoil remains on the project site. As such, the project would not result in any significant impacts involving loss of topsoil.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As stated in the response to threshold 7a)iii) above, the project site is not within a liquefaction hazard zone on the State of California Seismic Hazard Zone Map and there are no active faults mapped on the project site. Because ground rupture is the result of the movement of an active fault, ground rupture is not likely on the project site. Further, the risks of lateral spreading, subsidence/settlements, liquefaction, or collapse are greatly increased in saturated soils, areas with poor drainage or near bodies of water, or areas with a high water table. As stated in the GCI geotechnical report, groundwater levels are approximately 150 to 200 feet below the project site, and the soils encountered at the site consist of dense sand with silt to silty sand. In some areas of the project site, soil borings found that the top 1.5 feet of soil consisted of 2 inches of asphalt and 1.3 feet of artificial fill. The GCI report recommends that this artificial fill be removed and replaced by compacted fill, upon which the proposed structures should be founded. The proposed project must show compliance with these recommendations as part of City of Covina's grading plan and permit approval process. The GCI report did not identify conditions prone to lateral spreading, subsidence or collapse. No project-related earthwork would occur outside of the project's development footprint, except for minor trenching for off-site underground utility connections. This would not affect geologic stability on any surrounding properties. Therefore, project impacts would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. Expansive soils can cause issues with proposed development as a variation in soil moisture content will cause a volume change in the soil, resulting in contraction when soils are dry and expansion when soils are moist. GCI conducted soil testing as part of their geotechnical report for the project site and did not encounter any expansive soils. As such, no direct or indirect impacts are anticipated as a result of expansive soils.



e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. All structures associated with the proposed project would be connected to the sanitary storm sewer system. As such, there would be no septic tanks or alternative wastewater disposal systems associated with the proposed project and there would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. A vertebrate paleontology collection records search for locality and specimen data was completed by the NHMLAC on July 11, 2019 (McLeod 2019: Attachment 2). The records search identified no previously identified vertebrate fossil localities within the project site. The project site was identified as having younger Quaternary alluvial soil deposits—deposits which are not typically sensitive for paleontological resources. Within the project site, older Quaternary alluvial soils. The older Quaternary deposits are known in the region to produce fossil specimens.

As stated above, shallow excavations of up to 5 feet below and extending about 5 feet beyond the proposed building foundations would be required to prepare building foundations and additional, possibly deeper soil disturbance would occur during construction of underground utilities such as sewer lines and drainage treatment mechanisms that could potentially affect native soil materials. Therefore, the earthwork would minimally extend into previously undisturbed soils. The NHMLAC stated that shallow excavations in the younger Quaternary alluvium are unlikely to uncover significant vertebrate fossil remains; however, deeper excavations, more than 15 feet, into older Quaternary deposits have a higher potential to uncover significant fossil vertebrate specimens. If an accidental discovery is made on the project site, Mitigation Measure VII-1 will require that the project must cease construction until a qualified paleontologist examines the unearthed materials and determines if the materials could be a significant resource that warrants further preservation. Compliance with this measure would ensure that the project would not directly or indirectly destroy a unique paleontological resource or unique geologic feature, and impacts would be less than significant.

Mitigation Measure VII-1

In the event of a fossil discovery during excavation, the construction contractor shall notify the City and immediately cease work in the area of the find. The contractor shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan for immediate implementation, including field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible will be implemented before construction activities resume in the area where the paleontological resources were discovered.



VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS: <i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	\boxtimes			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	\boxtimes			

Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). Based on numerous studies by climate scientists around the world (such as the National Climate Assessment, and studies by the International Panel on Climate Change), global temperatures have been rising as a result of more heat being trapped by GHGs near the earth's surface. GHGs produced from human sources are widely seen as an important contributor to human-induced climate change. According to the California Environmental Protection Agency's Climate Change Research Plan for California (2015), potential impacts of climate change in California may include worsened air quality, decreased snowpack and water supplies, sea level rise, an increase in extreme heat days per year, large forest fires, and drought.

Both natural processes and human activities emit GHGs, including the combustion of fossil fuels, agricultural practices, and landfills. The major sources of GHGs in California are transportation and industrial (i.e., manufacturing and production processes) sources.

The proposed project would directly result in GHG emissions during both short-term construction work (through operation of construction equipment during site preparation, grading, and construction) and long-term operations (through operation of vehicles by residents and users of the commercial facilities, and through use of combustion-powered equipment during maintenance activities). Other long-term sources of GHGs include combustion of natural gas from heating and cooking at residential and commercial land uses and combustion of fossil fuels at electrical power-generating plants that supply electricity to the project site.

Further analysis is required to quantify the project's direct and indirect generation of GHG emissions and to determine whether such emissions would have a significant impact on the environment. This analysis will be included in the EIR to be prepared for this project. If potentially significant impacts are identified, mitigation measures will be developed to reduce impacts to less than significant levels, if possible.



b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. In December 2012, the City of Covina adopted an Energy Action Plan (EAP), which identifies the amount and source of GHGs emitted in Covina. The EAP establishes a baseline year of 2006 and outlines strategies to reduce the amount of GHGs produced in Covina to a level that is consistent with the reduction goals identified by Assembly Bill 32 (the California Global Warming Solutions Act, 2006). The EAP's target is a 15% reduction in baseline GHG emissions by 2020. Although the project would be occupied after 2020, it is appropriate to evaluate the project's characteristics relative to the applicable goals and strategies in the City's EAP.

Other reduction plans and programs that may be considered to determine whether the project's GHG emissions could be significant include the 2016 Regional Transportation Plan/Sustainable Communities Strategy, prepared by the Southern California Association of Governments, which contains regional targets for reducing GHGs as directed by Senate Bill 375, and the California Air Resources Board's most recent Climate Change Scoping Plan (2017).

Further analysis is required to determine the project's total GHG emissions and to evaluate such emissions in relation to applicable plans, policies, and regulations adopted with the intent to reduce GHG emissions. This analysis will be conducted in the EIR prepared for this project. If potentially significant impacts are identified, measures to avoid or mitigate those impacts will be developed, if possible.



IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			\boxtimes	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			\boxtimes	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			\boxtimes	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				\boxtimes
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				\boxtimes
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				\boxtimes

Discussion

Responses to the following threshold questions are based, in part, on site investigations and assessments of prior land use activities regarding potential environmental contaminants provided in Phase I and Phase II Environmental Site Assessments (ESAs). The Phase I ESA was completed by Partner Engineering and Science on May 29, 2014. The Phase II ESA was completed by RSA Associates, Incorporated on October 31, 1990, with an addendum prepared on May 28, 1991. These documents are included as Appendix C of this Initial Study.



a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Materials are generally considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode, or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in California Health and Safety Code as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (Section 25501(n)(1)). The code additionally states that a hazardous material becomes a hazardous waste once it is abandoned, discarded, or recycled.

The transportation, use, and disposal of hazardous materials, as well as the potential release of hazardous materials to the environment, are closely regulated through state and federal laws. Such laws include those incorporated into the California Health and Safety Code, such as the California Hazardous Materials Release Response Plans and Inventory law and the California Hazardous Waste Control law, as well as other regulations governing hazardous waste promulgated by state and federal agencies, such as the Los Angeles County Department of Public Works, California Department of Toxic Substances Control (DTSC), California Division of Occupational Safety and Health, the Regional Water Quality Control Board, and the U.S. Environmental Protection Agency.

The proposed project would include residential and commercial uses. The residential uses involve the routine transport, use, and disposal of minor quantities of typical household hazardous materials, such as cleaning products, solvents, adhesives, other chemical materials used in building maintenance and interior improvements, small amounts of oil and fuels from internal combustion engines, pesticides and herbicides, sharp or used needles, and electronic waste. This level of hazardous materials use is typical for residential areas and has not been identified as a significant threat to the environment. Residents can dispose of household hazardous materials for free at any of the Los Angeles County Sanitation Districts' permanent disposal centers, and electronics can be disposed of at several private locations. Los Angeles County, in partnership with several cities, including Covina, hosts household hazardous waste and electronic waste recycling events at various locations in the Covina region. In July 2019, three such events were held in La Puente, Glendora, and Baldwin Park (Covina 2019); they were open to Los Angeles County residents.

Proposed commercial uses would also involve the routine transport, use, and disposal of minor quantities of hazardous materials associated with commercial uses and restaurants, such as cleaning products, solvents, lubricants, adhesives, refrigerants, sealants, other chemical materials used in building maintenance and interior improvements, and paints. This level of hazardous materials use is typical for commercial areas and has not been identified as a significant threat to the environment. Further, laws such as those mentioned above strictly regulate the use, transportation, and disposal of hazardous waste; they include training for employees in how to properly handle and dispose of hazardous materials, as well as filing floor plans with the Los Angeles County Fire Department showing locations of hazardous material storage.

Based on the types of land uses proposed; the relatively minor anticipated level of use, storage, and disposal of hazardous materials; and the requirement to comply with various state and federal laws regulating hazardous materials, the project would not result in a significant impact involving the routine transport, use, or disposal of hazardous materials.



b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The history of development on the project site includes agricultural uses between 1928 and 1950, residential uses between 1964 and 1972, vacant and unimproved between 1975 and 1990, and developed with the existing grocery store building and asphalt parking lots from 1991 to present (Partner 2014). Because the site was previously used for agriculture, agriculture-related chemicals, such as pesticides, herbicides, and fertilizers, could potentially be present in the soil; however, previous site development in 1991 generally mixed surface soils with fill material or other disturbed soils during grading. Further, the Phase I ESA states that agriculture-related hazardous chemicals would have degraded since the site was last used for agriculture uses.

Per the Phase I ESA, the Los Angeles County Department of Public Works (LACDPW) records database shows that two underground storage tanks (USTs) were discovered during the grading and excavation of the existing grocery store building in 1991. The USTs, located on the northwest portion of the project site, were made of concrete, and each had an approximate capacity of 6,000 gallons. The USTs were removed in spring 1991, and impacted soils were removed and exported to a treatment facility. The LACDPW issued a "no further action" letter for the project site in 1997. Per the State Water Resources Control Board's GeoTracker database, a leaking underground storage tank (diesel fuel) was also associated with the fire station adjacent to the project site, located at 807 Cypress Street; however, the cleanup has been completed and the case was closed in November 1992 (WRCB 2019).

The Phase I ESA did not identify any recognized environmental conditions (RECs, defined as the presence or likely presence of any hazardous substances) or controlled recognized environmental conditions (defined as an REC that has been addressed by a regulatory agency with hazardous substances remaining in place subject to implementation of required controls) on the project site. Further, the Phase I ESA did not identify any environmental issues other than a collapsed ceiling within the existing grocery store building and some ponding of water in the building interior. While the building shows signs of structural issues (i.e., roof leaks), no evidence of mold growth was observed during the site visit by Phase I ESA preparers. Since this building and all site improvements would be demolished and removed, these conditions would be eliminated by this project.

A Phase II ESA was prepared in 1990 for the construction of the existing grocery store building. It included soil borings and soil testing for the presence of Benzene, Toluene, Xylene, and Ethyl-Benzene. Toluene was found within soil samples taken from the project site; however, as described in the Phase II ESA, results of laboratory tests indicated that levels were within acceptable levels identified by California DTSC. An addendum to the Phase II ESA evaluated soil samples taken from five additional soil borings. The Phase II ESA addendum testing for volatile organic vapors showed non-detectable levels of contaminants in each of the additional soil borings. Neither the Phase II ESA or the addendum encountered groundwater during soil boring. Therefore, disturbance of the site by construction activities would not create a significant hazard to the public through the foreseeable upset of hazardous materials.

Construction activities may also include refueling and minor maintenance of construction equipment on site, which could lead to minor fuel and oil spills; however, as described in the response to threshold question a) in Section X, Hydrology and Water Quality, a variety of routine construction control measures would be incorporated, including spill prevention/containment, sedimentation and erosion



controls, and irrigation controls to prevent conditions that would release hazardous materials into the environment.

As stated in the response to threshold question a) of this section, Hazards and Hazardous Materials, occupation of the commercial and residential facilities would not result in substantial use, transport, or disposal of hazardous materials. Further, any such use, transport, and disposal of hazardous materials is strictly regulated by state and federal laws. Therefore, there would not be a significant hazard to the public involving the accidental release of hazardous materials into the environment associated with project operations.

For the proposed project, therefore, any reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would not result in a significant hazard to the public.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Northview High School is located at the southwest corner of Azusa Avenue and Covina Street, approximately 400 feet (0.076 mile) from the project site. As stated in responses IXa) and IXb), the results of the Phase I and Phase II ESAs conducted on the project site and the review of regulations governing hazardous material determined that project construction and operation is not expected to release any hazardous substances that could endanger the public or the environment. Further, as noted in the response to IXa, the proposed commercial and residential land uses would not emit hazardous emissions or involve the use of acutely hazardous materials and would routinely involve only minor quantities of typical household and small business hazardous materials that are not known to represent a significant threat to the environment.

The project would result in limited emissions associated with delivery and trash trucks, personal vehicles, and combustion-powered maintenance equipment. The small amount of diesel exhaust from delivery trucks and trash collection trucks would not represent a substantial increase over current conditions, which includes truck traffic along North Azusa Avenue and Cypress Street, as well as the presence of delivery trucks and trash trucks serving area commercial businesses, restaurants, and homes. Therefore, as the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes, it would not affect local schools in that regard. Impacts would be less than significant.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site is not included on the Cortese list, which is the list of sites compiled by California DTSC under Government Code Section 65962.5. As such, the project is not included on DTSC's list of: (65962.5(a)(1)) hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code; (65962.5(a)(2)) land designated as hazardous waste property or border zone property pursuant to Article 11; (65962.5(a)(3)) information received regarding waste disposals on public land; (65962.5(a)(4)) all sites listed pursuant to section 25356 of the Health and Safety Code; or (65962.5(a)(5)) all sites included in the Abandoned Site Assessment



program (CalEPA 2019; DTSC 2019). Because the project site is not included on these lists, the project would not create a significant hazard to the public or the environment, and there would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest airports to the project site are the El Monte Airport, located 7.25 miles west of the project site in El Monte, California, and the Brackett Field Airport, located approximately 7 miles east of the project site in La Verne, California. Therefore, the project is not within 2 miles of a public airport and would not result in a safety hazard or excessive noise for people residing or working in the project area, and there would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant. Both City and County emergency plans describe responsibilities and outline procedures for an emergency response. The County has adopted an Operational Area Emergency Response Plan (2012), which describes the planned responses to emergencies associated with natural and man-made disasters and technological incidents. The City's Emergency Plan also outlines procedures to be followed during emergencies, such as who is in charge under different scenarios, what should be done, and by whom it should be done. As stated in the General Plan Safety Element (2000), the City's Emergency Plan was designed to meet all applicable legislative mandates and to achieve consistency with all local, County, and State emergency response documents. The project site is not used by any emergency response agencies and supports no emergency response facilities.

Regarding evacuation routes, the City's General Plan Safety Element indicates that major public streets serve as principal evacuation routes, including the San Bernardino Freeway, located 1.6 miles south of the project site, and arterial roadways, such as Cypress Street and Azusa Avenue. As stated in the Safety Element, the exact emergency routes used during an emergency would depend on a number of variables, including the type, scope, and location of the incident. It would be the responsibility of public officials to adequately assess the situation so that safe and efficient evacuation routes are selected and clearly identified by temporary signage for motorists. Development of the proposed project would have no effect on decisions and actions associated with emergency response procedures and little or no effect on selection of evacuation routes.

Therefore, the project would have less than significant impacts related to implementation of or interfere with an adopted emergency response plan or evacuation plan.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. Wildlands are defined in the General Plan Safety Element as areas characterized by low density, hillside areas with large quantities of uncultivated, combustible plants (such as chaparral and riparian communities), brush, and grasslands. The project site is in a fully urbanized area with an urban street network, a fully pressurized local water system, and an adjacent fire station. Its vegetation is limited to decorative trees and shrubs, and a grass lot on the south side of the project site. The low-density decorative landscaping materials on site do not include uncultivated, combustible plants. Further, the project is 3 miles west of the Covina Hills neighborhood, which is the nearest area



characterized by development on hilly terrain, where wildland fires are more likely to occur. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.



X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			\boxtimes	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				\boxtimes
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?			\boxtimes	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			\boxtimes	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				\boxtimes
iv) impede or redirect flood flows?				\boxtimes
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				\boxtimes
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			\boxtimes	

Discussion

The following discussion references a hydrology and hydraulic study, prepared by JLC Engineering and Consulting in 2019 (referred to in the following analysis as "hydrology study"), and a Low Impact Development Plan, prepared by Land Development Consultants in 2019 (referred to in the following analysis as "LID plan"). The hydrology study and LID plan are available as Appendix D of this Initial Study.



a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The existing site is characterized by a currently vacant grocery store building, an asphalt parking lot with sporadically placed decorative vegetation in a variety of health conditions, and a small patch of grass and bare earth on the south side of the project site, east of the driveway access point to Cypress Street. Currently, the majority of site runoff flows west to storm drains within Azusa Avenue. As stated in the LID Plan, the existing project site is approximately 85% covered with impervious materials. With site alterations under the proposed project, the site would be approximately 67% covered with impervious materials.

During the construction phase of the project, there is potential for generation of water pollutants that might be carried off-site during a rain storm. These pollutants might include loose soils, liquid and solid construction materials and wastes, and accidental spills of concrete, fuels, and other materials. Such construction-related sources of stormwater pollution would be mitigated through required permits and a required erosion and sediment control plan (such as a stormwater pollution prevention plan), as described in the City of Covina Municipal Code (section 8.50.100). Specifically, the municipal code states that prior to obtaining a grading or building permit, applicants must submit applicable water quality control permits, such as the General Construction Permit from the Los Angeles Regional Water Quality Control Board (LARWQCB) and, if warranted when there are alterations to Waters of the U.S., the State Water Board 401 Water Quality Certification. There are no Waters of the U.S. within or adjacent to the project site; therefore, no 401 Water Quality Certification would be required.

Per the City of Covina Municipal Code, each applicant must submit and implement an Erosion and Sediment Control Plan, which can be substituted with a Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with the LARWQCB's General Construction Permit, which would include sediment and erosion control measures to ensure that discharges of pollutants are effectively prohibited and that construction site runoff will be contained so as not to cause or contribute to an exceedance of water quality standards. The Erosion and Sediment Control Plan / SWPPP is listed as a minimum Best Management Practice (BMP) for all construction sites by the City of Covina and helps meet the requirements of the County of Los Angeles's Municipal Separate Storm Sewer System (MS4) permit (R4-2012-0175) (Covina, undated).

The LARWQCB has adopted and administers a Basin Plan, which designates beneficial uses for surface and ground waters; sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy; and describes implementation programs to protect all waters in the Region. The project is governed by this Basin Plan, and the proposed water quality control measures are required to satisfy the water quality objectives set forth in the Plan.

Once completed, the project could generate non-point sources of water pollution typical of residential and commercial development, including runoff from impervious surfaces such as streets, sidewalks, parking lots, driveways, and common area patios, and also landscaped areas. Such water pollutants would typically include oils, grease, metals, trash, fertilizers, pesticides, and herbicides. Under existing conditions, non-point sources of pollution include typical runoff from commercial parking areas, such as brake dust and vehicle oil, as well as landscape wastes and materials fallen from unmanaged trees, sediment runoff from areas of bare soil on the south side of the project site, and trash from illegal



dumping. Under current conditions, project site runoff is not treated before discharging into Azusa Avenue.

The proposed project would be directly connected to the City of Covina's sanitary sewer system; therefore, there would be no point source discharge of sewer waste or any other point source discharge of pollution. The project site would collect the onsite non-point source flows via curb and gutters, catch basins, and subsurface storm drains. The onsite flows would be conveyed to three proposed subsurface basins within the project site, one located in the proposed commercial development south of Building D, and two located in the residential area, one underneath the driveway entrance off of Cypress Street and one under the head-in parking stalls south of common area C. The subsurface basins have been designed to retain and store the required volume necessary to mitigate for increased runoff associated with the 25-year storm event to be equal to the allowable flow rate provided by Los Angeles County Department of Public Works (0.77 cubic feet per second per acre) to the existing storm sewer infrastructure (Line A storm drain managed by Los Angeles County Department of Public Works) located within Cypress Street. See the LID Site Plan (Appendix D) for a visual representation of where the subsurface systems would be placed within the project site. The subsurface stormwater basins would be constructed with 96-inch, perforated corrugated metal piping (CMP), would be approximately 100 feet long, and would have sufficient volume to store sitegenerated stormwater and allow it to infiltrate into underlying soils. Stormwater that does not infiltrate into surrounding soils would be released to the Line A storm drain at an allowable flow rate specified by the County of Los Angeles. Infiltration would effectively remove pollutants of concern, by allowing stormwater to slowly infiltrate into underlying soils, which removes solid contaminants at the surface through physical straining and removes dissolved contaminants through soil absorption. In addition to this structural design feature, the LID plan also identifies non-structural practices to be implemented by the proposed project, including landscaping and litter control in common areas; education for property owners, tenants, and occupants; common area catch basin inspections; and street sweeping of the parking lots and private residential streets.

Per the hydrology study, the nearest water body is the fully channelized, below-grade San Dimas wash, approximately 750 feet north of the project site. As described above, the proposed project would convey all stormwater from the project site into the three subsurface detention basins, which would allow for a metered release of stormwater into Los Angeles County's stormwater sewer system and/or infiltration of the water into the surrounding soils. As such, there would be no surface runoff directly associated with the proposed project to the San Dimas wash, or any other natural water body.

Further, as stated in the Geology and Soils section, the groundwater table is located between 150 and 200 feet below the project site. Given the depth to groundwater, the required BMPs in the LID plan that would limit pollutants in site runoff and provide soil filtration for runoff not released to the municipal storm drainage system, and the fact that typical pollutants found in residential and commercial runoff would not contain hazardous contaminants, the project would not substantially degrade ground water quality.

Compliance with the permits described above and implementation of the BMPs outlined in the LID plan prepared for this project would result in impacts regarding surface or groundwater quality and compliance with existing water quality standards that would be less than significant.



b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed project would be connected to the municipal and county sewer system and potable water system. As such, the project would not include any operating water wells and would not result in any direct withdrawal of groundwater for residents or occupants of the proposed project. Further, there are no existing groundwater extraction wells or evidence of past groundwater extraction wells within the currently developed project site. As stated in the response to threshold 10a), the proposed project would convert the project site from approximately 85% impervious surfaces to approximately 67% impervious surfaces, allowing for more infiltration of rainwater than under current conditions. Further, the proposed storm drainage facilities would include three subsurface stormwater detention basins, which would capture and detain site runoff and allow for controlled releases into the subsurface soil materials. Given the decrease in total impervious surfaces on the project site, and that the project proposes subsurface catchment and infiltration of stormwater, the proposed project would represent an increase in stormwater infiltration and therefore would not decrease groundwater supplies or interfere with groundwater recharge and there would be no negative impact.

c)i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact. As described above, the proposed project would alter the existing drainage patterns of the project site by removing all existing site improvements, changing grades, constructing new buildings and pavement areas, and installing a new stormwater collection and discharge system. These changes would be minor and would not affect drainage patterns outside of the project site. There would be no alteration of a stream or river associated with the proposed project, as no such watercourse exists on the project site, and the San Dimas wash is 750 feet north of the site.

The existing site has approximately 85% impervious surfaces, such as the grocery store building and the paved surface parking areas and driveways, which collect and convey stormwater to Azusa Avenue. The proposed development plan would result in approximately 67% impervious surfaces, including parking areas, driveways, walkways, and common area patios. No soil erosion could occur in such surfaces. The rest of the developed site would include landscaped pervious surfaces, which would essentially prevent soil erosion in those small portions of the site. The project site would collect stormwater via curb and gutters, and catch basins, with the stormwater collecting in three proposed subsurface basins within the project site that would detain, meter the release of stormwater into an existing County storm sewer infrastructure in Cypress Street, and allow for infiltration in the soil. The proposed storm drainage system would thus not discharge to other properties or overland and would not result in alterations to downstream water courses. There would be no impacts involving alteration of a stream or river or other type of watercourse, and no impacts involving increased erosion and sedimentation of such watercourses.



c)ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant. As described in the preceding response, the proposed project would alter the existing drainage patterns of the project site by removing all existing site improvements, changing grades, constructing new buildings and pavement areas, and installing a new stormwater collection and discharge system, which includes three subsurface detention basins. The proposed project would convert the project site from approximately 85% impervious surfaces to approximately 67% impervious surfaces, allowing for more infiltration of rainwater than under current conditions.

The hydrology study shows that the proposed drainage facilities would adequately convey stormwater flows associated with 25-year rainfalls to the subsurface basins through gutter and catchment basins and would prevent flooding on-site. The hydrology study also states that the three subsurface basins have sufficient volume to store and treat site runoff through infiltration. Los Angeles County Department of Public Works is allowing a discharge rate of 0.77 cubic feet per second (cfs) per acre. With a total project area of 7.83 acres, the proposed project must discharge less than 6.0 cubic feet per second into the County's Line A system, within Cypress Street. The subsurface detention and infiltration basins are designed to result in a maximum outflow rate of 5.7 cfs. Therefore, the designed outflow rate is less than the flow rate allowable by the County, which would limit the likelihood of ponding or flooding on-site during a 25-year storm event with adequate maintenance of the subsurface stormwater basins. Further, with project designs complying with Los Angeles County Department of Public Works requirements, stormwater runoff associated with the proposed project would be collected on-site, transmitted to subsurface detention and infiltration basins, and either discharged at an appropriate rate to the County's storm sewer line within Cypress Street or allowed to infiltrate into the ground, limiting the possibility of off-site flooding. Therefore, the project would reduce the rate and amount of surface runoff compared with existing conditions and would not induce on- or off-site flooding. Impacts from site runoff would be less than significant.

c)iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. As described in the responses to threshold 10c)i) and 10c)ii), the Los Angeles County Public Works Department provided a maximum allowable discharge of 0.77 cfs per acre, or a total of 6.0 cfs into the County's existing stormwater infrastructure within Cypress Street. This maximum allowable discharge is greater than the 5.7 cfs maximum discharge of the proposed project's stormwater infrastructure.

Further, the project would result in typical stormwater runoff pollutants for residential and commercial land uses, such as oil and brake dust from parking areas and streets, dust and other atmospheric deposition from rooftops and pavement areas, litter and trash, and biodegradable materials from landscaping wastes and fallen materials from trees. Any other kind of polluted runoff is prohibited by City of Covina municipal code (section 8.50.030, Illicit Discharges). The proposed project would not result in a substantial increase of such pollutants over current conditions, as the existing parking lot is

still used by some vehicles, landscaped areas are not maintained, bare earth along the driveway from Cypress Street can lead to sediment runoff, and the site is currently used for some illegal dumping of trash, all of which could be carried in site runoff during rainstorms.

Therefore, as the proposed project would neither exceed the capacity of existing stormwater drainage systems operated by Los Angeles County nor generate substantial additional sources of polluted runoff compared to current conditions, there would be no impacts.

c)iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

No Impact. The project site is not within a Special Flood Hazard Area as designated by the Federal Emergency Management Agency (FEMA). Flood hazards are present in the Walnut Creek area of the City of Covina; however, that area is on the far east side of the City, in the Covina Hills neighborhood, and is not close enough to affect the project site. Therefore, because the project site is within an "Area of Minimal Flood Hazard," as designated by FEMA, and because on-site or off-site flooding would be prevented by the proposed storm drainage system, as discussed in response to threshold 10c)ii), the proposed project would not impede or redirect flood flows, and there would be no impact.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As stated in the preceding response, the project site is within an Area of Minimal Flood Hazard, as designated by FEMA. The City of Covina General Plan Safety Element states that since Covina is an inland community, tsunami hazards would not affect the City. Further, earthquake-prompted seiche events would not impact the project site or the project site's immediate vicinity, as there are no large bodies of water (such as a reservoir) that could be severely shaken and release flood waters during a seismic event (Covina 2000). Therefore, there would be no impact regarding the release of pollutants due to project inundation resulting from flooding, tsunami, or seiche.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The City of Covina obtains water primarily from the Covina Irrigating Company (CIC), which sources water from the Main San Gabriel Groundwater Basin and the San Gabriel River. Backup water supplies are provided by the Three Valleys Municipal Water District, which sources water from the Colorado River and Northern California (Covina 2019). The City has not drawn water from groundwater wells within the City since the 1990s, citing groundwater quality issues (Covina 2015). As discussed in response to threshold 10b), the proposed project would be connected to existing sewer and potable water systems. As such, the project would not include any operating water wells and would not result in any direct withdrawal of groundwater for residents or occupants of the proposed project. Further, the project site is located a considerable distance from the nearest managed groundwater resources, located near the San Gabriel River. Therefore, the project would not conflict with or obstruct plans such as the Five-Year Water Quality and Supply Plan for the Main San Gabriel Groundwater Basin (2018).

As discussed in response to threshold 10a), the City of Covina municipal code (Section 8.50.100) states that prior to obtaining a grading or building permit, applicants must demonstrate compliance with the



requirements set forth in the General Construction Permit (GCP), administered by the LARWQCB, pursuant to the National Pollutant Discharge Elimination System. Compliance with the terms of the GCP would ensure that the project's construction activities would be consistent with the Basin Plan adopted by the LARWQCB. Further, the developer(s) must also submit and implement an Erosion and Sediment Control Plan, which can be substituted with a SWPPP prepared in accordance with the GCP. The Erosion and Sediment Control Plan/SWPPP is listed as a required BMP for all construction sites by the City of Covina and helps meet the requirements of the County of Los Angeles's Municipal Separate Storm Sewer System (MS4) permit (R4-2012-0175), which requires sediment control, erosion control, and construction materials control on the project site (Covina, undated). The proposed project must comply with such permitting requirements prior to obtaining a grading or building permit from the City. Further, the City of Covina prohibits illicit dumping of pollutants into stormwater systems, as stated in its municipal code (Section 08.50.030, Illicit Discharges). Therefore, compliance with the above-mentioned permits and regulations would ensure that the project would not conflict with or obstruct implementation of water quality control plans such as the Three Valleys Municipal Water District's Urban Water Management Plan (2015) or the City of Covina's Urban Water Management Plan (2015).



XI. Land Use and Planning

	Potentially Significant	Less Than Significant Impact with Mitigation	Less Than Significant	No
LAND USE AND PLANNING: Would the project:	Impact	mcorporated	Impact	Impact
a) Physically divide an established community?				\boxtimes
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				

Discussion

a) Would the project physically divide an established community?

No Impact. The project site is located in a fully urbanized part of the City of Covina, where the built environment consists of a mixture of low-rise residential and commercial land uses, along with a high school campus. The physical arrangement of the surrounding private lots, streets, and utility infrastructure systems has been established for many years. The proposed project would use existing public streets for access to the commercial and residential components and would connect to existing utility mainline facilities in adjacent streets. The proposed project would not result in construction of a linear feature, such as railroad tracks, a flood control channel, or a major roadway, or the removal of a means of access that would result in a physical division of an established community. No physical alterations to any land use or the physical structure of this part of Covina are proposed for outside the project footprint. As such, the proposed project would not physically divide an established community, and further analysis of this issue is not necessary in the EIR.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The existing General Plan land use designation for the project site is General Commercial, with a corresponding zoning of C-4, Highway Commercial. Based on the existing designations and zoning, no homes could be built on the project site. Therefore, the project applicant has requested approval of a General Plan Amendment to re-designate the eastern 5.31 acres from General Commercial to Medium-Density Residential, to allow for development of single-family homes at densities of 7-14 units per acre.

The project applicant has also requested approval of a Zone Change to correspond to the new General Plan land use designation and to rezone the eastern 5.31 acres from C-4, Highway Commercial to RD, Multi-Family Zone, and to approve the Cypress Village Specific Plan to establish custom development standards corresponding to the proposed residential development plan, and to provide guidance for a unified design program to aesthetically integrate the commercial and residential components. The residential component would consist of 61 single-family detached homes, in two-story and three-story structures, with floor plans ranging from approximately 1,700 square feet to approximately 2,600 square feet. The proposed density is 12.25 homes per acre, consistent with the proposed Medium-Density Residential general plan land use designation.



The Covina General Plan Natural Resources and Open Spaces Element does not identify any land use restrictions for the project site that would require conservation of the site for purposes of protecting wildlife habitat or other natural resources. There are no policies in the General Plan Safety Element that establish land use restrictions for this site pertaining to avoidance of environmental hazards on or near the project site. The project site is not within an area where special land use policies or zoning standards have been created for the purpose of avoiding or mitigating environmental effects, nor is it within a local coastal program. As such, the project would not conflict with an applicable land use plan, policy, or regulation established for the purpose of avoiding or mitigating an environmental effect. No further analysis of this threshold is warranted in the EIR.

Other issues related to the proposed changes in the site's land use designation and zoning standards will be addressed in the EIR, concerning effects on public services and utilities, traffic, public parkland, noise, air quality and greenhouse gas emissions. Please refer to the discussions of those topics elsewhere in this Initial Study.



XII. Mineral Resources

MINERAL RESOURCES:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
 a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? 				
b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				

Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. Mineral resources are commonly defined as a concentration or occurrence of natural, solid, inorganic, or fossilized organic material in or on the earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. Mineral resources can be categorized into three classes: fuel, metallic, and non-metallic. Fuel resources include coal, oil, and natural gas. Metals include such resources as gold, silver, iron, and copper. Lastly, non-metal resources include industrial minerals and construction aggregate. Industrial minerals include boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone. Construction aggregate includes sand and gravel, and crushed stone.

There has been no mineral resource extraction on this site or surrounding properties in the recent past, and such activities are not known to have occurred in the distant past (Covina 2000, Page D-9). There are no oil wells on site according to the Phase I Environmental Assessment that was prepared for the project site in 2014 (Partner 2014, p.15). According to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, there are no significant energy-producing minerals or oil, gas, or geothermal fields in the City (Covina 2000). Therefore, the proposed project would not result in the loss of availability of a known mineral resource or resource recovery site, and no further study of this issue is required in the EIR.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. As discussed in the preceding response, no mineral resource recovery sites are located on or in the immediate vicinity of the project site.

The Surface Mining and Reclamation Act of 1975 (SMARA) is the primary regulator for surface mining in the state. The act requires the State Geologist (California Geological Survey) to identify all mineral deposits in the state and to classify them based on their significance. SMARA defines a mineral deposit as a naturally occurring concentration of minerals in amounts or arrangement that under certain conditions may constitute a mineral resource. The concentration may be of value for its chemical or physical characteristics. The classification of these mineral resources is a joint effort of



the state and local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as a Mineral Resource Zone (MRZ), Scientific Resource Zone (SZ), or Identified Resource Area (IRA), described below:

- MRZ-1: A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.
- MRZ-2: A Mineral Resource Zone where adequate information indicates that significant mineral deposits are present, or a likelihood of their presence, and development should be controlled.
- MRZ-3: A Mineral Resource Zone where mineral resource significance is undetermined.
- MRZ-4: A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.
- SZ Areas: A zone that contains unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance.
- IRA Areas: County or State Division of Mines and Geology Identified Areas where adequate production and information indicate that significant minerals are present.

A review of the City's General Plan Natural Resources and Open Space Element did not identify this area as having significant mineral deposits of any kind, or show it in an area delineated as a mineral resource recovery site, pursuant to SMARA (Covina 2000, Page D-9). Therefore, since there are no known significant mineral resources and the project site is not a designated mineral resource recovery site as identified by SMARA or in the City's General Plan, the project would have no impact upon the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

No further study of this issue is required in the EIR.



XIII. Noise

	Potentially Significant	Less Than Significant Impact with Mitigation	Less Than Significant	No
NOISE: Would the project result in:	Impact	Incorporated	Impact	Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	\boxtimes			
b) Generation of excessive groundborne vibration or groundborne noise levels?	\boxtimes			
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				

Discussion

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Construction of the proposed project would temporarily increase noise levels on and in the vicinity of the project site. Stationary and mobile noise sources would be generated by the completed/fully occupied and operational project that could result in a substantial permanent increase in ambient noise levels affecting sensitive receptors around the project site. Such noise sources would include vehicle traffic that would increase roadway noise, noise from building mechanical equipment, possibly noise from outdoor speaker systems associated with proposed drive-thru businesses, movements of cars in parking areas, and outdoor recreation activities by people in their back yards and in the common outdoor spaces within the residential area.

The nearest noise-sensitive land uses that could be impacted by construction noise include the adjacent residential properties to the north and east sides of the project site and the Northview High School campus, 0.4 miles to the southwest of the project site. Adjacent and nearby commercial uses would also be affected by the project's short-term construction noise, but these are considered less sensitive to noise intrusion than homes or schools.

According to Chapter 9.40 of the City of Covina Municipal Code, construction and operation of equipment within any residential land use category or within a radius of 500 feet therefrom are only permitted between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday, and no construction is permitted at any time on a Sunday or any public holiday. In addition, the Municipal Code specifies the maximum exterior noise levels for various land uses in the following table:



Receiving Land Use Category	Time	Sound Level (A-Weighted) Decibels
Residential estate or agricultural	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	50 40
Residential low density	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 45
Residential medium and high density	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	60 50
Commercial	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	65 55
Industrial	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	70 60

The City's General Plan Noise Element goal is "An environment in which potential adverse impacts of noise on the City's residents and workers are identified and prevented and mitigated" (Covina 2000).

Further evaluation of potential noise levels generated during the various construction phases and over the long term due to activities occurring regularly on the fully developed site is required to determine if neighboring land uses could be exposed to excessive noise levels or otherwise conflict with the limitations imposed by the City's Municipal Code regulations and the goals and policies set forth in the City's General Plan Noise Element. Therefore, a noise analysis will be prepared as part of the project EIR, to evaluate potential impacts and to develop mitigation measures (if necessary) to avoid significant short-term or long-term impacts that may be identified.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Construction of improvements under the proposed project would create periodic and short-term noise, including ground-borne vibration and ground-borne noise, which could exceed established noise standards. Temporary ground-borne vibration would likely be generated by various types of machinery during the grading and site preparation construction phases. The vibration levels would vary by type of machinery and distance to sensitive receptors near the construction activity, as well as soil materials. Typical types of machinery that could generate noticeable vibration off-site include jack hammers, loaded trucks, large bulldozers, and vibratory rollers.

However, development of the proposed project would support typical indoor and outdoor activities associated with single-family residences and commercial use; completed, the project would not generate ground-borne noise or vibration.

Further analysis of the proposed construction activities and the types of machinery is required to determine whether there could be any significant vibration sources that could adversely affect the nearest structures in terms of structural damage or human comfort. A noise analysis will be prepared as part of the project EIR, to assess construction impacts involving ground-borne vibration and ground-borne noise and to develop mitigation measures (if necessary) to prevent potentially significant impacts that may be identified.



c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the vicinity of a private airstrip or an airport land use plan or within 2 miles of a public airport or public use airport. The closest public airport, Brackett Field Airport, at 1615 McKinley Avenue, La Verne, California, is approximately 5 miles from the project site. The closest private airstrip, Cable Airport, at 1749 W. 13th Street, Upland, California, is approximately 10 miles from the project site (AirNav LLC 2019). Therefore, the project would not expose people residing or working in the project area to excessive noise levels from such airport uses. As such, this issue is not required to be further analyzed in the EIR.



XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING:				
			[
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	\boxtimes			
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				\boxtimes

Discussion

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Potentially Significant Impact. The project site is currently designated in the Covina General Plan Land Use Element as General Commercial, with a corresponding zoning classification of Commercial Highway (C-4). The proposed project would require a change in the General Plan land use designation and zoning classification for construction of the proposed 61 residential homes on a portion of the project site. This change in land use would result in unplanned population growth. Further evaluation of this project's increment of growth with respect to adopted growth forecasts is required to determine whether this would represent a substantial level of unplanned growth that could result in impacts related to accommodation of this many new homes and its resident population in this area. For example, the new residential land use onsite would result in different levels of demand for public services than a commercial land use. Utility and infrastructure needs would also differ. Those types of impacts are discussed elsewhere in this Initial Study and will also require further analysis. The proposed change from commercial to residential land use would not result in a need to extend or build any new roads or other transportation infrastructure, nor would it require construction of any new mainline infrastructure facilities, since all such facilities are present in the project area. Further evaluation of the project's implications involving unplanned residential growth and growth-inducing effects will be addressed in the EIR to be prepared for this project.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would result in demolition of an existing abandoned grocery store and parking lot and development of new commercial buildings and residential units. Since no housing units or any type of shelter for people are currently in this area, and there are no onsite residents, this project would not displace any people or housing and there would be no impact.



XV. Public Services

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?			\boxtimes	
ii) Police protection?			\boxtimes	
iii) Schools?	\boxtimes			
iv) Parks?	\boxtimes			
v) Other public facilities?			\boxtimes	

Discussion

a)i) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

Less Than Significant Impact. The proposed project site is located in a fully urbanized part of the City. The City's fire protection services are provided through a contract with the Los Angeles County Fire Department (LACFD). The City is served by three existing LACFD Fire Stations: 152, 153, and 154. Fire Station 152, at 807 W. Cypress Street, is situated immediately adjacent to the project site on Cypress Street. It is presumed to be the primary station serving the project vicinity (Google Maps 2019). Redevelopment of the site with the proposed mix of commercial and residential development would not introduce unique land uses or construction materials to this area and would not represent a different set of circumstances to respond to in the event of a fire or medical emergency at the developed site. No new or different firefighting resources would be required to address potential response needs associated with the proposed project. Given the existence of an adjacent fire station and two additional stations not far away, this project would not result in adverse impacts involving response times for the LACFD. No new or expanded fire stations or other Fire Department facilities would be required to maintain adequate levels of service after this project is built. The project would result in less than significant impacts involving Fire Department resources, and no further analysis is required.



a)ii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

Less Than Significant Impact. The project site is located in a fully urbanized part of Covina that is adequately served by the Covina Police Department's existing resources. The Police Department headquarters is 1.4 miles northeast of the project site, at 11333 Valley Boulevard (City of Covina 2011, p. 5.11-5). No new or different police resources would be required to address potential response needs associated with the proposed project. This project would not result in adverse impacts involving response times for the CVPD. No new or expanded police stations or other police department facilities would be required to maintain adequate levels of service after this project is built. The project would result in less than significant impacts involving Police Department resources, and no further analysis is required in the EIR.

a)iii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?

Potentially Significant Impact. Public education services in Covina are provided by the Covina Valley Unified School District (CVUSD). The proposed project would include new residential development that would directly increase the City's population. The associated increase in demand generated by the project for public school resources will require further evaluation to determine whether the additional students residing in the project site could result in a need to construct new educational facilities within the CVUSD, which could result in environmental impacts. Therefore, this issue will be further analyzed in the EIR to be prepared for this project.

a)iv) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

Potentially Significant Impact. The proposed project would include new residential development that would directly increase the City's population. According to the City's General Plan, Natural Resources and Open Space Element, City parkland includes nine parks and two ballparks. The City owns seven of the nine parks. The other two parks are leased from the CVUSD (General Plan 2000).

The current size of the City parkland is approximately 62 acres, and the City has an estimated population of 48,876 residents (DOF 2019); thus, the City has 1.26 acres of open space per 1,000 residents. This ratio is significantly below the generally accepted, national guideline (established by the National Recreation and Park Association, or NRPA) of 2.5 to 4.0 acres of parkland for every 1,000 population. According to the City's General Plan Natural Resources and Open Space Element, "this deficiency has hampered the City for many years and, unless corrective policies and measures are adopted and followed, the shortfall would be exacerbated in the future because of various



demographic, socio-economic, and housing development trends" (General Plan 2000). A target of 2.0 acres of local parkland per 1,000 city residents is identified in the Natural Resources and Open Space Element.

This project, with 61 new homes, would further exacerbate that problem. Further analysis of the project's implications with respect to the City's supply of parkland resources is required to determine if the project could contribute to any adverse environmental effects due to worsening an existing deficiency of public parkland. This analysis will be provided in the EIR to be prepared for this project.

a)v) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

Less Than Significant Impact. Future residents of the developed project site (61 new residential units) may occasionally visit public facilities such as libraries, senior centers, pools, and hospitals. All of these facilities are intended to serve residents throughout Covina. Currently, there are no adopted performance standards for "other" types of public facilities that can be applied to a particular land use proposal, and these other facilities are designed and planned to respond to community-wide needs, over time. The proposed project would be required to pay the City's development impact fees, which are allocated, in part, toward improvements to the local library system and various general government services and facilities. Payment of these fees would sufficiently offset the project's incremental effect on these other public facilities. Therefore, the project would result in less than significant impacts involving an increased demand generated by the project for other public facilities, and no further analysis is required in the EIR.



XVI. Recreation

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			\boxtimes	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			\boxtimes	

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Future residents of the proposed 61 single-family homes may occasionally visit one or more of the public parks found in Covina, and possibly in neighboring areas, for a variety of active and passive recreational activities. Hollenbeck Park, located at 1250 North Hollenbeck Avenue, is the nearest City park, approximately 0.8 miles from the project site. This community park is 10 acres in size and provides a playground for 5- to 12-year-olds, sports fields, basketball courts, picnic tables, and a parking lot (Covina 2019). Given the size of this park and the scope of activities available there, occasional visits by future project site residents are not likely to result in physical deterioration of those park facilities. Generally, a new neighborhood of homes does not generate an intensive increase in the use of local park facilities, or in activities that result in a physical deterioration of the park. Those types of impacts are sometimes associated with special events conducted at existing parks, which involve exceptionally intensive levels of use due to high volumes of people concentrated in the same area at the same time. These uses can result in damage to turf, excessive littering, noise, traffic congestion, etc. The proposed project would not result in those types of impacts. As such, the proposed project is not expected to result in substantial physical deterioration of existing parks, and no further analysis is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. The proposed project does not include and would not require the construction or expansion of any off-site recreational facilities. The proposed project would provide common open spaces comprising landscaping and walkways, along with private yards and pocket parks to provide passive recreation opportunities exclusively for the residential portion of the project site. There would be no unique or extreme effects attributable to the proposed recreational functions, as the on-site recreation areas would be limited to passive activities by on-site residents and their occasional visitors. Potential adverse effects associated with any proposed night lighting of the onsite common outdoor recreation areas will be addressed under the topic of Aesthetics, as noted in the



response to item 1)d). No other adverse physical effects on the environment are anticipated, and no further analysis of this issue is required in the EIR.



XVII. Transportation/Traffic

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	\boxtimes			
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			\boxtimes	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	\boxtimes			
d) Result in inadequate emergency access?			\boxtimes	

Discussion

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, taking into account all modes of transportation including transit, roadways, bicycle and pedestrian facilities??

Potentially Significant Impact. The proposed project, which consists of the redevelopment of the former Albertson's site at the northeast corner of the Azusa Avenue/Cypress Street intersection, may have potentially significant impacts to City's existing roadways and the planned bicycle network.

Roadways

Cypress Street

Cypress Street provides local and direct access to the commercial portion of the project site. Cypress Street is a four-lane, east-west Collector Street with a two-way left-turn lane (TWLTL) in the study area. On-street parking is generally permitted on Cypress Street, and the posted speed limit in the study area is 35 miles per hour.

Azusa Avenue

Azusa Avenue provides local and direct access to the residential portion of the project site. Azusa Avenue is a four-lane, north-south, Primary Arterial Street with a raised median. On-street parking is generally permitted on Azusa Avenue, and the posted speed limit is 40 miles per hour.

The City's performance standard for the local street network is based on the level of service (LOS), calculated on the basis of traffic volumes as a percentage of the capacity of the street or intersection. LOS is commonly used to describe the quality of flow on roadways and at intersections, using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions).



The City of Covina has established LOS D or better as the acceptable LOS for intersections within the City. Currently, the intersection of Cypress Street and Azusa Avenue operates at LOS C. Because the proposed project would result in an increase in peak hour and daily traffic compared to the existing, undeveloped conditions, further evaluation is needed to calculate the project's traffic impact on the LOS of the affected portions of the surrounding street network, to determine if the City's performance objectives would be maintained or degraded. Therefore, a quantitative traffic impact analysis will be prepared as part of the EIR for this project.

Transit Service

Transit services in the project vicinity are provided by Foothill Transit and Metrolink. Foothill Transit provides bus service within the City of Covina, along Azusa Avenue (Route 280) between Azusa and the Puente Hills Mall (Foothill Transit 2019). The northbound 280 bus line/stop is located on Azusa Avenue, approximately 200 feet south of the commercial portion of the project site, and the southbound 280 bus line/stop is across the street on the southwest corner of Azusa Avenue, approximately 700 feet southwest of the project site (Google Earth 2019).

Metrolink also provides regional and local rail service near the project area. The Covina Metrolink Station is approximately 1.5 miles east of the project site at 600 N. Citrus Avenue. This Metrolink station originates at Los Angeles Union Station and ends at the San Bernardino Metrolink Station.

The proposed project would not physically affect the nearby bus stop or any Metrolink stops. There could be additional transit riders among the future project residents, job holders, and customers of the proposed commercial businesses, but an increase in transit ridership would be considered beneficial.

Pedestrian and Bicycle Facilities

Sidewalks

There are sidewalks on all adjacent roadway segments surrounding the project site (Cypress Street and Azusa Avenue). The existing sidewalks along the project would be retained. In addition, there are crosswalks at the intersections adjacent to the project site, across the stopped approach of the intersection. No new sidewalks would be constructed for the proposed project. The proposed project would not affect any pedestrian paths.

City of Covina Bicycle Network

City of Covina Bicycle Master Plan

The Bicycle Master Plan refers to bikeways using California Department of Transportation (Caltrans) standard designations. Three types of bikeways identified by the Streets and Highways Code and by Chapter 1000 of the Highway Design Manual (HDM) are as follows:

- **Class I Bikeway**: Typically called a "bike path," a Class I Bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- **Class II Bikeway**: Often referred to as a "bike lane," a Class II Bikeway provides a striped, signed, and stenciled lane for one-way travel on a street or highway.



 Class III Bikeway: Generally referred to as a "bike route," a Class III Bikeway provides for shared use with bicycle or motor vehicle traffic and uses only signage identification (BMP 2011)

The City's planned bicycle network identifies Class II bike lanes on both Azusa Avenue and Cypress Street. Class II bikeways are located along the edge of a street, with a striped lane denoting this bike lane. Caltrans bike lane standards mandate that a Class II facility must be a minimum of 5 feet wide (when including the gutter) and that parking is prohibited in the bike lane at all times.

Implementation of the City's bicycle master plan occurs through any of the five processes listed below:

1. Add Bike Lanes to existing roadway lane geometry.

Sufficient curb-to-curb roadway width exists to stripe a bike lane. Some existing vehicle lanes may require narrowing to 10 feet. This minimum vehicle lane width has been used at numerous locations within the City.

2. Add Bike Lanes, reduce to one travel lane in each direction, add a center turn lane, and maintain or restore curbside parking on both sides.

Sometimes referred to as a "road diet," this strategy for accommodating bike lanes takes advantage of excess roadway capacity, based upon relatively low Average Daily Traffic (ADT) volumes. A typical "road diet" conversion will involve restriping four through lanes as two through lanes with a center turn lane and two bike lanes.

3. Add Bike Lanes and prohibit curbside parking on one side only.

If traffic volumes are higher and a lane reduction as above is not feasible, removal of parking on one side of the street can provide enough space to stripe two bike lanes. This involves reducing travel lane widths to 10 or 11 feet where appropriate. Adjacent land uses and their demand for on-street parking generally determine the side of the street from which to remove parking.

4. Add Bike Lanes and prohibit curbside parking on both sides.

Similar to the third method, four travel lanes are maintained, but enough roadway width is still not available to stripe bike lanes. In this case, parking will be prohibited on each side of the street.

5. Add Bike Lanes where street widening and railroad crossing improvements would be required.

There is only one location where street widening is required to implement bike lanes: Barranca Avenue at the railroad crossing.

Neither of the two Class II bike lanes planned along Azusa Avenue and Cypress Street have been installed. The proposed project would have no effect on future City actions to install those lanes, as it would not encroach into the existing street right-of-way and thus would not eliminate space to provide a future bike lane. Further analysis of impacts to bike paths is not warranted.


b) Would the project conflict with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact. As of July 1, 2020, transportation impact assessments prepared in accordance with CEQA will be required to determine if a proposed project would conflict with CEQA Guidelines Section 15064.3(b). This section outlines criteria for analyzing transportation impacts using vehicle miles traveled (VMT) as the primary measure of transportation impact, which is generally defined as the amount and the distance of automobile travel associated with a project. The City has not developed local methods and procedures to analyze a project's using VMT as a measure. As such, the traffic analysis to be prepared for this project will not include an analysis of VMT-based impacts related to CEQA Guidelines Section 15064.3(b).

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. Site access for the three new commercial buildings would be provided via separate driveway approaches fronting Azusa Avenue. The commercial lots on the north (lot 2) and south (Lot 4) of the proposed project site would utilize existing driveways serving the former Albertson's building on the site. The building in the center (Lot 3) would require a new driveway approach (See Project Description Figure 3, Site Plan). Site access for the residential portion of the proposed project will be separate from commercial access and will consist of one full access driveway on Cypress Street via a private, gated driveway located between Los Angeles County Fire Station 152 and an existing restaurant site. Analysis of the geometric configuration of the proposed new drive approach on Azusa Avenue is required to confirm that the turning movements there can be safely accommodated without adverse impacts to traffic movements along Azusa Avenue. Because of the proximity of the Cypress Street driveway to Azusa Avenue, an analysis of turn movements and queuing effects is also required to confirm that vehicular movements in and out of that drive would not result in safety hazards or impede traffic flow.

The intersection at Azusa Avenue and Cypress Street is signalized and provides pedestrian crossing on all four corners. As such, the proposed project would not require the construction of new roadways and intersections. All project-related vehicle traffic would consist of passenger vehicles and light-duty trucks that comprise the vast majority of traffic found on the street network. This traffic would not result in any types of vehicular movements that would be incompatible with existing traffic patterns or with the mixture of vehicles that occurs in this area. Therefore, impacts to road design and incompatible uses would be less than significant in this regard, and no further analysis of these issues in an EIR is required.

d) Would the project result in inadequate emergency access?

Less Than Significant. The proposed project would not require the construction of new roadways and intersections. Existing driveway access to the commercial and residential components of the project would provide adequate emergency access throughout the site.

Furthermore, the proposed project would have no effect on emergency access to any surrounding properties and would not impair access by emergency vehicles traveling along adjacent and nearby streets. As such, impacts to emergency access would be less than significant, and no further analysis of this issue in an EIR is required.



XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCSE:	F	F	F	P
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
 i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 				
 ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. 				

Discussion

a)i) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No Impact. The project site is currently developed with a commercial structure built in 1991 along with a paved surface parking and vehicle driveways and loading areas. Given the recent age of the commercial structure, it would not be listed or eligible for listing in the California Register or in a local register of historical resources. Further, a records search at the South Central Coastal Information Center (SCCIC) determined that there are no documented historic or prehistoric cultural resources on or within a 1/4-mile radius of the project site.

Based on the results of the SCCIC search this project would have no effect on any listed or potentially eligible historic resources that consist of tribal cultural resources. Therefore, no impacts to tribal cultural resources associated with known historic resources would occur.



a)ii) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource to a California Native American tribe.

Potentially Significant Impact. Approved by Governor Brown on September 25, 2014, Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native Tribes to identify potential significant impacts to Tribal Cultural Resources as defined in the Public Resources Code §21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project and the lead agency must begin consultation within 30 days of receiving the request for consultation.

In compliance with AB 52, on July 2, 2019, the City of Covina notified the following tribes: Gabrielano-Tongva Nation, Gabrielino Band of Mission Indians-Kizh Nation, Gabrielino-Tongva San Gabriel Band of Mission Indians, Gabrielino-Tongya Tribe, San Fernando Band of Mission Indians and Torres Martinez Desert Cahuilla Indians of the proposed project and requested a response if the tribes had a desire to consult. The Gabrieleño Band of Mission Indians-Kizh Nation responded to City staff with a written request for consultation dated July 9, 2019, and consultation was initiated on July 25, 2019. The Kizh Nation advised that the project site lies within ancestral tribal territory and requested that information provided as part of the written consultation remain confidential. Although the tribal representatives did not identify tribal cultural resources within the project site and there are no known resources recorded by others on the project site, there is a potential for inadvertent impact during excavation work to such resources that may still be present within native soils on-site. The Kizh Nation requested that the City impose mitigation measures focused on monitoring of grading activities to avoid impacting or destroying tribal cultural resources that may be inadvertently unearthed during the project's ground disturbing activities. The mitigation specifications are under discussion at this time and once agreed upon, will be incorporated into the Final Initial Study and EIR scoping determination.

The Gabrielino-Tongva Tribe also responded on July 21, 2019 with a request for further information concerning the proposed development plan and extent of soil disturbance during construction, which was provided. No further request for consultation was received.



XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS: <i>Would the project:</i>	Impuot	morporadu	Impuot	Impuer
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	\boxtimes			
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			\boxtimes	

Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Potentially Significant Impact. Implementation of the proposed project would convert a vacant, former grocery store site to a mix of fast food services, retail space, and 61 single-family homes. The project would connect to nearby water, sewer, storm drainage, and energy and telecommunications infrastructure, all of which exist in the immediate area. Further analysis is required to determine if the project's utility demands could require upgrades to existing utility infrastructure and, if so, if that could result in significant environmental impacts during or following construction of those upgrades. This additional analysis will be provided as part of the EIR to be prepared for the project.



b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Potentially Significant Impact. Implementation of the proposed project would convert a commercial land use to a mix of commercial and residential uses. Further analysis is required to determine whether the proposed project could result in a substantial increase in water demand, compared to the range of commercial uses that could be developed under the existing C-4 zoning. Any potentially substantial increase would need to be examined with respect to the current Urban Water Management Plan (UWMP) forecasts for the City of Covina, to determine whether the project's water demand and the existing water supplies could contribute to a need for additional water supplies not currently anticipated in the UWMP. This analysis will be provided as part of the EIR to be prepared for this project.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. Implementation of the proposed project would convert commercial land to a mix of commercial and residential land uses. Further analysis is required to determine whether the project's wastewater loads would exceed potential loads associated with the commercial uses permitted under the current C-4 zoning. If so, the project's estimated wastewater loads will be evaluated with respect to the capacities of the wastewater collection and treatment system serving this area. This additional analysis will be provided as part of the EIR to be prepared for the project.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. The solid waste generated by the proposed development would be typical of the types of wastes generated by single-family residential land and commercial uses throughout the City of Covina. Nothing inherent in the project design or in the type or intensity of land uses would indicate that this project would generate a higher than normal level of typical municipal solid wastes, or that it would generate any unique or problematic types of wastes requiring unusual disposal methods. The City administers trash and recycling programs, such as free disposal of bulky items, bulky item pickup, electronic waste disposal, and assistance with disposal of household hazardous waste (e.g., paint, pool chemicals, medication, batteries, household cleaners). The proposed project would be required to participate in solid waste recycling and the waste reduction program administered by the City of Covina. These programs include free disposal of bulky items, bulky item pickup, electronic with disposal of household hazardous waste.

Residential Refuse Service

Basic residential refuse service consists of three 90-gallon containers: a black trash container, a blue or gray recycling container, and a green container for green waste. All are collected weekly.

Bulky, Large Item Collection

Residential customers are entitled to free bulky item pickup. Materials accepted include furniture, mattresses, bicycles, and appliances. Bulky item pick up is available to commercial and industrial customers for a nominal charge.



Household Hazardous Waste, Electronic Waste and Universal Waste

Household hazardous waste is any item to be disposed that is labeled toxic, poisonous, corrosive, flammable, combustible or an irritant. Electronic waste (E-Waste) refers to consumer electronic equipment that is no longer wanted. E-waste can include computers, printers, televisions, VCRs, cell phones, fax machines, stereos, and electronic games. Universal wastes are also toxic and include batteries, fluorescent lamps, and mercury thermostats. These items may not be disposed of in the regular trash. Properly dispose of toxic materials by taking them to a hazardous waste collection event. Collection events are held every Saturday throughout Los Angeles County (Covina 2019).

Commercial Refuse Service

Commercial customers may choose from a variety of bin sizes and varying frequency of collection.

Commercial Recycling

Commercial and industrial facilities and multi-family complexes using bins (dumpsters) also participate in recycling. Contents from bins are taken to a Materials Recovery Facility (MRF), where the material is sorted and recyclables are separated and processed.

Business Assistance - Recycling Market Development Zone Program

Covina is one of 19 cities in the Los Angeles County Recycling Market Development Zone (RMDZ) (CalRecycle 2019). The RMDZ program combines recycling with economic development to fuel new business, expand existing business, create jobs, and divert waste from landfills. The Los Angeles County RMDZ is administered by Los Angeles County Public Works, Environmental Programs Division. It administers programs that assist residents and businesses throughout the county to recycle traditional (metals, paper, and plastic) and non-traditional (construction and demolition debris, homegenerated sharps waste, and electronic waste) materials (Covina 2019c).

In 2015, the target disposal rate for Covina was 6.10 pounds per person per day (ppd), and the actual disposal rate was 4.9 ppd; the target disposal rate per employee was 13.4 ppd, and the actual rate was 11.5 ppd per employee (CalRecycle 2015). Thus, Covina was meeting AB 939 goals in 2015.

Pursuant to the mandatory provisions of the California Green Building Code Standards, at least 50 percent of all non-hazardous construction waste materials must be recycled and/or salvaged. Based on the reported 2015 citywide disposal rate of 4.9 pounds of solid waste per person per day, the proposed project would generate roughly 905.5 pounds (or 0.45 tons) of common household wastes on a daily basis. Each home would have its own containers for household wastes and recyclable materials, which would be set in front of garages for collection by the City's contracted waste hauler and taken to a licensed/permitted municipal solid waste materials recovery facility in the City of Industry. Project residents could also take their recyclable waste materials to several commercial facilities in or near Covina that handle various types of recyclable wastes. Landscape maintenance contractors would be responsible for proper disposal of green wastes. No permits or other regulatory approvals are required to handle or dispose of the household or commercial wastes that would be generated by this project. The proposed project would not conflict with any federal, state, or local regulations pertaining to waste management and disposal.

Given the infill location of this project, where solid wastes have been generated and disposed of through the municipal waste stream for many years, and given the regional scale of landfill disposal



facilities, this project would not exceed state or local standards or otherwise impair the attainment of solid waste reduction goals. Further analysis of this issue in an EIR is not required.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, required every city and county in California to reduce the amount of waste disposed at landfills by 25 percent by 1995 and by 50 percent by 2000. The California Green Building Standards Code also requires construction projects for commercial, industrial, or retail structures, as well as all tenant improvements, irrespective of the square footage, to recycle debris. On February 20, 2018, the Covina City Council adopted Ordinance 18-03 to preserve available landfill space and maintain compliance with CALGreen Building Codes. The City's policy applies to all construction, demolition, addition, alteration, and remodeling projects occurring within the City of Covina (Covina 2019a). The requirements consist of the following:

- Recycling/reuse of 75% of the project waste stream.
- Recycling/reuse of 100% of material resulting from non-residential land clearing.
- Use of City-approved recycling facilities.
- Proper disposal of hazardous and universal waste.
- Submittal of a Pre-Project Recycling Plan.
- Payment of an Administrative Fee, non-refundable.
- Payment of a Diversion Security Deposit, refundable upon verification of compliance.
- Submittal of a Post-Project Compliance Report

Assembly Bill 341, Mandatory Commercial Recycling, was signed into California law in 2011. AB 341 requires all California businesses that generate 4 cubic yards or more of solid waste per week, as well as multifamily residential dwellings with five or more units, to implement a recycling program. In addition, AB 341 sets a statewide goal for 75% disposal reduction by 2020. Athens Services currently transports all of Covina's waste to a Material Recovery Facility, where recyclables are sorted and then sold to end markets. Therefore, Covina businesses would be in compliance with AB 341, and no additional containers would be needed to sort any materials (Covina 2019b).

AB 1826, Mandatory Organics Recycling, was signed into California law in 2014. AB 1826 requires all California businesses that generate 4 cubic yards or more of solid waste per week, and produce organic waste, to recycle that organic waste. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste. Approximately one third of California's waste stream consists of organic waste that can be diverted away from landfills through recycling, composting, or donation (CalRecycle 2014). To comply with AB 1826, Covina businesses may select one or more of the following recycling options:

 Subscribe to an organics recycling service through Athens Services. The collected material is delivered to the company's compost facility (American Organics), where it is processed into nutrient-rich compost for agricultural end users.



- Donate usable food to an agency that serves those in need. The EPA provides a variety of
 resources to help find local food banks and shelters that will accept usable food.
- Self-haul food waste off-site for recycling or beneficial reuse.
- Compost food scraps on-site (Covina 2019b).

During construction, waste materials such as building materials from the demolished structures, concrete/pavement, or asphalt would be disposed of in accordance with Ordinance 18-03. During operation, the proposed project would generate a variety of typical municipal solid wastes associated with residential and commercial uses, estimated to include paper, plastics, cardboard, metals, glass, and electronic wastes. All residential and commercial refuse generated at the project site would be disposed of and reused or recycled by the City's waste hauler, as discussed above under XIX.d).

Furthermore, to the extent any future residents or businesses generate hazardous wastes, they would be obligated to comply with applicable regulations governing the storage, transport, and disposal of such wastes outside of the municipal waste stream. Electronic wastes (e-wastes) would be disposed of during scheduled e-waste collection events sponsored by the City and/or private entities. As discussed in the response to XIX.a), neither of the proposed uses—commercial or single-family residential would generate substantial quantities of hazardous substances or wastes. Therefore, the proposed project would not result in conflicts with solid waste statutes or regulations, and the project's solid waste disposal impact would be less than significant. Further analysis of this issue in an EIR is not required.



XX. Wildfire

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				\boxtimes
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				\boxtimes
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				

Discussion

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project site is not located in or adjacent to an area designated as a very high fire hazard severity zone (VHFHSZ) or any other type of wildfire hazard. Wildland fires typically occur in very low-density hillside areas with large quantities of uncultivated, combustible plants (such as chaparral and riparian communities), brush, and grasslands. The project site is within a flat, urbanized area adjacent to existing commercial and residential structures. Wildland fires would not occur on or near the project site. According to the Covina Fire Department, all major public streets could serve as a principal evacuation route. In any disaster warranting evacuation, the exact emergency routes used would depend on a number of variables, including the type, scope, and location of the incident. It is the responsibility of emergency service and/or appropriate public officials to adequately assess the situation so that safe and efficient evacuation routes are selected (Covina General Plan, Safety Element). Therefore, construction and operation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and no further study of this issue is required in the EIR.



b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project site is not within or near a VHFHSZ. Therefore, the proposed project would not have the potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors, or exacerbate wildfire risks. No further study of this issue is required in the EIR.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project site is not in or near lands that are classified as a VHFHSZ. The project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impacts would occur with regard to this issue, and no further study of this issue is required in the EIR.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project site is not in or near lands that are classified as a VHFHSZ. The project site is within a flat, urbanized area adjacent to existing commercial and residential structures. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impacts would occur with regard to this issue, and no further study of this issue is required in the EIR.



XXI. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. As discussed in Factor XVII, Transportation/Traffic, the proposed project would generate new vehicle trips that could add to congestion levels on the surrounding street network and degrade the performance of that street network. Accordingly, further analysis of the project's traffic impacts will be conducted as part of the EIR to be prepared for this project. As discussed in Factor IV, Biological Resources, there is no remaining natural, undisturbed habitat onsite, and the few ruderal plants and trees within the parking lot planters and in the grass-covered "leg" that extends to Cypress Street are not considered to be biologically sensitive or important resources. Any wildlife presence would be limited to common, urban-adapted species, rather than rare, threatened or endangered species protected under California or federal statutes. There are no surface drainage features or wetland features on or near the site, and thus no habitat to support any aquatic species. Since this site is in a fully urbanized area, surrounded by developed land, the site does not provide a habitat linkage to support fish or wildlife migration or movement. Compliance with the regulations of the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code during



removal of existing trees will avoid potential impacts to avian species protected by those regulations. As such, removal of the few non-sensitive plants and trees would not result in a reduction of the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Factor V, Cultural Resources, the existing, vacant grocery store building and related site improvements were built in 1991 and are modern, rather than historic resources. A search of cultural resources archives at the South Central Coastal Regional Information Center in July 2019 determined that there are no recorded historic or archaeological resources on or near the project site. Proposed grading would generally be shallow and affect previously disturbed soils; however, construction of some underground utilities such as the subsurface drainage basins could potentially extend into native materials where it is possible that some archaeological materials could be discovered. Mitigation Measure V-1 will require archaeological monitoring during those grading activities to ensure that potentially significant cultural resources are not accidentally damaged.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact. Additional research is needed to identify other pending development projects and major public infrastructure projects that could be constructed in the general vicinity of the project site over the next few years, to determine if there is a potential for overlapping effects that could be cumulatively considerable. For example, the proposed single-family homes, in combination with other proposed new residential development, could further exacerbate the existing deficiency of public parkland in Covina, resulting in cumulatively considerable impacts. Project-related vehicular traffic, in combination with increased traffic from other pending projects and general area growth, could result in cumulatively considerable impacts on the performance of the surrounding street network. Emissions of criteria air pollutants during construction and over the long-term operating life of the project must be quantified to determine whether those emission levels would exceed the thresholds established by the South Coast Air Quality Management District, which are indicators of cumulatively significant impacts. Project-related impacts, combined with impacts from other anticipated growth, could also result in cumulatively considerable impacts. Consequently, an assessment of cumulative impacts will be provided in the EIR to be prepared for this project.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. The proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. As discussed in the response to Factor III, Air Quality, further analysis is required to determine whether the levels of criteria air pollutants generated during construction and over the operating life of the project could exceed significance thresholds established by the South Coast Air Quality Management District. As discussed in Factor IX, Hazards and Hazardous Materials, potential harmful releases of environmental contaminants during construction are not anticipated, and the proposed fast food, retail and single-family residential uses would not involve the regular use, transport, storage, generation, or disposal of significant quantities



of hazardous substances. Therefore, significant impacts are not anticipated due to releases of hazardous substances and materials. As discussed in Factor XIII, Noise, further assessment of construction-period and long-term operational noise is required to determine whether short-term or long-term noise impacts could result in substantial adverse impacts on human beings. No other environmental impacts resulting from the project were determined to result in potentially adverse impacts to human beings. Further analysis of the potentially significant air quality and noise will be provided in the relevant sections of the EIR to be prepared for this project.



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Appendix A: Initial Study, Notice of Preparation, and Responses to NOP

Part 2: Notice of Preparation



NOTICE OF PREPARATION AND PUBLIC SCOPING MEETING

TO: Distribution List

Lead Agency:		Consulting Firm:	
Agency Name:	City of Covina	Name:	Michael Baker International
Street Address:	125 E. College Street	Street Address:	3760 Kilroy Airport Way, Suite 270
City/State/Zip:	Covina, CA 91723	City/State/Zip:	Long Beach, CA 90806
Contact:	Lisette Sanchez-Mendoza, Community Development Consultant	Contact:	Randy Nichols, EIR Project Manager
Telephone:	(626) 384-5451	Telephone:	(562) 200-7168

SUBJECT:Notice of Preparation of Draft Environmental Impact Report and Public Scoping
Meeting for the Proposed Cypress Village Mixed Use Development Project

The City of Covina will be the lead agency and will prepare an Environmental Impact Report ("EIR") for the proposed "Cypress Village" Mixed Use Development Project (the "project"). The Project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Initial Study is also included in the attached materials.

To Other Government Agencies

We need to know the views of your agency as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the project.

To Individuals, Special Interest Groups and Other Interested Parties

We are requesting your written input regarding concerns about environmental effects that may result from this project, to help define the scope of the analysis to be provided in the EIR. The comment period for the Notice of Preparation begins on <u>December 6, 2019</u> and ends on <u>January 16, 2020</u>. Please send your written response to <u>Lisette Sanchez-Mendoza</u> at the address shown above. We would appreciate the name of a contact person in your agency.

Also, the City of Covina will conduct a public scoping meeting on <u>December 16, 2019, at 5:00 pm in the</u> <u>City of Covina Council Chambers, located at 125 E. College St., Covina, CA 91723.</u> to accept comments on the scope of the EIR for this project. This meeting will serve as a public forum to discuss the environmental issues already identified for the EIR, along with other issues identified by the public that should be included for further analysis within the EIR.

Date: 12-06-19

Title: Lisette Sanchez-Mendoza, Community Development Consultant



CITY OF COVINA NOTICE OF PREPARATION AND PUBLIC SCOPING MEETING ATTACHMENT

Lead Agency:	City of Covina 125 E. College Street Covina, California 91723
Contact Person & Phone Number:	Lisette Sanchez-Mendoza, Community Development Consultant City of Covina Community Development Department 125 E. College Street Covina, California 91723 (626) 384-5451
Project Applicant:	PKL Investments, LLC 2863 Maricopa Street Torrance, CA 90503
Case Numbers:	Case Nos: GPA 19-001, ZCH 19-001, SPR 19-002, TTM 19-002, SP 19-001
Project Location:	As shown in Figure 1 – Regional Location Map, Covina is in the central San Gabriel Valley area, in the eastern perimeter of Los Angeles County. As shown in Figure 2 – Project Location Map, the project site is located on the east side of Azusa Avenue, between Cypress Street and Covina Boulevard and west of N. Conwell Avenue.
Assessor's Parcel Numbers:	8421-001-016 and 8421-001-061. The subject property is assigned two street addresses: 1000 N. Azusa Avenue and 845 W. Cypress Street
General Plan/Zoning Designation:	C-4 Highway Commercial

Project Description:

The project site currently consists of 7.99 acres of developed land, with remnant improvements from a former Albertsons grocery store that was constructed in 1991 and vacated in November 2012. The former grocery store is 81,333 square feet in total floor area, in a box-shaped structure reaching a height of 44 feet. A large surface parking lot with numerous small landscape planters and several pole-mounted lighting clusters is located between the building and the Azusa Avenue frontage, while paved drives abut the northern and eastern sides of the building.

The proposed project would include development of a mixture of retail shops and drive through/fast food service businesses on the western 2.92 acres along the Azusa Avenue frontage and development of 61 single-family detached homes on the eastern and southern 4.99 acres. Figure 3 – Site Plan, illustrates the proposed development plan.

The retail component of the proposed project would consist of four buildings, totaling 14,000 square feet of floor area, arranged in three distinct building sites. Two of these sites would include a drive-thru circulation pattern to accommodate fast-food and beverage businesses with drive-thru service. Vehicular access to these commercial uses would be from three drive approaches along the Azusa Avenue frontage, and from an existing driveway along



Cypress Street that serves existing fast food businesses on adjacent properties. A total of 158 surface parking spaces would be provided within the three commercial sites.

The residential component would consist of 61 single family homes, in two-story and three-story structures, with floor plans ranging from approximately 1,700 square feet to approximately 2,600 square feet. Homes would have three-four bedrooms, with optional bonus areas and loft spaces. The proposed density is 12.25 homes per acre. Vehicle parking would include 122 spaces within attached garages, along with 12 spaces located in driveways, 23 "head-in" spaces located along internal driveways, and 7 parallel spaces along the entrance drive. Vehicular access to the 61 homes would be from Cypress Avenue, via a private, gated driveway located between Los Angeles County Fire Station 152 and an existing restaurant site.

The commercial and residential areas would be developed independently and may be constructed concurrently or at different time frames, in response to market demand. For purposes of analysis, both areas are anticipated to be completed and fully occupied by 2021. The project site is relatively level; however, the project would require demolition of existing improvements and grading of the site in preparation of building pads and streets, drainage and underground utilities improvements.

Required City Approvals

- General Plan Amendment (GPA) 19-001: To redesignate the eastern 5.31 acres from General Commercial to Medium-Density Residential, to allow for development of single-family homes at densities of 7-14 units per acre.
- Zone Change (ZCH) 19-001: To rezone the eastern 5.31 acres from C-4, Highway Commercial to RD, Multi-Family Zone, and to approve a Specific Plan to establish custom development standards for the residential component and to provide a unified theme for the overall aesthetic character of the site.
- Tentative Tract Map (TTM) 82315: To reconfigure the existing parcels to create a subdivision of for-sale lots and common areas for the 61 proposed homes and three individual lots for the commercial component.
- Site Plan Review (SPR) 19-002: To approve the layout of the overall development plan.
- Conditional Use Permit (CUP) 19-002: To allow for development of drive-through facilities in the commercial side of the project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED BY THE PROPOSED PROJECT

Based on the findings of a preliminary environmental assessment contained in the attached Initial Study, an environmental impact report (EIR) will be prepared to evaluate the project's potential impacts on the environment, identify measures to mitigate potentially significant impacts, and examine alternatives. The topics identified for further analysis in the EIR include the following:

• Aesthetics: Because the proposed project would be located in a fully urbanized area, the project will be evaluated in the EIR for whether it would conflict with applicable zoning and other regulations governing aesthetic character, including building height and bulk, design features, landscape elements, and consistency with the scale, massing and character of surrounding development. The EIR will determine whether the project would degrade the visual character and quality of the site and surroundings, by analyzing proposed building heights, bulk, coverage, setbacks, and screening, specifically along the project's interface with existing homes



to the north and east. Finally, because the project would include new sources of night lighting, such as security lighting on internal walkways, residential common areas, and building exteriors; accent lighting on residential and commercial buildings and in landscaped areas; lighting at the gated entry to the residential area; and potential lighted signs in commercial building drive-throughs, the EIR will analyze whether the type and placement of proposed lighting could create substantial light or glare that could adversely affect day or nighttime views.

- Air Quality: The project would generate air pollutants during both construction and operation. Construction of the project includes site clearance, excavation and grading, hauling of materials, and building construction, all of which would generate dust and equipment exhaust. In the long term, the proposed commercial and residential uses would generate an increase in vehicular travel, thus increasing tailpipe emissions, along with emissions resulting from on- and off-site energy use and regular maintenance activities. The EIR will quantify the project's construction and operation emissions and compare the project's emissions to the South Coast Air Quality Management District's (SCAQMD) regional and localized thresholds of significance. Further, the EIR will determine whether the project would expose sensitive receptors, such as those located in residential neighborhoods to the north and east, to substantial pollution concentrations.
- Greenhouse Gas Emissions: The project would generate temporary and long-term greenhouse gas (GHG) emissions from construction and operation activities, respectively. GHG emissions would primarily result from construction and material hauling equipment exhaust; increase in vehicle trips to and from the new residential and commercial buildings; use of consumer products and landscaping maintenance of the commercial and residential; and electricity and natural gas consumption in the new buildings. The EIR will quantify the project's direct and indirect GHG emissions and will examine the project's energy footprint with respect to applicable state and local regulatory and planning programs aimed at GHG reduction.
- Noise: Construction of the proposed project would temporarily increase noise and vibration levels on and in the vicinity of the project site. Operational noise would primarily result from stationary and mobile noise sources such as vehicle traffic that would increase roadway noise, noise from building mechanical equipment, possibly noise from outdoor speaker systems associated with proposed drive-thru businesses, movements of cars in parking areas, and outdoor recreation activities by people in their back yards and in the common outdoor spaces within the residential area. The nearest noise-sensitive land uses that could be impacted by construction noise include the adjacent residential properties to the north and east sides of the project site and the Northview High School campus to the southwest. The EIR will evaluate short-term and long-term noise and vibration impacts from the construction and operation of the project and will determine if the City's noise standards could be exceeded.
- Population and Housing: The project site is currently designated in the Covina General Plan Land Use Element as General Commercial, with a corresponding zoning classification of Commercial Highway (C-4). The proposed project would require a change in the General Plan land use designation and zoning classification for construction of the proposed 61 residential homes on a portion of the project site, which would result in unplanned population growth. The EIR will evaluate whether this unplanned population growth would conflict with adopted growth forecasts and if this growth would be substantial enough to result in impacts related to



accommodation of the population increase in this area (i.e., demand on public services, or utility service systems).

- Public Services: As stated above, the proposed project includes new residential development that would directly increase the City's population, on a site currently planned for commercial land uses. The associated increase in demand generated by the project for public school resources will require further evaluation to determine whether the additional students residing in the project site could result in a need to construct new educational facilities within the Covina Valley Unified School District, which could result in environmental impacts. Therefore, this issue will be further analyzed in the EIR. Further, the increase in the City's population associated with this project would also result in greater use of the City's existing park facilities. The City currently has a ratio of 1.26 acres of open space per 1,000 residents, which is significantly below the generally accepted, national guideline of 2.5 to 4.0 acres of parkland per 1,000 residents and below the City's General Plan target of 2 acres per 1,000 residents. The EIR will evaluate whether the project could contribute to any adverse environmental effects due to worsening the existing deficiency of public parkland.
- Transportation/Traffic: The proposed residential and commercial project would increase vehicle trips to and from the project site. The volume and distribution of this traffic will be determined through preparation of a detailed traffic impact study (TIS), which will be included in the EIR. This study will determine trip generation and circulation associated with the project, and project effects on the performance of the existing roadway network. The TIS will evaluate the traffic impacts of building all three commercial sites to accommodate fast food restaurant with/drive thru service, as a more conservative analysis that captures the higher trip generation characteristics of fast food with drive-thru service. The EIR will also determine if the new residential and commercial development would create hazards/disruptions at entrance and exit intersections. Specifically, the EIR will evaluate whether the turning movements at the residential site access point on Cypress Street would be safely accommodated without adverse impacts to traffic movements along Azusa Avenue, such as queuing effects.
- Utilities/Service Systems: The project would represent a substantial increase in water demand, wastewater generation, storm drainage, and energy and telecommunications usage as compared to the long-vacant project site. Specifically, the EIR will analyze whether water, wastewater, storm drain, electrical, natural gas, and telecommunications infrastructure is sufficient to meet the demands/generation of the proposed project's residential and commercial uses. If new, off-site infrastructure is required to address the increase in demand for these services, then the EIR will include analysis of the impacts associated with construction of this new infrastructure.

Other Required EIR Topics

In addition to the specific environmental issues noted above, the EIR will include sections to address the following topics, as required by the State CEQA Guidelines:

- Cumulative Impacts
- Growth Inducing Effects
- Significant Irreversible Environmental Changes
- Alternatives





FIGURE 1 Regional Location Map

Michael Baker



Project Location Map

FIGURE 2

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Figure 3

Appendix A: Initial Study, Notice of Preparation, and Responses to NOP

Part 3: Responses to the Notice of Preparation



STATE OF CALIFORNIA Governor's Office of Planning and Research State Clearinghouse and Planning Unit



Notice of Preparation

December 5, 2019

To: Reviewing Agencies

Re: 1000 North Azusa Avenue Mixed Use Development SCH# 2019120104

Attached for your review and comment is the Notice of Preparation (NOP) for the 1000 North Azusa Avenue Mixed Use Development draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, <u>within 30 days of receipt of the NOP from</u> the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Lisette Sanchez-Mendoza Covina, City of 125 East College Street Covina, CA 91723

with a copy to the State Clearinghouse in the Office of Planning and Research at <u>state.clearinghouse@opr.ca.gov</u>. Please refer to the SCH number noted above in all correspondence concerning this project on our website: https://ceqanet.opr.ca.gov/2019120104/2.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan Director, State Clearinghouse

cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044 TEL 1-916-445-0613 state.clearinghouse@opr.ca.gov www.opr.ca.gov



COUNTY OF LOS ANGELES FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE LOS ANGELES, CALIFORNIA 90063-3294 (323) 881-2401 www.fire.lacounty.gov

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January 7, 2020

Lisette Sanchez-Mendoza, Planner City of Covina Community Development Department 125 East College Street Covina, CA 91723

Dear Ms. Sanchez-Mendoza:

NOTICE OF PREPARATION DRAFT ENVIRONMENTAL IMPACT REPORT, "CYPRESS VILLAGE PROJECT," WOULD INCLUDE DEVELOPMENT OF A MIXTURE OF RETAIL SHOPS AND DRIVE THROUGH/FAST FOOD SERVICE BUSINESSES, AND THE DEVELOPMENT OF 61 SINGLE-FAMILY DETACHED HOMES, COVINA, FFER 2019007322

The Notice of Preparation Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

We will reserve our comments for the draft EIR analysis.

For any questions regarding this response, please contact Loretta Bagwell, Planning Analyst, at (323) 881-2404 or Loretta.Bagwell@fire.lacounty.gov.

LAND DEVELOPMENT UNIT:

The Land Development Unit is reviewing the proposed "MIXED USE" Commercial/Residential Project for access and water system requirements. The Land Development Unit comments are only preliminary requirements. Specific fire and life safety requirements will be

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS ARTESIA AZUSA BALDWIN PARK BELL BELL BELL GARDENS BELLFLOWER BRADBURY CALABASAS CARSON CERRITOS CLAREMONT COMMERCE COVINA CUDAHY DIAMOND BAR DUARTE EL MONTE GARDENA GLENDORA HAWAIIAN GARDENS HAWTHORNE HERMOSA BEACH HIDDEN HILLS HUNTINGTON PARK INDUSTRY INGLEWOOD IRWINDALE LA CANADA-FLINTRIDGE LA HABRA LA MIRADA LA MIRADA LA PUENTE LAKEWOOD LANCASTER LAWNDALE LOMITA LYNWOOD MALIBU MAYWOOD NORWALK PALMDALE PALOS VERDES ESTATES

PARAMOUNT PICO RIVERA POMONA RANCHO PALOS VERDES ROLLING HILLS ROLLING HILLS ESTATES ROSEMEAD SAN DIMAS SANTA CLARITA SIGNAL HILL SOUTH EL MONTE SOUTH GATE TEMPLE CITY WALNUT WEST HOLLYWOOD WESTLAKE VILLAGE WHITTIER Lisette Sanchez-Mendoza, Planner January 7, 2020 Page 2

addressed during the review for building and fire plan check phases. There may be additional requirements during this time.

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

ACCESS REQUIREMENTS:

- 1. The proposed development will require multiple ingress/egress access for the circulation of traffic and emergency response issues.
- 2. All on-site Fire Department vehicular access roads shall be labeled as "Private Driveway and Fire Lane" on the site plan along with the widths clearly depicted on the plan. Labeling is necessary to assure the access availability for Fire Department use. The designation allows for appropriate signage prohibiting parking.
 - a. The Fire Apparatus Access Road shall be cross-hatch on the site plan with the width clearly noted on the plan.
- 3. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways with an all-weather surface of not less than the prescribed width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.
- 4. Fire Apparatus Access Roads must be installed and maintained in a serviceable manner prior to and during the time of construction.
- 5. The edge of the Fire Apparatus Access Road shall be located a minimum of 5 feet from the building or any projections there from.
- 6. The Fire Apparatus Access Roads and designated fire lanes shall be measured from flow line to flow line.
- 7. The dimensions of the approved Fire Apparatus Access Roads shall be maintained as originally approved by the fire code official.
- 8. Provide a minimum unobstructed width of 28 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building when the height of the building above the lowest level of the Fire Department vehicular access road is more than 30 feet high, or the building is more than three stories. The access roadway shall be located a minimum of 15 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial Fire Apparatus Access Road is positioned shall be approved by the fire code official.

- 9. If the Fire Apparatus Access Road is separated by island, provide a minimum unobstructed width of 20 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building.
- 10. Dead-end Fire Apparatus Access Roads in excess of 150 feet in-length shall be provided with an approved Fire Department turnaround. Include the dimensions of the turnaround with the orientation of the turnaround shall be properly placed in the direction of travel of the access roadway.
- 11. Fire Department Access Roads shall be provided with a 32-foot centerline turning radius. Indicate the centerline, inside, and outside turning radii for each change in direction on the site plan.
- 12. Fire Apparatus Access Roads shall be designed and maintained to support the imposed load of fire apparatus weighing 75,000 lbs. and shall be surfaced so as to provide all-weather driving capabilities. Fire Apparatus Access Roads having a grade of 10 percent or greater shall have a paved or concrete surface.
- 13. Provide approved signs or other approved notices or markings that include the words "NO PARKING - FIRE LANE." Signs shall have a minimum dimension of 12 inches wide by 18 inches high and have red letters on a white reflective background. Signs shall be provided for Fire Apparatus Access Roads, to clearly indicate the entrance to such road, or prohibit the obstruction thereof and at intervals, as required by the Fire Inspector.
- 14. A minimum 5-foot wide approved firefighter access walkway leading from the Fire Department Access Road to all required openings in the building's exterior walls shall be provided for firefighting and rescue purposes. Clearly identify firefighter walkway access routes on the site plan. Indicate the slope and walking surface material. Clearly show the required width on the site plan.
- 15. Fire Apparatus Access Roads shall not be obstructed in any manner, including by the parking of vehicles, or the use of traffic calming devices, including but not limited to, speed bumps or speed humps. The minimum widths and clearances established in Fire Code Section 503.2.1 shall be maintained at all times.
- 16. Traffic Calming Devices, including but not limited to, speed bumps and speed humps, shall be prohibited unless approved by the fire code official.
- 17. Security barriers, visual screen barriers, or other obstructions shall not be installed on the roof of any building in such a manner as to obstruct firefighter access or egress in the event of fire or other emergency. Parapets shall not exceed 48 inches from the top of the parapet to the roof surface on more than two sides. Clearly indicate the height of all parapets in a section view.
Lisette Sanchez-Mendoza, Planner January 7, 2020 Page 4

- 18. Approved building address numbers, building numbers, or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property. The numbers shall contrast with their background, be Arabic numerals or alphabet letters, and be a minimum of 4 inches high with a minimum stroke width of 0.5 inch.
- 19. Multiple residential and commercial buildings having entrances to individual units not visible from the street or road shall have unit numbers displayed in groups for all units within each structure. Such numbers may be grouped on the wall of the structure or mounted on a post independent of the structure and shall be positioned to be plainly visible from the street or road as required by Fire Code 505.3 and in accordance with Fire Code 505.

WATER SYSTEM REQUIREMENTS:

- All fire hydrants shall measure 6"x 4"x 2-1/2" brass or bronze conforming to current AWWA standard C503 or approved equal and shall be installed in accordance with the County of Los Angeles Fire Code.
- The development may require fire flows up to 4,000 gallons per minute at 20 pounds per square inch residual pressure for up to a four-hour duration. Final fire flows will be based on the size of buildings, the installation of an automatic fire sprinkler system, and type(s) of construction used.
- 3. The fire hydrant spacing shall be every 300 feet for both the public and the on-site hydrants. The fire hydrants shall meet the following requirements:
 - a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.
 - b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.
 - c. Additional hydrants will be required if hydrant spacing exceeds specified distances.
- 4. All required public fire hydrants shall be installed and tested prior to beginning construction.
- All private on-site fire hydrants shall be installed, tested, and approved prior to building occupancy.
 - a. Plans showing underground piping for private on-site fire hydrants shall be submitted to the Sprinkler Plan Check Unit for review and approval prior to installation.

Lisette Sanchez-Mendoza, Planner January 7, 2020 Page 5

6. An approved automatic fire sprinkler system is required for the proposed buildings within this development. Submit design plans to the Fire Department Sprinkler Plan Check Unit for review and approval prior to installation. Additional Department requirements will be determined by Fire Prevention Engineering during the Building Plan Check.

For any questions regarding the report, please contact Inspector Claudia Soiza at (323) 890-4243 or <u>Claudia.soiza@fire.lacounty.gov.</u>

FORESTRY DIVISION - OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

Under the Los Angeles County Oak tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade.

If Oak trees are known to exist in the proposed project area further field studies should be conducted to determine the presence of this species on the project site. The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Joseph Brunet at (818) 890-5719.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department advises that a leaking underground petroleum storage tank (UST) case was closed at the project site in 1997 either by the Los Angeles County Department of Public Works – Environmental Programs Division and/or by the Cal-EPA Los Angeles Regional Water Quality Control Board. HHMD recommends that the project applicant review and evaluate UST closure documents pertaining to the project site. HHMD has no additional comments at this time.

Please contact HHMD senior typist-clerk, Perla Garcia at (323) 890-4035 or <u>Perla.garcia@fire.lacounty.gov</u> if you have any questions.

If you have any additional questions, please contact this office at (323) 890-4330.

DEPARTMENT OF TRANSPORTATION DISTRICT 7- OFFICE OF REGIONAL PLANNING 100 S. MAIN STREET, SUITE 100 LOS ANGELES, CA 90012 PHONE (213) 897-0067 FAX (213) 897-1337 TTY 711 www.dot.ca.gov



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Governor's Office of Planning & Research

January 14, 2020

JAN 14 2020

STATE CLEARINGHOUSE

Lisette Sanchez-Mendoza Covina, City of 125 East College Street Covina, CA 91723

> RE: 1000 North Azusa Avenue Mixed Use Development – Notice of Preparation (NOP) SCH# 2019120104 GTS# 07-LA-2019-02948 Vic. LA-210/PM 39.645 & LA-10/PM 36.571

Dear Lisette Sanchez-Mendoza:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project a retail shop and three drive through/fast food service businesses on the western 2.92 acres along the Azusa Avenue frontage and 61 single-family detached homes on the eastern and southern 4.99 acres. The retail component of the proposed project would consist of four buildings, totaling 14,000 square feet of floor area, arranged in three distinct building sites. Two sites would contain fast food restaurants with drive-thru service, while the third would contain a fast food restaurant and general retail space. Vehicular access to these commercial uses would be from three drive approaches along the Azusa Avenue frontage, and from an existing driveway along Cypress Street that serves existing fast food businesses on adjacent properties. A total of 158 surface parking spaces would be provided within the three commercial sites. The residential component would consist of 61 single family homes with 122 attached garage parking spaces, 12 driveway spaces, 23 "head-in" spaces along internal driveways, and 7 parallel spaces along the entrance drive. Vehicular access to the 61 homes would be from Cypress Avenue, via a private, gated driveway located between Los Angeles County Fire Station 152 and an existing restaurant site.

The nearest State facility to the proposed project is I-210 and I-10. After reviewing the NOP, Caltrans has the following comments:

Caltrans acknowledges and supports development that ultimately helps California to meet its climate, transportation, and livability goals. However, due to the amount of parking, number of drive throughs, and vehicle-centric site plan, the 1000 North Azusa Avenue Mixed Use Development Project is designed in a way that potentially induces demand for additional vehicle trips. For California to achieve its goals, this demand should be addressed with appropriate design and management principles. Caltrans recommends the following:

• Reducing the amount of parking whenever possible, as research on parking suggests that abundant car parking enables and encourages driving. Research looking at the

Lisette Sanchez-Mendoza January 14, 2020 Page 2 of 2

relationship between land-use, parking, and transportation indicates that the amount of car parking supplied can undermine a project's ability to encourage public transit and active modes of transportation. For any project to better promote public transit and reduce vehicle miles traveled (VMT), we recommend the implementation of Transportation Demand Management (TDM) strategies as an alternative to building an unnecessary amount of parking.

- If surface parking must be built, it is recommended that it not face the street directly. By shifting the parking to the rear or interior of the project site, a more inviting streetscape can be created. A more active frontage, against the sidewalk, can encourage both recreational and transportation walking. These urban design principles can affect mode choice and help the State of California achieve its goals to improve health and reduce Green House Gas (GHG) emissions.
- While the project will contain multiple uses when completed, the lack of connectivity between them means that the goal of "mixing uses" is not achieved. The commercial and residential portions of the project are separated by a six-foot-tall wrought iron fence. It is recommended that a pedestrian pathway be included to connect the residential homes to the goods and services located on the commercial portion of the project site.

When the traffic study is conducted, please include the Azusa Avenue on- and off-ramps to both the I-210 and I-10. The study should include an analysis of potential impacts to existing State transportation facilities, if any. Additionally, Caltrans is replacing Level of Service (LOS) with Vehicle Miles Traveled (VMT) when evaluating traffic impacts. By July 1, 2020, VMT will be the standard transportation metric for land use projects and new Transportation Impact Study guidelines will be used to analyze and address transportation impacts on the State Transportation System. For any future project we encourage the Lead Agency to integrate transportation and land use in a way that reduces VMT and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths and achieve a high level of non-motorized travel and transit use. As required by SB 743, Caltrans recommends the Lead Agency develop a verifiable performance-based VMT criteria.

Any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods.

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS# 07-LA-2019-02948.

Sincerely

MIYA EDMONSON IGR/CEQA Branch Chief cc: Scott Morgan, State Clearinghouse

NATIVE AMERICAN HERITAGE COMMISSION Cultural and Environmental Department 1550 Harbor Blvd., Suite 100 West Sacramento, CA 95691 Phone: (916) 373-3710 Email: <u>nahc@nahc.ca.gov</u> Website: <u>http://www.nahc.ca.gov</u>

December 5, 2019



Governor's Office of Planning & Research

DEC 06 2019

STATE CLEARINGHOUSE

Lisette Sanchez-Mendoza Covina, City of 125 East College Street Covina, CA 91723

RE: SCH# 2019120104, 1000 North Azusa Avenue Mixed Use Development Project, Los Angeles County

Dear Ms. Sanchez-Mendoza:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of <u>portions</u> of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

<u>AB 52</u>

- AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:
- Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within
 fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency
 to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal
 representative of, traditionally and culturally affiliated California Native American tribes that have requested
 notice, to be accomplished by at least one written notice that includes:
 - **a.** A brief description of the project.
 - **b.** The lead agency contact information.
 - **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a <u>Negative Declaration</u>, <u>Mitigated Negative Declaration</u>, or <u>Environmental Impact Report</u>: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- **3.** <u>Mandatory Topics of Consultation If Requested by a Tribe</u>: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - **a.** Alternatives to the project.
 - **b.** Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. <u>Discretionary Topics of Consultation</u>: The following topics are discretionary topics of consultation:
 - **a.** Type of environmental review necessary.
 - **b.** Significance of the tribal cultural resources.
 - **c.** Significance of the project's impacts on tribal cultural resources.
 - **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. <u>Confidentiality of Information Submitted by a Tribe During the Environmental Review Process</u>: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. <u>Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:</u> If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. <u>Conclusion of Consultation</u>: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - **a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - **b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. <u>Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:</u> Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. <u>Required Consideration of Feasible Mitigation</u>: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- **10.** Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - **a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - **ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - **b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - **c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - **f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. <u>Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource</u>: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - **a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - **b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: <u>http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf</u>

<u>SB 18</u>

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

- <u>Tribal Consultation</u>: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe. (Gov. Code §65352.3 (a)(2)).
- 2. <u>No Statutory Time Limit on SB 18 Tribal Consultation</u>. There is no statutory time limit on SB 18 tribal consultation.
- **3.** <u>Confidentiality</u>: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
- 4. <u>Conclusion of SB 18 Tribal Consultation</u>: Consultation should be concluded at the point in which:
 - **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - **a.** If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
- 2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

- **3.** Contact the NAHC for:
 - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:

Andrew.Green@nahc.ca.gov.

Sincerely,

andrew Green

Andrew Green Staff Services Analyst

cc: State Clearinghouse



SENT VIA USPS AND E-MAIL:

February 26, 2020

nfong@covinaca.gov Nancy Fong, AICP, Consultant City of Covina, Community Development Department 125 E. College Street Covina, CA 91723

<u>Notice of Preparation of a Draft Environmental Impact Report for the Proposed</u> <u>Cypress Village Mixed Use Development Project</u>

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send South Coast AQMD a copy of the Draft EIR upon its completion and public release. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the Draft EIR directly to South Coast AQMD at the address shown in the letterhead. In addition, please send with the Draft EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.

Air Quality Analysis

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More guidance developed since this Handbook is also available on South Coast AQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

South Coast AQMD has also developed both regional and localized significance thresholds. South Coast AQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results

¹ Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

to South Coast AQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts. South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found here at: <u>http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf</u>. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by South Coast AQMD staff or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <u>http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds</u>.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the Proposed Project generates or attracts vehicular trips, especially heavy-duty dieselfueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment (*"Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis"*) can be found at: <u>http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-sourcetoxics-analysis</u>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: <u>http://www.arb.ca.gov/ch/handbook.pdf</u>. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance² on strategies to reduce air pollution exposure near high-volume roadways can be found at: <u>https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF</u>.

Mitigation Measures

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project, including:

² In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: https://www.arb.ca.gov/ch/landuse.htm.

- Chapter 11 "Mitigating the Impact of a Project" of South Coast AQMD'S *CEQA Air Quality Handbook* South Coast AQMD's CEQA web pages available here: <u>http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies</u>
- South Coast AQMD's Rule 403 Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 Asbestos Emissions from Demolition/Renovation Activities
- South Coast AQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 Air Quality Management Plan (2016 AQMP) available here (starting on page 86): <u>http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf</u>
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: <u>http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf</u>

Alternatives

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Draft EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

<u>Permits</u>

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the EIR. For more information on permits, please visit South Coast AQMD's webpage at: <u>http://www.aqmd.gov/home/permits</u>. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources

South Coast AQMD rules and relevant air quality reports and data are available by calling South Coast AQMD's Public Information Center at (909) 396-2001. Much of the information available through the Public Information Center is also available at South Coast AQMD's webpage at: <u>http://www.aqmd.gov</u>.

South Coast AQMD staff is available to work with the Lead Agency to ensure that project's air quality and health risk impacts are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at <u>lsun@aqmd.gov</u>.

Sincerely,

Lijin Sun

Lijin Sun, J.D. Program Supervisor, CEQA IGR Planning, Rule Development & Area Sources

LS <u>LAC200220-01</u> Control Number

APPENDIX B

Covina Village Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Covina Village
Construction Start Date	5/1/2024
Operational Year	2026
Lead Agency	
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	1000 N Azusa Ave, Covina, CA 91722, USA
County	Los Angeles-South Coast
City	Covina
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5057
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use SubtypeSizeUnitLot AcreageBuilding Area (sq ft)Landscape Area (sq ft)Special LandscapePopulationDescription	
---	--

Apartments Mid Rise	97.0	Dwelling Unit	3.72	93,120	52,512	—	287	—
Fast Food Restaurant with Drive Thru	3.50	1000sqft	0.79	3,500	0.00	_	_	_
Automobile Care Center	3.60	1000sqft	1.34	3,596	0.00	_	_	_
Fast Food Restaurant with Drive Thru	0.95	1000sqft	0.68	950	0.00		_	_
Parking Lot	163	Space	1.47	0.00	0.00		—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	С-10-В	Water Active Demolition Sites
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Energy	E-2	Require Energy Efficient Appliances
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes
Waste	S-1/S-2	Implement Waste Reduction Plan
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

n/Mit. TOG ROO	G NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-------	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	_	_								_				—				
Unmit.	3.29	5.71	26.3	23.5	0.04	1.07	7.34	8.18	0.98	3.49	4.26	—	4,408	4,408	0.21	0.16	4.70	4,463
Mit.	3.29	5.71	26.3	23.5	0.04	1.07	3.02	3.86	0.98	1.40	2.17	_	4,408	4,408	0.21	0.16	4.70	4,463
% Reduced	—	_	—	_	_	_	59%	53%		60%	49%	—			—	_	_	
Daily, Winter (Max)									_									
Unmit.	1.83	6.23	12.1	18.0	0.03	0.50	1.05	1.56	0.46	0.25	0.71	—	3,750	3,750	0.16	0.11	0.13	3,786
Mit.	1.83	6.23	12.1	18.0	0.03	0.50	1.05	1.56	0.46	0.25	0.71	—	3,750	3,750	0.16	0.11	0.13	3,786
% Reduced	_	_	_	_	—	_	_	_		_	—	—		_	—	_	—	
Average Daily (Max)			_	_	_										-	_	_	_
Unmit.	0.95	1.81	6.16	9.82	0.01	0.24	0.82	1.02	0.22	0.30	0.47	_	2,048	2,048	0.09	0.06	1.14	2,068
Mit.	0.95	1.81	6.16	9.82	0.01	0.24	0.59	0.82	0.22	0.14	0.36	_	2,048	2,048	0.09	0.06	1.14	2,068
% Reduced	—	—	_	_		_	29%	19%		52%	25%	—		—	-			
Annual (Max)	_	_	_	_	_		_				_	—		_	—	_	_	
Unmit.	0.17	0.33	1.13	1.79	< 0.005	0.04	0.15	0.19	0.04	0.05	0.09	—	339	339	0.01	0.01	0.19	342
Mit.	0.17	0.33	1.13	1.79	< 0.005	0.04	0.11	0.15	0.04	0.03	0.07	_	339	339	0.01	0.01	0.19	342
% Reduced		—	—	—	—	—	29%	19%		52%	25%	—		—	—	—	—	

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

PM2.5E PM2.5D PM2.5T BCO2 PM10T NBCO2 CO2T CH4 N20 TOG ROG NOx CO SO2 PM10E PM10D CO2e R Year

Daily - Summer (Max)		_	—					_	_	—	—		—	—		—	—	_
2024	3.29	2.72	26.3	23.5	0.04	1.07	7.34	8.18	0.98	3.49	4.26	—	4,408	4,408	0.21	0.16	2.49	4,463
2025	1.72	5.71	11.2	18.3	0.03	0.44	1.05	1.49	0.40	0.25	0.65	—	3,776	3,776	0.16	0.11	4.70	3,816
2026	1.61	5.69	10.5	17.9	0.03	0.38	1.05	1.44	0.35	0.25	0.60	—	3,749	3,749	0.15	0.11	4.32	3,789
Daily - Winter (Max)		_	_					_	_									_
2024	1.83	1.54	12.1	18.0	0.03	0.50	1.05	1.56	0.46	0.25	0.71	—	3,750	3,750	0.16	0.11	0.13	3,786
2025	1.72	6.23	11.2	17.5	0.03	0.44	1.05	1.49	0.40	0.25	0.65	—	3,724	3,724	0.16	0.11	0.12	3,760
2026	1.61	5.94	10.6	17.2	0.03	0.38	1.05	1.44	0.35	0.25	0.60	_	3,698	3,698	0.15	0.11	0.11	3,733
Average Daily	_	—	-	_	_	_	_	_	—	_	_	_	_	_	_	_	_	
2024	0.58	0.50	4.40	4.97	0.01	0.19	0.82	1.02	0.18	0.30	0.47	_	897	897	0.04	0.02	0.27	905
2025	0.95	1.81	6.16	9.82	0.01	0.24	0.59	0.82	0.22	0.14	0.36	_	2,048	2,048	0.09	0.06	1.14	2,068
2026	0.50	1.11	3.23	5.34	0.01	0.12	0.33	0.44	0.11	0.08	0.18	_	1,130	1,130	0.05	0.03	0.59	1,141
Annual	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
2024	0.11	0.09	0.80	0.91	< 0.005	0.03	0.15	0.19	0.03	0.05	0.09	_	149	149	0.01	< 0.005	0.05	150
2025	0.17	0.33	1.13	1.79	< 0.005	0.04	0.11	0.15	0.04	0.03	0.07	_	339	339	0.01	0.01	0.19	342
2026	0.09	0.20	0.59	0.98	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	_	187	187	0.01	0.01	0.10	189

2.3. Construction Emissions by Year, Mitigated

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)			—								_							—
2024	3.29	2.72	26.3	23.5	0.04	1.07	3.02	3.86	0.98	1.40	2.17	—	4,408	4,408	0.21	0.16	2.49	4,463
2025	1.72	5.71	11.2	18.3	0.03	0.44	1.05	1.49	0.40	0.25	0.65	—	3,776	3,776	0.16	0.11	4.70	3,816

2026	1.61	5.69	10.5	17.9	0.03	0.38	1.05	1.44	0.35	0.25	0.60	—	3,749	3,749	0.15	0.11	4.32	3,789
Daily - Winter (Max)			-		_									—				
2024	1.83	1.54	12.1	18.0	0.03	0.50	1.05	1.56	0.46	0.25	0.71	—	3,750	3,750	0.16	0.11	0.13	3,786
2025	1.72	6.23	11.2	17.5	0.03	0.44	1.05	1.49	0.40	0.25	0.65	—	3,724	3,724	0.16	0.11	0.12	3,760
2026	1.61	5.94	10.6	17.2	0.03	0.38	1.05	1.44	0.35	0.25	0.60	—	3,698	3,698	0.15	0.11	0.11	3,733
Average Daily		—	—		—	—	—		—		—			_	—			
2024	0.58	0.50	4.40	4.97	0.01	0.19	0.45	0.64	0.18	0.14	0.32	—	897	897	0.04	0.02	0.27	905
2025	0.95	1.81	6.16	9.82	0.01	0.24	0.59	0.82	0.22	0.14	0.36	—	2,048	2,048	0.09	0.06	1.14	2,068
2026	0.50	1.11	3.23	5.34	0.01	0.12	0.33	0.44	0.11	0.08	0.18	—	1,130	1,130	0.05	0.03	0.59	1,141
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—
2024	0.11	0.09	0.80	0.91	< 0.005	0.03	0.08	0.12	0.03	0.03	0.06	—	149	149	0.01	< 0.005	0.05	150
2025	0.17	0.33	1.13	1.79	< 0.005	0.04	0.11	0.15	0.04	0.03	0.07	—	339	339	0.01	0.01	0.19	342
2026	0.09	0.20	0.59	0.98	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	_	187	187	0.01	0.01	0.10	189

2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_			_							_							_
Unmit.	0.79	2.99	1.87	6.70	0.01	0.15	0.00	0.15	0.15	0.00	0.15	83.8	3,245	3,329	8.55	0.04	753	4,307
Mit.	0.79	2.99	1.87	6.70	0.01	0.15	0.00	0.15	0.15	0.00	0.15	27.6	3,173	3,201	2.92	0.03	753	4,037
% Reduced	—	—	_	_	_	—	_	_	_	_	_	67%	2%	4%	66%	8%	_	6%
Daily, Winter (Max)																		

Unmit.	0.21	2.45	1.82	0.85	0.01	0.15	0.00	0.15	0.15	0.00	0.15	83.8	3,229	3,313	8.55	0.04	753	4,291
Mit.	0.21	2.45	1.82	0.85	0.01	0.15	0.00	0.15	0.15	0.00	0.15	27.6	3,157	3,185	2.92	0.03	753	4,021
% Reduced	_	_	_	_	_	—	_	_	—	—	—	67%	2%	4%	66%	8%	_	6%
Average Daily (Max)								_										—
Unmit.	0.46	2.74	0.58	4.31	< 0.005	0.04	0.00	0.04	0.05	0.00	0.05	83.8	1,623	1,707	8.52	0.03	753	2,683
Mit.	0.46	2.74	0.58	4.31	< 0.005	0.04	0.00	0.04	0.05	0.00	0.05	27.6	1,551	1,579	2.89	0.03	753	2,413
% Reduced	—	—	_	—	_	—	—	—	—	—	—	67%	4%	8%	66%	9%	—	10%
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_			_	_	_	
Unmit.	0.08	0.50	0.11	0.79	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	13.9	269	283	1.41	0.01	125	444
Mit.	0.08	0.50	0.11	0.79	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	4.57	257	261	0.48	0.01	125	400
% Reduced	_	_	_	_	_	_	_	_	_	_	_	67%	4%	8%	66%	9%	_	10%

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)																—		—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.74	2.97	1.42	6.43	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,752	1,752	0.03	< 0.005	—	1,754
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,434	1,434	0.10	0.01	—	1,438
Water	—	—	—	—	—	—	—	-	—	—	—	10.2	59.6	69.8	1.05	0.03	—	103
Waste	_	_	_	_	-	_	_	_	_	_	_	73.7	0.00	73.7	7.36	0.00	_	258
Refrig.	_			_	_	_		_	_		_	_			_		753	753

Total	0.79	2.99	1.87	6.70	0.01	0.15	0.00	0.15	0.15	0.00	0.15	83.8	3,245	3,329	8.55	0.04	753	4,307
Daily, Winter (Max)	_	—	—	-		_	_	_		—	_							_
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.16	2.42	1.37	0.58	0.01	0.11	_	0.11	0.11	_	0.11	0.00	1,736	1,736	0.03	< 0.005	_	1,738
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	_	0.04	0.04	_	0.04	—	1,434	1,434	0.10	0.01	—	1,438
Water	—	—	—	—	—	—	—	—	—	—	_	10.2	59.6	69.8	1.05	0.03	—	103
Waste	—	—	—	—	—	—	—	—	—	—	—	73.7	0.00	73.7	7.36	0.00	—	258
Refrig.	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	753	753
Total	0.21	2.45	1.82	0.85	0.01	0.15	0.00	0.15	0.15	0.00	0.15	83.8	3,229	3,313	8.55	0.04	753	4,291
Average Daily	—	_	_	_	-	-	_	_	—	_	_	_	—	—	—	-	—	_
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.41	2.72	0.13	4.05	< 0.005	0.01	_	0.01	0.01	_	0.01	0.00	130	130	< 0.005	< 0.005	—	130
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	_	0.04	0.04	_	0.04	—	1,434	1,434	0.10	0.01	—	1,438
Water	—	_	—	_	—	—	_	_	—	_	_	10.2	59.6	69.8	1.05	0.03	—	103
Waste	-	_	_	_	_	_	_	_	_	_	_	73.7	0.00	73.7	7.36	0.00	_	258
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	753	753
Total	0.46	2.74	0.58	4.31	< 0.005	0.04	0.00	0.04	0.05	0.00	0.05	83.8	1,623	1,707	8.52	0.03	753	2,683
Annual	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.07	0.50	0.02	0.74	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	0.00	21.5	21.5	< 0.005	< 0.005	_	21.5
Energy	0.01	< 0.005	0.08	0.05	< 0.005	0.01	_	0.01	0.01	_	0.01	_	237	237	0.02	< 0.005	_	238
Water	_	_	_	_	_	_	_	_	_	_	_	1.68	9.87	11.5	0.17	< 0.005	_	17.1
Waste	_	_	_	_	_	_	_	_	_	_	_	12.2	0.00	12.2	1.22	0.00	_	42.7
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	125	125
Total	0.08	0.50	0.11	0.79	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	13.9	269	283	1.41	0.01	125	444

2.6. Operations Emissions by Sector, Mitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—	—	-	-	-	-	-	_	_	-	-	_	—	-	-	-	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.74	2.97	1.42	6.43	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,752	1,752	0.03	< 0.005	—	1,754
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,370	1,370	0.10	0.01	—	1,374
Water	—	—	_	—	—	—	—	—	—	—	—	9.21	51.4	60.6	0.95	0.02	—	91.1
Waste	—	—	_	_	—	—	—	—	—	—	—	18.4	0.00	18.4	1.84	0.00	—	64.4
Refrig.	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	753	753
Total	0.79	2.99	1.87	6.70	0.01	0.15	0.00	0.15	0.15	0.00	0.15	27.6	3,173	3,201	2.92	0.03	753	4,037
Daily, Winter (Max)				—	_	_	_	_	_	_	_	_	_	_	—	_	_	_
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.16	2.42	1.37	0.58	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,736	1,736	0.03	< 0.005	—	1,738
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,370	1,370	0.10	0.01	—	1,374
Water	—	—	—	—	—	—	—	—	—	—	—	9.21	51.4	60.6	0.95	0.02	—	91.1
Waste	—	—	—	—	—	—	—	—	—	—	—	18.4	0.00	18.4	1.84	0.00	—	64.4
Refrig.	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	753	753
Total	0.21	2.45	1.82	0.85	0.01	0.15	0.00	0.15	0.15	0.00	0.15	27.6	3,157	3,185	2.92	0.03	753	4,021
Average Daily		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.41	2.72	0.13	4.05	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	130	130	< 0.005	< 0.005	—	130
Energy	0.05	0.03	0.45	0.27	< 0.005	0.04	_	0.04	0.04	_	0.04	_	1,370	1,370	0.10	0.01	_	1,374
Water	_	_	_	_	_	_	_	_	—	_	_	9.21	51.4	60.6	0.95	0.02	_	91.1

Waste	—	—	—	—	—	—	—	—	—	—	—	18.4	0.00	18.4	1.84	0.00	—	64.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	753	753
Total	0.46	2.74	0.58	4.31	< 0.005	0.04	0.00	0.04	0.05	0.00	0.05	27.6	1,551	1,579	2.89	0.03	753	2,413
Annual	_	_	_	-	-	—	—	—	—	-	-	-	—	—	_	-	—	_
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.07	0.50	0.02	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	21.5	21.5	< 0.005	< 0.005	—	21.5
Energy	0.01	< 0.005	0.08	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	227	227	0.02	< 0.005	—	228
Water	_	—	_	-	—	—	—	—	—	—	-	1.52	8.51	10.0	0.16	< 0.005	—	15.1
Waste	_	—	_	-	—	—	—	—	—	—	-	3.05	0.00	3.05	0.30	0.00	—	10.7
Refrig.	_	—	_	—	—	—	—	—	—	—	-	—	—	—	—	—	125	125
Total	0.08	0.50	0.11	0.79	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	4.57	257	261	0.48	0.01	125	400

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	_	—	—	—	—	_	—	_	_	—	—	_	—	_	—	_
Daily, Summer (Max)				-								_		—				—
Off-Road Equipmen	3.12 t	2.62	24.9	21.7	0.03	1.06	_	1.06	0.98		0.98	—	3,425	3,425	0.14	0.03		3,437
Demolitio n	—	—	—	_	—		3.44	3.44	—	0.52	0.52	—	—	—				_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_		—	_						—		_		_		_		

Average Daily	—	—	—	_	_	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.20 t	0.16	1.57	1.37	< 0.005	0.07	_	0.07	0.06	_	0.06	_	216	216	0.01	< 0.005	_	217
Demolitio n		_	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	_	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.04 t	0.03	0.29	0.25	< 0.005	0.01	—	0.01	0.01	_	0.01	-	35.7	35.7	< 0.005	< 0.005	_	35.9
Demolitio n		_	_	_	—	_	0.04	0.04	—	0.01	0.01	—	—	—	—	_	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)				-	—				_	_	—	—	—		_		_	
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	-	212	212	0.01	0.01	0.84	215
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.04	1.33	0.67	0.01	0.01	0.19	0.20	0.01	0.05	0.06	_	771	771	0.06	0.12	1.65	811
Daily, Winter (Max)	—		_	-	—	_			_	_	—	—	—		_	_	_	_
Average Daily				—	—	_	—		—	—	—	—	—	—	—		—	
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.6	48.6	< 0.005	0.01	0.04	51.1
Annual	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	2.13	2.13	< 0.005	< 0.005	< 0.005	2.15

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	8.05	8.05	< 0.005	< 0.005	0.01	8.45

3.2. Demolition (2024) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	_	—	—	—	_	—	—	—	—	—	—	—
Daily, Summer (Max)		-	_	_		_	—	-		_		-	_	_	_	_	_	_
Off-Road Equipmen	3.12 t	2.62	24.9	21.7	0.03	1.06		1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolitio n	—	-	—	—		_	2.20	2.20		0.33	0.33	-	—	_	-	—	_	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_						_				_			_			
Average Daily		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.20 t	0.16	1.57	1.37	< 0.005	0.07	_	0.07	0.06	—	0.06	—	216	216	0.01	< 0.005	—	217
Demolitio n		_	_	_	_	_	0.14	0.14	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual		—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.04 t	0.03	0.29	0.25	< 0.005	0.01	_	0.01	0.01	—	0.01	-	35.7	35.7	< 0.005	< 0.005	—	35.9
Demolitio n		-				_	0.03	0.03		< 0.005	< 0.005	_		_	_		_	_

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	_	_	—	_	_	—	_	—	_	—	—	—	—	—	—	—	_
Daily, Summer (Max)	—	_	_		_	_	_	_	_	_	_	_	_	—	_	_	_	
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.04	1.33	0.67	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	771	771	0.06	0.12	1.65	811
Daily, Winter (Max)	—	_	_		_	_	-	-	—	_	_	—	_	—	_	—	_	
Average Daily	_	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	-	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	48.6	48.6	< 0.005	0.01	0.04	51.1
Annual	-	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	2.13	2.13	< 0.005	< 0.005	< 0.005	2.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	8.05	8.05	< 0.005	< 0.005	0.01	8.45

3.3. Grading (2024) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)									—	—	—		_	_	—	—	—	—

Off-Road Equipmen	2.26 t	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	-	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movemen	 :		_	_	—		7.08	7.08	_	3.42	3.42			_	—			
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_		—	-	_			_	—	-	—		_	—	—			—
Average Daily	—		-	-	_	_		_	-	-	—	—	—	_	-			—
Off-Road Equipmen	0.15 t	0.13	1.25	1.29	< 0.005	0.06		0.06	0.05	—	0.05	_	203	203	0.01	< 0.005		203
Dust From Material Movemen ⁻	 :			-	-		0.49	0.49	-	0.23	0.23	_			-			
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	_	_	_	_	_	—	_	—	—	_	—	_	_	_	_
Off-Road Equipmen	0.03 t	0.02	0.23	0.24	< 0.005	0.01	_	0.01	0.01	—	0.01	_	33.5	33.5	< 0.005	< 0.005		33.7
Dust From Material Movemen ⁻	 !			_			0.09	0.09		0.04	0.04							
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)				_	_					_	_				_			
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	< 0.005	0.27	0.10	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	221	221	0.01	0.04	0.51	232
Daily, Winter (Max)		-	-	—	_		-	_			_	-	_					
Average Daily	—	-	—	—	-	_	—	-	—		_	—	—	_		—		_
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	15.1	15.1	< 0.005	< 0.005	0.02	15.9
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	2.51	2.51	< 0.005	< 0.005	< 0.005	2.63

3.4. Grading (2024) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	_	—	_	—	—	—	—	—	—	_	—	—	—	—	—	—	_
Daily, Summer (Max)	_				_	_	_	_		_		-				_		
Off-Road Equipmen	2.26 t	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02		2,969
Dust From Material Movemen	 :						2.76	2.76		1.34	1.34							
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_		—		—		_							_	—	_	—
--	-----------	---------	------	------	---------	---------	------	------	---------	------	------	---	------	------	---------	---------	------	------
Average Daily	—	_	—	—	—	—	—		—	—	—	—		—	—	—	—	—
Off-Road Equipmen	0.15 t	0.13	1.25	1.29	< 0.005	0.06	—	0.06	0.05	_	0.05	—	203	203	0.01	< 0.005	—	203
Dust From Material Movemen [:]	 :						0.19	0.19		0.09	0.09							
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
Off-Road Equipmen	0.03 t	0.02	0.23	0.24	< 0.005	0.01	_	0.01	0.01	_	0.01	_	33.5	33.5	< 0.005	< 0.005		33.7
Dust From Material Movemen:		_					0.03	0.03		0.02	0.02					_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Daily, Summer (Max)	_	_	_	_					_	_	_				—	_	_	_
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	< 0.005	0.27	0.10	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	221	221	0.01	0.04	0.51	232
Daily, Winter (Max)	_																	_
Average Daily	_	_	_	_			_	_	_	—	—		_	—	_	_	_	_

Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	14.0	14.0	< 0.005	< 0.005	0.02	14.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.1	15.1	< 0.005	< 0.005	0.02	15.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	2.51	2.51	< 0.005	< 0.005	< 0.005	2.63

3.5. Building Construction (2024) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	-	—	—	—	—	-	—	—	—	—	—
Daily, Summer (Max)	_	_	-	_	_	_	_	_	_	_	_	-	_	_	-	_	_	_
Daily, Winter (Max)		—	—	—	—	—	_	_	_	—	_	_	_	_	_	_	—	—
Off-Road Equipmen	1.44 t	1.20	11.2	13.1	0.02	0.50	_	0.50	0.46		0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily			—	—	—	—	—	—			_	—	—	—	—	—	—	—
Off-Road Equipmen	0.09 t	0.07	0.68	0.80	< 0.005	0.03	_	0.03	0.03	_	0.03	_	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen	0.02 t	0.01	0.12	0.15	< 0.005	0.01	-	0.01	0.01	_	0.01	-	24.1	24.1	< 0.005	< 0.005	_	24.2

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	_
Daily, Summer (Max)	_		_	_	_	_	_	_	_	_					_			
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_					_	_		—
Worker	0.36	0.32	0.41	4.65	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	975	975	0.04	0.04	0.11	987
Vendor	0.03	0.01	0.46	0.22	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	—	377	377	0.02	0.05	0.03	393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.02	0.02	0.02	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	60.0	60.0	< 0.005	< 0.005	0.11	60.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.9	22.9	< 0.005	< 0.005	0.03	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.94	9.94	< 0.005	< 0.005	0.02	10.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.79	3.79	< 0.005	< 0.005	< 0.005	3.95
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2024) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)				_	-			_							_	_		

Daily, Winter (Max)			_	—	—		_	—	—	—	—	_	_	_	—	_	_	_
Off-Road Equipmen	1.44 t	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily			—	—	—		—		—	—	—	—	—		—		—	
Off-Road Equipmen	0.09 t	0.07	0.68	0.80	< 0.005	0.03	—	0.03	0.03	-	0.03	-	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	-	—	_	_	—	_	—	—	—	_	-	_	—	_	-	_
Off-Road Equipmen	0.02 t	0.01	0.12	0.15	< 0.005	0.01	_	0.01	0.01	_	0.01	_	24.1	24.1	< 0.005	< 0.005	_	24.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	—	—	-	—	—	—	—	—	—	—	-	—	—	—	—	—	—
Daily, Summer (Max)			_	-	-		_		-	-	_	-	_		_		_	
Daily, Winter (Max)					_					_		_						
Worker	0.36	0.32	0.41	4.65	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	975	975	0.04	0.04	0.11	987
Vendor	0.03	0.01	0.46	0.22	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	—	377	377	0.02	0.05	0.03	393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	—	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	60.0	60.0	< 0.005	< 0.005	0.11	60.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	22.9	22.9	< 0.005	< 0.005	0.03	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—		—	_	_		_	_	—		_	_	_	—	—	—	_	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.94	9.94	< 0.005	< 0.005	0.02	10.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	3.79	3.79	< 0.005	< 0.005	< 0.005	3.95
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	-	-	-	-	—	-	-	-	-	-	-	-	_	-	-	—	_
Daily, Summer (Max)	_	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Daily, Winter (Max)		—	—	_	-	-	—	-	_	-	_	-	-	—	-	—	-	
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	-	0.43	0.40	-	0.40	-	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	_	_	-	-	-	_	-	—	_	-	-	—	_	_	-	-	_
Off-Road Equipmen	0.16 t	0.13	1.21	1.51	< 0.005	0.05	-	0.05	0.05	—	0.05	_	277	277	0.01	< 0.005	—	278
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.03 t	0.02	0.22	0.27	< 0.005	0.01	-	0.01	0.01	-	0.01	-	45.8	45.8	< 0.005	< 0.005	-	46.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	—	_	_	_	—	_	—	_	_	—	_	_	_	_	_	_	_

Daily, Summer (Max)				—	—		—	—			—	—	—	—	—	_		—
Daily, Winter (Max)				_	_		_	_			_	_	_					—
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	-	_	_	—	-	_	_	_	_	_	_	—
Worker	0.04	0.04	0.04	0.52	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.18	113
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.8	42.8	< 0.005	0.01	0.05	44.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	0.03	18.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	7.09	7.09	< 0.005	< 0.005	0.01	7.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	_	_	_	—	—	_	_	—	_	_	_	_	_
Daily, Summer (Max)		—	-	—	_				—	_	—	_	—					—
Daily, Winter (Max)			_		_				_	_	—	_						—
Off-Road Equipmer	1.35 it	1.13	10.4	13.0	0.02	0.43	_	0.43	0.40	_	0.40	_	2,398	2,398	0.10	0.02	_	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	—	_	-	_	_	_	-	_	_	-	_	—	_
Off-Road Equipmen	0.16 t	0.13	1.21	1.51	< 0.005	0.05	—	0.05	0.05	—	0.05	—	277	277	0.01	< 0.005	—	278
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.03 t	0.02	0.22	0.27	< 0.005	0.01	-	0.01	0.01	_	0.01	-	45.8	45.8	< 0.005	< 0.005	_	46.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)		—	-	—	_	_	-	-	_	_	-	—	-	—	-			_
Daily, Winter (Max)			_		_		_	_	_	_	_	_	_	_	_			_
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		—	—	—	—	—	—	_	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.52	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.18	113
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.8	42.8	< 0.005	0.01	0.05	44.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	18.5	18.5	< 0.005	< 0.005	0.03	18.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	7.09	7.09	< 0.005	< 0.005	0.01	7.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—			_											_		
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43		0.43	0.40		0.40	—	2,398	2,398	0.10	0.02		2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_			-							_		_		-		
Average Daily		_	—	_	_	_	—	_	_	—	—	_	_	—	—	_	_	—
Off-Road Equipmen	0.24 t	0.20	1.86	2.32	< 0.005	0.08	—	0.08	0.07	—	0.07	—	427	427	0.02	< 0.005	—	428
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual		_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Off-Road Equipmen	0.04 t	0.04	0.34	0.42	< 0.005	0.01	_	0.01	0.01	_	0.01	_	70.7	70.7	< 0.005	< 0.005	_	70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)		_			-							_		_	_	-		
Worker	0.35	0.31	0.32	5.07	0.00	0.00	0.95	0.95	0.00	0.22	0.22	_	1,007	1,007	0.04	0.03	3.69	1,022
Vendor	0.03	0.01	0.42	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	371	371	0.02	0.05	1.01	388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Worker	0.06	0.05	0.07	0.80	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	173	173	0.01	0.01	0.28	175
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	66.0	66.0	< 0.005	0.01	0.08	69.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	-	_	_	-	_	_	_	-	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	28.6	28.6	< 0.005	< 0.005	0.05	29.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—	—
Daily, Summer (Max)			_								_	_		—				
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	_	0.40	-	2,398	2,398	0.10	0.02	_	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	_		_	_			_		_	_					_	
Average Daily	_	—	-	—	—	_	_	_	—	—	-	-	—	_	_	_	_	_
Off-Road Equipmen	0.24 t	0.20	1.86	2.32	< 0.005	0.08	_	0.08	0.07	_	0.07	_	427	427	0.02	< 0.005	_	428

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.04 t	0.04	0.34	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	70.7	70.7	< 0.005	< 0.005		70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	—	—	—	—	—	_	_	—	—	—	—	—	—	_	—	—	—
Daily, Summer (Max)	_	_	-	-	_	-	-	-	-	-	_	-	_	_	-	_		_
Worker	0.35	0.31	0.32	5.07	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	1,007	1,007	0.04	0.03	3.69	1,022
Vendor	0.03	0.01	0.42	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	1.01	388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_		-	_	_	-	-	-	-	-		_	_		-			_
Average Daily	—	—	_	-	_	_	-	_	_	_	_	-	-	_	-	—	—	-
Worker	0.06	0.05	0.07	0.80	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	173	173	0.01	0.01	0.28	175
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	66.0	66.0	< 0.005	0.01	0.08	69.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	28.6	28.6	< 0.005	< 0.005	0.05	29.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

PM10D PM10T PM2.5E PM2.5D PM2.5T TOG ROG NOx СО SO2 PM10E BCO2 NBCO2 CO2T CH4 N2O CO2e R Location

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—					_	_		_			_		—				_
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43		0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02		2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—								—			_						
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	_	0.43	0.40	—	0.40	_	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—		—		—				—	—	—	—			—			_
Off-Road Equipmen	0.24 t	0.20	1.86	2.32	< 0.005	0.08		0.08	0.07	—	0.07	_	427	427	0.02	< 0.005	—	428
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	—	_	_	—	—	_	_	_	_	_	_	_	—	_	_
Off-Road Equipmen	0.04 t	0.04	0.34	0.42	< 0.005	0.01	_	0.01	0.01	_	0.01	_	70.7	70.7	< 0.005	< 0.005	_	70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	_	—	_	_	_	_	-	—	—	_	_	-	_	_	—
Daily, Summer (Max)			—	_	_			_	_	_	—				_	_		_
Worker	0.35	0.31	0.32	5.07	0.00	0.00	0.95	0.95	0.00	0.22	0.22	_	1,007	1,007	0.04	0.03	3.69	1,022
Vendor	0.03	0.01	0.42	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	371	371	0.02	0.05	1.01	388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)		_	_	_	_		_	_			-							
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	-	-	—	_	_	—	_	_	_	_	_	_			_
Worker	0.06	0.05	0.07	0.80	0.00	0.00	0.17	0.17	0.00	0.04	0.04	_	173	173	0.01	0.01	0.28	175
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	66.0	66.0	< 0.005	0.01	0.08	69.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	28.6	28.6	< 0.005	< 0.005	0.05	29.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—
Daily, Summer (Max)		_	_		_				_						_			—
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40		0.40	—	2,398	2,398	0.10	0.02		2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		—	_		_		_		_						_			

Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	-	0.43	0.40		0.40	—	2,398	2,398	0.10	0.02		2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	_	-	-	—	_	-	—	_	_	—	_		-	_	_	_	-
Off-Road Equipmen	0.24 t	0.20	1.86	2.32	< 0.005	0.08	—	0.08	0.07		0.07	—	427	427	0.02	< 0.005		428
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	—	—	—	_	—	—	—	_	—	—	_	—	—	—	_	—
Off-Road Equipmen	0.04 t	0.04	0.34	0.42	< 0.005	0.01	—	0.01	0.01		0.01	_	70.7	70.7	< 0.005	< 0.005		70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	_	—	-	-	—	—	_	—	_	—	—	_	—	—	-	_	—
Daily, Summer (Max)			_	_	_		_	_	_		_			_				_
Worker	0.35	0.31	0.32	5.07	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	1,007	1,007	0.04	0.03	3.69	1,022
Vendor	0.03	0.01	0.42	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	1.01	388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)			_	_	_		_	-	_	—	_			_				—
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	_	-	-	-	—	-	-	—	_	-	—	_	-	-	—	_	-
Worker	0.06	0.05	0.07	0.80	0.00	0.00	0.17	0.17	0.00	0.04	0.04	_	173	173	0.01	0.01	0.28	175
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	66.0	66.0	< 0.005	0.01	0.08	69.0

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.6	28.6	< 0.005	< 0.005	0.05	29.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	-	_	_	_	-	_	_	-	_	-	_
Daily, Summer (Max)				_	_			—				_		_	_		_	_
Daily, Winter (Max)								_							_			—
Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43		0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—		_	—	—		_	—		_	_	_		—	—	_	—	—
Off-Road Equipmen	0.08 t	0.07	0.63	0.79	< 0.005	0.03		0.03	0.02		0.02	—	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual		—	—	—	—	—	—	_	—	—	—	-	—	_	-	—	—	_
Off-Road Equipmen	0.01 t	0.01	0.12	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—	_	—
Daily, Summer (Max)		_								_		_	_					
Daily, Winter (Max)	_	_	_	_			_		_	_	_	_	_					—
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	-	—	—	—	—	—	—	—	-	—	—	-	—	—	—	_	_	—
Worker	0.02	0.02	0.02	0.27	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.8	58.8	< 0.005	< 0.005	0.10	59.6
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.5	22.5	< 0.005	< 0.005	0.03	23.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.73	9.73	< 0.005	< 0.005	0.02	9.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	3.73	3.73	< 0.005	< 0.005	< 0.005	3.89
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)		_			_								—			_		
Daily, Winter (Max)		_		_	_							_				_	_	

Off-Road Equipmen	1.35 t	1.13	10.4	13.0	0.02	0.43	-	0.43	0.40	_	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily			-	-	_	_	-	_	_	_	—	_	_	_	_	_	_	_
Off-Road Equipmen	0.08 t	0.07	0.63	0.79	< 0.005	0.03	-	0.03	0.02	—	0.02	—	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	_	—	—	_	_	—	—	_	—	—	—	—	—
Off-Road Equipmen	0.01 t	0.01	0.12	0.14	< 0.005	< 0.005	-	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)			_	-	_		_	_								_		
Daily, Winter (Max)	_		-	-	-		-	-			—			_	_	-	_	
Worker	0.35	0.31	0.35	4.30	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	955	955	0.04	0.04	0.10	967
Vendor	0.03	0.01	0.44	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	371	371	0.02	0.05	0.03	387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		_	-	-	-	_	-	-	—	—	—	_	—	_	-	-	—	_
Worker	0.02	0.02	0.02	0.27	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.8	58.8	< 0.005	< 0.005	0.10	59.6
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	22.5	22.5	< 0.005	< 0.005	0.03	23.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	—	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	9.73	9.73	< 0.005	< 0.005	0.02	9.86
				0					-							0		

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.73	3.73	< 0.005	< 0.005	< 0.005	3.89
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2026) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	_	—	—	—	_	—	—	—	—
Daily, Summer (Max)		—	-	-	-	_	_	-	-	—	-	-	-		_	—	-	
Daily, Winter (Max)		_	_	_	_			_	_		_	_	_		_		_	—
Off-Road Equipmen	1.28 t	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35		0.35	_	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		—	—	—	—	—	—	—	—		—	—	—		—	—	—	
Off-Road Equipmen	0.15 t	0.12	1.14	1.50	< 0.005	0.04	—	0.04	0.04		0.04	—	277	277	0.01	< 0.005	—	278
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.03 t	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01		0.01	—	45.8	45.8	< 0.005	< 0.005	—	46.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	_	—	—	—	_	—	—	—	_
Daily, Summer (Max)			_					_	_		_		_				_	

Daily, Winter (Max)		-	-	_	_		-							_				
Worker	0.30	0.27	0.32	4.02	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	936	936	0.04	0.03	0.09	947
Vendor	0.03	0.01	0.42	0.20	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	365	365	0.02	0.05	0.03	380
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	—	—	—	—	—	_	_	—		_	_		_
Worker	0.03	0.03	0.04	0.49	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	110	110	< 0.005	< 0.005	0.17	111
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	42.1	42.1	< 0.005	0.01	0.05	44.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	18.2	18.2	< 0.005	< 0.005	0.03	18.4
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.97	6.97	< 0.005	< 0.005	0.01	7.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Building Construction (2026) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—
Daily, Summer (Max)	—	_	_	_	_		_					_				_		
Daily, Winter (Max)	—	_	_	_												_		
Off-Road Equipmen	1.28 t	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	_	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—			—	—	—	—		—	—	_	—
Off-Road Equipmen	0.15 t	0.12	1.14	1.50	< 0.005	0.04	_	0.04	0.04	—	0.04	_	277	277	0.01	< 0.005	_	278
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	—	-	—	—	—	_	_	-	—	_	—	—	_	_	_	—
Off-Road Equipmen	0.03 t	0.02	0.21	0.27	< 0.005	0.01		0.01	0.01	—	0.01		45.8	45.8	< 0.005	< 0.005		46.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)			—	_	_					_								
Daily, Winter (Max)			—	_						_								
Worker	0.30	0.27	0.32	4.02	0.00	0.00	0.95	0.95	0.00	0.22	0.22	_	936	936	0.04	0.03	0.09	947
Vendor	0.03	0.01	0.42	0.20	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	365	365	0.02	0.05	0.03	380
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	-	—	—	_		_		—	_		_		_			
Worker	0.03	0.03	0.04	0.49	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	110	110	< 0.005	< 0.005	0.17	111
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	42.1	42.1	< 0.005	0.01	0.05	44.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	18.2	18.2	< 0.005	< 0.005	0.03	18.4
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.97	6.97	< 0.005	< 0.005	0.01	7.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2026) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	_	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—			_		_	_	_		_	_		_	_			
Off-Road Equipmen	1.28 t	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02		2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	_		_		-	-	-	_	_	_	_	-	_	_		
Average Daily		_	—	_	_	—	—	-	—	—	—	_	—	—	—	_	_	—
Off-Road Equipmen	0.23 t	0.19	1.75	2.31	< 0.005	0.07	—	0.07	0.06	—	0.06	—	427	427	0.02	< 0.005	—	428
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	—	—	—	—	—	-	—	—	—	-	—	—	—	-	—	_
Off-Road Equipmen	0.04 t	0.03	0.32	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	70.7	70.7	< 0.005	< 0.005	—	70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)		_	_		-		-	-	-	_	_	-	_	-	-	_		_
Worker	0.30	0.27	0.28	4.71	0.00	0.00	0.95	0.95	0.00	0.22	0.22	_	987	987	0.04	0.03	3.34	1,002
Vendor	0.03	0.01	0.40	0.19	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	_	364	364	0.02	0.05	0.98	381
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	-	-	-	-	-	-		-		-		-	-		-		-	
Average Daily	_	_	_	_	_	_	—	_	_	_	_	_	_	—	_	_	-	_
Worker	0.05	0.05	0.06	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	169	169	0.01	0.01	0.26	171
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	64.9	64.9	< 0.005	0.01	0.08	67.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	28.0	28.0	< 0.005	< 0.005	0.04	28.4
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Building Construction (2026) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—
Daily, Summer (Max)		—	-	_	_	_	_		_	_	_	_	_		_		_	—
Off-Road Equipmen	1.28 t	1.07	9.85	13.0	0.02	0.38	-	0.38	0.35	-	0.35	-	2,397	2,397	0.10	0.02	-	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	-	_	-	_	_	_	_	_	_	_	-		_	_	-	
Average Daily	_	—	_	-	—	-	—	—	—	-	-	-	—	—	—	—	—	—
Off-Road Equipmen	0.23 t	0.19	1.75	2.31	< 0.005	0.07	_	0.07	0.06	-	0.06	_	427	427	0.02	< 0.005	_	428

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.04 t	0.03	0.32	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01		70.7	70.7	< 0.005	< 0.005	—	70.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	_	_	-	-	-	_	_	_				_	_		-		_	-
Worker	0.30	0.27	0.28	4.71	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	987	987	0.04	0.03	3.34	1,002
Vendor	0.03	0.01	0.40	0.19	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	364	364	0.02	0.05	0.98	381
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	-	-	-	_	-	-	_	_		_	_	_	-	_	_	-
Average Daily	—	—	_	_	_	—	_	_	_	—	_	—	—	_	-	_	—	-
Worker	0.05	0.05	0.06	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	_	169	169	0.01	0.01	0.26	171
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	64.9	64.9	< 0.005	0.01	0.08	67.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	28.0	28.0	< 0.005	< 0.005	0.04	28.4
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

PM10D PM10T PM2.5E PM2.5D PM2.5T TOG ROG NOx СО SO2 PM10E BCO2 NBCO2 CO2T CH4 N2O CO2e Location R

Onsite	—	_	—	—	—	_	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)		_				_	_		_			_						_
Daily, Winter (Max)		—				—						_						—
Off-Road Equipmen	1.01 t	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	_	1,517
Paving	—	0.11	—	—	_	—	—	—	—	—	—	—	—	—	—	—	—	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		_		_		—		—	_	_	_	_		_	_	_		_
Off-Road Equipmen	0.09 t	0.08	0.73	0.93	< 0.005	0.04		0.04	0.03	_	0.03	—	141	141	0.01	< 0.005		141
Paving		0.01	_	_	_	—		_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual		—	—	—	_	—		—	—	—	—	—	—	—	—	—	—	_
Off-Road Equipmen	0.02 t	0.01	0.13	0.17	< 0.005	0.01	_	0.01	0.01	_	0.01	—	23.3	23.3	< 0.005	< 0.005		23.4
Paving	—	< 0.005	—	—	_	—	—	—	—	—	—	—	—	—	—	—	—	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	_	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)		_				—			—									
Daily, Winter (Max)												_						
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	—	-	-	—	—	-	-	—	—	—	—	-	—	-	_	-	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.03	19.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.14	3.14	< 0.005	< 0.005	0.01	3.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Paving (2024) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	_		_														—
Daily, Winter (Max)	_	_		_														—
Off-Road Equipmen	1.01 t	0.85	7.81	10.0	0.01	0.39		0.39	0.36		0.36	—	1,512	1,512	0.06	0.01		1,517
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		_	_	_		_						_						

Off-Road Equipmen	0.09 t	0.08	0.73	0.93	< 0.005	0.04	—	0.04	0.03	—	0.03	—	141	141	0.01	< 0.005	—	141
Paving		0.01	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen	0.02 t	0.01	0.13	0.17	< 0.005	0.01	_	0.01	0.01	_	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Paving		< 0.005	_	_	_	_	_	_	_	_	_	—	—	—	—	_	—	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite		_	_	_	_	_	_	_	_	_	—	—	—	—	—	_	—	_
Daily, Summer (Max)	_	_	-	-	-	-	-	-	_	-	_	_	_	_	-	_	_	_
Daily, Winter (Max)		_	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily			—	—		—	—	—	—	—	—		—	—	—		—	
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.03	19.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.14	3.14	< 0.005	< 0.005	0.01	3.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Architectural Coating (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	_	—	—	_	_	—	_	—	—	—	—	_	_	_
Daily, Summer (Max)	_	_				—					_			_				
Daily, Winter (Max)	_	—		_							_	_		—				_
Off-Road Equipmen	0.15 t	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03		0.03	—	134	134	0.01	< 0.005		134
Architect ural Coatings	_	6.04				—					_			_				—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—		_			—	_			—	—		_			—	
Off-Road Equipmen	0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	_	< 0.005	—	7.68	7.68	< 0.005	< 0.005	—	7.71
Architect ural Coatings	_	0.35				—					_			_				
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual		—	_	_	—	_	—	_	—	_	—	-	—	—	—	_	—	_
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.27	1.27	< 0.005	< 0.005	_	1.28
Architect ural Coatings		0.06					_		_	_	_	_						

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	_	_	—	_	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	_	_	_	_	_	_	-	_	_	—	—	_	—	-	—	—	—
Daily, Winter (Max)	_	_	_		_	—	-	_	_	_	_	—	_	_	-	_	_	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	-	_	-	_	-	—	—	_	_	—	-	-	_	-	—	—	-	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	-	_	_	-	_	-	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	1.90	1.90	< 0.005	< 0.005	< 0.005	1.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Architectural Coating (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)				_	-			_							_	_		

_	—	—	—	—	_	—			_	_	—					—	—
0.15 t	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
	6.04		_	_							_						
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
	_	—	—	—	—	—			—		—		—			—	—
0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.68	7.68	< 0.005	< 0.005	—	7.71
	0.35		-	_							_						—
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
—	_	-	-	_	_	—	_	_	_	_	_	_	—	_	_	_	—
< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	-	1.27	1.27	< 0.005	< 0.005	_	1.28
	0.06	-	-	-	_		_		_	_	-						
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—		_														
		_	_	_	_				_		_						—
0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
		0.15 0.13 6.04 0.00 0.00 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.00 0.00 0.00 0.00 - 4 0.005 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 - 4 0.00 0.00 0.00 0.00 0.00 0.00 0.00 - - - - - - - - - - - -	0.130.88-6.040.000.000.000.010.050.010.010.050.010.000.000.00<	Image: series of the series	Image: series of the series	0.150.130.881.14< 0.005		Image: series of the series	Image: series of the series					nnn	A. <td>nnn</td> <td>A.</td>	nnn	A.

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	-	—	-	_	—	—	—	—	—	—	—	—	—	-	_	-	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	-	—	—	—	—	—	—	—	—	—	—	-	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Architectural Coating (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)	_	_		_				_				_				_		_
Off-Road Equipmen	0.15 t	0.13	0.88	1.14	< 0.005	0.03	_	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings		5.51		_				_				_		_		_	_	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	-	_	-	_	_		-	_	_	_	-		_	_	-	_	_
Average Daily		_		_	_	_		_	—	_	_	_		—	_	-	—	_

Off-Road Equipmen	0.01 t	0.01	0.06	0.07	< 0.005	< 0.005	-	< 0.005	< 0.005	—	< 0.005	-	8.41	8.41	< 0.005	< 0.005	—	8.44
Architect ural Coatings	_	0.35	_	-	-	-	-	_	-	-	-	_	_	_	-	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	-	-	_	_	_	_	_
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.39	1.39	< 0.005	< 0.005	—	1.40
Architect ural Coatings		0.06	-	-	-	_	-	-	-	_	-	-	_	_	-	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)			-	-	-	_	-	-	-	-	-	_	_	_	-	—		—
Worker	0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	207	207	0.01	0.01	0.76	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)			-	-	-	-	-	-	-	-	-	-	-	-	-	_		-
Average Daily	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	-	12.6	12.6	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	—	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Architectural Coating (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite		—	—	—	—	—	—	—	—	—	_	—	—	—	_	—	—	_
Daily, Summer (Max)			_	_	_													—
Off-Road Equipmen	0.15 t	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03		0.03	—	134	134	0.01	< 0.005		134
Architect ural Coatings	_	5.51	_	_	_						_				_			—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)			_	_	_													
Average Daily		_	-	-	-	_	—	_	—		_	—	—	_	_	—	—	_
Off-Road Equipmen	0.01 t	0.01	0.06	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	8.41	8.41	< 0.005	< 0.005	_	8.44
Architect ural Coatings		0.35	-	-	-		_		-		-	_	-		-	_		_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual		_	_	-	_	—	—	_	—	_	—	—	—	_	—	—	—	_
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	_	1.40

Architect Coatings	—	0.06	_	-	—	_	_	_	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)			_	—	_	-	_	—					_	—		_		_
Worker	0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.76	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	-	-	-	-	-	-	_	_	_	_						_
Average Daily		—	-	-	_	-	—	—	_	—	—	_	_	—	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.6	12.6	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	-	_	—	—	_	—	—	_	—	_	_	_	_	—	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Architectural Coating (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_		_						_		_	_	
Daily, Winter (Max)	_	_		_	_	_		—				—		—		_	_	
Off-Road Equipmen	0.15 t	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	-	134
Architect ural Coatings	_	5.71	—	—	_	_	—	—		_		—		—	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	-	—	—	-	—	_	—	—	—		—	_	—	—	—	-	—
Off-Road Equipmen	0.01 t	0.01	0.05	0.06	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architect ural Coatings	—	0.31		_	_	—		_						—		—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	—	—	_	_	—	—	—	—		—	—	—		—	_	_
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005	_	< 0.005	_	1.21	1.21	< 0.005	< 0.005	—	1.22
Architect ural Coatings	_	0.06	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_		_		_		_		_	_	_
Daily, Summer (Max)		_			_	_		_						_		_	_	

Daily, Winter (Max)	-	-	-	-	-	-	-	-	-	-	-	_	-	_	-	_	_	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	—	—	_	_	_	—	—	—	_	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	1.81	1.81	< 0.005	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.26. Architectural Coating (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite		—	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—	_
Daily, Summer (Max)				_	_	_	_	_	_				_		_			
Daily, Winter (Max)					_	_	_		_				_					
Off-Road Equipmen	0.15 t	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03		0.03		134	134	0.01	< 0.005		134
Architect ural Coatings		5.71		_	_	_	-	_	-				-		_		_	

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_		_	-	_		—	_	_	-	_		_	_	_	—	—	_
Off-Road Equipmen	0.01 t	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005		7.32	7.32	< 0.005	< 0.005	—	7.34
Architect ural Coatings		0.31		_	_	—				_	_					_		
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005	—	< 0.005		1.21	1.21	< 0.005	< 0.005	—	1.22
Architect ural Coatings		0.06		_	_	—				_	_							
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	_	—	-	-	_	_	-	—	—	-	_	—	_	_	—	—	—
Daily, Summer (Max)			_	-	-		_	-	_	-	-			_	_	-	-	_
Daily, Winter (Max)			_	—	-			_		—	-				_	_	_	_
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		_	_	-	-	_	_	_	_	-	_	_	_	_	_	—	-	_
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	10.9	10.9	< 0.005	< 0.005	0.02	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.81	1.81	< 0.005	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Architectural Coating (2026) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	—	—	—	—	—	—	—	—	_	—	—	_	—	_	—	_
Daily, Summer (Max)																		—
Daily, Winter (Max)																		
Off-Road Equipmen	0.15 t	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	_	0.02	—	134	134	0.01	< 0.005	_	134
Architect ural Coatings		5.77																
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily		—	_	—	—	_	_	—	_	_	_	—	_		—	_	—	_
Off-Road Equipmen	0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005		< 0.005	—	8.05	8.05	< 0.005	< 0.005	_	8.07
Architect ural Coatings		0.35		_	_							_						
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	_	—	_	_	—	—	_	_	_	—	_	_	—	—	_	—
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Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005		1.34
Architect ural Coatings		0.06																
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Summer (Max)								_										
Daily, Winter (Max)								_										
Worker	0.06	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	0.01	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	—	—	—	—	—	-	—	—	—	—	_	—	—	_	—	_
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	11.8	11.8	< 0.005	< 0.005	0.02	11.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	1.95	1.95	< 0.005	< 0.005	< 0.005	1.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.28. Architectural Coating (2026) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—																	
Daily, Winter (Max)	—	—					—		—					—				_
Off-Road Equipmen	0.15 t	0.12	0.86	1.13	< 0.005	0.02		0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	_	134
Architect ural Coatings	—	5.77				_				_								
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipmen	0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.07
Architect ural Coatings	_	0.35		_	_	_			_	_		_		_				_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	-	-	—	—	—	—	—	—	-	—	—	—	_	—	—
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	_	1.34
Architect ural Coatings	—	0.06	_	_	_	_		_		_		_						
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	—	—		_	—	—					—		—	—	—		—	
Daily, Winter (Max)						—							—	—	—		—	
Worker	0.06	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	0.01	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	_		_	—	—		—			_	—	_	—	—			
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.8	11.8	< 0.005	< 0.005	0.02	11.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	—	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	1.95	1.95	< 0.005	< 0.005	< 0.005	1.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Architectural Coating (2026) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	—	_	—	—	—	_	_	—	_	—	—	—	_	_	_	_	_
Daily, Summer (Max)		_		_	_	_			_		_	_						
Off-Road Equipmen	0.15 t	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02		0.02	—	134	134	0.01	< 0.005		134
Architect ural Coatings		5.51	_	-	-	-	_		_		_	-	_		_			_

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	—	—	—	_	_	—	—	_	-	—	—	_	—	—	_	_
Average Daily	—	_	-	-	-	_	—	-	—	-	_	_	-	—	-	-	—	
Off-Road Equipmen	0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005	-	< 0.005	—	8.41	8.41	< 0.005	< 0.005	—	8.44
Architect ural Coatings		0.35	—	_	_	-		-		—	-	_	_		_	_		
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	-	_	_	_	-	—	_	_	-	_	_	_	-	_	_
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005	—	< 0.005	_	1.39	1.39	< 0.005	< 0.005	—	1.40
Architect ural Coatings		0.06	_	_	_	_		_		_	-	_	_		_	_		
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—
Daily, Summer (Max)		—	_	_	_	_		_		_	_	_	_		_	_		
Worker	0.06	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	0.01	0.01	0.69	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)			_	_	_	_		_		_	_	_	_		_	_		
Average Daily	_	_	-	_	-	_	_	_	-	-	-	_	-	_	_	-	_	

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.02	12.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.04	2.04	< 0.005	< 0.005	< 0.005	2.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.30. Architectural Coating (2026) - Mitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	_	—	—	—	—	—	—	—	—	—	_	—	—	—	—
Daily, Summer (Max)		-	-	-	-	-	_	-	—	-	-	-	_		-	—	-	—
Off-Road Equipmen	0.15 t	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings		5.51	_	_	—	—	_	_	_	_	_	_	_		_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_	-	-	—	_	_	_	_	_	_	_	_		-	_	_	-
Average Daily		—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	_
Off-Road Equipmen	0.01 t	0.01	0.05	0.07	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	—	8.41	8.41	< 0.005	< 0.005	-	8.44
Architect ural Coatings		0.35	_	_	-	_	_		_	_	_		_		_	_	_	_

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	< 0.005 t	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.39	1.39	< 0.005	< 0.005	_	1.40
Architect ural Coatings	_	0.06	-	_	_	-	-	-	-	_	-	-	-	_	-	-	-	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—		_	-	—	-	-	-	_	—	-	_	_	—	-	_	_	_
Worker	0.06	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	0.01	0.01	0.69	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average Daily	_	_	_	_	_	_	-	-	-	_	—	-	_	_	-	-	—	-
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.02	12.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.04	2.04	< 0.005	< 0.005	< 0.005	2.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available. 4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		-	-	-	-	-		-	—			-	-		-	—	—	-
Apartme nts Mid Rise		_	_	_	_	_		_	_			_	518	518	0.03	< 0.005	_	520
Fast Food Restaurar with Drive Thru	 t												225	225	0.01	< 0.005		225
Automob ile Care Center		_	_	_	_	_		_				_	50.3	50.3	< 0.005	< 0.005		50.5
Parking Lot	_	_	_	-	_	—	_	_	_	_	_	_	81.6	81.6	0.01	< 0.005	_	81.9
Total		_	_	_	_	_		_	_	_	_	_	875	875	0.05	0.01	_	878

Daily, Winter (Max)			_	_	_	—	_		—	—	_	_	_	—			—	_
Apartme nts Mid Rise									—	_		—	518	518	0.03	< 0.005		520
Fast Food Restaurar with Drive Thru	 t			_				_	_			_	225	225	0.01	< 0.005	_	225
Automob ile Care Center													50.3	50.3	< 0.005	< 0.005		50.5
Parking Lot	_	_	—	—		_	_	_	—	_	_	—	81.6	81.6	0.01	< 0.005	_	81.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	875	875	0.05	0.01	—	878
Annual	_		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise									_				85.8	85.8	0.01	< 0.005		86.1
Fast Food Restaurar with Drive Thru	 t			_	_		_	_	_		_	_	37.2	37.2	< 0.005	< 0.005	_	37.3
Automob ile Care Center			_				_		_	_	—	_	8.32	8.32	< 0.005	< 0.005	—	8.36
Parking Lot	_		_	_		_			_	—	_		13.5	13.5	< 0.005	< 0.005	—	13.6
Total	_	_	_	_	_	—	_	_	_	_	_	_	145	145	0.01	< 0.005	—	145

4.2.2. Electricity Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	—	—	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—
Apartme nts Mid Rise	—	—	_	_	_	_	_	_				_	487	487	0.03	< 0.005	_	489
Fast Food Restaurar with Drive Thru	t		_	_	_	_							192	192	0.01	< 0.005	_	193
Automob ile Care Center					_								50.1	50.1	< 0.005	< 0.005		50.3
Parking Lot	_	—	—	—	—	—	—	—	—	—	—	—	81.6	81.6	0.01	< 0.005	—	81.9
Total	_	—	—	—	—	—	—	—	—	—	—	—	811	811	0.05	0.01	—	814
Daily, Winter (Max)	_	—	-	—	-	-	_		—		—		_		-	—	-	—
Apartme nts Mid Rise	_		_	_	_	_	_						487	487	0.03	< 0.005	_	489
Fast Food Restaurar with Drive Thru	t												192	192	0.01	< 0.005		193

Automob ile Care Center	_	_	_	_	_		_	_	_	_	_		50.1	50.1	< 0.005	< 0.005		50.3
Parking Lot	_	—	—	—		_	_		_	—	_	_	81.6	81.6	0.01	< 0.005	_	81.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	811	811	0.05	0.01	—	814
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise										—			80.6	80.6	0.01	< 0.005		80.9
Fast Food Restaurar with Drive Thru	t			_	_		_	_	_	_	_		31.9	31.9	< 0.005	< 0.005		32.0
Automob ile Care Center													8.30	8.30	< 0.005	< 0.005		8.33
Parking Lot			_			_			_	—			13.5	13.5	< 0.005	< 0.005	_	13.6
Total	_	_	_	_	_	_	_	_	_	_	_	_	134	134	0.01	< 0.005	_	135

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)			_		_				_			_						_
Apartme nts Mid Rise	0.03	0.02	0.27	0.12	< 0.005	0.02		0.02	0.02		0.02	-	345	345	0.03	< 0.005		346

Fast Food Restaurar with Drive Thru	0.02 t	0.01	0.14	0.12	< 0.005	0.01	_	0.01	0.01		0.01	_	164	164	0.01	< 0.005		165
Automob ile Care Center	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005		< 0.005		49.3	49.3	< 0.005	< 0.005		49.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.45	0.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	559	559	0.05	< 0.005	—	560
Daily, Winter (Max)			_	_	_	_	_	_										_
Apartme nts Mid Rise	0.03	0.02	0.27	0.12	< 0.005	0.02	_	0.02	0.02		0.02		345	345	0.03	< 0.005		346
Fast Food Restaurar with Drive Thru	0.02 t	0.01	0.14	0.12	< 0.005	0.01		0.01	0.01	_	0.01	_	164	164	0.01	< 0.005	_	165
Automob ile Care Center	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		49.3	49.3	< 0.005	< 0.005		49.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.45	0.27	< 0.005	0.04	_	0.04	0.04	_	0.04	_	559	559	0.05	< 0.005	_	560
Annual	_	_	_	_	<u> </u>	_	_	_		_	_	_	_	_	_	_	—	_
Apartme nts Mid Rise	0.01	< 0.005	0.05	0.02	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		57.2	57.2	0.01	< 0.005		57.3

Fast Food Restaurar with Drive Thru	< 0.005 t	< 0.005	0.03	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005		27.2	27.2	< 0.005	< 0.005	_	27.3
Automob ile Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005		8.17	8.17	< 0.005	< 0.005	_	8.19
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.08	0.05	< 0.005	0.01	_	0.01	0.01	_	0.01	_	92.5	92.5	0.01	< 0.005	—	92.8

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_			_	_	_					_	_						—
Apartme nts Mid Rise	0.03	0.02	0.27	0.12	< 0.005	0.02		0.02	0.02		0.02	_	345	345	0.03	< 0.005		346
Fast Food Restaurar with Drive Thru	0.02 t	0.01	0.14	0.12	< 0.005	0.01		0.01	0.01		0.01		164	164	0.01	< 0.005		165
Automob ile Care Center	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		49.3	49.3	< 0.005	< 0.005		49.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	-	0.00	0.00	0.00	0.00	_	0.00

Total	0.05	0.03	0.45	0.27	< 0.005	0.04	_	0.04	0.04	_	0.04	—	559	559	0.05	< 0.005	—	560
Daily, Winter (Max)	—	_	-	-			_	_	-	_	_	_		_	_		—	_
Apartme nts Mid Rise	0.03	0.02	0.27	0.12	< 0.005	0.02		0.02	0.02		0.02		345	345	0.03	< 0.005	_	346
Fast Food Restaurar with Drive Thru	0.02 t	0.01	0.14	0.12	< 0.005	0.01		0.01	0.01		0.01		164	164	0.01	< 0.005		165
Automob ile Care Center	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		49.3	49.3	< 0.005	< 0.005	_	49.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.45	0.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	559	559	0.05	< 0.005	—	560
Annual	—	—	—	_	—	—	—	—	—	—	—	_	—	—	—	—	—	_
Apartme nts Mid Rise	0.01	< 0.005	0.05	0.02	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		57.2	57.2	0.01	< 0.005		57.3
Fast Food Restaurar with Drive Thru	< 0.005 t	< 0.005	0.03	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	27.2	27.2	< 0.005	< 0.005	_	27.3
Automob ile Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		8.17	8.17	< 0.005	< 0.005		8.19
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.08	0.05	< 0.005	0.01	_	0.01	0.01	_	0.01	_	92.5	92.5	0.01	< 0.005	_	92.8
									-									

4.3. Area Emissions by Source

4.3.2. Unmitigated

Source	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—	—	—	_	_		_	—	_		_		—				_
Hearths	0.16	0.08	1.37	0.58	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,736	1,736	0.03	< 0.005	—	1,738
Consum er Products		2.17	_		_	_		_	_	_		_						
Architect ural Coatings		0.17	—		_	—		-	_	_		-						—
Landsca pe Equipme nt	0.58	0.55	0.06	5.85	< 0.005	< 0.005	_	< 0.005	< 0.005	—	< 0.005	_	16.2	16.2	< 0.005	< 0.005		16.2
Total	0.74	2.97	1.42	6.43	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,752	1,752	0.03	< 0.005	—	1,754
Daily, Winter (Max)		—	—	—	-	—	—	-	—	—	—	-	_		—			—
Hearths	0.16	0.08	1.37	0.58	0.01	0.11	_	0.11	0.11	_	0.11	0.00	1,736	1,736	0.03	< 0.005	_	1,738
Consum er Products	_	2.17	—	_	—	—	—	-	_	—	—	—	_	_	—			_
Architect ural Coatings		0.17	_	_	_	_		_	_	_		_						_
Total	0.16	2.42	1.37	0.58	0.01	0.11	_	0.11	0.11	_	0.11	0.00	1,736	1,736	0.03	< 0.005	_	1,738
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	—	_	—	_
Hearths	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005		19.7

Consum Products		0.40	_	_	_		_	_	_	_	_	_	_	_	_	_	_	
Architect ural Coatings	_	0.03	_	_	_	_	_	_	_	—	_	_	—	_	—	_	_	—
Landsca pe Equipme nt	0.07	0.07	0.01	0.73	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.83	1.83	< 0.005	< 0.005	_	1.84
Total	0.07	0.50	0.02	0.74	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	0.00	21.5	21.5	< 0.005	< 0.005	_	21.5

4.3.1. Mitigated

Source	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	-	-	-	_	—	_	-	-	_	-	-	-	—	—	—	—	—
Hearths	0.16	0.08	1.37	0.58	0.01	0.11	-	0.11	0.11	—	0.11	0.00	1,736	1,736	0.03	< 0.005	—	1,738
Consum er Products	_	2.17		_		_		-	_	_	-	-	_	—	-	_	-	-
Architect ural Coatings	—	0.17		_		—		_	—	_	—	-	_		-	_	_	—
Landsca pe Equipme nt	0.58	0.55	0.06	5.85	< 0.005	< 0.005	—	< 0.005	< 0.005	_	< 0.005	_	16.2	16.2	< 0.005	< 0.005	—	16.2
Total	0.74	2.97	1.42	6.43	0.01	0.11	-	0.11	0.11	—	0.11	0.00	1,752	1,752	0.03	< 0.005	—	1,754
Daily, Winter (Max)		_		_				_	_	_	_	_	_		_		—	_
Hearths	0.16	0.08	1.37	0.58	0.01	0.11	_	0.11	0.11	_	0.11	0.00	1,736	1,736	0.03	< 0.005	_	1,738

Consum er	—	2.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Architect ural Coatings		0.17		_		_				_	_	—		_		_	—	_
Total	0.16	2.42	1.37	0.58	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,736	1,736	0.03	< 0.005	_	1,738
Annual	—	_	—	—	_	—	—	_	_	—	—	—	_	—	—	_	_	
Hearths	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005	_	19.7
Consum er Products		0.40				—						_					—	
Architect ural Coatings		0.03																
Landsca pe Equipme nt	0.07	0.07	0.01	0.73	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		1.83	1.83	< 0.005	< 0.005		1.84
Total	0.07	0.50	0.02	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	21.5	21.5	< 0.005	< 0.005	—	21.5

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)					_	_			_									—
Apartme nts Mid Rise				—	_	—			—			6.93	42.8	49.8	0.71	0.02		72.7

Fast Food Restaurar with Drive Thru	— t		_		_					_		2.59	13.4	16.0	0.27	0.01		24.6
Automob ile Care Center			—									0.65	3.36	4.00	0.07	< 0.005		6.15
Parking Lot	—		—	—	—					—		0.00	0.00	0.00	0.00	0.00	—	0.00
Total		—	—	—	—	—	—	—	—	—	—	10.2	59.6	69.8	1.05	0.03	—	103
Daily, Winter (Max)	_		_		_					—							—	
Apartme nts Mid Rise	—		_									6.93	42.8	49.8	0.71	0.02		72.7
Fast Food Restaurar with Drive Thru	 t	_		_	_	_	_	_	_	_	_	2.59	13.4	16.0	0.27	0.01	_	24.6
Automob ile Care Center			—									0.65	3.36	4.00	0.07	< 0.005		6.15
Parking Lot	—	—	-	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	_	—	—	—	—	—	—	_	—	—	—	10.2	59.6	69.8	1.05	0.03	—	103
Annual		—	—	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—
Apartme nts Mid Rise		—	_	—	_							1.15	7.09	8.24	0.12	< 0.005	—	12.0

Fast Food Restaurar with Drive Thru	 t	_	_		_	_	_	_		_		0.43	2.22	2.65	0.04	< 0.005	_	4.07
Automob ile Care Center												0.11	0.56	0.66	0.01	< 0.005		1.02
Parking Lot		_		_	_		_		_	_	_	0.00	0.00	0.00	0.00	0.00		0.00
Total		_	_	_	_	_	_	_		_	_	1.68	9.87	11.5	0.17	< 0.005		17.1

4.4.1. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_					_						_		—				—
Apartme nts Mid Rise						_						6.29	36.3	42.6	0.65	0.02		63.4
Fast Food Restaurar with Drive Thru	 t											2.34	12.1	14.4	0.24	0.01		22.2
Automob ile Care Center												0.59	3.03	3.62	0.06	< 0.005		5.55
Parking Lot	_	—	—	_	—	-	—	_	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	_	—	9.21	51.4	60.6	0.95	0.02	—	91.1
Daily, Winter (Max)	_			_														
Apartme nts Mid Rise	—			—	—	—		—				6.29	36.3	42.6	0.65	0.02	—	63.4
Fast Food Restaurar with Drive Thru	— t			_	_	_	_	_				2.34	12.1	14.4	0.24	0.01		22.2
Automob ile Care Center	_				_							0.59	3.03	3.62	0.06	< 0.005		5.55
Parking Lot	—		—	—	_	—	—			—		0.00	0.00	0.00	0.00	0.00	_	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.21	51.4	60.6	0.95	0.02	—	91.1
Annual	—		—	—	—	—	—	—	—	—	—	_	—	_	-	—	_	—
Apartme nts Mid Rise	_			_	_							1.04	6.01	7.05	0.11	< 0.005		10.5
Fast Food Restaurar with Drive Thru	— t			_	_	_	_			_		0.39	2.00	2.39	0.04	< 0.005	_	3.67
Automob ile Care Center												0.10	0.50	0.60	0.01	< 0.005		0.92
Parking Lot			_	—		—	—					0.00	0.00	0.00	0.00	0.00		0.00
Total	_		—	_	_	—	_	_	_	_	_	1.52	8.51	10.0	0.16	< 0.005	_	15.1

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise				—	—		_		—		—	38.6	0.00	38.6	3.86	0.00		135
Fast Food Restaurar with Drive Thru	t											27.6	0.00	27.6	2.76	0.00		96.7
Automob ile Care Center				_								7.40	0.00	7.40	0.74	0.00		25.9
Parking Lot		—	—	—	—	—	—	—	—	—		0.00	0.00	0.00	0.00	0.00	—	0.00
Total		_	_	_	_	_	_	_	_	_	_	73.7	0.00	73.7	7.36	0.00	_	258
Daily, Winter (Max)		_	_	—	_	_	_	_	_	—	_	—	_	_	—	—	_	_
Apartme nts Mid Rise				_								38.6	0.00	38.6	3.86	0.00		135
Fast Food Restaurar with Drive Thru	 t	—				—		—		—		27.6	0.00	27.6	2.76	0.00	—	96.7

Automob Care Center		_		_		—				—		7.40	0.00	7.40	0.74	0.00	_	25.9
Parking Lot	_	—	—	—		—	—	—		—		0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—		—	—	—	—	—	—	73.7	0.00	73.7	7.36	0.00	—	258
Annual	_	—	—	—	—	—	—	_	—	—	—	—	—	—	—	—	—	_
Apartme nts Mid Rise		_								—		6.40	0.00	6.40	0.64	0.00	_	22.4
Fast Food Restaurar with Drive Thru	 t	_		_	_	_		_	_	_	_	4.57	0.00	4.57	0.46	0.00	_	16.0
Automob ile Care Center				_								1.23	0.00	1.23	0.12	0.00		4.29
Parking Lot		_		_		_				—		0.00	0.00	0.00	0.00	0.00	-	0.00
Total	_	_	—	_		_	—	_	_	—	_	12.2	0.00	12.2	1.22	0.00	—	42.7

4.5.1. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	-	-	-	-	-	_	_	_	_	—	—	-	_	—	_	_	_	_
Apartme nts Mid Rise	_	—	_	_	_							9.66	0.00	9.66	0.97	0.00		33.8

Fast Food Restaurar with Drive Thru	— t				_		_		_			6.91	0.00	6.91	0.69	0.00		24.2
Automob ile Care Center			—									1.85	0.00	1.85	0.18	0.00		6.48
Parking Lot			—	—	—	—		—	—	—		0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	_	—	—	—	—	—	—	—	—	—	18.4	0.00	18.4	1.84	0.00	—	64.4
Daily, Winter (Max)	_	—	—	_	—	_	—	_	—	_	_	—	—	—	_	_	—	_
Apartme nts Mid Rise			_		—		—		—	_		9.66	0.00	9.66	0.97	0.00		33.8
Fast Food Restaurar with Drive Thru	 t			_	_	_	_		_			6.91	0.00	6.91	0.69	0.00	_	24.2
Automob ile Care Center			_									1.85	0.00	1.85	0.18	0.00		6.48
Parking Lot		—	_	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	18.4	0.00	18.4	1.84	0.00	_	64.4
Annual	—		—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—
Apartme nts Mid Rise	—	—	_	—	_	—	—	—	—	—	—	1.60	0.00	1.60	0.16	0.00	—	5.60

Fast Food Restaurar with Drive Thru	 t	_	_	 _	_	_	 	_		1.14	0.00	1.14	0.11	0.00	_	4.00
Automob ile Care Center	_			 			 			0.31	0.00	0.31	0.03	0.00	_	1.07
Parking Lot	—			 		_	 _		_	0.00	0.00	0.00	0.00	0.00	—	0.00
Total			_	 	_	_	 _	_	_	3.05	0.00	3.05	0.30	0.00	_	10.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	—		-	—	_	—	-	—	_	—	—	-			—			—
Apartme nts Mid Rise			_		_	_	_		_		_	_					0.67	0.67
Fast Food Restaurar with Drive Thru	 t	_			_				—				_	_	_	_	6.96	6.96
Automob ile Care Center			_	_	_	_	_		_			_					746	746

Total	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	753	753
Daily, Winter (Max)		_	_	_	_	_		—	_	—	_	_	_	_	_	—		_
Apartme nts Mid Rise			_					_	_	_					_	-	0.67	0.67
Fast Food Restaurar with Drive Thru	 t		_	_		_	_		_		_						6.96	6.96
Automob ile Care Center																—	746	746
Total	—	—	_	_	_	_	_	-	_	-	_	—	_	_	-	_	753	753
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Apartme nts Mid Rise									_	_						—	0.11	0.11
Fast Food Restaurar with Drive Thru	 t	_	_	_	_	_	_	_	_	_	_	_	_	_	_		1.15	1.15
Automob ile Care Center																	123	123
Total		_			_				_				_				125	125

4.6.2. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—		—	—	_	_		—	—	—			—			_	—	—
Apartme nts Mid Rise	_		_	_	_	_	—	_		—	_	—	_		_	_	0.67	0.67
Fast Food Restaurar with Drive Thru	— t	_		_	_	_					_		_	_		_	6.96	6.96
Automob ile Care Center				_													746	746
Total	—	—	_	-	_	_	_	_	_	_	—	_	—	_	—	_	753	753
Daily, Winter (Max)	_		_	-						_								
Apartme nts Mid Rise				—													0.67	0.67
Fast Food Restaurar with Drive Thru	t		-	_	_			_							_	_	6.96	6.96
Automob ile Care Center				_													746	746
Total	—	_	_	_	_	_	_			_	_	_			_	_	753	753
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_		—	_	_	_

Apartme nts	—		—	—		—	—		—			—	—		—	—	0.11	0.11
Fast Food Restaurar with Drive Thru	— t	_		_	_	_	_	_	_	_	_	_	_				1.15	1.15
Automob ile Care Center	_																123	123
Total	_	_	_	_		_	_		_		_	_	_	_	_	_	125	125

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	_	—	—	—	—	—	—		—	—	_	—	—	_	—	—	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)		-		-								-			-		_	
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Total	_	_	_	_	_	_	_	_	—	_	_	_	_	_	_	_	_	

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—	—	—	_	—	—	—	—	—			—	—	—	—	—	—
Total	—	—	—	—	—	_	—	—	—	—	—	—	_	—	—	—	_	-
Daily, Winter (Max)						—							—	—		_	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual			_	_	_	_		_		_		_	_	_		_	_	_
Total		_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	—	_	—	_	—	—	—		—	—	—	—	_	—		—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	_	_	_	-		_						_			_			_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_

4.8.2. Mitigated

PM2.5E SO2 PM10E PM10D PM10T PM2.5D PM2.5T Equipme TOG ROG NOx со BCO2 NBCO2 CO2T CH4 N2O CO2e R nt Туре Daily, Summer (Max) Total ___ ____ ____ ____ ___ ____ ____ ____ Daily, Winter (Max) Total _ ____ ____ ___ ____ ____ ____ Annual ____ ____ ____ ____ Total ___ ____ ____ ____ ____ ____ ____ ____ ____ ____

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)					—		—	—		—	—	—		—	—		—	
Total	—	—	—	—	—	_	—	—		—	—	—	—	—	—	_	—	—
Daily, Winter (Max)							—					_		—			—	_
Total	_	_	_	_	—	_	_	_	_	_	_	_	_	_	_	_	_	_

Annual	—		_	_	—		_	—		_	_	—	—	_	—		_	_
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—		—		—			—	—		—	—	—		—		—
Total	—	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)		_	_	_		_		_	_		_	_			_	-		
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	-	—	—	—	—	-	—	—	—		—	—	—	—
Total	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_		_

Daily, Winter (Max)	—	—	—	—		—	—		—	_	—	—	—	_	—	_	_	_
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_	_	—
Annual	—	—	—	—	—	—	—	—	—		—	—	—	—	_		_	—
Total	—	_	—	—	—	—		—	—	_	—		—	_		_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)										—	_		_					_
Total	—	—	—	_	_	—	—	—		—	—	—	—	—	—	_		—
Daily, Winter (Max)	_												—	_				—
Total	—	_	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	_	_	_	_	_	—	_	_	_	_	_	_	_	_	_	_		—
Total	_	_	_	_	_	—	_	_	_	_	_	_	_	_	_	_		—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		_	-	—	-	_	—	_	—		_	-			_			—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Sequest	—	—	—	—	—	_	—	—	—	—		—	—	—	—	—	—	_
Subtotal	_		_	_	_	_	_	_	_	_		_		_	_	_	_	_
Remove d			—	—	—	—				—		—		—		—	—	—
Subtotal	_		—	_	_	_	—	_	_	—	—	_	_	_	_	_	_	_
_	_		_	_	_	_	_	_		_	<u> </u>	_		_		_	_	_
Daily, Winter (Max)				_	—	_	_			—							—	_
Avoided	—		—	—	—	—	—	—	—	—		—		—	—	—	—	_
Subtotal			_	_	—	_	_			_		_		_		_	_	_
Sequest ered		—	—	—	—	—	—			—		—	—	—		—	—	—
Subtotal	_		_	_	_	_	_	_		_		_		_		_	_	_
Remove d			_	_	_	_						_		_		_	_	_
Subtotal	_		_	_	_	_	_	_		_		_		_		_	_	_
_	_		—	—	_	_	_	_		_		—		_		—	_	_
Annual			—	—	_	_	_		_	_	_	—		_	_	_	_	_
Avoided			—	—	_	_				_		—		_		—	_	_
Subtotal	_		_	_	_	_	_	_	_	_	_	_		_		_	_	_
Sequest ered			_	—	—	_				—		—		_		—	_	_
Subtotal	_		_	_	_	_	_	_	_	_	—	_	_	_	_	_	_	_
Remove d	_		_	_	—	_	_	_		—		_		_		—	—	_
Subtotal			—	_	—	_				—		—		_		—	_	_
_	_		—	_	_	_	_	_	_	—	_	_		_		_	_	_

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—	—			—	—	—		—			—	—		—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—
Daily, Winter (Max)										—							_	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_	—
Annual		_	_	_		_	—	—		—	_		—	—	_	—	_	—
Total		_	_	_		_	—	—		—	_		—	—	_	—	_	—

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)		—				—											_	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	_
Daily, Winter (Max)		—				—		_		_						_	—	_
Total	—	—	—	—	—	—	—	—	_	—	—	—	—	—	_	—	—	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_			_	_	_	
Total	_	_	_	_	_	_	_	_	_	_	_	_			_	_	_	

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_		—	—	_	—		—		_	—		—		—	—		_
Avoided	_	_	_	_	_	—	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	—		_	_	_					_	_	_	_		_	_		_
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	_	_	_	—	_	_	_	_	—	_	—	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)						—			_									
Avoided	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	_	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—
Sequest ered	—		—	—	_			—		—	—	—	—			—		—
Subtotal	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—	—	—
_	—	—	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—		_	_	—			_		—	_	—	—		_	_		—
Subtotal	—	_	_	_		_	_	_		_	_	_	_		_			_

Remove	_	_	—	_	_	_	_	_	_	_	_	—		_	—	_	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
_	_	_	-	_	_	_	—	_	—	_	_	—		_	_	_	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/1/2024	5/31/2024	5.00	23.0	—
Grading	Grading	6/1/2024	7/5/2024	5.00	25.0	—
Phase 1 Building Construction	Building Construction	12/1/2024	2/28/2025	5.00	65.0	_
Phase 2 Building Construction	Building Construction	4/1/2025	06/30/2025	5.00	65.0	—
Phase 3 Building Construction	Building Construction	8/1/2025	10/30/2025	5.00	65.0	_
Phase 4 Building Construction	Building Construction	12/1/2025	2/28/2026	5.00	65.0	_
Phase 5 Building Construction	Building Construction	4/1/2026	6/30/2026	5.00	65.0	_
Paving	Paving	10/1/2024	11/15/2024	5.00	34.0	—
Phase 1 Architectural Coating	Architectural Coating	3/1/2025	3/31/2025	5.00	21.0	_
Phase 2 Architectural Coating	Architectural Coating	7/1/2025	7/31/2025	5.00	23.0	_
Phase 3 Architectural Coating	Architectural Coating	11/1/2025	11/28/2025	5.00	20.0	—
Phase 4 Architectural Coating	Architectural Coating	3/1/2026	3/31/2026	5.00	22.0	_
Phase 5 Architectural Coating	Architectural Coating	7/1/2026	7/31/2026	5.00	23.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Phase 1 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 1 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 1 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 1 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 1 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 2 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 2 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 2 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 2 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37

Phase 2 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 3 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 3 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 3 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 3 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 3 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 4 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 4 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 4 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 4 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 4 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 5 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 5 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 5 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 5 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 5 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
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Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Phase 1 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 2 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 3 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 4 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 5 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Phase 1 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 1 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 1 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Phase 1 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 1 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 2 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 2 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 2 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 2 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 2 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 3 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 3 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 3 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 3 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 3 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Phase 4 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 4 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 4 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 4 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 4 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45

Phase 5 Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Phase 5 Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Phase 5 Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Phase 5 Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Phase 5 Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Phase 1 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 2 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 3 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 4 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Phase 5 Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Тгір Туре	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	_	10.2	HHDT,MHDT

Demolition	Hauling	40.7	5.00	HHDT
Demolition	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	_	10.2	HHDT,MHDT
Grading	Hauling	2.52	25.0	HHDT
Grading	Onsite truck	_	_	HHDT
Phase 1 Building Construction	_	_	_	_
Phase 1 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 1 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 1 Building Construction	Hauling	0.00	20.0	HHDT
Phase 1 Building Construction	Onsite truck	_	_	HHDT
Paving	_	_	_	_
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	_	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	_	_	HHDT
Phase 1 Architectural Coating	_	_	_	_
Phase 1 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 1 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 1 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 1 Architectural Coating	Onsite truck	_	_	HHDT
Phase 2 Building Construction	_	_	_	_
Phase 2 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 2 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 2 Building Construction	Hauling	0.00	20.0	HHDT
Phase 2 Building Construction	Onsite truck	_	_	HHDT

Phase 3 Building Construction	_	_	_	_
Phase 3 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 3 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 3 Building Construction	Hauling	0.00	20.0	HHDT
Phase 3 Building Construction	Onsite truck	_	_	HHDT
Phase 4 Building Construction	_	_	_	_
Phase 4 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 4 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 4 Building Construction	Hauling	0.00	20.0	HHDT
Phase 4 Building Construction	Onsite truck	_	_	HHDT
Phase 5 Building Construction	_	_	_	_
Phase 5 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 5 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 5 Building Construction	Hauling	0.00	20.0	HHDT
Phase 5 Building Construction	Onsite truck	_	_	HHDT
Phase 2 Architectural Coating	_	_	_	_
Phase 2 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 2 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 2 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 2 Architectural Coating	Onsite truck	_	_	HHDT
Phase 3 Architectural Coating	_	_	_	_
Phase 3 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 3 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 3 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 3 Architectural Coating	Onsite truck	—	—	HHDT
Phase 4 Architectural Coating	—	—	—	_
Phase 4 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2

Phase 4 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 4 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 4 Architectural Coating	Onsite truck	—	_	HHDT
Phase 5 Architectural Coating	_	_	_	—
Phase 5 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 5 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 5 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 5 Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Тгір Туре	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	_	_	_	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	_	10.2	HHDT,MHDT
Demolition	Hauling	40.7	5.00	HHDT
Demolition	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	_	10.2	HHDT,MHDT
Grading	Hauling	2.52	25.0	HHDT
Grading	Onsite truck	_	_	HHDT
Phase 1 Building Construction	_	_	_	_
Phase 1 Building Construction	Worker	72.9	18.5	LDA,LDT1,LDT2
Phase 1 Building Construction	Vendor	11.7	10.2	HHDT,MHDT
Phase 1 Building Construction	Hauling	0.00	20.0	HHDT
Phase 1 Building Construction	Onsite truck	_	_	HHDT
Paving	_	_	—	—

Worker	15.0	18.5	LDA,LDT1,LDT2
Vendor	_	10.2	HHDT,MHDT
Hauling	0.00	20.0	HHDT
Onsite truck	_	_	HHDT
_	_	_	_
Worker	15.0	18.5	LDA,LDT1,LDT2
Vendor	_	10.2	HHDT,MHDT
Hauling	0.00	20.0	HHDT
Onsite truck	_	_	HHDT
_	_	_	_
Worker	72.9	18.5	LDA,LDT1,LDT2
Vendor	11.7	10.2	HHDT,MHDT
Hauling	0.00	20.0	HHDT
Onsite truck	_	_	HHDT
_	_	_	_
Worker	72.9	18.5	LDA,LDT1,LDT2
Vendor	11.7	10.2	HHDT,MHDT
Hauling	0.00	20.0	HHDT
Onsite truck	_	_	HHDT
_	_	_	_
Worker	72.9	18.5	LDA,LDT1,LDT2
Vendor	11.7	10.2	HHDT,MHDT
Hauling	0.00	20.0	HHDT
Onsite truck	_	_	HHDT
_	_	_	—
Worker	72.9	18.5	LDA,LDT1,LDT2
Vendor	11.7	10.2	HHDT,MHDT
	WorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorkerVendorHaulingOnsite truckWorker	Worker15.0VendorHauling0.00Onsite truckWorker15.0VendorHauling0.00Onsite truckMorker2.9Vendor1.17Hauling0.00Onsite truckWorker1.17Hauling0.00Onsite truckWorker2.9Vendor1.17Hauling0.00Onsite truckWorker1.17Hauling0.00Onsite truckWorker2.9Morker1.7Hauling0.00Onsite truckWorker2.9Worker1.7Hauling0.00Morker <td< td=""><td>Worker15.018.5Vendor10.2Hauling0.0020.0Onsite truckWorker15.018.5Vendor-10.2Hauling0.0020.0Onsite truckMorker10.2Onsite truckWorker72.918.5Vendor11.710.2Onsite truckMorker11.710.2Onsite truckMorker11.710.2Norker2.918.5Vendor11.710.2MorkerMorker11.710.2Norker11.710.2NorkerMorkerNorkerMorkerMorkerMorkerMorkerMorker<</td></td<>	Worker15.018.5Vendor10.2Hauling0.0020.0Onsite truckWorker15.018.5Vendor-10.2Hauling0.0020.0Onsite truckMorker10.2Onsite truckWorker72.918.5Vendor11.710.2Onsite truckMorker11.710.2Onsite truckMorker11.710.2Norker2.918.5Vendor11.710.2MorkerMorker11.710.2Norker11.710.2NorkerMorkerNorkerMorkerMorkerMorkerMorkerMorker<

Phase 5 Building Construction	Hauling	0.00	20.0	HHDT
Phase 5 Building Construction	Onsite truck	_	_	ННДТ
Phase 2 Architectural Coating	_	_	_	_
Phase 2 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 2 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 2 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 2 Architectural Coating	Onsite truck	_	_	HHDT
Phase 3 Architectural Coating	_	_	_	_
Phase 3 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 3 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 3 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 3 Architectural Coating	Onsite truck	_	_	HHDT
Phase 4 Architectural Coating	_	_	_	_
Phase 4 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 4 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 4 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 4 Architectural Coating	Onsite truck	_	_	HHDT
Phase 5 Architectural Coating	_	_	_	_
Phase 5 Architectural Coating	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 5 Architectural Coating	Vendor	_	10.2	HHDT,MHDT
Phase 5 Architectural Coating	Hauling	0.00	20.0	HHDT
Phase 5 Architectural Coating	Onsite truck		—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Phase 1 Architectural Coating	38,483	12,828	2,492	831	41.6
Phase 2 Architectural Coating	38,483	12,828	2,492	831	41.6
Phase 3 Architectural Coating	34,635	11,545	2,243	748	37.4
Phase 4 Architectural Coating	38,483	12,828	2,492	831	41.6
Phase 5 Architectural Coating	38,483	12,828	2,492	831	41.6

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	81,400	—
Grading	0.00	500	25.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.47

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise		0%
Fast Food Restaurant with Drive Thru	0.00	0%
Automobile Care Center	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Parking Lot	1.47	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	
Wood Fireplaces	0
Gas Fireplaces	82
Propane Fireplaces	0
105	/ 119

Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	
Wood Fireplaces	0
Gas Fireplaces	82
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
188568	62,856	12,213	4,071	204

5.10.3. Landscape Equipment

Season	Unit	Value
	106 / 119	

Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	355,586	532	0.0330	0.0040	1,077,364
Fast Food Restaurant with Drive Thru	121,206	532	0.0330	0.0040	402,961
Automobile Care Center	34,495	532	0.0330	0.0040	153,916
Fast Food Restaurant with Drive Thru	32,899	532	0.0330	0.0040	109,375
Parking Lot	55,979	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	334,078	532	0.0330	0.0040	1,077,364
Fast Food Restaurant with Drive Thru	103,815	532	0.0330	0.0040	402,961
Automobile Care Center	34,387	532	0.0330	0.0040	153,916

Fast Food Restaurant with Drive Thru	28,178	532	0.0330	0.0040	109,375
Parking Lot	55,979	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
Apartments Mid Rise	3,615,559	900,116	
Fast Food Restaurant with Drive Thru	1,062,368	0.00	
Automobile Care Center	338,316	0.00	
Fast Food Restaurant with Drive Thru	288,357	0.00	
Parking Lot	0.00	0.00	

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
Apartments Mid Rise	3,280,396	482,979	
Fast Food Restaurant with Drive Thru	959,318	0.00	
Automobile Care Center	305,499	0.00	
Fast Food Restaurant with Drive Thru	260,386	0.00	
Parking Lot	0.00	0.00	

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	71.7	_

Fast Food Restaurant with Drive Thru	40.3	_
Automobile Care Center	13.7	_
Fast Food Restaurant with Drive Thru	10.9	_
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)	
Apartments Mid Rise	17.9		
Fast Food Restaurant with Drive Thru	10.1		
Automobile Care Center	3.43		
Fast Food Restaurant with Drive Thru	2.74		
Parking Lot	0.00	_	

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Automobile Care Center	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0

Fast Food Restaurant	Walk-in refrigerators	R-404A	3,922	< 0.005	7.50	7.50	20.0
with Drive Thru	and freezers						

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type Fuel Type Engine Tier Number per Day Hours Per Day Horsepower Load	d Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

	Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Туре
-	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final	Acres
5.18.2. Sequestration			
5.18.2.1. Unmitigated			
Тгее Туре	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	23.4	annual days of extreme heat
Extreme Precipitation	6.20	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ³/₄ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures. 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract			
Exposure Indicators	_			
AQ-Ozone	80.0			
AQ-PM	75.4			
AQ-DPM	36.9			
114 / 119				

Drinking Water	66.3
Lead Risk Housing	78.7
Pesticides	0.00
Toxic Releases	72.3
Traffic	38.8
Effect Indicators	
CleanUp Sites	19.9
Groundwater	7.29
Haz Waste Facilities/Generators	60.2
Impaired Water Bodies	0.00
Solid Waste	22.1
Sensitive Population	
Asthma	46.5
Cardio-vascular	37.4
Low Birth Weights	61.7
Socioeconomic Factor Indicators	
Education	52.9
Housing	54.1
Linguistic	62.7
Poverty	41.0
Unemployment	56.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	
Above Poverty	55.61401258

Employed	77.67226999
Median HI	61.81188246
Education	_
Bachelor's or higher	37.08456307
High school enrollment	100
Preschool enrollment	12.24175542
Transportation	_
Auto Access	81.29090209
Active commuting	62.09418709
Social	
2-parent households	42.62799949
Voting	38.07262928
Neighborhood	_
Alcohol availability	51.23829077
Park access	81.35506224
Retail density	67.63762351
Supermarket access	62.71012447
Tree canopy	27.38354934
Housing	_
Homeownership	71.67971256
Housing habitability	44.53997177
Low-inc homeowner severe housing cost burden	26.76761196
Low-inc renter severe housing cost burden	33.61991531
Uncrowded housing	41.84524573
Health Outcomes	—
Insured adults	46.5161042
Arthritis	0.0

Asthma ER Admissions	57.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.3
Cognitively Disabled	62.4
Physically Disabled	34.8
Heart Attack ER Admissions	60.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	89.8
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	55.0
Elderly	38.5
English Speaking	62.9

Foreign-born	45.0
Outdoor Workers	39.4
Climate Change Adaptive Capacity	
Impervious Surface Cover	43.4
Traffic Density	41.7
Traffic Access	23.0
Other Indices	
Hardship	55.5
Other Decision Support	
2016 Voting	41.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	53.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	97 residential units, 3,500 sqft drive-thru restaurants, 3,596 sqft car wash (Automobile Care Center), 950 sqft drive-thru coffee shop (Fast Food Restaurant with Drive Thru), 163 open stall parking spaces. Total site acreage is 7.993 acres.
Construction: Construction Phases	Per construction questionnaire
Construction: Trips and VMT	Per construction questionnaire
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Per traffic study, pass-by trips already accounted for in trip gen
Operations: Hearths	Per SCAQMD Rule 445, no wood-burning devices
Operations: Architectural Coatings	SCAQMD Rule 1113

APPENDIX C

Site Number: 1 (COV001)	Site Number: 1 (COV001)					
Recorded By: Alicia Gonzale	ez					
Job Number: 173379						
Date: 08/14/19						
Time: 10:32 a.m.						
Location: North of property limit						
Source of Peak Noise: Traffic along Azusa Avenue and Cypress Street, car door slamming.						
Noise Data						
Leq (dB) Lmax(dB) Lmin (dB) Peak (dB)						
51.6 68.3 43.7 92.5						

Equipment							
Category	Туре	Type Vendor Model Serial No.				Cert. Date	Note
	Sound Level Meter	Brüel & Kja	ær	2250	3011133	04/08/2019	
Sound	Microphone	Brüel & Kja	ær	4189	3086765	04/08/2019	
Sound	Preamp	Brüel & Kja	ær	ZC 0032	25380	04/08/2019	
	Calibrator	Brüel & Kja	ær	4231	2545667	04/08/2019	
	Weather Data						
Duration: 10 minutes Sky: Clear, no clouds							
	Note: dBA Offset = 0.01 Sensor Height (ft): 5 ft						
Est.	Est. Wind Ave Speed (mph / m/s) Temperature (degrees Fahrenheit) Barometer Pressure (i				e (inches)		
2 mph 81° 29.		29.96					

Photo of Measurement Location



2250

Instrument:	2250
Application:	BZ7225 Version 4.7.4
Start Time:	08/14/2019 10:32:26
End Time:	08/14/2019 10:42:26
Elapsed Time:	00:10:00
Bandwidth:	1/3-octave
Max Input Level:	142.11

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		С
Spectrum:	FS	Z

Instrument Serial Number:	3011133
Microphone Serial Number:	3086765
Input:	Top Socket
Windscreen Correction:	UA-1650
Sound Field Correction:	Free-field

Calibration Time:	08/14/2019 07:24:47
Calibration Type:	External reference
Sensitivity:	43.6993539333344 mV/Pa

COV001

	Start	End	Elapsed	Overload	LAeq	LAFmax	LAFmin
	time	time	time	[%]	[dB]	[dB]	[dB]
Value				0.00	51.6	68.3	43.7
Time	10:32:26 AM	10:42:26 AM	0:10:00				
Date	08/14/2019	08/14/2019					







COV001

	Start	Elapsed	LAleq	LAFmax	LAFmin
	time	time	[dB]	[dB]	[dB]
Value			50.3	50.4	48.0
Time	10:37:25 AM	0:00:01			
Date	08/14/2019				





COV001 Periodic reports

	Start	Elapsed	Overload	LAleq	LAFmax	LAFmin
	time	time	[%]	[dB]	[dB]	[dB]
Value			0.00	53.4	68.3	43.7
Time	10:32:26 AM	0:10:00				
Date	08/14/2019					





Site Number: 2 (COV005)					
Recorded By: Alicia Gonzale	ez				
Job Number: 173379					
Date: 08/14/19					
Time: 11:41 a.m.	Time: 11:41 a.m.				
Location: 4647 North Cromwell Avenue					
Source of Peak Noise: Traffic along North Cromwell Avenue, birds, dog barking, train horn.					
Noise Data					
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)		
55.5	76.7	37.5	98.8		

Equipment						
Category	Туре	Vendor	Model	Serial No.	Cert. Date	Note
	Sound Level Meter	Brüel & Kja	er 2250	3011133	04/08/2019	
Sound	Microphone	Brüel & Kja	er 4189	3086765	04/08/2019	
Sound	Preamp	Brüel & Kja	er ZC 0032	25380	04/08/2019	
	Calibrator	Brüel & Kja	er 4231	2545667	04/08/2019	
			Weather Data			
	Duration: 10 minutes Sky: Clear, no clouds					
	Note: dBA Offset = 0.01 Sensor Height (ft): 5 ft					
Est.	Wind Ave Speed	(mph / m/s)	Temperature (de	grees Fahrenheit)	Barometer Pressur	e (inches)
4 mph		85°		29.96		

Photo of Measurement Location



2250

Instrument:	2250
Application:	BZ7225 Version 4.7.4
Start Time:	08/14/2019 11:41:41
End Time:	08/14/2019 11:51:41
Elapsed Time:	00:10:00
Bandwidth:	1/3-octave
Max Input Level:	142.11

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		С
Spectrum:	FS	Z

Instrument Serial Number:	3011133
Microphone Serial Number:	3086765
Input:	Top Socket
Windscreen Correction:	UA-1650
Sound Field Correction:	Free-field

Calibration Time:	08/14/2019 07:24:47
Calibration Type:	External reference
Sensitivity:	43.6993539333344 mV/Pa

COV005

	Start	End	Elapsed	Overload	LAeq	LAFmax	LAFmin
	time	time	time	[%]	[dB]	[dB]	[dB]
Value				0.00	55.5	76.7	37.5
Time	11:41:41 AM	11:51:41 AM	0:10:00				
Date	08/14/2019	08/14/2019					







COV005

	Start	Elapsed	LAleq	LAFmax	LAFmin
	time	time	[dB]	[dB]	[dB]
Value			41.7	41.6	40.7
Time	11:46:40 AM	0:00:01			
Date	08/14/2019				




COV005 Periodic reports

	Start	Elapsed	Overload	LAleq	LAFmax	LAFmin
	time	time	[%]	[dB]	[dB]	[dB]
Value			0.00	59.4	76.7	37.5
Time	11:41:41 AM	0:10:00				
Date	08/14/2019					





Site Number:	3 (COV003)
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Recorded By: Alicia Gonzalez

Job Number: 173379

Date: 08/14/19

Time: 11:07 a.m.

Location: Along Cypress Street

Source of Peak Noise: Traffic along Cypress Street, birds chirping, truck reversing beeps, conversations, car door slamming.

Noise Data					
Leq (dB)Lmax(dB)Lmin (dB)Peak (dB)					
64.5	79.6	44.7	99.8		

Equipment							
Category	Туре	Vendor		Model	Serial No.	Cert. Date	Note
	Sound Level Meter	Brüel & Kja	ær	2250	3011133	04/08/2019	
Sound	Microphone	Brüel & Kja	ær	4189	3086765	04/08/2019	
Sound	Preamp	Brüel & Kja	ær	ZC 0032	25380	04/08/2019	
	Calibrator	Brüel & Kja	ær	4231	2545667	04/08/2019	
			V	Veather Data			
Duration: 10 minutes					Sky: Clear, no clo	uds	
	Note: dBA Offset	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
Est.	Wind Ave Speed	(mph / m/s)	Ter	Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	4 mpl	4 mph		85°		29.95	

Photo of Measurement Location



2250

Instrument:	2250
Application:	BZ7225 Version 4.7.4
Start Time:	08/14/2019 11:07:46
End Time:	08/14/2019 11:17:46
Elapsed Time:	00:10:00
Bandwidth:	1/3-octave
Max Input Level:	142.11

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		С
Spectrum:	FS	Z

Instrument Serial Number:	3011133
Microphone Serial Number:	3086765
Input:	Top Socket
Windscreen Correction:	UA-1650
Sound Field Correction:	Free-field

Calibration Time:	08/14/2019 07:24:47
Calibration Type:	External reference
Sensitivity:	43.6993539333344 mV/Pa

COV003

	Start	End	Elapsed	Overload	LAeq	LAFmax	LAFmin
	time	time	time	[%]	[dB]	[dB]	[dB]
Value				0.00	64.5	79.6	44.7
Time	11:07:46 AM	11:17:46 AM	0:10:00				
Date	08/14/2019	08/14/2019					







COV003

	Start	Elapsed	LAleq	LAFmax	LAFmin
	time	time	[dB]	[dB]	[dB]
Value			64.2	65.2	60.5
Time	11:12:45 AM	0:00:01			
Date	08/14/2019				





COV003 Periodic reports

	Start	Elapsed	Overload	LAleq	LAFmax	LAFmin
	time	time	[%]	[dB]	[dB]	[dB]
Value			0.00	65.9	79.6	44.7
Time	11:07:46 AM	0:10:00				
Date	08/14/2019					





Site Number: 4 (COV002)						
Recorded By: Alicia Gonzale	ez					
Job Number: 173379						
Date: 08/14/19						
Time: 10:48 a.m.						
Location: North of McDonald	ds in grassy area along Azusa A	Avenue				
Source of Peak Noise: Traffi	c along Azusa Avenue, cars at	McDonalds drive-thru, birds ch	irping.			
Noise Data						
Leq (dB) Lmax(dB) Lmin (dB) Peak (dB)						
66.4	82.9	50.0	104.0			

Equipment							
Category	Туре	Vendor	•	Model	Serial No.	Cert. Date	Note
	Sound Level Meter	Brüel & Kj	ær	2250	3011133	04/08/2019	
Sound	Microphone	Brüel & Kj	ær	4189	3086765	04/08/2019	
Sound	Preamp	Brüel & Kj	ær	ZC 0032	25380	04/08/2019	
	Calibrator	Brüel & Kj	ær	4231	2545667	04/08/2019	
			V	Veather Data			
	Duration: 10 min	utes			Sky: Clear, no clo	uds	
	Note: dBA Offset	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
Est.	Wind Ave Speed	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	2 mpl	2 mph		81°		29.96	

Photo of Measurement Location



2250

Instrument:	2250
Application:	BZ7225 Version 4.7.4
Start Time:	08/14/2019 10:48:05
End Time:	08/14/2019 10:58:05
Elapsed Time:	00:10:00
Bandwidth:	1/3-octave
Max Input Level:	142.11

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		С
Spectrum:	FS	Z

Instrument Serial Number:	3011133
Microphone Serial Number:	3086765
Input:	Top Socket
Windscreen Correction:	UA-1650
Sound Field Correction:	Free-field

Calibration Time:	08/14/2019 07:24:47
Calibration Type:	External reference
Sensitivity:	43.6993539333344 mV/Pa

COV002

	Start	End	Elapsed	Overload	LAeq	LAFmax	LAFmin
	time	time	time	[%]	[dB]	[dB]	[dB]
Value				0.00	66.4	82.9	50.0
Time	10:48:05 AM	10:58:05 AM	0:10:00				
Date	08/14/2019	08/14/2019					







COV002

	Start	Elapsed	LAleq	LAFmax	LAFmin
	time	time	[dB]	[dB]	[dB]
Value			62.4	60.4	59.2
Time	10:53:04 AM	0:00:01			
Date	08/14/2019				





COV002 Periodic reports

	Start	Elapsed	Overload	LAleq	LAFmax	LAFmin
	time	time	[%]	[dB]	[dB]	[dB]
Value			0.00	67.9	82.9	50.0
Time	10:48:05 AM	0:10:00				
Date	08/14/2019					





APPENDIX D

Tong, Frankie

From: Sent: To: Subject: Attachments: Veronica Flores-Ochoa <vflores-ochoa@c-vusd.org> Monday, June 12, 2023 1:49 PM Tong, Frankie EXTERNAL: Records Request Michael Baker Response 6.12.23.pdf

Good Afternoon,

In accordance with your May 18, 2023 request, attached please find **capacity & enrollment information for Cypress Elementary, Las Palmas Middle School, and Northview High School.**

Thank you,

Veronica Flores-Ochoa

ADMINISTRATIVE SECRETARY CHIEF BUSINESS OFFICER'S OFFICE COVINA-VALLEY UNIFIED SCHOOL DISTRICT 519 E. BADILLO STREET, COVINA, CA 91723 626.974.7000 EXT: 800121

The capacity and enrollment are below. The capacity reflects the District's loading standards and current programs and uses.

<u>2022-23</u>

Covina-Valley USD	Capacity	Enrollment
Cypress Elementary	593	564
Las Palmas Middle	1196	802
Northview High	1510	1292

APPENDIX E



TRANSPORTATION IMPACT ANALYSIS Covina Village

City of Covina 125 E. College Street Covina, CA 91723

June 19, 2023

MBAKERINTL.COM

INTERNATIONAL

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APPENDICES

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EXECUTIVE SUMMARY

This study analyzes the forecast traffic conditions associated with the proposed redevelopment of the existing property located at 1000 N Azusa Avenue in the City of Covina. The proposed Covina Village (Project) plans to demolish the vacant grocery store shell and parking lot to construct 80 residential townhomes, 17 live-work townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area.

Multiple access points are proposed and are already provided to the project site as existing today. There is a single driveway from Cypress Street that exists but will be relocated easterly from existing location to accommodate the proposed layout. The project driveway on Cypress Street will allow a right-turn in, right-turn out, and left-turn into the site. A left turn out of the site will be prohibited by a raised center median and signage. Two other existing driveways from Azusa Avenue will remain near the projects site's commercial north and south edges, which are shared with surrounding business properties. A new full access right-in/right-out driveway is proposed central of the Azusa Avenue frontage. Internally, although commercial circulation through the residential area will be discouraged by directional signage and enhanced paving at residential entry points from commercial.

The Project is forecast to generate approximately 1,665 new daily trips which include approximately 236 AM peak hour trips and 178 PM peak hour trips. See **Section 5.1** for further discussion on trip generation.

This study evaluates traffic conditions that include AM and PM peak hour intersection level of service (LOS) analysis for the following scenarios:

- Existing Conditions;
- Opening Year 2026 Without Project Conditions;
- Opening Year 2026 With Project Conditions

1.1.1.1 Level of Service Analysis Results

This study evaluates traffic conditions that include AM and PM peak hour intersections level of service (LOS) analysis. The results of the of the level of service analysis is as follows:

Existing Conditions - The results of the Existing conditions analysis show that all study intersections currently operate at acceptable levels of service (LOS D or better).

Opening Year 2026 Without Project Conditions - With the addition of cumulative project traffic, all study intersections continue to operate at acceptable levels of service (LOS D or better) for the Opening Year 2026 Without Project conditions.

Opening Year 2026 With Project Conditions - With the addition of project-related traffic, all study intersections continue to operate at acceptable levels of service (LOS D or better) for the Opening Year 2026 With Project conditions.



2 INTRODUCTION

This study analyzes the forecast traffic conditions associated with the proposed Project. The Project plans to demolish the vacant grocery store shell and parking lot to construct 80 residential townhomes, 17 livework townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area.

The project site would take access via four full-access driveways: three on N Azusa Avenue and one on Cypress Street.

According to the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition), the proposed project is forecast to generate approximately 1,665 new daily trips which include approximately 236 AM peak hour trips and 178 PM peak hour trips.

Exhibit 1 shows the regional location of the project site and **Exhibit 2** shows the proposed site plan for the 1000 N Azusa Mixed Use Development Project.

2.1 STUDY AREA

The study evaluates the following nine (9) intersections during the AM and PM peak hours in the vicinity of the project site:

- 1. N. Azusa Avenue / Arrow Highway
- 2. N. Azusa Avenue / Covina Boulevard
- 3. N. Azusa Avenue / Project Driveway 1
- 4. N. Azusa Avenue / Project Driveway 2
- 5. N. Azusa Avenue / Project Driveway 3
- 6. N. Azusa Avenue / Cypress Street
- 7. N. Azusa Avenue / W. San Bernardino Road
- 8. N. Azusa Avenue / Badillo Street
- 9. Cypress Street / Project Driveway 4

These nine intersections have been identified in coordination with City staff as potential locations impacted by the Project as shown in **Exhibit 3**. These study locations are analyzed for the following conditions:

- Existing Conditions;
- Opening Year 2026 Without Project Conditions;
- Opening Year 2026 With Project Conditions

Michael Baker coordinated with City staff on the study assumptions such as trip generation, trip distribution, study locations, scenarios, and study methodology. This scoping letter can be found in **Appendix A**.







Regional Vicinity

April 2023

Exhibit 1



Exhibit 2

SP

 $\overline{\prime}$ Not to Scale

FOOTPRINT

2,835 S.F.

3,554 S.F.

3,690 S.F

4,105 S.F.

4,921 S.F.

467 SF





Michael Baker



3 ANALYSIS METHODOLOGY

Traffic operations at study intersections were analyzed in accordance with the City's Traffic Impact Analysis Guidelines (TIA Guidelines) dated May 2014. Study intersections were analyzed using the Highway Capacity Manual 6th Edition (HCM 6) methodology and Synchro Version 10. Michael Baker coordinated with City staff to obtain a list of cumulative projects that could potentially add traffic to the study area to be included in the Opening Year 2026 conditions. The scope of this traffic study has been coordinated with the City of Covina and included in **Appendix A**.

Level of Service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The intersection analysis conforms to the operational analysis methodology outlined in *HCM 6* and performed utilizing the *Synchro 10* traffic analysis software.

The *HCM* analysis methodology describes the operation of an intersection using a range of level of service from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay experienced per vehicle for study intersections as shown in **Table 1**.

For signalized intersections, signal timing data and parameters such as cycle lengths, splits, clearance intervals, etc. were obtained from the current signal timing sheets provided by City staff and incorporated into the Synchro model. Synchro reports average delays for a signalized intersection, which correspond to a particular LOS, to describe the overall operation of an intersection.

Unsignalized intersection LOS for all-way stops is based on the average delay for all approaches. Delay for one-way or two-way stop-controlled intersections is based on available gaps in traffic flow on the non-controlled approach and LOS is based on the approach with the worst delay.

Level of Service	Control Delay (seconds/vehicle)		Description	
	Signalized Intersections	Unsignalized Intersections	Description	
A	≤ 10.0	≤ 10.0	Operates with very low delay and most vehicles do not stop.	
В	> 10.0 to 20.0	> 10.0 to 15.0	Operates with good progression with some restricted movements.	
С	> 21.0 to 35.0	>15.1 to 25.0	Operates with significant number of vehicles stopping with some backup and light congestion.	
D	> 35.1 to 55.0	> 25.0 to 35.0	Operates with noticeable congestion, longer delays occur, and many vehicles stop.	
E	>55.0 to 80.0	> 35.1 to 50.0	Operates with significant delay, extensive queuing, and unfavorable progression.	
F	> 80.0	> 50.0	Operates at a level that is unacceptable to most drivers. Arrival rates exceed capacity of the intersection. Extensive queuing occurs.	

TABLE 1 - LEVEL OF SERVICE DESCRIPTION & DELAY RANGE

Source: Highway Capacity Manual (HCM) 6th Edition.



The City has determined that LOS A through D is considered acceptable operating conditions at study intersections. LOS E and F is considered deficient operating conditions. The substantial effects of project-generated traffic at the City of Covina study intersections was identified using the criteria set forth in the *City of Covina's Traffic Impact Analysis Guidelines* (May 2014). For purposes of this analysis, a substantial effect resulting from project-related traffic is determined based on the threshold criteria presented in **Table 2**. The City requires improvements of the project at the study location whenever project traffic exceeds the criteria below.

Pre-Project V/C	Level of Service	Project Related Increase in V/C				
Signalized Intersections						
0.71 to 0.80	С	Equal or greater than 0.04				
0.81 to 0.90	D	Equal or greater than 0.02				
0.91 or more	E / F	Equal or greater than 0.01				
Unsignalized Intersections						
< 25.0 seconds	A / B / C	LOS D or worse				
>25.0 seconds	D / E / F	Equal or greater than 5.0 seconds				

TABLE 2 – INTERSECTION THRESHOLD CRITERIA



4 EXISTING CONDITIONS

4.1 SURROUNDING ROADWAY NETWORK

The characteristics of the roadway system in the vicinity of the project site are described below:

<u>Arrow Highway</u> is a four-lane undivided roadway trending in the east-west direction. Within the study area, there are no bicycle facilities located along Arrow Highway. Most segments have sidewalks on both sides of the street and the posted speed limit is 45 MPH.

<u>Covina Boulevard</u> is a four-lane undivided roadway trending in the east-west direction. Covina Boulevard begins east of Azusa Avenue. Sidewalks are provided on both sides of the street and there are no bicycle facilities within the study area. On-street parking is allowed intermittently, and the posted speed limit is 35 MPH.

<u>Cypress</u> Street is a four-lane undivided roadway trending in the east-west direction. There are intermittent turn lanes provided into the Project Area. There are no bike facilities and sidewalks are provided on both sides of the street and on-street parking is allowed. The posted speed limit is 40 MPH.

<u>Azusa Avenue</u> is a four-lane roadway trending in the north-south direction. There is a raised median parallel to the project site. There are no bike facilities. However, sidewalks are provided on both sides of the street with marked crosswalks at signalized intersections. There is parking on both sides of the street. Along certain parts of the corridor. The posted speed limit is 40 MPH.

<u>San Bernardino Road</u> is a four-lane undivided roadway trending in the east-west direction. There are intermittent turn lanes that go into the Project Area. There are no bike facilities and sidewalks exist on both sides of the street. On-street parking is not permitted on San Bernardino Road east of N Rimsdale Avenue and transitions from a four-lane road to a two-lane road east of Hollenbeck Avenue. The posted speed limit is 35 MPH.

Badillo Street is a four-lane divided roadway trending in the east-west direction. There are bike lanes on both sides of the street with on-street parking. Sidewalks are provided on both sides of the street. The posted speed limit is 35 MPH.



4.2 EXISTING TRAFFIC VOLUMES

To determine the existing operations of the study intersections, peak hour intersection movement counts were collected on Wednesday, February 15, 2023. Morning (AM) peak period counts were collected between 7:00 AM to 9:00 AM and evening (PM) peak period counts were collected from 4:00 PM – 6:00 PM. The counts used in this analysis represent the highest hour within the peak periods counted for each intersection. Detailed count data is contained in **Appendix B**.

Exhibit 4 shows the Existing study intersection lane geometry.

Exhibit 5 shows the Existing AM and PM peak hour volumes at the study intersections.

4.3 EXISTING PEAK HOUR STUDY INTERSECTION LOS

Table 3 summarizes existing conditions AM/PM peak hour level of service for all study intersections.Detailed analysis sheets are contained in **Appendix C**.

	Traffic Control	Existing Conditions	
Study Intersection		AM	PM
		Delay ¹ - LOS	Delay ¹ - LOS
1 - N Azusa Ave. / Arrow Hwy.	Signal	41.1-D	48.0 - D
2 - N Azusa Ave. / Covina Blvd.	Signal	50.7 - D	29.4-C
3 - N Azusa Ave. / Project Driveway 1	OWSC	11.4-B	12.3 - B
4 - N Azusa Ave. / Project Driveway 2	Does Not Exist Without Project		
5 - N Azusa Ave. / Project Driveway 3	OWSC	0-A	0-A
6 - N Azusa Ave. / Cypress St.	Signal	43.7-D	38.7 - D
7 - N Azusa Ave. / W San Bernardino Rd.	Signal	35.1-D	33.5 - D
8 - N Azusa Ave. / Badillo St.	Signal	37.2 - D	35.1-D
9 - Cypress St. / Project Driveway 4	OWSC	0-A	0-A

TABLE 3 – EXISTING AM/PM PEAK HOUR INTERSECTION LOS

Note: Deficient intersection operation indicated in **bold**.

¹ Average seconds of delay per vehicle.

OWSC = One-Way Stop Control

LOS = level of service.

As shown in **Table 2**, all study intersections are currently operating at an acceptable level of service for Existing conditions during the AM and PM peak hour. At N Azusa Avenue & Project Driveway 3 and Driveway 4, there is no traffic currently utilizing these driveways since the site is vacant. Therefore, the delay at these locations is reported as 0.







Intersection Geometry

April 2023

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5 PROPOSED PROJECT

The Project proposes to demolish and redevelop the existing property located at 1000 N. Azusa Avenue in the City of Covina. The property is currently improved with a vacant and abandoned grocery store shell and parking lot. The Project plans to construct 80 residential townhomes, 17 live-work townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area. The project is anticipated to be fully constructed in a single phase by Year 2026.

Multiple access points are proposed and are already provided to the project site. There is a single driveway from Cypress Street that exists but will be relocated easterly from existing location to accommodate the proposed layout. Two other existing driveways from Azusa Avenue will remain near the projects site's commercial north and south edges, which are shared with surrounding business properties. A new full access right-in/right-out driveway is proposed central of the Azusa Avenue frontage. Internally, although commercial circulation through the residential area will be discouraged by directional signage and enhanced paving at residential entry points from commercial.

The project site would take access via four full access driveways: three on N Azusa Avenue and one on Cypress Street. **Exhibit 3** shows the proposed project draft site plan.

5.1 PROJECT FORECAST TRIP GENERATION

Table 4 provides the trip rates based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition.* In accordance with *ITE's Trip Generation Handbook, 3rd Edition,* pass-by trip reductions were applied for the commercial projects. As shown in **Table 5**, the Project is expected to generate 1,665 new daily trips with 236 trips during the AM peak hour (111 inbound and 125 outbound) and 178 trips during the PM peak hour (94 inbound and 84 outbound).

Land Use		Daily Tri	n Rata	AM Peak Hour Rate					٩N	PM Peak Hour Rate			
				Total		In : Out		Total		In : Out		Out	
Multifamily Housing (Mid-Rise)	221	4.289	/DU	0.32	0.32 /DU		:	77%	0.39	/DU	61%	:	39%
Automated Car Wash ²		781.00	/CWT	49.00	/CWT	50%		50%	77.5	/cw	50%	:	50%
Coffee Shop w/ Drive Thru		86.316	/KSF	86.32	/KSF	51%	:	49%	38.9	/KSF	50%	:	50%
Fast Food Restaurant with Drive-Thru Window		462.74	/KSF	44.22	/KSF	51%	:	49%	32.8	/KSF	52%	:	48%

TABLE 4 - ITE TRIP GENERATION RATES

¹ Source: ITE Trip Generation Manual, 11th Edition. Rates shown are based on fitted curve equation as applicable. Where fitted curve is not available, average rates were used.

²Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Manual, therefore, daily rates assumes 10% of PM peak hour. AM rates assume 6.2% of the daily rate.



Land Lico	In	toncity	Daily Trips	AM Pea	ak Hour Trips	PM Peak Hour Trips		
		tensity	Daily Trips	Total	al In : Out Total		In : Out	
Multifamily Housing (Mid-Rise)	97	DU	416	31	7:24	38	23 : 15	
Automated Car Wash 2	1	CWT	781	49	25 : 24	78	39:39	
Car Wash Pass-By Trip Reduction (56% Daily, AM and	l PM Peal	k) ^{1,2}	-437	-27	-14 -13	-44	-22 -22	
Sub-Total Trip Generation for Car \	Nash		344	22	11 : 11	34	17 : 17	
Coffee Shop w/ Drive Thru	KSF	507	82	42 : 40	37	19 : 19		
Coffee Shop Pass-By Trip Reduction (89% Daily, AM c	and PM Pe	eak)1	-451	-73	-37 -36	-33	-17 -17	
Sub-Total Trip Generation for Coffe	Shop		56	102	52 : 50	46	23 : 23	
Fast Food Restaurant with Drive-Thru Window	3.500	KSF	1664	159	81 : 78	118	61 : 57	
Fast Food Pass-By Trip Reduction (49% Daily, AM and	-815	-78	-40 -38	-58	-30 -28			
Sub-Total Trip Generation for Fast Food wi	Γhru	849	81	41 : 40	60	31 : 29		
TOTAL TRIP GENERATION	1665	236	111 : 125	178	94 : 84			

TABLE 5 - PROPOSED PROJECT TRIP GENERATION

Notes:

¹Pass-By Trip Rates taken from ITE's Trip Generation Handbook, 3rd Edition.

²Pass-By Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Handbook, therefore, a Gas/Service Station (LU Code 945) was used since both uses are similar in trip characteristics.

DU = Dwelling Unit

CWT = Car Wash Tunnels

KSF = 1,000 Square Feet

5.2 TRIP DISTRIBUTION AND TRIP ASSIGNMENT OF PROPOSED PROJECT

Project trips were assigned onto the surrounding roadway network based on the location of the Project relative to the area transportation network and nearby attractions such as freeways, prime arterials, shopping centers, employment centers, etc.

Exhibits 6A and 6B shows the trip distribution percentages from the project-related traffic within the study area for the residential and commercial uses respectively. The majority of the project traffic associated with the residential trips are assumed to use the project driveway on Cypress Street and the majority of project traffic associated with the commercial trips are assumed to use the three project driveways on Azusa Avenue.

Exhibit 7 shows the forecast total project only AM/PM peak hour traffic volumes for both the residential and commercial trips based on the trip generation (Table 4) and trip distribution (Exhibits 6A & 6B).







Project Only Trip Distribution (Residential)

April 2023

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Project Only Trip Distribution (Commercial)

April 2023

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Project Only AM/PM Peak Hour Traffic Volumes

April 2023 \\CARLCA1FS1.bkr.mbakercorp.com\HROOT\PDATA\193269 Covina Azusa Development\Traffic\Exhibits

6 OPENING YEAR 2026 WITHOUT PROJECT CONDITIONS

6.1 OPENING YEAR 2026 WITHOUT PROJECT CONDITIONS

Opening Year 2026 Without Project traffic volumes are derived by adding existing traffic volumes to the cumulative project only traffic volumes. Michael Baker coordinated with City staff to determine which cumulative (pending or approved) projects may contribute traffic to the project's study area. Based on a review of the list of cumulative projects, a total of ten (10) cumulative projects are included in the Opening Year 2026 conditions. **Table 6** presents the trip generation estimates for the ten cumulative projects.

Exhibit 8 shows the location of each cumulative project included in the Opening Year 2026 analysis.

	Consulation Desirat		Lond Hor	last an alter	4.57	ļ	AM Peak Ho	ur	PM Peak Hour			
#	Cumulative Project	TTE Code		Intensity	ADT	Total	Inbound	Outbound	Total	Inbound	Outbound	
		230	Residential Townhome	18 DU								
1	Hassen Development (Sites B1, B2, C) ⁽¹⁾	710	Office	1,030 SF	219	13	6	7	21	11	10	
		820	Retail	3,370 SF								
		230	Residential Townhome	161 DU								
2	Hassen Development (2)	932	Restaurant	3,800 SF	1,700	108	36	72	145	87	58	
		820	Retail	13,500 SF								
		221	Residential Townhome	132 DU								
3	Covina Bowl Specific Plan ⁽³⁾	Covina Bowl Specific Plan ⁽³⁾ 710		Office	11,050 SF	1,081	133	60	73	97	50	47
		936	Coffee Shop	950 SF							1	
4	Vita Pakt- Trumark Homes	220	Multi-Family Housing (Low-Rise)	151 DU	1,043	70	17	53	85	54	31	
5	Avid Hotel	310	Hotel	100 Rooms	660	43	24	19	46	24	22	
6	Bradford Park Properties	220	Multi-Family Housing (Low-Rise)	28 DU	255	32	8	24	33	21	12	
7	Sheldon	220	Multi-Family Housing (Low-Rise)	38 DU	319	35	8	27	37	23	14	
8	Pollo Campero	934	Fast Food Restaurant with Drive Through	1,500 SF	701	67	34	33	50	26	24	
9	Logan Run, LLC	220	Multi-Family Housing (Low-Rise)	80 DU	588	48	11	37	55	35	20	
10 Covina Recreation Village ⁽⁴⁾ 495 Recreational Community Center		20,000 SF	1,704	62	41	21	218	105	113			
	Тс	otal Cumula		8,270	611	245	366	787	436	351		

TABLE 6 - CUMULATIVE PROJECT TRIP GENERATION

⁽¹⁾ Source: Covina Townhomes Project Traffic Impact Study (Linscott, Law & Greenspan, Oct. 9, 2017)

⁽²⁾ Source: Covina Townhomes Project (Site A) Traffic Impact Study (Linscott, Law & Greenspan, May 9, 2018)

(3) Source: Covina Bowl Specific Plan Project Traffic Impact Study (Linscott, Law & Greenspan, July 1, 2020)

⁽⁴⁾ Source: Covina Recreation Village Exemption Checklist (Environment Planning Development Solutions Inc, Jan 2022)

Exhibit 9 shows the forecast Opening Year 2026 Without Project AM and PM peak hour volumes at the study intersections.

6.2 OPENING YEAR 2026 WITHOUT PROJECT PEAK HOUR STUDY INTERSECTION LOS

Table 7 summarizes Opening Year 2026 Without and With Project AM and PM peak hour level of service for all study intersections. Detailed analysis sheets are contained in **Appendix D**.





Michael Baker

Cumulative Project Location Map

April 2023





Opening Year 2026 Without Project AM/PM Peak Hour Traffic Volumes

April 2023

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		Troffic	OY 2026 Wit	hout Project
	Study Intersection	Control	AM	PM
		Control	Delay ¹ - LOS	Delay ¹ - LOS
1 - N Azusa	a Ave. / Arrow Hwy.	Signal	41.4 - D	48.5 - D
2 - N Azusa	a Ave. / Covina Blvd.	Signal	51.1-D	29.8 - C
3 - N Azusa	a Ave. / Project Driveway 1	OWSC	11.5 - B	12.4-B
4 - N Azusa	a Ave. / Project Driveway 2	Does N	Not Exist Witho	ut Project
5 - N Azusa	a Ave. / Project Driveway 3	OWSC	0-A	0-A
6 - N Azusa	a Ave. / Cypress St.	Signal	44.3-D	39.6 - D
7 - N Azusa	a Ave. / W San Bernardino Rd.	Signal	39.0 - D	36.1-D
8 - N Azusa	a Ave. / Badillo St.	Signal	38.0 - D	35.9 - D
9 - Cypress	s St. / Project Driveway 4	OWSC	0-A	0-A

TABLE 7 – OPENING YEAR 2026 WITHOUT PROJECT AM/PM PEAK HOUR INTERSECTION LOS

Note: Deficient intersection operation indicated in **bold**.

¹ Average seconds of delay per vehicle.

LOS = level of service.

OWSC = One-Way Stop Control

As shown in **Table 7**, all study intersections are forecast to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hour. At N Azusa Avenue & Project Driveway 3 and Driveway 4, there is no traffic currently utilizing these driveways since the site is vacant. Therefore, the delay at these locations is reported as 0.

7 OPENING YEAR 2026 WITH PROJECT CONDITIONS

7.1 OPENING YEAR 2026 WITH PROJECT CONDITIONS

Opening Year 2026 With Project traffic volumes are derived by adding project-related traffic volumes to the Opening Year Without Project traffic volumes.

Exhibit 10 shows the forecast Opening Year 2026 With Project AM and PM peak hour volumes at the study intersections.

Table 8 provides a comparison of the Opening Year 2026 Without Project and Opening Year 2026 WithProject intersection LOS analysis. Detailed analysis sheets are contained in **Appendix E**.

Study Intersection	OY 2026 Wit Cond	thout Project itions	OY 2026 W Cond	Adv Fffe	erse	
	AM	PM	AM	PM		
	Delay ¹ - LOS	AM	PM			
1 - N Azusa Ave. / Arrow Hwy.	41.4 - D	48.0 - D	41.6 - D	48.0 - D	No	No
2 - N Azusa Ave. / Covina Blvd.	51.1 - D	29.8 - C	51.1 - D	29.8 - C	No	No
3 - N Azusa Ave. / Project Driveway 1	11.5 - B	12.4 - B	12.4 - B	13.1 - B	No	No
4 - N Azusa Ave. / Project Driveway 2	Does Not Exis	st W/O Project	12.3 - B	12.9 - B	No	No
5 - N Azusa Ave. / Project Driveway 3	0 - A	0 - A	12.2 - B	12.8 - B	No	No
6 - N Azusa Ave. / Cypress St.	44.3 - D	39.6 - D	45.7 - D	42.6 - D	No	No
7 - N Azusa Ave. / W San Bernardino Rd.	37.1 - D	36.1 - D	36.5 - D	35.5 - D	No	No
8 - N Azusa Ave. / Badillo St.	38.0 - D	35.9 - D	38.1 - D	35.9 - D	No	No
9 - Cypress St. / Project Driveway 4	0 - A	0 - A	12.8 - B	10.2 - B	No	No

TABLE 8 – OPENING YEAR 2026 WITHOUT & WITH PROJECTAM/PM PEAK HOUR INTERSECTION LOS COMPARISON

Note: Deficient intersection operation indicated in **bold**.

¹ Seconds of delay per vehicle. LOS = level of service.

As shown in **Table 8**, all study intersections are forecast to operate at an acceptable level of service (LOS D or better) during both the AM and PM peak hour. Therefore, no improvements to the study intersections are required.







Opening Year 2026 Plus Project AM/PM Peak Hour Traffic Volumes

April 2023

Michael Baker

INTERNATIONAL

8 FINDINGS AND RECOMMENDATIONS

This study analyzes the forecast traffic conditions associated with the proposed development of the Covina Village (Project) in the City of Covina. The Project proposes to demolish and redevelop the existing property located at 1000 N. Azusa Avenue in the City of Covina. The property is currently improved with a vacant and abandoned grocery store shell and parking lot. The Project plans to construct 80 residential townhomes, 17 live-work townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area. The project is anticipated to be built out by Year 2026.

Multiple access points are proposed and are already provided to the project site as existing today. There is a single driveway from Cypress Street that exists but will be relocated easterly from existing location to accommodate the proposed layout. Two other existing driveways from Azusa Avenue will remain near the projects site's commercial north and south edges, which are shared with surrounding business properties. A new full access right-in/right-out driveway is proposed central of the Azusa Avenue frontage. Internally, although commercial circulation through the residential area will be discouraged by directional signage and enhanced paving at residential entry points from commercial.

With the pass-by trip reductions applied, the Project is expected to generate 1,665 new daily trips with 236 trips during the AM peak hour (111 inbound and 125 outbound) and 178 trips during the PM peak hour (94 inbound and 84 outbound). This study evaluates traffic conditions that include AM and PM peak hour intersection level of service (LOS) analysis for the following scenarios:

- Existing Conditions;
- Opening Year 2026 Without Project Conditions
- Opening Year 2026 Plus Project Conditions

8.1.1.1 Level of Service Analysis Results

Existing Conditions - The results of the Existing conditions analysis show that all study intersections currently operate at acceptable levels of service (LOS C or better) during the AM and PM peak hour.

Opening Year 2026 Without Project Conditions - Without the addition of project related traffic and inclusion of cumulative project traffic with existing traffic, all study intersections continue to operate at acceptable levels of service (LOS D or better) for the Opening Year 2026 Without Project conditions during the AM and PM peak hour.

Opening Year 2026 With Project Conditions - With the addition of project-related traffic, all study intersections continue to operate at acceptable levels of service (LOS D or better) for the Opening Year 2026 With Project conditions during the AM and PM peak hour. Therefore, no improvements to the study intersections are required.



Michael Baker

Appendix A: TIA Scoping Agreement

Michael Baker

Date: February 8, 2023

To: Mercy Lugo, City of Covina

Cc: Chad Brown, Melia Homes Frankie Tong, Michael Baker International

From: Jacob Swim, TE – Michael Baker International

Re: 1000 Azusa Avenue – Mixed Use Development – TIA Scoping Memo

Michael Baker International (Michael Baker) will be preparing a Transportation Impact Analysis (TIA) for the proposed Mixed-Use Development (Project) located at 1000 Azusa Avenue in the City of Covina. The Project plans to construct 80 residential townhomes, 17 live-work townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area.

This TIA scope of work was prepared in accordance with the City of Covina's adopted guidelines for analyzing Vehicle Miles Traveled (VMT) and also the *County of Los Angeles Traffic Impact Study Guidelines* for the operational analysis.

PROJECT DESCRIPTION

The Project proposes to demolish and redevelop the existing property located at 1000 N. Azusa Avenue in the City of Covina. The property is currently improved with a vacant and abandoned grocery store shell and parking lot. The Project plans to construct 80 residential townhomes, 17 live-work townhomes, 950 square foot coffee shop, 3,500 square foot fast-food restaurant with drive through window, and 3,596 square foot automated car wash with self-vacuum area. **Exhibit 1** provides the project site plan.

Multiple access points are proposed and are already provided to the project site as existing today. There is a single driveway from Cypress Street that exists but will be relocated easterly from existing location to accommodate the proposed layout. Two other existing driveways from Azusa Avenue will remain near the projects site's commercial north and south edges, which are shared with surrounding business properties. A new full access right-in/right-out driveway is proposed central of the Azusa Avenue frontage. Internally, although commercial circulation through the residential area will be discouraged by directional signage and enhanced paving at residential entry points from commercial.

TRIP GENERATION RATES

Michael Baker calculated the Project trip generation to estimate the net new trips associated with the Project. Trip rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual*, 11th Edition were utilized. **Table 1** provides a summary of the weekday daily and peak hour trip rates.

Land Lico		Doily Tri	n Data	AM Peak Hour Rate					PM Peak Hour Rate				
Land Ose	Code ¹	Dally TTP Rate		Total		In : Out		Total		In : Out		Out	
Multifamily Housing (Mid-Rise)	221	4.289	/DU	0.32	0.32 /DU			77%	0.39	/DU	61%	:	39%
Automated Car Wash ²		781.00	/CWT	49.00	/CWT	50%	:	50%	77.5	/cw	50%	:	50%
Coffee Shop w/ Drive Thru		86.316	/KSF	86.32	/KSF	51%	:	49%	38.9	/KSF	50%	:	50%
Fast Food Restaurant with Drive-Thru Window	934	462.74	/KSF	44.22	/KSF	51%	:	49%	32.8	/KSF	52%	:	48%

TABLE 1: DRIVEWAY TRIP GENERATION RATES

¹ Source: ITE Trip Generation Manual, 11th Edition. Rates shown are based on fitted curve equation as applicable. Where fitted curve is not available, average rates were used.

²Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Manual, therefore, daily rates assumes 10% of PM peak hour. AM rates assume 6.2% of the daily rate.

FORECAST PROJECT TRIP GENERATION

Table 2 provides a summary of the expected trips generated on a weekday by the Project using the trip rates previously shown in **Table 1** with trip adjustments applied. In accordance with ITE's Trip Generation Handbook, 3rd Edition, pass-by trip reductions can be applied for the commercial projects. With the pass-by trip reductions applied, the Project is expected to generate 1,665 new daily trips with 236 trips during the AM peak hour (111 inbound and 125 outbound) and 178 trips during the PM peak hour (94 inbound and 84 outbound).

Land Lico	In	topcity	Daily Tring	AM Pea	ak Hour Trips	PM Peak Hour Trips		
		tensity	Daily Trips	Total	In : Out	Total	In : Out	
Multifamily Housing (Mid-Rise)	97	DU	416	31	7:24	38	23 : 15	
Automated Car Wash 2	1	CWT	781	49	25 : 24	78	39:39	
Car Wash Pass-By Trip Reduction (56% Daily, AM and	PM Peal	k) ^{1,2}	-437	-27	-14 -13	-44	-22 -22	
Sub-Total Trip Generation for Car \		344	22	11 : 11	34	17 : 17		
Coffee Shop w/ Drive Thru	0.95	KSF	507	82	42 : 40	37	19 : 19	
Coffee Shop Pass-By Trip Reduction (89% Daily, AM c	and PM Pe	eak) ¹	-451	-73	-37 -36	-33	-17 -17	
Sub-Total Trip Generation for Coffe	Shop		56	102	52 : 50	46	23 : 23	
Fast Food Restaurant with Drive-Thru Window	3.596	KSF	1664	159	81 : 78	118	61 : 57	
Fast Food Pass-By Trip Reduction (49% Daily, AM and	k) ¹	-815	-78	-40 -38	-58	-30 -28		
Sub-Total Trip Generation for Fast Food wi	Гhru	849	81	41 : 40	60	31 : 29		
TOTAL TRIP GENERATION		1665	236	111 : 125	178	94 : 84		

TABLE 2: PROJECT DRIVEWAY TRIP GENERATION

Notes:

²Pass-By Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Handbook, therefore, a Gas/Service Station (LU Code 945) was used since both uses are similar in trip characteristics.

DU = Dwelling Unit

CWT = Car Wash Tunnels

KSF = 1,000 Square Feet

¹Pass-By Trip Rates taken from ITE's Trip Generation Handbook, 3rd Edition.

VEHICLE MILES TRAVELED (VMT) SCOPE

Michael Baker will determine if the project meets the VMT screening criteria in accordance with the City's criteria. If the project does not meet any of the screening criteria, a detailed transportation VMT analysis will be conducted.

TRANSPORTATION IMPACT ANALYSIS (TIA) SCOPE AND KEY ASSUMPTIONS

The following sections discuss key assumptions in the TIA such as study area, traffic counts, trip distribution and study scenarios.

Study Area

Intersections where 50 or more peak hour trips from the Project are added in any direction should be analyzed. As such, the following five (5) signalized intersections and four (4) project driveways will be analyzed in the TIA (refer to **Exhibit 2**):

Study Intersections:

- 1. N. Azusa Avenue / Arrow Highway
- 2. N. Azusa Avenue / Covina Boulevard
- 3. N. Azusa Avenue / Project Driveway 1
- 4. N. Azusa Avenue / Project Driveway 2
- 5. N. Azusa Avenue / Project Driveway 3
- 6. N. Azusa Avenue / Cypress Street
- 7. N. Azusa Avenue / W. San Bernardino Road
- 8. N. Azusa Avennue / Badillo Street
- 9. Cypress Street / Project Driveway 4

Trip Distribution

Trip distribution assumptions for the Project are based on the existing connections to regional highways, commercial and employment centers. For purposes of this analysis, 45% of project traffic is assumed to travel north on Azusa Avenue and 40% travels south. 5% of project traffic is assumed to travel west on Cypress Street and 10% of project traffic is assumed to travel east. **Exhibit 3** shows the general Project trip distribution in the study area.

Data Collection

Michael Baker will collect AM and PM peak hour traffic counts at the five (5) study intersections. Data collection will include pedestrian and bicycle counts at each study intersection.

Study Scenarios

The following scenarios will be evaluated in the TIA:

- Existing Conditions
- Opening Year 2026 Without Project Conditions
- Opening Year 2026 Plus Project Conditions

Analysis Methodology and Project Improvements

Traffic operations at study intersections will be analyzed in accordance with the City's Traffic Guidelines. Study intersections will be analyzed using the Highway Capacity Manual 6th Edition (HCM 6) methodology and Synchro Version 10. Michael Baker will coordinate with City staff on obtaining a list of cumulative projects that could potentially add traffic to the study area to be included in the Opening Year analysis conditions.



COVINA, CA

EXHIBIT 1 - SITE PLAN

MELIA HOMES 8951 Research Drive, Suite 100 Irvine, CA 92618 (949) 759-4367

1000 AZUSA AVE - MIXED USE

60 30 Scale NOV. 17, 2022

PROJECT SUMMARY

SITE AREA -	5.109 ACRES (222,530 S.F.)
UNITS -	97 DWELLING UNITS
DENSITY -	19.0 DU/ACRES
SITE ADDRESS -	1000 NORTH AZUSA AVEN COVINA, CA. 91722
A.P.N	8421-001-016 & 8421-001-06
FIRE SPRINKLERS-	
RESIDEN Pool B	JTIAL BUILDINGS = NFPA 13-D UILDING = NON-SPRINKLERED
3 STORY - R3 OCC.	FYPE VB ROW TOWNHOMES
2-CAR ATTACHED C	GARAGES
UNIT PLAN SUMMA	RA
3 STORY ROW TOW	/N/LIVE-WORK
13 - PLAN 1 1,337 S	SF 2 BD+DEN
21- PLAN 2 1,531 S	SF 2 BD+DEN
25 - PLAN 3 1,654 S	SF 3 BD+DEN
21 - PLAN 4 1,800 S	SF 4 BD
8 - PLAN 5 1,976 S	F 3 BD + WORKSPACE
9 - PLAN 6 1,982 S	F 3 BD + WORKSPACE
PARKING SUMMARY	
GARAGE STALLS PRO	OVIDED 194 STALLS
ON-SITE OPEN STAI	
SHARED I WE/WORK	OPENISTALLS A1 STALLS
TOTAL PARKING PR	$\frac{1}{1} \frac{1}{1} \frac{1}$
(2.93 STALLS/UNIT)	CVIDED 204 STALLS
BUILDING MIX	QUANTITY FOOTPRINT
TYPE A (3,2,4,1)	QTY = 5 2,835 S.F.
TYPE B (4,2,3,3,1	a) $QTY = 8$ 3,554 S.F.
TYPE C (2.4.3.2.4	4) $QTY = 4$ 3.690 S.F
TYPE D (5.6.6.5.6	OTY = 1 4.105 S.F.
TYPE E (6.5.5.6.5	(6) $QTY = 2$ 4.921 S.F.
LOT COVERAGE	
BIDG A = 2835 SF X	5 = 14 175 SF
BLDG $R = 2,000$ SF X BLDG $R = 3.554$ SF X	8 - 28.432 SF
BLDG D = 0,001 SF X $BLDG C = 3.690 SF X$	4 - 14760 SF
BLDG C = 0,000 SF X BLDG D = 4 105 SF X	1 - 11,700 SF
BLDG $E = 4,100 \text{ SI } X$ BLDC $F = 4.921 \text{ SE } X$	2 - 98/2 SF
$POOI \ BIDC = 4,321 \ SI \ X$	z = 0.04z SI F X 1 - 167 SF
1000000000000000000000000000000000000	71 781 SF
(71 781 SF)	7292530 SF $-322 - 322%$
OPENI SPACE SLIMM	ΔPV
OPEN SPACE SUMME	
REQUIRED OPEN SP.	ACE
COMMON OPEN SP.	ACE 32,980 SF (340 SF/UNIT)
PRIVATE OPEN SPAC	CE 5,820 SF (60 SF/UNIT)
TOTAL OPEN SPACE	E 38,800 SF (400 SF/UNIT)
PROVIDED OPEN SP	ACE
COMMON OPEN SP.	ACE 45,874 SF (472.9 SF/UNIT
PRIVATE OPEN SPAC	CE 6,638 SF (68.4 SF/UNIT)
TOTAL OPEN SPACE	E 52,512 SF (541.3 SF/UNΠ
KEYNOTES	
1 PROPERTY LINE	, ,
2 3-STORY ROW	TOWNHOME
3 3-STORY LIVE/W	VORK ROW TOWNHOME
4 STANDARD OP	EN PARKING STALL - 9' X 18' (T
5 PARALLEL PARK	ING STALL - 8' X 22' (TYP.)
6 ACCESSIBLE PAI	RKING STALL - 9' X 18' (TYP.)
STANDARD	W/ 5' WIDE STRIPING
6V VAN W/ 8' W	/IDE STRIPING (PASSENGER SID
7 POOL BUILDING	r L
8 COMMUNITY M	AILBOX LOCATION / PARCEL
9 EXISTING BUILI	DING FOOTPRINT

 \mathbb{R}^{e} 5256 S. MISSION ROAD STE. 404 BONSALL, CA. 92003 760.724.1198



90





SP

CONCEPTUAL SITE PLAN

PENDING

TYP.) DE)

T) 15' DIM

15' DIM

NUE





Michael Baker INTERNATIONAL

Exhibit 2





Project Distribution

Michael Baker

Land Use Code and Title	Time Period	Table	Figure
565 Day Care Center	Weekday, PM Peak Period	F.2	_
813 Free-Standing Discount Superstore	Weekday, PM Peak Period	F.3	F.1/F.2
	Saturday, Mid-day Peak Period	F.4	F.3
814 Variety Store	Weekday, PM Peak Period	F.5	_
815 Free-Standing Discount Store	Weekday, PM Peak Period	F.6	F.4/F.5
	Saturday, Mid-day Peak Period	F.7	F.6
816 Hardware/Paint Store	Weekday, PM Peak Period	F.8	—
820 Shopping Center	Weekday, PM Peak Period	F.9	F.7/F.8
	Saturday, Mid-day Peak Period	F.10	F.9
843 Automobile Parts Sales	Weekday, PM Peak Period	F.11	—
848 Tire Store	Weekday, PM Peak Period	F.12	_
850 Supermarket	Weekday, PM Peak Period	F.13	F.10
851 Convenience Market (Open 24 Hours)	Weekday, PM Peak Period	F.14	_
853 Convenience Market with Gasoline Pumps	Weekday, AM Peak Period	F.15	F.11
	Weekday, PM Peak Period	F.16	F.12/F.13
854 Discount Supermarket	Weekday, PM Peak Period	F.17	F.14
857 Discount Club	Weekday, PM Peak Period	F.18	_
	Saturday, Mid-day Peak Period	F.19	_
862 Home Improvement Superstore	Weekday, PM Peak Period	F.20	_
863 Electronics Superstore	Weekday, PM Peak Period	F.21	_
880 Pharmacy/Drugstore without Drive-Through Window	Weekday, PM Peak Period	F.22	_
881 Pharmacy/Drugstore with Drive-Through Window	Weekday, PM Peak Period	F.23	_
890 Furniture Store	Weekday, PM Peak Period	F.24	_
912 Drive-In Bank	Weekday, AM Peak Period	F.25	_
	Weekday, Mid-day Peak Period	F.26	
	Saturday, Mid-day Peak Period	F 28	1.15
031 Quality Peetaurant	Weekday, PM Peak Period	F 20	
032 High-Turnover (Sit-Down) Pestaurant	Weekday, PM Peak Period	F 30	 E 16
932 Fight Furlover (SiteDown) Restaurant	Weekday, AM Peak Period	F 31	
	Weekday, AM Peak Period	F 32	F 17
938 Coffee/Doput Shop with Drive-Through Window, and	Weekday	1.02	
No Indoor Seating (Coffee/Espresso Stand)	Weekaay	F.33/F.34	_
944 Gasoline/Service Station	Weekday, AM Peak Period	F.35	-
	Weekday, PM Peak Period	F.36	-
945 Gasoline/Service Station with Convenience Market	Weekday, AM Peak Period	F.37	F.18
	Weekday, PM Peak Period	F.38	F.19

Table E.1 Land Use Codes and Time Periods with Pass-By Data



Table E.31 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 934—Fast-Food Restaurant with Drive-Through Window

	SIZE (1,000		WEEKDAY	NO OF		DASS DV	NON-P	ASS-BY TRIPS	6 (%)	ADJ. STREET	
SEATS	GFA)	LOCATION	DATE	INTERVIEWS	TIME PERIOD	TRIP (%)	PRIMARY	DIVERTED	TOTAL	VOLUME	SOURCE
—	<5	Chicago suburbs, IL	1987	84	7:00–9:00 a.m.	44	-	_	56	—	Kenig, O'Hara, Humes, Flock
88	1.4	Louisville area, KY	1993	_	7:00–9:00 a.m.	62	22	16	38	1,407	Barton-Aschman Assoc.
100	3.6	Louisville, KY	1993	_	7:00–9:00 a.m.	32	47	21	68	437	Barton-Aschman Assoc.
87	4.2	New Albany, IN	1993	_	7:00–9:00 a.m.	46	23	31	54	1,049	Barton-Aschman Assoc.
150	3.0	Louisville area, KY	1993	_	7:00–9:00 a.m.	43	14	43	57	2,903	Barton-Aschman Assoc.
_	3.3	varies	1996	_	6:00–9:00 a.m.	68	_	_	32	_	Oracle Engineering

Average Pass-By Trip Percentage: 49 "—" means no data were provided

Table E.32 Pass-By and Non-Pass-By Trips Weekday, PM Peak PeriodLand Use Code 934—Fast-Food Restaurant with Drive-Through Window

	SIZE (1,000 SQ.		WEEKDAY			PASS- BY	NON-PASS-BY TRIPS (%)		%)	ADJ. STREET PEAK	
SEATS	FT. GFA)	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	TRIP (%)	PRIMARY	DIVERTED	TOTAL	HOUR VOLUME	SOURCE
_	~2.6	Minn-St. Paul, MN	1987	50	3:00–7:00 p.m.	25	27	48	75	_	_
_	<5.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	38	_	_	62	_	Kenig, O'Hara, Humes, Flock
_	<5.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	55	_	_	45	_	Kenig, O'Hara, Humes, Flock
_	<5.0	Chicago suburbs, IL	1987	159	3:00–6:00 p.m.	56	_	—	44	_	Kenig, O'Hara, Humes, Flock
_	<5.0	Chicago suburbs, IL	1987	225	3:00–6:00 p.m.	48	_	_	52	_	Kenig, O'Hara, Humes, Flock
_	<5.0	Chicago suburbs, IL	1987	88	3:00–6:00 p.m.	35	_	_	65	_	Kenig, O'Hara, Humes, Flock
_	<5.0	Chicago suburbs, IL	1987	84	3:00–6:00 p.m.	44	_	_	56	_	Kenig, O'Hara, Humes, Flock
88	1.3	Louisville area, KY	1993	_	4:00–6:00 p.m.	68	22	10	32	2,055	Barton- Aschman Assoc.
120	1.9	Louisville area, KY	1993	33	4:00–6:00 p.m.	67	24	9	33	2,447	Barton- Aschman Assoc.
87	4.2	New Albany, IN	1993	_	4:00–6:00 p.m.	56	25	19	44	1,632	Barton- Aschman Assoc.
150	3.0	Louisville area, KY	1993	_	4:00–6:00 p.m.	31	31	38	69	4,250	Barton- Aschman Assoc.
_	3.1	Kissimmee, FL	1995	28	2:00–6:00 p.m.	71	_	_	29	_	TPD Inc.
_	3.1	Apopka, FL	1996	29	2:00–6:00 p.m.	38	_	_	62	_	TPD Inc.
_	2.8	Winter Springs, FL	1995	47	2:00–6:00 p.m.	66	_	_	34	_	TPD Inc.
_	4.3	Longwood, FL	1994	304	2:00–6:00 p.m.	62	_	_	38	_	TPD Inc.
_	3.2	Altamonte Springs, FL	1996	202	2:00–6:00 p.m.	40	39	21	60	_	TPD Inc.
_	2.9	Winter Park, FL	1996	271	2:00-6:00 p.m.	41	41	18	59	_	TPD Inc.
_	3.3*	several	1996	varies	4:00–6:00 p.m.	62	_	_	38	_	Oracle Engineering

*Average of several combined studies.

Average Pass-By Trip Percentage: 50

"-" means no data were provided

Table E.33 Pass-By and Non-Pass-By Trips Weekday Land Use Code 938—Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (Coffee/Espresso Stand)

SIZE		WEEKDAY		TEKDAY		NON			
SQ. FT. GFA)	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	PRIMARY	DIVERTED	TOTAL	SOURCE
0.1	Vancouver, WA	Nov. 1997	69	6:00 a.m6:00 p.m.	83	_	_	17	Kittelson & Associates Inc.

"-" means no data were provided

Table E.34 Pass-By and Non-Pass-By Trips Weekday Land Use Code 938—Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (Coffee/Espresso Stand)

		WEEKDAY				NON	-PASS-BY TRIPS	(%)	
EMPLOYEES	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	PRIMARY	DIVERTED	TOTAL	SOURCE
1	Vancouver, WA	Nov. 1997	70	6:00 a.m.–6:00 p.m.	83	_	_	17	Kittelson & Associates Inc.
1	Woodburn, OR	Feb. 1998	109	6:00 a.m.–6:00 p.m.	95	_	_	5	Kittelson & Associates Inc.
1	Vancouver, WA	Feb. 1998	83	6:00 a.m.–1:00 p.m.	89	_	_	11	Kittelson & Associates Inc.

Average Pass-By Trip Percentage: 89

"—" means no data were provided

Table E.35 Pass-By and Non-Pass-By Trips Weekday, AM Peak PeriodLand Use Code 944—Gasoline/Service Station

0175							NON-	PASS-BY TRIPS (%)	ADJ.	
(1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	PRIMARY	DIVERTED	TOTAL	PEAK HOUR VOLUME	SOURCE
2.3	6	Gaithersburg, MD	1992	37	7:00–9:00 a.m.	32	41	27	68	2,080	RBA
2.1	6	Bethesda, MD	1992	26	7:00–9:00 a.m.	58	23	19	42	2,080	RBA
1.7	6	Wheaton, MD	1992	21	7:00–9:00 a.m.	67	14	19	33	900	RBA
2.0	8	Gaithersburg, MD	1992	46	7:00–9:00 a.m.	87	13	0	13	2,235	RBA
1.2	6	Damascus, MD	1992	21	7:00–9:00 a.m.	43	28	29	57	870	RBA
0.3	12	Wheaton, MD	1992	36	7:00–9:00 a.m.	61	8	31	39	3,480	RBA

Average Pass-By Trip Percentage: 58

"-" means no data were provided



Table E.36 Pass-By and Non-Pass-By Trips Weekday, PM Peak PeriodLand Use Code 944—Gasoline/Service Station

SIZE	VEHICLE		WEEKDAY				NON-I	PASS-BY TRIPS	(%)	ADJ. STREET	
(1,000 SQ. FT. GFA)	FUELING POSITIONS	LOCATION	DATE	NO. OF	TIME PERIOD	PASS-BY TRIP (%)	PRIMARY	DIVERTED	TOTAL	VOLUME	SOURCE
_	_	Chicago suburbs, IL	1987	48	3:00–7:00 p.m.	21	_	_	79	_	Kenig, O'Hara, Humes, Flock
_	_	Chicago suburbs, IL	1987	34	3:00–6:00 p.m.	25	_	_	75	_	Kenig, O'Hara, Humes, Flock
_	_	Chicago suburbs, IL	1987	42	3:00–6:00 p.m.	20	_	_	80	_	Kenig, O'Hara, Humes, Flock
2.3	6	Gaithersburg, MD	1992	55	4:00–6:00 p.m.	40	11	49	60	2,760	RBA
2.1	6	Bethesda, MD	1992	30	4:00–6:00 p.m.	53	20	27	47	1,060	RBA
1.7	6	Wheaton, MD	1992	18	4:00–6:00 p.m.	61	6	33	39	2,510	RBA
2.0	8	Gaithersburg, MD	1992	47	4:00–6:00 p.m.	62	23	15	38	2,635	RBA
1.2	6	Damascus, MD	1992	26	4:00–6:00 p.m.	58	11	31	42	1,020	RBA
0.3	12	Wheaton, MD	1992	52	4:00–6:00 p.m.	38	10	52	62	3,835	RBA

Average Pass-By Trip Percentage: 42

"---" means no data were provided

Michael Baker

Appendix B: Traffic Count Data

City of Covina N/S: North Azusa Avenue E/W: Arrow Highway Weather: Clear File Name : 01_CVA_Azusa_Arrow AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

						(Groups	Printed-	Total Vo	olume							
	No	orth Azu	usa Ave	enue		Arrow	Highwa	ay	No	orth Azu	usa Ave	enue		Arrow	Highwa	ay	
		South	hbound			Wes	tbound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	18	42	33	93	11	289	28	328	34	58	11	103	17	59	13	89	613
07:15 AM	19	79	38	136	6	221	25	252	40	86	9	135	15	95	10	120	643
07:30 AM	18	77	34	129	17	180	32	229	46	80	14	140	28	99	15	142	640
07:45 AM	18	141	43	202	12	183	21	216	75	84	29	188	36	132	19	187	793
Total	73	339	148	560	46	873	106	1025	195	308	63	566	96	385	57	538	2689
08:00 AM	26	110	43	179	11	206	5	222	70	73	19	162	33	128	20	181	744
08:15 AM	17	60	29	106	17	176	15	208	50	111	29	190	52	106	38	196	700
08:30 AM	30	109	40	179	17	165	16	198	42	100	13	155	35	128	35	198	730
08:45 AM	36	78	14	128	18	160	21	199	34	101	33	168	18	88	10	116	611
Total	109	357	126	592	63	707	57	827	196	385	94	675	138	450	103	691	2785
Grand Total	182	696	274	1152	109	1580	163	1852	391	693	157	1241	234	835	160	1229	5474
Apprch %	15.8	60.4	23.8		5.9	85.3	8.8		31.5	55.8	12.7		19	67.9	13		
Total %	3.3	12.7	5	21	2	28.9	3	33.8	7.1	12.7	2.9	22.7	4.3	15.3	2.9	22.5	

	No	orth Azu	isa Ave	nue		Arrow	Highwa	ıy	No	orth Azu	usa Ave	nue		Arrow	Highwa	ıy	
		South	bound			West	bound	-		North	nbound			East	bound	-	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 07:	:00 AM	to 08:45	AM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	7:45 AN	1											
07:45 AM	18	141	43	202	12	183	21	216	75	84	29	188	36	132	19	187	793
08:00 AM	26	110	43	179	11	206	5	222	70	73	19	162	33	128	20	181	744
08:15 AM	17	60	29	106	17	176	15	208	50	111	29	190	52	106	38	196	700
08:30 AM	30	109	40	179	17	165	16	198	42	100	13	155	35	128	35	198	730
Total Volume	91	420	155	666	57	730	57	844	237	368	90	695	156	494	112	762	2967
% App. Total	13.7	63.1	23.3		6.8	86.5	6.8		34.1	52.9	12.9		20.5	64.8	14.7		
PHF	.758	.745	.901	.824	.838	.886	.679	.950	.790	.829	.776	.914	.750	.936	.737	.962	.935

City of Covina N/S: North Azusa Avenue E/W: Arrow Highway Weather: Clear File Name : 01_CVA_Azusa_Arrow AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:45 AN	1	- 0		07:00 AN	1			07:45 AN	Λ			07:45 AN	1		
+0 mins.	18	141	43	202	11	289	28	328	75	84	29	188	36	132	19	187
+15 mins.	26	110	43	179	6	221	25	252	70	73	19	162	33	128	20	181
+30 mins.	17	60	29	106	17	180	32	229	50	111	29	190	52	106	38	196
+45 mins.	30	109	40	179	12	183	21	216	42	100	13	155	35	128	35	198
Total Volume	91	420	155	666	46	873	106	1025	237	368	90	695	156	494	112	762
% App. Total	13.7	63.1	23.3		4.5	85.2	10.3		34.1	52.9	12.9		20.5	64.8	14.7	
PHF	.758	.745	.901	.824	.676	.755	.828	.781	.790	.829	.776	.914	.750	.936	.737	.962

City of Covina N/S: North Azusa Avenue E/W: Arrow Highway Weather: Clear File Name : 01_CVA_Azusa_Arrow PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

	Groups Printed- Total Volume																
	No	orth Azu	isa Ave	enue		Arrow	Highwa	iy	No	orth Azu	isa Ave	nue		Arrow	Highwa	iy	
		South	nbound			West	tbound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	46	136	34	216	32	98	22	152	57	146	36	239	50	208	23	281	888
04:15 PM	45	123	17	185	36	129	32	197	51	105	34	190	76	245	39	360	932
04:30 PM	61	135	25	221	43	109	33	185	52	140	36	228	51	194	29	274	908
04:45 PM	52	118	25	195	58	120	20	198	40	132	30	202	70	222	40	332	927
Total	204	512	101	817	169	456	107	732	200	523	136	859	247	869	131	1247	3655
05:00 PM	42	140	16	198	35	92	19	146	50	126	35	211	46	201	40	287	842
05:15 PM	45	115	16	176	45	125	36	206	38	123	38	199	49	243	32	324	905
05:30 PM	60	139	17	216	35	119	20	174	52	129	36	217	47	223	32	302	909
05:45 PM	55	136	38	229	41	88	22	151	41	122	35	198	45	234	35	314	892
Total	202	530	87	819	156	424	97	677	181	500	144	825	187	901	139	1227	3548
Grand Total	406	1042	188	1636	325	880	204	1409	381	1023	280	1684	434	1770	270	2474	7203
Apprch %	24.8	63.7	11.5		23.1	62.5	14.5		22.6	60.7	16.6		17.5	71.5	10.9		
Total %	5.6	14.5	2.6	22.7	4.5	12.2	2.8	19.6	5.3	14.2	3.9	23.4	6	24.6	3.7	34.3	

	No	rth Azu	isa Ave	enue		Arrow	Highwa	ıy	No	orth Azu	usa Ave	nue		Arrow	Highwa	ıy	
		South	nbound			West	bound	-		North	nbound			East	bound	-	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04	:00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	4:00 PN	Λ											
04:00 PM	46	136	34	216	32	98	22	152	57	146	36	239	50	208	23	281	888
04:15 PM	45	123	17	185	36	129	32	197	51	105	34	190	76	245	39	360	932
04:30 PM	61	135	25	221	43	109	33	185	52	140	36	228	51	194	29	274	908
04:45 PM	52	118	25	195	58	120	20	198	40	132	30	202	70	222	40	332	927
Total Volume	204	512	101	817	169	456	107	732	200	523	136	859	247	869	131	1247	3655
% App. Total	25	62.7	12.4		23.1	62.3	14.6		23.3	60.9	15.8		19.8	69.7	10.5		
PHF	.836	.941	.743	.924	.728	.884	.811	.924	.877	.896	.944	.899	.813	.887	.819	.866	.980

City of Covina N/S: North Azusa Avenue E/W: Arrow Highway Weather: Clear File Name : 01_CVA_Azusa_Arrow PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	05:00 PN	1			04:30 PN	1			04:00 PN	Λ			04:15 PN	1		
+0 mins.	42	140	16	198	43	109	33	185	57	146	36	239	76	245	39	360
+15 mins.	45	115	16	176	58	120	20	198	51	105	34	190	51	194	29	274
+30 mins.	60	139	17	216	35	92	19	146	52	140	36	228	70	222	40	332
+45 mins.	55	136	38	229	45	125	36	206	40	132	30	202	46	201	40	287
Total Volume	202	530	87	819	181	446	108	735	200	523	136	859	243	862	148	1253
% App. Total	24.7	64.7	10.6		24.6	60.7	14.7		23.3	60.9	15.8		19.4	68.8	11.8	
PHF	.842	.946	.572	.894	.780	.892	.750	.892	.877	.896	.944	.899	.799	.880	.925	.870

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Arrow Highway



PEDESTRIANS

					1
	North Leg	East Leg	South Leg	West Leg	1
	North Azusa Avenue	Arrow Highway	North Azusa Avenue	Arrow Highway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	1	0	3	5
7:15 AM	3	2	3	5	13
7:30 AM	7	2	1	8	18
7:45 AM	4	2	1	6	13
8:00 AM	7	4	1	4	16
8:15 AM	3	3	0	7	13
8:30 AM	4	2	7	5	18
8:45 AM	8	2	2	7	19
TOTAL VOLUMES:	37	18	15	45	115

	North Leg North Azusa Avenue	East Leg Arrow Highway	South Leg North Azusa Avenue	West Leg Arrow Highway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	3	7	5	8	23
4:15 PM	4	2	3	4	13
4:30 PM	2	5	2	1	10
4:45 PM	6	2	5	7	20
5:00 PM	0	2	4	8	14
5:15 PM	1	2	6	6	15
5:30 PM	2	1	2	7	12
5:45 PM	3	1	0	4	8
TOTAL VOLUMES:	21	22	27	45	115

Counts Unlimited, Inc. PO Box 1178 Corona, CA 92878 951-268-6268

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Arrow Highway



BICYCLES

	Nor	Southbound th Azusa Ave	enue	А	Westbound rrow Highwa	ау	Nor	Northbound th Azusa Ave	l enue	A			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	8	0	0	1	0	0	0	0	9
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	9	2	0	1	0	0	0	0	13

	Nor	Southbound th Azusa Ave	enue	А	Westbound rrow Highwa	ау	Nor	Northbound th Azusa Ave	l enue	А	ay		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	1	0	1	1	0	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	5	0	0	0	0	0	0	0	0	3	0	8
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	0	9	0	0	2	0	0	3	0	1	4	0	19

City of Covina N/S: North Azusa Avenue E/W: W Covina Boulevard Weather: Clear File Name : 02_CVA_Azusa_Covina AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

		Groups Printed- Total Volume															
	No	orth Azu	isa Ave	nue	W	Covina	Boule	vard	Nc	orth Azu	isa Ave	enue	W	vard			
		South	nbound			West	bound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	69	3	78	66	0	42	108	4	79	8	91	3	3	4	10	287
07:15 AM	8	90	0	98	65	1	48	114	7	85	12	104	9	1	6	16	332
07:30 AM	15	109	3	127	84	6	51	141	9	112	27	148	3	6	10	19	435
07:45 AM	16	158	4	178	63	4	63	130	20	113	35	168	4	6	11	21	497
Total	45	426	10	481	278	11	204	493	40	389	82	511	19	16	31	66	1551
08:00 AM	16	148	3	167	80	12	48	140	25	130	36	191	2	5	5	12	510
08:15 AM	12	143	6	161	79	4	42	125	21	183	45	249	3	2	5	10	545
08:30 AM	18	132	4	154	37	5	34	76	17	144	32	193	5	5	7	17	440
08:45 AM	14	113	4	131	29	2	22	53	10	151	21	182	5	6	1	12	378
Total	60	536	17	613	225	23	146	394	73	608	134	815	15	18	18	51	1873
Grand Total	105	962	27	1094	503	34	350	887	113	997	216	1326	34	34	49	117	3424
Apprch %	9.6	87.9	2.5		56.7	3.8	39.5		8.5	75.2	16.3		29.1	29.1	41.9		
Total %	3.1	28.1	0.8	32	14.7	1	10.2	25.9	3.3	29.1	6.3	38.7	1	1	1.4	3.4	

	No	orth Azu	isa Ave	nue	W	Covina	Boule	vard	No	orth Azu	usa Ave	nue	W	vard			
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 07:	:00 AM	to 08:45	AM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	7:45 AN	1											
07:45 AM	16	158	4	178	63	4	63	130	20	113	35	168	4	6	11	21	497
08:00 AM	16	148	3	167	80	12	48	140	25	130	36	191	2	5	5	12	510
08:15 AM	12	143	6	161	79	4	42	125	21	183	45	249	3	2	5	10	545
08:30 AM	18	132	4	154	37	5	34	76	17	144	32	193	5	5	7	17	440
Total Volume	62	581	17	660	259	25	187	471	83	570	148	801	14	18	28	60	1992
% App. Total	9.4	88	2.6		55	5.3	39.7		10.4	71.2	18.5		23.3	30	46.7		
PHF	.861	.919	.708	.927	.809	.521	.742	.841	.830	.779	.822	.804	.700	.750	.636	.714	.914

City of Covina N/S: North Azusa Avenue E/W: W Covina Boulevard Weather: Clear File Name : 02_CVA_Azusa_Covina AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:45 AN	1			07:30 AN	1			08:00 AN	1			07:15 AN	1		
+0 mins.	16	158	4	178	84	6	51	141	25	130	36	191	9	1	6	16
+15 mins.	16	148	3	167	63	4	63	130	21	183	45	249	3	6	10	19
+30 mins.	12	143	6	161	80	12	48	140	17	144	32	193	4	6	11	21
+45 mins.	18	132	4	154	79	4	42	125	10	151	21	182	2	5	5	12
Total Volume	62	581	17	660	306	26	204	536	73	608	134	815	18	18	32	68
% App. Total	9.4	88	2.6		57.1	4.9	38.1		9	74.6	16.4		26.5	26.5	47.1	
PHF	.861	.919	.708	.927	.911	.542	.810	.950	.730	.831	.744	.818	.500	.750	.727	.810

City of Covina N/S: North Azusa Avenue E/W: W Covina Boulevard Weather: Clear File Name : 02_CVA_Azusa_Covina PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

		Groups Printed- Total Volume															
	No	orth Azu	isa Ave	enue	W	Covina	Boule	vard	No	orth Azu	isa Ave	enue	W	Covina	Boule	vard	
		South	nbound			West	bound			North	bound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	26	171	10	207	21	9	29	59	14	198	44	256	3	7	11	21	543
04:15 PM	36	195	10	241	28	8	47	83	17	164	39	220	7	6	8	21	565
04:30 PM	24	201	5	230	30	8	35	73	12	176	40	228	3	3	4	10	541
04:45 PM	38	179	9	226	27	8	28	63	25	168	27	220	6	6	5	17	526
Total	124	746	34	904	106	33	139	278	68	706	150	924	19	22	28	69	2175
05:00 PM	34	213	10	257	28	9	38	75	18	192	38	248	7	8	6	21	601
05:15 PM	30	174	5	209	44	10	26	80	21	150	40	211	13	6	8	27	527
05:30 PM	37	201	8	246	28	4	29	61	16	158	46	220	2	4	6	12	539
05:45 PM	46	184	10	240	34	9	37	80	13	194	41	248	6	8	10	24	592
Total	147	772	33	952	134	32	130	296	68	694	165	927	28	26	30	84	2259
Grand Total	271	1518	67	1856	240	65	269	574	136	1400	315	1851	47	48	58	153	4434
Apprch %	14.6	81.8	3.6		41.8	11.3	46.9		7.3	75.6	17		30.7	31.4	37.9		
Total %	6.1	34.2	1.5	41.9	5.4	1.5	6.1	12.9	3.1	31.6	7.1	41.7	1.1	1.1	1.3	3.5	

	No	rth Azu	sa Ave	nue	W	Covina	Boule	vard	No	orth Azu	usa Ave	enue	W	vard			
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04:	00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	5:00 PN	1											
05:00 PM	34	213	10	257	28	9	38	75	18	192	38	248	7	8	6	21	601
05:15 PM	30	174	5	209	44	10	26	80	21	150	40	211	13	6	8	27	527
05:30 PM	37	201	8	246	28	4	29	61	16	158	46	220	2	4	6	12	539
05:45 PM	46	184	10	240	34	9	37	80	13	194	41	248	6	8	10	24	592
Total Volume	147	772	33	952	134	32	130	296	68	694	165	927	28	26	30	84	2259
% App. Total	15.4	81.1	3.5		45.3	10.8	43.9		7.3	74.9	17.8		33.3	31	35.7		
PHF	.799	.906	.825	.926	.761	.800	.855	.925	.810	.894	.897	.934	.538	.813	.750	.778	.940
City of Covina N/S: North Azusa Avenue E/W: W Covina Boulevard Weather: Clear File Name : 02_CVA_Azusa_Covina PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	04:15 PN	1			05:00 PN	1			05:00 PN	1			05:00 PN	1		
+0 mins.	36	195	10	241	28	9	38	75	18	192	38	248	7	8	6	21
+15 mins.	24	201	5	230	44	10	26	80	21	150	40	211	13	6	8	27
+30 mins.	38	179	9	226	28	4	29	61	16	158	46	220	2	4	6	12
+45 mins.	34	213	10	257	34	9	37	80	13	194	41	248	6	8	10	24
Total Volume	132	788	34	954	134	32	130	296	68	694	165	927	28	26	30	84
% App. Total	13.8	82.6	3.6		45.3	10.8	43.9		7.3	74.9	17.8		33.3	31	35.7	
PHF	.868	.925	.850	.928	.761	.800	.855	.925	.810	.894	.897	.934	.538	.813	.750	.778

Location:	Covina
N/S:	North Azusa Avenue
E/W:	W Covina Boulevard



PEDESTRIANS

	North Leg North Avenue	East Leg W Covina Boulevard	South Leg North Azusa Avenue	West Leg W Covina Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	0	2	3
7:15 AM	2	0	0	1	3
7:30 AM	4	1	0	2	7
7:45 AM	1	4	0	1	6
8:00 AM	1	8	0	7	16
8:15 AM	2	9	0	1	12
8:30 AM	1	3	0	1	5
8:45 AM	1	1	0	4	6
TOTAL VOLUMES:	12	27	0	19	58

	North Leg North Azusa Avenue	East Leg W Covina Boulevard	South Leg North Azusa Avenue	West Leg W Covina Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	2	0	1	4
4:15 PM	1	4	0	1	6
4:30 PM	3	4	0	3	10
4:45 PM	1	0	0	4	5
5:00 PM	2	2	0	1	5
5:15 PM	2	3	0	5	10
5:30 PM	1	2	0	4	7
5:45 PM	3	0	0	1	4
TOTAL VOLUMES:	14	17	0	20	51

Counts Unlimited, Inc. PO Box 1178 Corona, CA 92878 951-268-6268

Location:	Covina
N/S:	North Azusa Avenue
E/W:	W Covina Boulevard



BICYCLES

	Nor	Southbound th Azusa Ave	enue	wo	Westbound Covina Boule	vard	Nor	Northbound th Azusa Ave	I enue	wo	Eastbound Covina Boule	vard	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	2	0	0	0	0	3
8:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	Ö	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	2	0	0	3	0	0	0	0	7

	Nor	Southbound th Azusa Ave	enue	wo	Westbound Covina Boule	vard	Nor	Northbound th Azusa Ave	l enue	wo	Eastbound Covina Boule	vard	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	2	0	0	1	0	0	0	0	1	0	0	4
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	2
TOTAL VOLUMES:	2	4	0	0	1	1	0	3	1	1	1	0	14

City of Covina N/S: North Azusa Avenue E/W: Cypress Street Weather: Clear File Name : 06_CVA_Azusa_Cypress AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

							Groups	Printed-	Total Vo	olume							
	No	orth Azu	isa Ave	enue		Cypres	ss Stree	et	No	orth Azu	isa Ave	nue		Cypres	ss Stree	et	
		South	nbound			West	bound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	90	59	150	16	200	5	221	24	76	5	105	9	37	19	65	541
07:15 AM	3	108	53	164	24	270	7	301	20	85	6	111	10	39	12	61	637
07:30 AM	5	139	76	220	15	212	8	235	23	123	7	153	27	71	21	119	727
07:45 AM	7	161	64	232	26	253	5	284	30	110	14	154	38	109	36	183	853
Total	16	498	252	766	81	935	25	1041	97	394	32	523	84	256	88	428	2758
08:00 AM	19	188	67	274	26	159	7	192	28	152	11	191	30	114	34	178	835
08:15 AM	6	145	81	232	30	196	8	234	38	174	14	226	50	109	36	195	887
08:30 AM	11	145	44	200	15	124	8	147	41	154	18	213	37	72	32	141	701
08:45 AM	7	108	19	134	19	100	12	131	14	149	7	170	21	69	15	105	540
Total	43	586	211	840	90	579	35	704	121	629	50	800	138	364	117	619	2963
Grand Total	59	1084	463	1606	171	1514	60	1745	218	1023	82	1323	222	620	205	1047	5721
Apprch %	3.7	67.5	28.8		9.8	86.8	3.4		16.5	77.3	6.2		21.2	59.2	19.6		
Total %	1	18.9	8.1	28.1	3	26.5	1	30.5	3.8	17.9	1.4	23.1	3.9	10.8	3.6	18.3	

	No	orth Azu	isa Ave	enue		Cypres	s Stree	et	No	orth Azu	usa Ave	nue		Cypres	ss Stree	ət	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 07:	:00 AM	to 08:45	AM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	7:30 AN	1											
07:30 AM	5	139	76	220	15	212	8	235	23	123	7	153	27	71	21	119	727
07:45 AM	7	161	64	232	26	253	5	284	30	110	14	154	38	109	36	183	853
08:00 AM	19	188	67	274	26	159	7	192	28	152	11	191	30	114	34	178	835
08:15 AM	6	145	81	232	30	196	8	234	38	174	14	226	50	109	36	195	887
Total Volume	37	633	288	958	97	820	28	945	119	559	46	724	145	403	127	675	3302
% App. Total	3.9	66.1	30.1		10.3	86.8	3		16.4	77.2	6.4		21.5	59.7	18.8		
PHF	.487	.842	.889	.874	.808	.810	.875	.832	.783	.803	.821	.801	.725	.884	.882	.865	.931

City of Covina N/S: North Azusa Avenue E/W: Cypress Street Weather: Clear File Name : 06_CVA_Azusa_Cypress AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:30 AN	1			07:00 AN	Λ			08:00 AN	Л			07:45 AN	1		
+0 mins.	5	139	76	220	16	200	5	221	28	152	11	191	38	109	36	183
+15 mins.	7	161	64	232	24	270	7	301	38	174	14	226	30	114	34	178
+30 mins.	19	188	67	274	15	212	8	235	41	154	18	213	50	109	36	195
+45 mins.	6	145	81	232	26	253	5	284	14	149	7	170	37	72	32	141
Total Volume	37	633	288	958	81	935	25	1041	121	629	50	800	155	404	138	697
% App. Total	3.9	66.1	30.1		7.8	89.8	2.4		15.1	78.6	6.2		22.2	58	19.8	
PHF	.487	.842	.889	.874	.779	.866	.781	.865	.738	.904	.694	.885	.775	.886	.958	.894

City of Covina N/S: North Azusa Avenue E/W: Cypress Street Weather: Clear File Name : 06_CVA_Azusa_Cypress PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

		Groups Printed- Total Volume															
	No	orth Azu	isa Ave	enue		Cypres	ss Stree	et	No	orth Azu	isa Ave	enue		Cypres	s Stree	et	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	14	168	44	226	24	78	9	111	13	188	27	228	44	150	21	215	780
04:15 PM	15	184	46	245	32	85	7	124	23	172	22	217	42	156	24	222	808
04:30 PM	14	146	54	214	23	75	9	107	25	162	21	208	43	132	27	202	731
04:45 PM	16	178	41	235	27	84	6	117	31	190	19	240	33	160	21	214	806
Total	59	676	185	920	106	322	31	459	92	712	89	893	162	598	93	853	3125
05:00 PM	19	179	56	254	29	101	13	143	29	183	20	232	48	170	16	234	863
05:15 PM	26	165	50	241	18	87	8	113	18	163	18	199	39	139	22	200	753
05:30 PM	13	186	37	236	16	104	7	127	19	154	12	185	48	129	29	206	754
05:45 PM	16	176	54	246	15	93	6	114	25	213	16	254	45	161	19	225	839
Total	74	706	197	977	78	385	34	497	91	713	66	870	180	599	86	865	3209
Grand Total	133	1382	382	1897	184	707	65	956	183	1425	155	1763	342	1197	179	1718	6334
Apprch %	7	72.9	20.1		19.2	74	6.8		10.4	80.8	8.8		19.9	69.7	10.4		
Total %	2.1	21.8	6	29.9	2.9	11.2	1	15.1	2.9	22.5	2.4	27.8	5.4	18.9	2.8	27.1	

	No	rth Azu	isa Ave	nue		Cypres	s Stree	et	No	orth Azu	usa Ave	nue		Cypres	s Stree	et	
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04:	:00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	5:00 PN	Λ											
05:00 PM	19	179	56	254	29	101	13	143	29	183	20	232	48	170	16	234	863
05:15 PM	26	165	50	241	18	87	8	113	18	163	18	199	39	139	22	200	753
05:30 PM	13	186	37	236	16	104	7	127	19	154	12	185	48	129	29	206	754
05:45 PM	16	176	54	246	15	93	6	114	25	213	16	254	45	161	19	225	839
Total Volume	74	706	197	977	78	385	34	497	91	713	66	870	180	599	86	865	3209
% App. Total	7.6	72.3	20.2		15.7	77.5	6.8		10.5	82	7.6		20.8	69.2	9.9		
PHF	.712	.949	.879	.962	.672	.925	.654	.869	.784	.837	.825	.856	.938	.881	.741	.924	.930

City of Covina N/S: North Azusa Avenue E/W: Cypress Street Weather: Clear File Name : 06_CVA_Azusa_Cypress PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	05:00 PN	1			04:45 PN	1			04:15 PN	Λ			04:15 PN	1		
+0 mins.	19	179	56	254	27	84	6	117	23	172	22	217	42	156	24	222
+15 mins.	26	165	50	241	29	101	13	143	25	162	21	208	43	132	27	202
+30 mins.	13	186	37	236	18	87	8	113	31	190	19	240	33	160	21	214
+45 mins.	16	176	54	246	16	104	7	127	29	183	20	232	48	170	16	234
Total Volume	74	706	197	977	90	376	34	500	108	707	82	897	166	618	88	872
% App. Total	7.6	72.3	20.2		18	75.2	6.8		12	78.8	9.1		19	70.9	10.1	
PHF	.712	.949	.879	.962	.776	.904	.654	.874	.871	.930	.932	.934	.865	.909	.815	.932

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Cypress Street



PEDESTRIANS

	North Leg North Azusa Avenue Pedestrians	East Leg Cypress Street Pedestrians	South Leg North Azusa Avenue Pedestrians	West Leg Cypress Street Pedestrians	
7:00 AM	1	0	1	2	4
7:15 AM	1	0	0	1	2
7:30 AM	1	2	2	2	7
7:45 AM	11	1	4	7	23
8:00 AM	14	3	1	21	39
8:15 AM	14	5	13	46	78
8:30 AM	6	4	5	11	26
8:45 AM	5	2	3	8	18
TOTAL VOLUMES:	53	17	29	98	197

	North Leg	East Leg	South Leg	West Leg	
	North Azusa Avenue	Cypress Street	North Azusa Avenue	Cypress Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	5	1	3	4	13
4:15 PM	2	1	3	8	14
4:30 PM	9	2	2	9	22
4:45 PM	5	3	0	11	19
5:00 PM	4	0	0	3	7
5:15 PM	1	1	2	5	9
5:30 PM	5	2	2	2	11
5:45 PM	0	2	2	1	5
TOTAL VOLUMES:	31	12	14	43	100

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Cypress Street



BICYCLES

	Nor	Southbound th Azusa Ave	enue	(Westbound Cypress Stree	et	Nor	Northbound th Azusa Ave	l enue	(Eastbound Cypress Stree	et	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	2	0	0	1	0	0	1	0	1	0	0	5
8:15 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	8	0	0	5	0	0	1	0	1	0	1	17

	Nor	Southbound	200		Westbound	*	Nor	Northbound			Eastbound	*	
	INUI		ilue		sypress stree		INUI		inue		spress stree		4
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	2	0	0	3
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
TOTAL VOLUMES:	0	0	0	0	1	0	0	3	0	3	2	0	9

City of Covina N/S: North Azusa Avenue E/W: West San Bernardino Road Weather: Clear File Name : 07_CVA_Azusa_San B AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

		Groups Printed- Total Volume															
	No	orth Azu	isa Ave	enue	West	San Be	rnardin	o Road	No	orth Azu	usa Ave	nue	West	San Be	rnardin	io Road	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	100	16	122	23	95	4	122	18	82	7	107	18	27	15	60	411
07:15 AM	3	141	33	177	19	116	7	142	23	116	9	148	15	36	21	72	539
07:30 AM	7	152	19	178	28	164	8	200	29	102	9	140	33	45	25	103	621
07:45 AM	19	205	42	266	30	129	6	165	35	129	13	177	36	100	35	171	779
Total	35	598	110	743	100	504	25	629	105	429	38	572	102	208	96	406	2350
08:00 AM	22	188	45	255	22	120	12	154	31	148	12	191	40	90	23	153	753
08:15 AM	22	203	46	271	25	70	7	102	28	185	17	230	35	70	32	137	740
08:30 AM	17	152	30	199	37	74	8	119	25	147	14	186	22	48	21	91	595
08:45 AM	23	138	19	180	25	56	9	90	36	139	20	195	27	50	27	104	569
Total	84	681	140	905	109	320	36	465	120	619	63	802	124	258	103	485	2657
Grand Total	119	1279	250	1648	209	824	61	1094	225	1048	101	1374	226	466	199	891	5007
Apprch %	7.2	77.6	15.2		19.1	75.3	5.6		16.4	76.3	7.4		25.4	52.3	22.3		
Total %	2.4	25.5	5	32.9	4.2	16.5	1.2	21.8	4.5	20.9	2	27.4	4.5	9.3	4	17.8	

	No	rth Azu	isa Ave	nue	West	San Be	rnardin	o Road	No	orth Azu	usa Ave	nue	West	San Be	ernardir	io Road	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 07	:00 AM	to 08:45	AM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	7:30 AN	Λ											
07:30 AM	7	152	19	178	28	164	8	200	29	102	9	140	33	45	25	103	621
07:45 AM	19	205	42	266	30	129	6	165	35	129	13	177	36	100	35	171	779
08:00 AM	22	188	45	255	22	120	12	154	31	148	12	191	40	90	23	153	753
08:15 AM	22	203	46	271	25	70	7	102	28	185	17	230	35	70	32	137	740
Total Volume	70	748	152	970	105	483	33	621	123	564	51	738	144	305	115	564	2893
% App. Total	7.2	77.1	15.7		16.9	77.8	5.3		16.7	76.4	6.9		25.5	54.1	20.4		
PHF	.795	.912	.826	.895	.875	.736	.688	.776	.879	.762	.750	.802	.900	.763	.821	.825	.928

City of Covina N/S: North Azusa Avenue E/W: West San Bernardino Road Weather: Clear
 File Name
 : 07_CVA_Azusa_San B AM

 Site Code
 : 12223143

 Start Date
 : 2/15/2023

 Page No
 : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:45 AN	1			07:15 AN	1			08:00 AN	Л			07:30 AN	1		
+0 mins.	19	205	42	266	19	116	7	142	31	148	12	191	33	45	25	103
+15 mins.	22	188	45	255	28	164	8	200	28	185	17	230	36	100	35	171
+30 mins.	22	203	46	271	30	129	6	165	25	147	14	186	40	90	23	153
+45 mins.	17	152	30	199	22	120	12	154	36	139	20	195	35	70	32	137
Total Volume	80	748	163	991	99	529	33	661	120	619	63	802	144	305	115	564
% App. Total	8.1	75.5	16.4		15	80	5		15	77.2	7.9		25.5	54.1	20.4	
PHF	.909	.912	.886	.914	.825	.806	.688	.826	.833	.836	.788	.872	.900	.763	.821	.825

City of Covina N/S: North Azusa Avenue E/W: West San Bernardino Road Weather: Clear File Name : 07_CVA_Azusa_San B PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

		Groups Printed- Total Volume															
	No	orth Azu	isa Ave	enue	West	San Be	rnardin	o Road	No	orth Azu	isa Ave	nue	West	San Be	rnardin	io Road	
		South	nbound			West	bound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	41	183	35	259	34	73	17	124	38	164	17	219	41	102	26	169	771
04:15 PM	35	205	37	277	30	75	11	116	31	183	16	230	41	104	39	184	807
04:30 PM	38	168	30	236	32	57	9	98	24	152	19	195	34	115	30	179	708
04:45 PM	30	186	38	254	27	70	14	111	20	191	13	224	48	114	30	192	781
Total	144	742	140	1026	123	275	51	449	113	690	65	868	164	435	125	724	3067
05:00 PM	38	193	35	266	29	91	19	139	34	153	12	199	35	111	40	186	790
05:15 PM	30	195	29	254	32	64	13	109	32	174	19	225	35	84	20	139	727
05:30 PM	38	170	12	220	30	83	19	132	30	152	19	201	33	102	33	168	721
05:45 PM	30	206	18	254	26	71	17	114	23	211	23	257	42	89	22	153	778
Total	136	764	94	994	117	309	68	494	119	690	73	882	145	386	115	646	3016
Grand Total	280	1506	234	2020	240	584	119	943	232	1380	138	1750	309	821	240	1370	6083
Apprch %	13.9	74.6	11.6		25.5	61.9	12.6		13.3	78.9	7.9		22.6	59.9	17.5		
Total %	4.6	24.8	3.8	33.2	3.9	9.6	2	15.5	3.8	22.7	2.3	28.8	5.1	13.5	3.9	22.5	

	No	rth Azu	isa Ave	nue	West	San Be	ernardin	o Road	No	orth Azu	usa Ave	nue	West	San Be	ernardir	io Road	
		South	nbound			West	tbound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 04:	:00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	4:15 PN	Λ											
04:15 PM	35	205	37	277	30	75	11	116	31	183	16	230	41	104	39	184	807
04:30 PM	38	168	30	236	32	57	9	98	24	152	19	195	34	115	30	179	708
04:45 PM	30	186	38	254	27	70	14	111	20	191	13	224	48	114	30	192	781
05:00 PM	38	193	35	266	29	91	19	139	34	153	12	199	35	111	40	186	790
Total Volume	141	752	140	1033	118	293	53	464	109	679	60	848	158	444	139	741	3086
% App. Total	13.6	72.8	13.6		25.4	63.1	11.4		12.9	80.1	7.1		21.3	59.9	18.8		
PHF	.928	.917	.921	.932	.922	.805	.697	.835	.801	.889	.789	.922	.823	.965	.869	.965	.956

City of Covina N/S: North Azusa Avenue E/W: West San Bernardino Road Weather: Clear File Name : 07_CVA_Azusa_San B PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	04:15 PN	1			05:00 PN	Λ			05:00 PN	Λ			04:15 PN	1		
+0 mins.	35	205	37	277	29	91	19	139	34	153	12	199	41	104	39	184
+15 mins.	38	168	30	236	32	64	13	109	32	174	19	225	34	115	30	179
+30 mins.	30	186	38	254	30	83	19	132	30	152	19	201	48	114	30	192
+45 mins.	38	193	35	266	26	71	17	114	23	211	23	257	35	111	40	186
Total Volume	141	752	140	1033	117	309	68	494	119	690	73	882	158	444	139	741
% App. Total	13.6	72.8	13.6		23.7	62.6	13.8		13.5	78.2	8.3		21.3	59.9	18.8	
PHF	.928	.917	.921	.932	.914	.849	.895	.888.	.875	.818	.793	.858	.823	.965	.869	.965

Location:	Covina
N/S:	North Azusa Avenue
E/W:	W San Bernardino Road



PEDESTRIANS

	North Leg North Azusa Avenue	East Leg W San Bernardino Road	South Leg North Azusa Avenue	West Leg W San Bernardino Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	3	4
7:15 AM	0	1	1	1	3
7:30 AM	1	1	3	2	7
7:45 AM	0	3	1	3	7
8:00 AM	0	2	2	0	4
8:15 AM	3	2	2	1	8
8:30 AM	0	3	2	1	6
8:45 AM	2	4	4	5	15
TOTAL VOLUMES:	7	16	15	16	54

	North Leg	East Leg	South Leg	West Leg	
	North Azusa Avenue	W San Bernardino Road	North Azusa Avenue	W San Bernardino Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	0	4	11	16
4:15 PM	2	0	2	16	20
4:30 PM	2	0	4	5	11
4:45 PM	1	2	1	3	7
5:00 PM	1	1	2	3	7
5:15 PM	4	0	0	5	9
5:30 PM	2	1	1	3	7
5:45 PM	1	2	3	0	6
TOTAL VOLUMES:	14	6	17	46	83

Location:	Covina
N/S:	North Azusa Avenue
E/W:	W San Bernardino Road



BICYCLES

	Nor	Southbound th Azusa Ave	enue	W Sai	Westbound n Bernardino	Road	Nor	Northbound th Azusa Ave	l enue	W Sar	Eastbound n Bernardinc	Road	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	1	0	0	0	0	1	0	0	2
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
8:45 AM	Ö	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	1	2	0	0	1	0	1	0	0	7

	Nor	Southbound th Azusa Ave	l enue	W Sa	Westbound n Bernardino	Road	Nor	Northbound th Azusa Ave	l enue	W Sa	Eastbound n Bernardinc	Road	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	2
5:45 PM	0	0	0	0	1	0	1	1	0	0	0	0	3
TOTAL VOLUMES:	1	1	0	0	1	0	2	2	0	0	0	0	7

City of Covina N/S: North Azusa Avenue E/W: Badillo Street Weather: Clear File Name : 08_CVA_Azusa_Bad AM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

						(<u>Foups</u>	Printed-	l otal Ve	olume							
	No	orth Azu	isa Ave	enue		Badille	o Stree	t	No	orth Azu	isa Ave	nue		Badillo	Street	t	
		South	nbound			West	tbound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	115	28	151	18	218	7	243	58	109	24	191	2	38	11	51	636
07:15 AM	14	119	34	167	18	268	2	288	54	133	9	196	10	58	13	81	732
07:30 AM	19	171	28	218	17	201	10	228	52	134	24	210	15	64	17	96	752
07:45 AM	12	179	34	225	26	188	7	221	61	128	40	229	14	133	34	181	856
Total	53	584	124	761	79	875	26	980	225	504	97	826	41	293	75	409	2976
08:00 AM	31	194	43	268	19	149	10	178	71	181	32	284	17	90	25	132	862
08:15 AM	27	184	28	239	19	188	7	214	51	187	23	261	21	127	26	174	888
08:30 AM	30	182	26	238	20	111	17	148	57	165	22	244	8	85	19	112	742
08:45 AM	23	132	16	171	18	133	11	162	39	146	26	211	21	89	18	128	672
Total	111	692	113	916	76	581	45	702	218	679	103	1000	67	391	88	546	3164
Grand Total	164	1276	237	1677	155	1456	71	1682	443	1183	200	1826	108	684	163	955	6140
Apprch %	9.8	76.1	14.1		9.2	86.6	4.2		24.3	64.8	11		11.3	71.6	17.1		
Total %	2.7	20.8	3.9	27.3	2.5	23.7	1.2	27.4	7.2	19.3	3.3	29.7	1.8	11.1	2.7	15.6	

	No	rth Azu	isa Ave	nue		Badille	o Stree	t	No	orth Azu	usa Ave	enue		Badille	o Stree	t	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 07	:00 AM	to 08:45	AM - P	eak 1 d	of 1										
Peak Hour for	Entire li	ntersec	tion Be	gins at 0	7:30 AN	1											
07:30 AM	19	171	28	218	17	201	10	228	52	134	24	210	15	64	17	96	752
07:45 AM	12	179	34	225	26	188	7	221	61	128	40	229	14	133	34	181	856
08:00 AM	31	194	43	268	19	149	10	178	71	181	32	284	17	90	25	132	862
08:15 AM	27	184	28	239	19	188	7	214	51	187	23	261	21	127	26	174	888
Total Volume	89	728	133	950	81	726	34	841	235	630	119	984	67	414	102	583	3358
% App. Total	9.4	76.6	14		9.6	86.3	4		23.9	64	12.1		11.5	71	17.5		
PHF	.718	.938	.773	.886	.779	.903	.850	.922	.827	.842	.744	.866	.798	.778	.750	.805	.945

City of Covina N/S: North Azusa Avenue E/W: Badillo Street Weather: Clear

File Name	: 08_CVA_Azusa_Bad AM
Site Code	: 12223143
Start Date	: 2/15/2023
Page No	: 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:45 AN	1			07:00 AN	1			07:45 AN	Λ			07:45 AN	1		
+0 mins.	12	179	34	225	18	218	7	243	61	128	40	229	14	133	34	181
+15 mins.	31	194	43	268	18	268	2	288	71	181	32	284	17	90	25	132
+30 mins.	27	184	28	239	17	201	10	228	51	187	23	261	21	127	26	174
+45 mins.	30	182	26	238	26	188	7	221	57	165	22	244	8	85	19	112
Total Volume	100	739	131	970	79	875	26	980	240	661	117	1018	60	435	104	599
% App. Total	10.3	76.2	13.5		8.1	89.3	2.7		23.6	64.9	11.5		10	72.6	17.4	
PHF	.806	.952	.762	.905	.760	.816	.650	.851	.845	.884	.731	.896	.714	.818	.765	.827

City of Covina N/S: North Azusa Avenue E/W: Badillo Street Weather: Clear File Name : 08_CVA_Azusa_Bad PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 1

						(Groups Printed- Total Volume										
	No	orth Azu	isa Ave	enue		Badille	o Stree	t	No	orth Azu	isa Ave	nue		Badillo	o Stree	t	
		South	nbound			West	bound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	30	216	23	269	33	98	14	145	41	187	22	250	27	147	32	206	870
04:15 PM	26	199	18	243	44	115	22	181	44	174	30	248	19	170	34	223	895
04:30 PM	29	209	20	258	40	97	23	160	28	162	28	218	27	122	36	185	821
04:45 PM	23	185	17	225	51	103	17	171	36	169	13	218	24	156	35	215	829
Total	108	809	78	995	168	413	76	657	149	692	93	934	97	595	137	829	3415
05:00 PM	37	232	31	300	40	128	17	185	35	170	25	230	28	143	24	195	910
05:15 PM	17	183	16	216	29	116	11	156	32	161	20	213	34	155	23	212	797
05:30 PM	35	227	21	283	41	91	10	142	43	184	27	254	28	141	21	190	869
05:45 PM	20	183	14	217	38	122	17	177	34	198	24	256	25	137	30	192	842
Total	109	825	82	1016	148	457	55	660	144	713	96	953	115	576	98	789	3418
Grand Total	217	1634	160	2011	316	870	131	1317	293	1405	189	1887	212	1171	235	1618	6833
Apprch %	10.8	81.3	8		24	66.1	9.9		15.5	74.5	10		13.1	72.4	14.5		
Total %	3.2	23.9	2.3	29.4	4.6	12.7	1.9	19.3	4.3	20.6	2.8	27.6	3.1	17.1	3.4	23.7	

	No	orth Azu	isa Ave	nue		Badille	o Stree	t	No	orth Azu	usa Ave	nue		Badill	o Stree	t	
		South	nbound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 04	:00 PM	to 05:45	PM - P	eak 1 c	of 1										
Peak Hour for	Entire I	ntersec	tion Be	gins at 0	4:15 PN	1											
04:15 PM	26	199	18	243	44	115	22	181	44	174	30	248	19	170	34	223	895
04:30 PM	29	209	20	258	40	97	23	160	28	162	28	218	27	122	36	185	821
04:45 PM	23	185	17	225	51	103	17	171	36	169	13	218	24	156	35	215	829
05:00 PM	37	232	31	300	40	128	17	185	35	170	25	230	28	143	24	195	910
Total Volume	115	825	86	1026	175	443	79	697	143	675	96	914	98	591	129	818	3455
% App. Total	11.2	80.4	8.4		25.1	63.6	11.3		15.6	73.9	10.5		12	72.2	15.8		
PHF	.777	.889	.694	.855	.858	.865	.859	.942	.813	.970	.800	.921	.875	.869	.896	.917	.949

City of Covina N/S: North Azusa Avenue E/W: Badillo Street Weather: Clear File Name : 08_CVA_Azusa_Bad PM Site Code : 12223143 Start Date : 2/15/2023 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	04:15 PN	1			04:15 PN	1			05:00 PN	Λ			04:00 PN	1		
+0 mins.	26	199	18	243	44	115	22	181	35	170	25	230	27	147	32	206
+15 mins.	29	209	20	258	40	97	23	160	32	161	20	213	19	170	34	223
+30 mins.	23	185	17	225	51	103	17	171	43	184	27	254	27	122	36	185
+45 mins.	37	232	31	300	40	128	17	185	34	198	24	256	24	156	35	215
Total Volume	115	825	86	1026	175	443	79	697	144	713	96	953	97	595	137	829
% App. Total	11.2	80.4	8.4		25.1	63.6	11.3		15.1	74.8	10.1		11.7	71.8	16.5	
PHF	.777	.889	.694	.855	.858	.865	.859	.942	.837	.900	.889	.931	.898	.875	.951	.929

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Badillo Street



PEDESTRIANS

	North Leg North Azusa Avenue	East Leg Badillo Street	South Leg North Azusa Avenue	West Leg Badillo Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	1	2
7:30 AM	1	2	0	0	3
7:45 AM	2	0	2	2	6
8:00 AM	2	0	0	0	2
8:15 AM	3	0	1	2	6
8:30 AM	0	0	1	0	1
8:45 AM	0	Ó	0	3	3
TOTAL VOLUMES:	10	2	4	8	24

	North Leg North Azusa Avenue	East Leg Badillo Street	South Leg North Azusa Avenue	West Leg Badillo Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	2	0	0	5	7
4:15 PM	4	0	1	11	16
4:30 PM	3	2	4	4	13
4:45 PM	2	3	1	1	7
5:00 PM	8	4	0	0	12
5:15 PM	2	1	0	2	5
5:30 PM	1	3	0	2	6
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	22	13	6	25	66

Counts Unlimited, Inc. PO Box 1178 Corona, CA 92878 951-268-6268

Location:	Covina
N/S:	North Azusa Avenue
E/W:	Badillo Street



BICYCLES

	Nor	Southbound th Azusa Ave	enue	Westbound Badillo Street			Northbound North Azusa Avenue						
	Left	Thru	Right	Left	Left Thru Right			Thru	Right	Left	Thru	Right	
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	2	0	0	1	0	0	0	0	3
8:15 AM	0	0	0	1	0	0	0	0	0	0	1	1	3
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	2	2	0	1	2	0	0	1	0	0	1	1	10

	Nor	Southbound th Azusa Ave	enue	Westbound Badillo Street			Nor	Northbound th Azusa Ave	l enue		t		
	Left	Thru	Right	Left	Left Thru Right			Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	2
5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	15	0	2	17
TOTAL VOLUMES:	2	1	0	0	0	0	0	0	1	16	3	2	25

Michael Baker

Appendix C: Existing Synchro Worksheets

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

	٠	-+	7	4	-	•	1	t	1	5	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ካካ	^	1	7	^	1	ካካ	1		ሻሻ	1	
Traffic Volume (veh/h)	156	494	112	57	730	57	237	368	90	91	420	155
Future Volume (veh/h)	156	494	112	57	730	57	237	368	90	91	420	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	515	117	60	768	60	260	404	99	111	512	189
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.91	0.91	0.91	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1000	574	77	928	414	326	1331	323	165	1075	395
Arrive On Green	0.06	0.28	0.28	0.04	0.26	0.26	0.03	0.15	0.15	0.05	0.42	0.42
Sat Flow, veh/h	3456	3554	1509	1781	3554	1585	3456	2835	688	3456	2544	935
Grp Volume(v), veh/h	162	515	117	60	768	60	260	252	251	111	357	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1509	1781	1777	1585	1728	1777	1747	1728	1777	1702
Q Serve(g_s), s	5.5	14.6	6.3	4.0	24.4	3.5	9.0	15.1	15.3	3.8	17.4	17.6
Cycle Q Clear(g_c), s	5.5	14.6	6.3	4.0	24.4	3.5	9.0	15.1	15.3	3.8	17.4	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.55
Lane Grp Cap(c), veh/h	219	1000	574	77	928	414	326	834	820	165	751	719
V/C Ratio(X)	0.74	0.52	0.20	0.77	0.83	0.14	0.80	0.30	0.31	0.67	0.48	0.48
Avail Cap(c_a), veh/h	302	1111	621	156	1111	495	446	834	820	245	751	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	36.2	25.4	56.8	41.8	34.0	57.0	33.3	33.4	56.2	25.0	25.1
Incr Delay (d2), s/veh	6.0	0.6	0.2	15.0	5.0	0.2	6.5	0.9	0.9	4.7	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	2.5	6.2	2.2	2.1	11.0	1.3	4.4	7.3	7.3	1.7	7.5	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	36.8	25.6	71.9	46.8	34.3	63.5	34.1	34.3	61.0	27.2	27.3
LnGrp LOS	E	D	С	E	D	С	E	С	С	E	С	C
Approach Vol, veh/h		794			888			763			812	
Approach Delay, s/veh		40.2			47.6			44.2			31.9	
Approach LOS		D			D			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	61.8	9.7	38.3	15.8	56.2	12.1	35.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	44.5	10.5	37.5	15.5	37.5	10.5	37.5				
Max Q Clear Time (g_c+I1), s	5.8	17.3	6.0	16.6	11.0	19.6	7.5	26.4				
Green Ext Time (p_c), s	0.1	4.3	0.0	4.9	0.4	5.5	0.1	4.9				
Intersection Summary												
HCM 6th Ctrl Delay			41.1									
HCM 6th LOS			D									

Notes

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ካካ	^	1	5	^	1	ሻሻ	* 1 ₂		ካካ	* 1,	
Traffic Volume (veh/h)	247	869	131	169	456	107	200	523	136	204	512	101
Future Volume (veh/h)	247	869	131	169	456	107	200	523	136	204	512	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	999	151	184	496	116	222	581	151	222	557	110
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	347	1119	599	212	1186	512	280	906	235	278	960	189
Arrive On Green	0.10	0.31	0.31	0.12	0.33	0.33	0.03	0.11	0.11	0.08	0.33	0.33
Sat Flow, veh/h	3456	3554	1495	1781	3554	1533	3456	2768	717	3456	2939	578
Grp Volume(v), veh/h	284	999	151	184	496	116	222	372	360	222	336	331
Grp Sat Flow(s), veh/h/ln	1728	1777	1495	1781	1777	1533	1728	1777	1708	1728	1777	1740
Q Serve(q , s), s	9.7	32.1	8.1	12.2	13.0	6.5	7.7	24.1	24.2	7.6	18.8	19.0
Cycle Q Clear(q, c), s	9.7	32.1	8.1	12.2	13.0	6.5	7.7	24.1	24.2	7.6	18.8	19.0
Prop In Lane	1.00	•=	1.00	1.00		1.00	1.00		0.42	1.00		0.33
Lane Grp Cap(c), veh/h	347	1119	599	212	1186	512	280	582	559	278	580	568
V/C Ratio(X)	0.82	0.89	0.25	0.87	0.42	0.23	0.79	0.64	0.64	0.80	0.58	0.58
Avail Cap(c, a), veh/h	461	1170	621	260	1214	524	302	582	559	302	580	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	39.2	24.4	51.9	31.0	28.8	57.4	46.7	46.8	54.2	33.5	33.6
Incr Delay (d2), s/veh	8.5	9.0	0.3	22.0	0.3	0.3	11.8	5.0	5.2	13.2	4.2	4.3
Initial Q Delav(d3).s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln	4.5	14.8	2.8	6.6	5.4	2.4	3.9	12.3	11.9	3.7	8.6	8.5
Unsig, Movement Delay, s/veh				0.0	••••		0.0			••••	0.0	0.0
LnGrp Delav(d).s/veh	61.4	48.2	24.7	73.9	31.3	29.1	69.2	51.7	52.0	67.4	37.7	37.9
LnGrp LOS	E	D	C	F	C	C	E	D	D	E	D	D
Approach Vol. veh/h		1434			796			954			889	
Approach Delay s/veh		48.3			40.8			55.9			45.2	
Approach LOS		10.0 D			10.0 D			50.0 F			D	
	4	0	•		-	•	-	-				
Timer - Assigned Phs	1	2	3	4	5	6	1	8				
Phs Duration (G+Y+Rc), s	14.1	44.8	18.8	42.3	14.2	44.7	16.5	44.5				
Change Period (Y+Rc), s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	33.5	17.5	39.5	10.5	33.5	16.0	41.0				
Max Q Clear Time (g_c+I1), s	9.6	26.2	14.2	34.1	9.7	21.0	11.7	15.0				
Green Ext Time (p_c), s	0.1	3.2	0.1	3.6	0.1	4.2	0.4	5.1				
Intersection Summary												
HCM 6th Ctrl Delay			48.0									
HCM 6th LOS			D									

Notes

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			t)	1	۲	**	1	5	† Ъ	
Traffic Volume (veh/h)	14	18	28	259	25	187	83	570	148	62	581	17
Future Volume (veh/h)	14	18	28	259	25	187	83	570	148	62	581	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	20	25	39	308	30	223	104	712	185	67	625	18
Peak Hour Factor	0.71	0.71	0.71	0.84	0.84	0.84	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	49	43	251	19	679	230	1397	626	86	1100	32
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.26	0.79	0.79	0.02	0.10	0.10
Sat Flow, veh/h	0	112	97	442	43	1552	1781	3554	1593	1781	3519	101
Grp Volume(v), veh/h	84	0	0	338	0	223	104	712	185	67	315	328
Grp Sat Flow(s),veh/h/ln	209	0	0	485	0	1552	1781	1777	1593	1781	1777	1844
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.3	5.9	8.6	3.9	4.5	20.3	20.3
Cycle Q Clear(g_c), s	52.5	0.0	0.0	52.5	0.0	11.3	5.9	8.6	3.9	4.5	20.3	20.3
Prop In Lane	0.24		0.46	0.91		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	129	0	0	269	0	679	230	1397	626	86	555	576
V/C Ratio(X)	0.65	0.00	0.00	1.25	0.00	0.33	0.45	0.51	0.30	0.78	0.57	0.57
Avail Cap(c_a), veh/h	129	0	0	269	0	679	230	1397	626	171	555	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	28.8	0.0	0.0	39.3	0.0	22.2	40.9	8.7	8.2	58.4	46.1	46.1
Incr Delay (d2), s/veh	12.6	0.0	0.0	141.2	0.0	0.4	6.3	1.3	1.2	4.8	3.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	18.8	0.0	4.2	2.8	2.5	1.4	2.2	10.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	0.0	0.0	180.5	0.0	22.6	47.2	10.0	9.4	63.2	49.7	49.6
LnGrp LOS	D	A	A	F	A	С	D	В	A	E	D	D
Approach Vol, veh/h		84			561			1001			710	
Approach Delay, s/veh		41.4			117.7			13.8			51.0	
Approach LOS		D			F			В			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	52.7		57.0	20.0	43.0		57.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g c+l1), s	6.5	10.6		54.5	7.9	22.3		54.5				
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	4.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			đ	1	5	**	1	5	1	
Traffic Volume (veh/h)	28	26	30	134	32	130	68	694	165	147	772	33
Future Volume (veh/h)	28	26	30	134	32	130	68	694	165	147	772	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	36	33	38	144	34	140	73	746	177	158	830	35
Peak Hour Factor	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	62	49	232	46	431	230	1786	817	171	1627	69
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.26	1.00	1.00	0.03	0.15	0.15
Sat Flow, veh/h	97	219	174	633	162	1535	1781	3554	1626	1781	3468	146
Grp Volume(v), veh/h	107	0	0	178	0	140	73	746	177	158	425	440
Grp Sat Flow(s),veh/h/ln	491	0	0	795	0	1535	1781	1777	1626	1781	1777	1837
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	8.7	4.0	0.0	0.0	10.6	26.4	26.4
Cycle Q Clear(g_c), s	31.0	0.0	0.0	27.2	0.0	8.7	4.0	0.0	0.0	10.6	26.4	26.4
Prop In Lane	0.34		0.36	0.81		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	178	0	0	277	0	431	230	1786	817	171	834	862
V/C Ratio(X)	0.60	0.00	0.00	0.64	0.00	0.32	0.32	0.42	0.22	0.93	0.51	0.51
Avail Cap(c_a), veh/h	410	0	0	496	0	672	230	1786	817	171	834	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	41.0	0.0	0.0	40.6	0.0	34.1	40.2	0.0	0.0	57.7	38.1	38.1
Incr Delay (d2), s/veh	4.6	0.0	0.0	3.5	0.0	0.6	3.6	0.7	0.6	43.1	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.4	0.0	0.0	5.2	0.0	3.3	1.9	0.2	0.1	7.1	13.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	0.0	0.0	44.1	0.0	34.8	43.8	0.7	0.6	100.7	40.0	39.9
LnGrp LOS	D	Α	Α	D	Α	С	D	Α	Α	F	D	D
Approach Vol, veh/h		107			318			996			1023	
Approach Delay, s/veh		45.6			40.0			3.9			49.4	
Approach LOS		D			D			А			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	65.8		38.2	20.0	61.8		38.2				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g c+l1), s	12.6	2.0		33.0	6.0	28.4		29.2				
Green Ext Time (p_c), s	0.0	9.5		0.7	0.0	4.5		2.2				
Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			С									

Int Delay, s/veh	0						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations		1	**	1	5	**	
Traffic Vol, veh/h	0	6	801	4	4	958	
Future Vol, veh/h	0	6	801	4	4	958	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	150	80	-	
Veh in Median Storage	,# 0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	7	871	4	4	1041	

Major/Minor	Minor1	N	lajor1	Ν	lajor2		
Conflicting Flow All	-	436	0	0	875	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.94	-	-	4.14	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.32	-	-	2.22	-	
Pot Cap-1 Maneuver	0	568	-	-	767	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	· -	568	-	-	767	-	
Mov Cap-2 Maneuver	· -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	WB		NB		SB		
HCM Control Delay, s	11.4		0		0		
HCM LOS	В						

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	- 568	767	-	
HCM Lane V/C Ratio	-	- 0.011	0.006	-	
HCM Control Delay (s)	-	- 11.4	9.7	-	
HCM Lane LOS	-	- B	А	-	
HCM 95th %tile Q(veh)	-	- 0	0	-	

Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		1	**	1	7	**
Traffic Vol, veh/h	0	17	927	8	8	977
Future Vol, veh/h	0	17	927	8	8	977
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	80	-
Veh in Median Storage	,# 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	1008	9	9	1062

Major/Minor	Minor1	М	ajor1	Ν	lajor2		
Conflicting Flow All	-	504	0	0	1017	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.94	-	-	4.14	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.32	-	-	2.22	-	
Pot Cap-1 Maneuver	0	513	-	-	678	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	-	513	-	-	678	-	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	WB		NB		SB		
HCM Control Delay, s	12.3		0		0.1		

HCM LOS В

Minor Lane/Major Mvmt	NBT	NBRWBLn	I SBL	SBT
Capacity (veh/h)	-	- 51	678	-
HCM Lane V/C Ratio	-	- 0.03	6 0.013	-
HCM Control Delay (s)	-	- 12.	3 10.4	-
HCM Lane LOS	-	-	3 B	-
HCM 95th %tile Q(veh)	-	- 0.	1 0	-

0						
WBL	WBR	NBT	NBR	SBL	SBT	
	1	≜ ₽			**	
0	0	805	0	0	958	
0	0	805	0	0	958	
0	0	0	0	0	0	
Stop	Stop	Free	Free	Free	Free	
-	None	-	None	-	None	
-	0	-	-	-	-	
,# 0	-	0	-	-	0	
0	-	0	-	-	0	
92	92	92	92	92	92	
2	2	2	2	2	2	
0	0	875	0	0	1041	
	0 WBL 0 Stop - ,# 0 92 2 0	0 WBL WBR 0 0 0 0 0 0 0 0 0 0 0 0 0	0 WBL WBR NBT ↑ ↑↑ 0 00 805 0 00 805 0 0 0 Stop Stop Free 1 None - ↑ 0 - ↓ 0 0 - ↓ 0	0 NBR NBR WBL WBR NBT NBR 1 1 1 1 0 0 805 0 0 0 805 0 0 0 805 0 0 0 805 0 0 0 805 0 Stop Stop Free Free 0 0 - None - 0 - 0 4 0 - 0 92 92 92 92 92 2 2 2 0 0 875 0	WBL WBR NBT NBR SBL Image: Im	WBL WBR NBT NBR SBL SBT MBL MBR NBT NBR SBL SBT MBL MBR MBC NBR SBL SBT MBL MBR MBR MBR MBR SBL SBT MBL MBR MBR MBR MBR MBR SBL SBT MBL MBR MBR MBR MBR MBR MBR MBR MBL MBR MBR MBR MBR MBR MBR MBR MBR MBR MBL MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR MBR

Major/Minor	Minor1	Μ	ajor1	Ma	jor2				
Conflicting Flow All	-	438	0	0	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.94	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.32	-	-	-	-			
Pot Cap-1 Maneuver	0	567	-	-	0	-			
Stage 1	0	-	-	-	0	-			
Stage 2	0	-	-	-	0	-			
Platoon blocked, %			-	-		-			
Mov Cap-1 Maneuver		567	-	-	-	-			
Mov Cap-2 Maneuver		-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Approach	WB		NB		SB				
HCM Control Delay, s	s 0		0		0				

HCM LOS А

Minor Lane/Major Mvmt	NBT	NBRW	3Ln1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	Α	-
HCM 95th %tile Q(veh)	-	-	-	-

Movement WBL WBR NBT NBR SBL SBT Lane Configurations Image: Configurations	Int Delay, s/veh	0						
Lane Configurations Image: https://www.constraints.consta.constraint	Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Traffic Vol, veh/h 0 0 935 0 0 977 Future Vol, veh/h 0 0 935 0 0 977 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized - None - None - None Storage Length - 0 - - - - Veh in Median Storage, # 0 - 0 - - 0 Grade, % 0 - 0 - - 0 Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Lane Configurations		1	A P			**	
Future Vol, veh/h 0 0 935 0 0 977 Conflicting Peds, #/hr 0 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free Free RT Channelized - None - None - None Storage Length - 0 - - - Veh in Median Storage, # 0 - 0 - - Grade, % 0 - 0 - 0 Peak Hour Factor 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Traffic Vol, veh/h	0	0	935	0	0	977	
Conflicting Peds, #/hr 0	Future Vol, veh/h	0	0	935	0	0	977	
Sign ControlStopStopFreeFreeFreeFreeFreeRT Channelized-None-None-NoneStorage Length-0Veh in Median Storage, #0-0-0Grade, %0-0-0Peak Hour Factor92929292Heavy Vehicles, %22222Mvmt Flow001016001062	Conflicting Peds, #/hr	0	0	0	0	0	0	
RT Channelized - None - None Storage Length - 0 - - - Veh in Median Storage, # 0 - 0 - 0 Grade, % 0 - 0 - 0 Peak Hour Factor 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Sign Control	Stop	Stop	Free	Free	Free	Free	
Storage Length - 0 - - - - Veh in Median Storage, # 0 - 0 - - 0 Grade, % 0 - 0 - - 0 Peak Hour Factor 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	RT Channelized	-	None	-	None	-	None	
Veh in Median Storage, # 0 - 0 - 0 Grade, % 0 - 0 - 0 Peak Hour Factor 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 0 0 1016 0 1062	Storage Length	-	0	-	-	-	-	
Grade, % 0 - 0 - - 0 Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Veh in Median Storage	,# 0	-	0	-	-	0	
Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Grade, %	0	-	0	-	-	0	
Heavy Vehicles, % 2 2 2 2 2 2 2 Mvmt Flow 0 0 1016 0 0 1062	Peak Hour Factor	92	92	92	92	92	92	
Mvmt Flow 0 0 1016 0 0 1062	Heavy Vehicles, %	2	2	2	2	2	2	
	Mvmt Flow	0	0	1016	0	0	1062	

Major/Minor	Minor1	M	lajor1	Ма	ajor2	
Conflicting Flow All	-	508	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	510	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	· -	510	-	-	-	-
Mov Cap-2 Maneuver	• -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	s 0		0		0	

HCM LOS А

Minor Lane/Major Mvmt	NBT	NBRW	3Ln1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	Α	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary 6: N Azusa Ave/Azusa Ave & Cypress St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	* 1 ₂		5	4 14		5	**	1	5	**	1
Traffic Volume (veh/h)	145	403	127	97	820	28	119	559	46	37	633	288
Future Volume (veh/h)	145	403	127	97	820	28	119	559	46	37	633	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.94	1.00		0.93	1.00		0.91	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	463	146	117	988	34	149	699	58	43	728	331
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.80	0.80	0.80	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	894	279	142	1075	37	177	1371	558	55	1127	448
Arrive On Green	0.11	0.34	0.34	0.08	0.31	0.31	0.03	0.13	0.13	0.06	0.63	0.63
Sat Flow, veh/h	1781	2622	818	1781	3495	120	1781	3554	1447	1781	3554	1414
Grp Volume(v), veh/h	167	312	297	117	502	520	149	699	58	43	728	331
Grp Sat Flow(s).veh/h/ln	1781	1777	1663	1781	1777	1839	1781	1777	1447	1781	1777	1414
Q Serve(q s), s	11.1	16.9	17.2	7.8	32.7	32.7	10.0	22.0	4.3	2.9	15.2	19.3
Cycle Q Clear(q c), s	11.1	16.9	17.2	7.8	32.7	32.7	10.0	22.0	4.3	2.9	15.2	19.3
Prop In Lane	1.00		0.49	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	606	567	142	547	566	177	1371	558	55	1127	448
V/C Ratio(X)	0.86	0.52	0.52	0.82	0.92	0.92	0.84	0.51	0.10	0.78	0.65	0.74
Avail Cap(c a), veh/h	223	606	567	229	563	582	209	1371	558	107	1127	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	31.6	31.7	54.4	40.1	40.1	57.1	41.8	34.0	55.9	17.8	18.5
Incr Delay (d2), s/veh	22.6	1.0	1.2	5.5	20.3	19.8	17.2	1.1	0.3	8.7	2.9	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	6.1	7.2	6.9	3.6	16.9	17.4	5.5	10.7	1.5	1.4	4.7	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	32.7	32.9	59.9	60.4	59.9	74.3	42.9	34.3	64.6	20.6	28.9
LnGrp LOS	E	С	С	E	E	E	Е	D	С	Е	С	С
Approach Vol, veh/h		776			1139			906			1102	
Approach Delay, s/veh		41.9			60.1			47.5			24.8	
Approach LOS		D			Е			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	51.8	14.1	45.9	16.4	43.6	18.1	41.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	7.2	39.8	15.4	38.1	14.1	32.9	15.0	38.0				
Max Q Clear Time (g_c+I1), s	4.9	24.0	9.8	19.2	12.0	21.3	13.1	34.7				
Green Ext Time (p_c), s	0.0	5.7	0.0	4.8	0.0	6.1	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			43.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 6: N Azusa Ave/Azusa Ave & Cypress St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1		7	1		7	^	1	٦	^	1
Traffic Volume (veh/h)	180	599	86	79	385	34	91	713	66	74	706	197
Future Volume (veh/h)	180	599	86	79	385	34	91	713	66	74	706	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.94	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	196	651	93	91	443	39	106	829	77	77	735	205
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.86	0.86	0.86	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	859	122	114	697	61	111	1608	701	77	1540	672
Arrive On Green	0.13	0.28	0.28	0.06	0.21	0.21	0.02	0.15	0.15	0.09	0.87	0.87
Sat Flow, veh/h	1781	3094	441	1781	3296	289	1781	3554	1549	1781	3554	1551
Grp Volume(v), veh/h	196	373	371	91	238	244	106	829	77	77	735	205
Grp Sat Flow(s).veh/h/ln	1781	1777	1758	1781	1777	1808	1781	1777	1549	1781	1777	1551
Q Serve(q s), s	13.0	23.1	23.2	6.0	14.6	14.8	7.1	25.8	5.2	5.2	5.6	2.9
Cycle Q Clear(q c), s	13.0	23.1	23.2	6.0	14.6	14.8	7.1	25.8	5.2	5.2	5.6	2.9
Prop In Lane	1.00		0.25	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	493	488	114	376	382	111	1608	701	77	1540	672
V/C Ratio(X)	0.87	0.76	0.76	0.80	0.63	0.64	0.95	0.52	0.11	1.00	0.48	0.30
Avail Cap(c a), veh/h	453	675	668	229	444	452	111	1608	701	77	1540	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	39.7	39.7	55.4	43.1	43.1	58.6	38.9	30.1	54.8	4.9	4.7
Incr Delay (d2), s/veh	4.2	4.2	4.3	4.7	2.9	3.0	62.0	1.0	0.3	101.5	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	10.4	10.3	2.8	6.6	6.8	5.2	12.5	2.0	4.4	1.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	43.8	44.0	60.1	46.0	46.1	120.6	39.9	30.4	156.3	6.0	5.9
LnGrp LOS	Е	D	D	Е	D	D	F	D	С	F	А	А
Approach Vol. veh/h		940			573			1012			1017	
Approach Delay, s/veh		46.4			48.3			47.6			17.3	
Approach LOS		D			D			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	59.8	12.2	38.3	12.0	57.5	20.1	30.4				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	5.2	34.3	15.4	45.6	7.5	32.0	30.5	30.0				
Max Q Clear Time (q. c+11), s	7.2	27.8	8.0	25.2	9.1	7.6	15.0	16.8				
Green Ext Time (p_c), s	0.0	3.7	0.0	6.1	0.0	8.3	0.1	3.0				
Intersection Summary												
HCM 6th Ctrl Delav			38.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 7: N Azusa Ave & W San Bernardino Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	1		5	1		5	**	1	5	**	1
Traffic Volume (veh/h)	144	305	115	105	483	33	123	564	51	70	748	152
Future Volume (veh/h)	144	305	115	105	483	33	123	564	51	70	748	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	367	139	135	619	42	154	705	64	78	831	169
Peak Hour Factor	0.83	0.83	0.83	0.78	0.78	0.78	0.80	0.80	0.80	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	584	218	162	706	48	178	1667	743	99	1508	673
Arrive On Green	0.11	0.23	0.23	0.09	0.21	0.21	0.20	0.94	0.94	0.07	0.56	0.56
Sat Flow, veh/h	1781	2532	945	1781	3377	229	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	173	256	250	135	325	336	154	705	64	78	831	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1700	1781	1777	1829	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	11.5	15.5	15.9	8.9	21.3	21.3	10.0	2.4	0.3	5.2	17.7	6.5
Cycle Q Clear(g_c), s	11.5	15.5	15.9	8.9	21.3	21.3	10.0	2.4	0.3	5.2	17.7	6.5
Prop In Lane	1.00		0.56	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	409	392	162	371	382	178	1667	743	99	1508	673
V/C Ratio(X)	0.86	0.62	0.64	0.83	0.88	0.88	0.86	0.42	0.09	0.79	0.55	0.25
Avail Cap(c_a), veh/h	252	409	392	258	400	412	223	1667	743	177	1508	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	0.51	0.51	0.51
Uniform Delay (d), s/veh	52.4	41.5	41.7	53.7	46.0	46.0	47.2	2.1	2.0	54.9	18.9	16.5
Incr Delay (d2), s/veh	18.5	3.5	4.0	6.3	19.0	18.8	18.8	0.7	0.2	2.7	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	6.1	7.2	7.1	4.3	11.3	11.7	4.9	0.8	0.2	2.3	6.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	45.0	45.6	59.9	65.0	64.8	66.0	2.8	2.2	57.6	19.7	16.9
LnGrp LOS	E	D	D	E	E	E	E	A	A	E	В	<u> </u>
Approach Vol, veh/h		679			796			923			1078	
Approach Delay, s/veh		51.8			64.1			13.3			22.0	
Approach LOS		D			E			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	61.8	14.9	32.7	16.0	56.4	17.5	30.1				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (q c+l1), s	7.2	4.4	10.9	17.9	12.0	19.7	13.5	23.3				
Green Ext Time (p_c), s	0.0	8.1	0.1	2.6	0.1	8.8	0.1	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 7: N Azusa Ave & W San Bernardino Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1		5	1		5	^	1	5	^	1
Traffic Volume (veh/h)	158	444	139	118	293	53	109	679	60	141	752	140
Future Volume (veh/h)	158	444	139	118	293	53	109	679	60	141	752	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	458	143	140	349	63	118	738	65	152	809	151
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.92	0.92	0.92	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	540	167	167	578	103	142	1589	692	177	1658	724
Arrive On Green	0.11	0.21	0.21	0.09	0.19	0.19	0.16	0.89	0.89	0.13	0.62	0.62
Sat Flow, veh/h	1781	2623	810	1781	3001	535	1781	3554	1547	1781	3554	1551
Grp Volume(v), veh/h	163	309	292	140	205	207	118	738	65	152	809	151
Grp Sat Flow(s),veh/h/ln	1781	1777	1656	1781	1777	1760	1781	1777	1547	1781	1777	1551
Q Serve(g_s), s	10.8	20.0	20.4	9.3	12.6	12.9	7.7	4.5	0.6	10.0	14.9	5.1
Cycle Q Clear(g_c), s	10.8	20.0	20.4	9.3	12.6	12.9	7.7	4.5	0.6	10.0	14.9	5.1
Prop In Lane	1.00		0.49	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	190	366	341	167	342	339	142	1589	692	177	1658	724
V/C Ratio(X)	0.86	0.84	0.86	0.84	0.60	0.61	0.83	0.46	0.09	0.86	0.49	0.21
Avail Cap(c_a), veh/h	252	394	367	258	400	396	223	1589	692	177	1658	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83	0.51	0.51	0.51
Uniform Delay (d), s/veh	52.7	45.8	46.0	53.5	44.2	44.3	49.6	3.7	3.5	51.3	15.0	13.1
Incr Delay (d2), s/veh	15.8	15.3	18.0	7.9	2.5	2.8	6.4	0.8	0.2	18.4	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	10.4	10.1	4.5	5.8	5.9	3.4	1.3	0.2	5.2	5.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	61.1	63.9	61.4	46.7	47.1	56.1	4.6	3.8	69.7	15.5	13.4
LnGrp LOS	E	E	E	E	D	D	E	A	A	E	В	B
Approach Vol, veh/h		764			552			921			1112	
Approach Delay, s/veh		63.8			50.6			11.1			22.6	
Approach LOS		E			D			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	59.2	15.3	29.7	13.6	61.5	16.8	28.1				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (g_c+I1), s	12.0	6.5	11.3	22.4	9.7	16.9	12.8	14.9				
Green Ext Time (p_c), s	0.0	8.5	0.1	1.8	0.1	8.9	0.1	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			33.5									
HCM 6th LOS			С									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	1	7	^	1	5	^	1	7	^	1
Traffic Volume (veh/h)	67	414	102	81	726	34	235	630	119	89	728	133
Future Volume (veh/h)	67	414	102	81	726	34	235	630	119	89	728	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	511	126	88	789	37	264	708	134	100	818	149
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	860	384	111	872	389	291	1649	735	123	1314	586
Arrive On Green	0.06	0.24	0.24	0.06	0.25	0.25	0.16	0.46	0.46	0.14	0.74	0.74
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	83	511	126	88	789	37	264	708	134	100	818	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.5	15.3	7.9	5.8	25.8	2.2	17.5	16.0	5.9	6.5	13.3	3.6
Cycle Q Clear(g_c), s	5.5	15.3	7.9	5.8	25.8	2.2	17.5	16.0	5.9	6.5	13.3	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	860	384	111	872	389	291	1649	735	123	1314	586
V/C Ratio(X)	0.79	0.59	0.33	0.80	0.90	0.10	0.91	0.43	0.18	0.81	0.62	0.25
Avail Cap(c_a), veh/h	126	888	396	141	918	409	319	1649	735	200	1314	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	55.7	40.2	37.4	55.5	43.9	35.0	49.3	21.5	18.8	50.9	11.6	10.3
Incr Delay (d2), s/veh	24.1	1.0	0.5	21.1	11.9	0.1	26.7	0.8	0.5	9.1	1.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.2	6.8	3.1	3.3	12.7	0.9	9.8	6.6	2.3	3.0	3.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.8	41.3	37.9	76.6	55.9	35.1	76.0	22.3	19.4	60.1	13.3	11.1
LnGrp LOS	E	D	D	E	E	D	E	С	В	E	В	<u> </u>
Approach Vol, veh/h		720			914			1106			1067	
Approach Delay, s/veh		45.1			57.0			34.8			17.4	
Approach LOS		D			E			С			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	61.2	12.0	34.1	24.1	49.9	11.6	34.5				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	13.5	47.5	9.5	30.0	21.5	39.5	8.5	31.0				
Max Q Clear Time (g_c+l1), s	8.5	18.0	7.8	17.3	19.5	15.3	7.5	27.8				
Green Ext Time (p_c), s	0.1	5.5	0.0	3.1	0.2	6.2	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			37.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	1									
Traffic Volume (veh/h)	98	591	129	175	443	79	143	675	96	115	825	86
Future Volume (veh/h)	98	591	129	175	443	79	143	675	96	115	825	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	107	642	140	186	471	84	155	734	104	134	959	100
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	781	331	214	943	415	182	1450	636	159	1404	608
Arrive On Green	0.07	0.22	0.22	0.12	0.27	0.27	0.10	0.41	0.41	0.18	0.79	0.79
Sat Flow, veh/h	1781	3554	1505	1781	3554	1562	1781	3554	1558	1781	3554	1539
Grp Volume(v), veh/h	107	642	140	186	471	84	155	734	104	134	959	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1505	1781	1777	1562	1781	1777	1558	1781	1777	1539
Q Serve(g_s), s	7.1	20.6	9.6	12.3	13.5	5.0	10.3	18.5	5.1	8.7	14.7	1.9
Cycle Q Clear(g_c), s	7.1	20.6	9.6	12.3	13.5	5.0	10.3	18.5	5.1	8.7	14.7	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	781	331	214	943	415	182	1450	636	159	1404	608
V/C Ratio(X)	0.81	0.82	0.42	0.87	0.50	0.20	0.85	0.51	0.16	0.84	0.68	0.16
Avail Cap(c_a), veh/h	220	829	351	260	943	415	215	1450	636	246	1404	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	54.7	44.6	40.3	51.9	37.3	34.2	53.0	26.5	22.5	48.4	9.1	7.8
Incr Delay (d2), s/veh	10.8	6.4	0.9	22.4	0.4	0.2	23.4	1.3	0.6	11.0	2.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.8	3.6	6.8	5.9	1.9	5.7	7.8	2.0	4.0	3.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	51.0	41.1	74.2	37.7	34.5	76.4	27.8	23.1	59.4	11.2	8.2
LnGrp LOS	E	D	D	E	D	С	E	С	С	E	В	<u>A</u>
Approach Vol, veh/h		889			741			993			1193	
Approach Delay, s/veh		51.2			46.5			34.9			16.4	
Approach LOS		D			D			С			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	54.5	18.9	31.4	16.8	52.9	13.4	36.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	16.6	38.4	17.5	28.0	14.5	40.5	14.8	30.7				
Max Q Clear Time (g_c+l1), s	10.7	20.5	14.3	22.6	12.3	16.7	9.1	15.5				
Green Ext Time (p_c), s	0.1	4.8	0.1	2.2	0.1	7.3	0.1	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									
Michael Baker

Appendix D: Opening Year 2026 Without Project Synchro Worksheets

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ካካ	^	1	5	^	1	ሻሻ	1		ካካ	† Ъ	
Traffic Volume (veh/h)	164	502	118	67	730	57	238	381	91	92	440	155
Future Volume (veh/h)	164	502	118	67	730	57	238	381	91	92	440	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	523	123	71	768	60	262	419	100	112	537	189
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.91	0.91	0.91	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	982	567	91	928	414	328	1330	315	166	1082	379
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.03	0.15	0.15	0.05	0.42	0.42
Sat Flow, veh/h	3456	3554	1508	1781	3554	1585	3456	2851	675	3456	2580	905
Grp Volume(v), veh/h	171	523	123	71	768	60	262	260	259	112	369	357
Grp Sat Flow(s),veh/h/ln	1728	1777	1508	1781	1777	1585	1728	1777	1749	1728	1777	1708
Q Serve(g_s), s	5.8	15.0	6.7	4.7	24.4	3.5	9.0	15.6	15.8	3.8	18.3	18.4
Cycle Q Clear(g_c), s	5.8	15.0	6.7	4.7	24.4	3.5	9.0	15.6	15.8	3.8	18.3	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.53
Lane Grp Cap(c), veh/h	228	982	567	91	928	414	328	829	816	166	745	716
V/C Ratio(X)	0.75	0.53	0.22	0.78	0.83	0.14	0.80	0.31	0.32	0.68	0.50	0.50
Avail Cap(c_a), veh/h	302	1111	622	156	1111	495	446	829	816	245	745	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	36.9	25.8	56.3	41.8	34.0	57.0	33.7	33.8	56.2	25.5	25.6
Incr Delay (d2), s/veh	7.0	0.6	0.3	13.4	5.0	0.2	6.6	0.9	0.9	4.7	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	2.7	6.4	2.4	2.4	11.0	1.3	4.4	7.6	7.6	1.8	8.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	37.5	26.1	69.6	46.8	34.3	63.6	34.6	34.7	61.0	27.9	28.0
LnGrp LOS	E	D	С	E	D	С	E	С	С	E	С	<u> </u>
Approach Vol, veh/h		817			899			781			838	
Approach Delay, s/veh		40.9			47.7			44.4			32.4	
Approach LOS		D			D			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	61.5	10.6	37.7	15.9	55.8	12.4	35.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	44.5	10.5	37.5	15.5	37.5	10.5	37.5				
Max Q Clear Time (g_c+I1), s	5.8	17.8	6.7	17.0	11.0	20.4	7.8	26.4				
Green Ext Time (p_c), s	0.1	4.4	0.0	5.0	0.4	5.5	0.1	4.9				
Intersection Summary												
HCM 6th Ctrl Delay			41.4									
HCM 6th LOS			D									

Notes

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ካካ	^	1	5	**	1	ሻሻ	1		ካካ	1	
Traffic Volume (veh/h)	253	875	136	177	456	107	201	532	137	206	529	101
Future Volume (veh/h)	253	875	136	177	456	107	201	532	137	206	529	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	291	1006	156	192	496	116	223	591	152	224	575	110
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	1123	601	220	1197	517	281	891	229	280	949	181
Arrive On Green	0.10	0.32	0.32	0.12	0.34	0.34	0.03	0.11	0.11	0.08	0.32	0.32
Sat Flow, veh/h	3456	3554	1496	1781	3554	1534	3456	2774	711	3456	2956	564
Grp Volume(v), veh/h	291	1006	156	192	496	116	223	378	365	224	345	340
Grp Sat Flow(s),veh/h/ln	1728	1777	1496	1781	1777	1534	1728	1777	1709	1728	1777	1743
Q Serve(g_s), s	9.9	32.4	8.4	12.7	12.9	6.5	7.7	24.5	24.7	7.6	19.6	19.8
Cycle Q Clear(g_c), s	9.9	32.4	8.4	12.7	12.9	6.5	7.7	24.5	24.7	7.6	19.6	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.32
Lane Grp Cap(c), veh/h	355	1123	601	220	1197	517	281	571	549	280	570	559
V/C Ratio(X)	0.82	0.90	0.26	0.87	0.41	0.22	0.79	0.66	0.67	0.80	0.60	0.61
Avail Cap(c_a), veh/h	478	1170	621	260	1197	517	302	571	549	305	570	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	39.2	24.3	51.7	30.7	28.5	57.4	47.4	47.4	54.2	34.3	34.4
Incr Delay (d2), s/veh	8.1	9.3	0.3	23.6	0.3	0.3	12.0	5.5	5.8	13.2	4.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	4.6	14.9	2.9	7.0	5.4	2.4	3.9	12.5	12.2	3.8	9.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	48.4	24.7	75.2	31.0	28.9	69.4	52.9	53.3	67.4	39.0	39.2
LnGrp LOS	Е	D	С	Е	С	С	Е	D	D	E	D	D
Approach Vol, veh/h		1453			804			966			909	
Approach Delay, s/veh		48.4			41.3			56.8			46.1	
Approach LOS		D			D			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	44.1	19.3	42.4	14.3	44.0	16.8	44.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax), s	10.6	33.4	17.5	39.5	10.5	33.5	16.6	40.4				
Max Q Clear Time (q c+l1), s	9.6	26.7	14.7	34.4	9.7	21.8	11.9	14.9				
Green Ext Time (p_c), s	0.1	3.1	0.1	3.5	0.1	4.2	0.4	5.0				
Intersection Summarv												
HCM 6th Ctrl Delav			48.5									
HCM 6th LOS			D									
Notes												

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	1	7	^	1	7	1	
Traffic Volume (veh/h)	14	18	28	260	25	188	83	585	148	63	594	17
Future Volume (veh/h)	14	18	28	260	25	188	83	585	148	63	594	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	20	25	39	310	30	224	104	731	185	68	639	18
Peak Hour Factor	0.71	0.71	0.71	0.84	0.84	0.84	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	49	43	251	19	679	230	1395	625	88	1101	31
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.26	0.79	0.79	0.02	0.10	0.10
Sat Flow, veh/h	0	112	97	442	43	1552	1781	3554	1593	1781	3524	99
Grp Volume(v), veh/h	84	0	0	340	0	224	104	731	185	68	322	335
Grp Sat Flow(s),veh/h/ln	209	0	0	485	0	1552	1781	1777	1593	1781	1777	1846
Q Serve(q s), s	0.0	0.0	0.0	0.0	0.0	11.4	5.9	9.0	3.9	4.6	20.7	20.8
Cycle Q Clear(q c), s	52.5	0.0	0.0	52.5	0.0	11.4	5.9	9.0	3.9	4.6	20.7	20.8
Prop In Lane	0.24		0.46	0.91		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	129	0	0	269	0	679	230	1395	625	88	555	577
V/C Ratio(X)	0.65	0.00	0.00	1.26	0.00	0.33	0.45	0.52	0.30	0.78	0.58	0.58
Avail Cap(c a), veh/h	129	0	0	269	0	679	230	1395	625	171	555	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	28.8	0.0	0.0	39.3	0.0	22.2	40.9	8.8	8.3	58.4	46.3	46.3
Incr Delay (d2), s/veh	12.6	0.0	0.0	144.3	0.0	0.4	6.3	1.4	1.2	4.7	3.7	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	19.0	0.0	4.2	2.8	2.6	1.4	2.2	10.4	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	0.0	0.0	183.6	0.0	22.6	47.2	10.2	9.5	63.0	50.0	49.9
LnGrp LOS	D	А	А	F	А	С	D	В	А	E	D	D
Approach Vol. veh/h		84			564			1020			725	
Approach Delay, s/yeh		41.4			119.7			13.9			51.2	
Approach LOS		D			F			В			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	52.6		57.0	20.0	43.0		57.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g_c+I1), s	6.6	11.0		54.5	7.9	22.8		54.5				
Green Ext Time (p_c), s	0.0	8.8		0.0	0.0	4.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			51.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ŧ	1	7	^	1	7	1	
Traffic Volume (veh/h)	28	26	30	135	32	131	68	706	166	150	826	33
Future Volume (veh/h)	28	26	30	135	32	131	68	706	166	150	826	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	36	33	38	145	34	141	73	759	178	161	888	35
Peak Hour Factor	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	62	49	233	45	434	230	1779	814	171	1626	64
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.26	1.00	1.00	0.03	0.15	0.15
Sat Flow, veh/h	96	218	173	632	160	1536	1781	3554	1626	1781	3479	137
Grp Volume(v), veh/h	107	0	0	179	0	141	73	759	178	161	454	469
Grp Sat Flow(s),veh/h/ln	487	0	0	793	0	1536	1781	1777	1626	1781	1777	1839
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	8.7	4.0	0.0	0.0	10.8	28.3	28.3
Cycle Q Clear(g_c), s	31.2	0.0	0.0	27.4	0.0	8.7	4.0	0.0	0.0	10.8	28.3	28.3
Prop In Lane	0.34		0.36	0.81		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	178	0	0	278	0	434	230	1779	814	171	830	860
V/C Ratio(X)	0.60	0.00	0.00	0.64	0.00	0.32	0.32	0.43	0.22	0.94	0.55	0.55
Avail Cap(c_a), veh/h	407	0	0	494	0	672	230	1779	814	171	830	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	40.9	0.0	0.0	40.5	0.0	34.0	40.2	0.0	0.0	57.8	39.0	39.0
Incr Delay (d2), s/veh	4.6	0.0	0.0	3.5	0.0	0.6	3.6	0.8	0.6	42.1	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.4	0.0	0.0	5.2	0.0	3.3	1.9	0.2	0.1	7.1	13.9	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	0.0	44.0	0.0	34.6	43.8	0.8	0.6	99.8	40.8	40.8
LnGrp LOS	D	А	А	D	А	С	D	А	А	F	D	D
Approach Vol, veh/h		107			320			1010			1084	
Approach Delay, s/veh		45.5			39.9			3.8			49.6	
Approach LOS		D			D			А			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	65.6		38.4	20.0	61.6		38.4				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g_c+I1), s	12.8	2.0		33.2	6.0	30.3		29.4				
Green Ext Time (p_c), s	0.0	9.7		0.7	0.0	4.0		2.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.8									
HCM 6th LOS			С									

Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		1	**	1	5	**
Traffic Vol, veh/h	0	6	816	4	5	971
Future Vol, veh/h	0	6	816	4	5	971
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	80	-
Veh in Median Storage	e, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	887	4	5	1055

Major/Minor	Minor1	Μ	lajor1	Ν	1ajor2			
Conflicting Flow All	-	444	0	0	891	0		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.94	-	-	4.14	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	-	-	2.22	-		
Pot Cap-1 Maneuver	0	561	-	-	757	-		
Stage 1	0	-	-	-	-	-		
Stage 2	0	-	-	-	-	-		
Platoon blocked, %			-	-		-		
Mov Cap-1 Maneuver	• -	561	-	-	757	-		
Mov Cap-2 Maneuver	· _	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Approach	WB		NB		SB			
HCM Control Delay, s	11.5		0		0.1			
HCM LOS	В							

Minor Lane/Major Mvmt	NBT	NBRV	VBLn1	SBL	SBT	
Capacity (veh/h)	-	-	561	757	-	
HCM Lane V/C Ratio	-	-	0.012	0.007	-	
HCM Control Delay (s)	-	-	11.5	9.8	-	
HCM Lane LOS	-	-	В	А	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Int Delay, s/veh

Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		1	**	1	5	**
Traffic Vol, veh/h	0	17	939	8	10	989
Future Vol, veh/h	0	17	939	8	10	989
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	80	-
Veh in Median Storage	, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	1021	9	11	1075

Major/Minor	Minor1	Μ	ajor1	Ν	/lajor2					
Conflicting Flow All	-	511	0	0	1030	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.94	-	-	4.14	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.32	-	-	2.22	-				
Pot Cap-1 Maneuver	0	508	-	-	670	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %			-	-		-				
Mov Cap-1 Maneuver	· -	508	-	-	670	-				
Mov Cap-2 Maneuver	· _	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Approach	WB		NB		SB					
HCM Control Delay, s	12.4		0		0.1					

HCM LOS В

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	- 508	670	-	
HCM Lane V/C Ratio	-	- 0.036	0.016	-	
HCM Control Delay (s)	-	- 12.4	10.5	-	
HCM Lane LOS	-	- B	В	-	
HCM 95th %tile Q(veh)	-	- 0.1	0	-	

Int Delay, s/veh	0							
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations		1	≜ ₽			**		
Traffic Vol, veh/h	0	0	820	0	0	971		
Future Vol, veh/h	0	0	820	0	0	971		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Stop	Stop	Free	Free	Free	Free		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	0	-	-	-	-		
Veh in Median Storage	, # 0	-	0	-	-	0		
Grade, %	0	-	0	-	-	0		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	0	0	891	0	0	1055		

Major/Minor	Minor1	Ν	1ajor1	Ma	jor2				
Conflicting Flow All	-	446	0	0	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.94	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.32	-	-	-	-			
Pot Cap-1 Maneuver	0	560	-	-	0	-			
Stage 1	0	-	-	-	0	-			
Stage 2	0	-	-	-	0	-			
Platoon blocked, %			-	-		-			
Mov Cap-1 Maneuver	-	560	-	-	-	-			
Mov Cap-2 Maneuver	-	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Approach	WB		NB		SB				
HCM Control Delay, s	0		0		0				

HCM LOS А

Minor Lane/Major Mvmt	NBT	NBRW	BLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	А	-
HCM 95th %tile Q(veh)	-	-	-	-

Int Delay, s/veh	0						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations		1	1			**	
Traffic Vol, veh/h	0	0	947	0	0	989	
Future Vol, veh/h	0	0	947	0	0	989	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	-	-	-	
Veh in Median Storage	e, # 0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	0	1029	0	0	1075	

Major/Minor	Minor1	M	ajor1	Ма	ajor2	
Conflicting Flow All	-	515	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	505	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	· -	505	-	-	-	-
Mov Cap-2 Maneuver	· -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	0		0		0	

HCM LOS А

Minor Lane/Major Mvmt	NBT	NBRW	BLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	А	-
HCM 95th %tile Q(veh)	-	-	-	-

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1		7	* 1-		7	^	1	5	^	1
Traffic Volume (veh/h)	145	410	129	102	831	28	121	574	52	38	646	288
Future Volume (veh/h)	145	410	129	102	831	28	121	574	52	38	646	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	471	148	123	1001	34	151	718	65	44	743	331
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.80	0.80	0.80	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	895	279	149	1082	37	179	1362	592	56	1117	444
Arrive On Green	0.11	0.34	0.34	0.08	0.31	0.31	0.03	0.13	0.13	0.06	0.63	0.63
Sat Flow, veh/h	1781	2639	822	1781	3497	119	1781	3554	1544	1781	3554	1412
Grp Volume(v), veh/h	167	316	303	123	509	526	151	718	65	44	743	331
Grp Sat Flow(s),veh/h/ln	1781	1777	1684	1781	1777	1839	1781	1777	1544	1781	1777	1412
Q Serve(g_s), s	11.1	17.1	17.4	8.2	33.2	33.2	10.1	22.7	4.5	2.9	16.0	19.7
Cycle Q Clear(g_c), s	11.1	17.1	17.4	8.2	33.2	33.2	10.1	22.7	4.5	2.9	16.0	19.7
Prop In Lane	1.00		0.49	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	602	571	149	550	569	179	1362	592	56	1117	444
V/C Ratio(X)	0.86	0.52	0.53	0.83	0.93	0.93	0.84	0.53	0.11	0.78	0.67	0.75
Avail Cap(c_a), veh/h	223	602	571	235	563	582	215	1362	592	107	1117	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	31.9	32.0	54.1	40.1	40.1	57.1	42.2	34.3	55.8	18.3	18.9
Incr Delay (d2), s/veh	22.6	1.1	1.2	6.6	21.4	20.9	16.2	1.2	0.3	8.5	3.1	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	6.1	7.4	7.1	3.9	17.3	17.8	5.6	11.0	1.7	1.4	4.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	33.0	33.2	60.8	61.5	61.0	73.3	43.4	34.6	64.3	21.4	29.8
LnGrp LOS	E	С	С	E	E	E	E	D	С	E	С	<u> </u>
Approach Vol, veh/h		786			1158			934			1118	
Approach Delay, s/veh		42.0			61.2			47.6			25.6	
Approach LOS		D			E			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	51.5	14.5	45.7	16.6	43.2	18.1	42.1				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	7.2	39.8	15.8	37.7	14.5	32.5	15.0	38.0				
Max Q Clear Time (g_c+I1), s	4.9	24.7	10.2	19.4	12.1	21.7	13.1	35.2				
Green Ext Time (p_c), s	0.0	5.7	0.0	4.8	0.0	5.9	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			44.3									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	* 1 ₂		5	* 1 ₂		5	**	1	5	**	1
Traffic Volume (veh/h)	180	619	88	83	399	34	93	725	70	76	718	197
Future Volume (veh/h)	180	619	88	83	399	34	93	725	70	76	718	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.94	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	196	673	96	95	459	39	108	843	81	79	748	205
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.86	0.86	0.86	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	857	122	119	706	60	111	1602	698	77	1534	669
Arrive On Green	0.13	0.28	0.28	0.07	0.21	0.21	0.02	0.15	0.15	0.09	0.86	0.86
Sat Flow, veh/h	1781	3094	441	1781	3307	280	1781	3554	1549	1781	3554	1551
Grp Volume(v), veh/h	196	386	383	95	246	252	108	843	81	79	748	205
Grp Sat Flow(s).veh/h/ln	1781	1777	1758	1781	1777	1810	1781	1777	1549	1781	1777	1551
Q Serve(q s), s	13.0	24.1	24.2	6.3	15.2	15.3	7.3	26.3	5.4	5.2	6.0	2.9
Cycle Q Clear(q c), s	13.0	24.1	24.2	6.3	15.2	15.3	7.3	26.3	5.4	5.2	6.0	2.9
Prop In Lane	1.00		0.25	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	492	487	119	379	386	111	1602	698	77	1534	669
V/C Ratio(X)	0.87	0.78	0.79	0.80	0.65	0.65	0.97	0.53	0.12	1.02	0.49	0.31
Avail Cap(c a), veh/h	453	675	668	229	444	452	111	1602	698	77	1534	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	40.1	40.1	55.2	43.1	43.1	58.7	39.2	30.4	54.8	5.1	4.9
Incr Delay (d2), s/veh	4.2	5.2	5.3	4.6	3.3	3.3	67.5	1.0	0.3	109.0	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	5.9	10.9	10.9	2.9	6.9	7.1	5.4	12.7	2.1	4.5	1.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	45.3	45.4	59.9	46.4	46.5	126.2	40.3	30.6	163.8	6.2	6.0
LnGrp LOS	E	D	D	Е	D	D	F	D	С	F	А	А
Approach Vol, veh/h		965			593			1032			1032	
Approach Delay, s/veh		47.4			48.6			48.5			18.2	
Approach LOS		D			D			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	59.6	12.5	38.2	12.0	57.3	20.1	30.6				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	5.2	34.3	15.4	45.6	7.5	32.0	30.5	30.0				
Max Q Clear Time (g_c+I1), s	7.2	28.3	8.3	26.2	9.3	8.0	15.0	17.3				
Green Ext Time (p_c), s	0.0	3.5	0.0	6.2	0.0	8.4	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	≜1 ≱		7	≜1 ≱		ň	^	1	ľ	^	1
Traffic Volume (veh/h)	160	324	115	105	510	37	123	572	51	74	753	165
Future Volume (veh/h)	160	324	115	105	510	37	123	572	51	74	753	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	390	139	135	654	47	154	715	64	82	837	183
Peak Hour Factor	0.83	0.83	0.83	0.78	0.78	0.78	0.80	0.80	0.80	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	638	224	162	726	52	178	1592	694	104	1443	632
Arrive On Green	0.12	0.25	0.25	0.09	0.22	0.22	0.20	0.90	0.90	0.08	0.54	0.54
Sat Flow, veh/h	1781	2563	901	1781	3356	241	1781	3554	1550	1781	3554	1556
Grp Volume(v), veh/h	193	269	260	135	346	355	154	715	64	82	837	183
Grp Sat Flow(s),veh/h/ln	1781	1777	1687	1781	1777	1821	1781	1777	1550	1781	1777	1556
Q Serve(g_s), s	12.8	16.1	16.4	8.9	22.7	22.8	10.0	4.2	0.6	5.4	18.9	7.7
Cycle Q Clear(g_c), s	12.8	16.1	16.4	8.9	22.7	22.8	10.0	4.2	0.6	5.4	18.9	7.7
Prop In Lane	1.00		0.53	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	442	420	162	384	394	178	1592	694	104	1443	632
V/C Ratio(X)	0.88	0.61	0.62	0.83	0.90	0.90	0.86	0.45	0.09	0.79	0.58	0.29
Avail Cap(c_a), veh/h	252	442	420	258	400	410	223	1592	694	177	1443	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	0.63	0.63	0.63
Uniform Delay (d), s/veh	51.7	39.9	40.0	53.7	45.8	45.8	47.2	3.7	3.5	54.7	20.8	18.2
Incr Delay (d2), s/veh	23.3	2.8	3.3	6.3	22.8	22.7	18.5	0.8	0.2	3.2	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	7.4	7.2	4.3	12.4	12.7	4.9	1.2	0.2	2.5	6.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.0	42.7	43.3	59.9	68.5	68.4	65.7	4.5	3.7	57.9	21.8	18.9
LnGrp LOS	E	D	D	E	E	E	E	Α	Α	E	С	B
Approach Vol, veh/h		722			836			933			1102	
Approach Delay, s/veh		51.6			67.1			14.5			24.0	
Approach LOS		D			Е			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	59.3	14.9	34.9	16.0	54.2	18.8	31.0				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (g_c+I1), s	7.4	6.2	10.9	18.4	12.0	20.9	14.8	24.8				
Green Ext Time (p_c), s	0.0	8.2	0.1	2.7	0.1	8.8	0.1	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			37.1									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	* 1,		5	* 1,		5	**	1	5	**	7
Traffic Volume (veh/h)	170	479	139	118	321	57	109	686	60	146	758	151
Future Volume (veh/h)	170	479	139	118	321	57	109	686	60	146	758	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	494	143	140	382	68	118	746	65	157	815	162
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.92	0.92	0.92	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	560	161	167	569	100	142	1577	686	177	1646	719
Arrive On Green	0.11	0.21	0.21	0.09	0.19	0.19	0.16	0.89	0.89	0.13	0.62	0.62
Sat Flow, veh/h	1781	2677	768	1781	3007	530	1781	3554	1547	1781	3554	1551
Grp Volume(v), veh/h	175	326	311	140	224	226	118	746	65	157	815	162
Grp Sat Flow(s),veh/h/ln	1781	1777	1668	1781	1777	1761	1781	1777	1547	1781	1777	1551
Q Serve(g_s), s	11.6	21.4	21.7	9.3	14.0	14.3	7.7	4.9	0.6	10.4	15.2	5.6
Cycle Q Clear(g_c), s	11.6	21.4	21.7	9.3	14.0	14.3	7.7	4.9	0.6	10.4	15.2	5.6
Prop In Lane	1.00		0.46	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	371	349	167	336	333	142	1577	686	177	1646	719
V/C Ratio(X)	0.87	0.88	0.89	0.84	0.67	0.68	0.83	0.47	0.09	0.89	0.50	0.23
Avail Cap(c_a), veh/h	252	394	370	258	400	396	223	1577	686	177	1646	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83	0.78	0.78	0.78
Uniform Delay (d), s/veh	52.3	46.0	46.1	53.5	45.1	45.2	49.6	4.0	3.8	51.4	15.3	13.4
Incr Delay (d2), s/veh	19.0	19.7	22.4	7.9	4.1	4.5	6.4	0.8	0.2	31.1	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	6.2	11.4	11.1	4.5	6.6	6.7	3.4	1.4	0.3	5.9	5.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	65.7	68.5	61.4	49.2	49.7	56.1	4.9	4.0	82.6	16.1	14.0
LnGrp LOS	E	E	E	E	D	D	E	A	A	F	В	<u> </u>
Approach Vol, veh/h		812			590			929			1134	
Approach Delay, s/veh		68.0			52.3			11.3			25.0	
Approach LOS		E			D			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	58.8	15.3	30.1	13.6	61.1	17.6	27.7				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (g_c+I1), s	12.4	6.9	11.3	23.7	9.7	17.2	13.6	16.3				
Green Ext Time (p_c), s	0.0	8.6	0.1	1.4	0.1	9.0	0.1	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			36.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	^	1									
Traffic Volume (veh/h)	69	429	116	81	736	34	246	630	119	89	728	134
Future Volume (veh/h)	69	429	116	81	736	34	246	630	119	89	728	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	530	143	88	800	37	276	708	134	100	818	151
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	872	380	111	879	386	302	1637	719	123	1280	559
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.17	0.46	0.46	0.14	0.72	0.72
Sat Flow, veh/h	1781	3554	1548	1781	3554	1559	1781	3554	1561	1781	3554	1551
Grp Volume(v), veh/h	85	530	143	88	800	37	276	708	134	100	818	151
Grp Sat Flow(s),veh/h/ln	1781	1777	1548	1781	1777	1559	1781	1777	1561	1781	1777	1551
Q Serve(g_s), s	5.7	15.9	9.2	5.8	26.2	2.2	18.3	16.1	6.1	6.5	14.3	4.1
Cycle Q Clear(g_c), s	5.7	15.9	9.2	5.8	26.2	2.2	18.3	16.1	6.1	6.5	14.3	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	872	380	111	879	386	302	1637	719	123	1280	559
V/C Ratio(X)	0.79	0.61	0.38	0.80	0.91	0.10	0.91	0.43	0.19	0.81	0.64	0.27
Avail Cap(c_a), veh/h	126	888	387	141	918	403	319	1637	719	200	1280	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	55.7	40.2	37.6	55.5	43.9	34.8	48.9	21.8	19.1	50.9	12.7	11.3
Incr Delay (d2), s/veh	24.9	1.2	0.6	21.1	12.6	0.1	28.4	0.8	0.6	8.9	1.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.3	7.1	3.6	3.3	13.0	0.9	10.3	6.7	2.3	3.0	3.9	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	41.3	38.3	76.6	56.5	34.9	77.4	22.6	19.7	59.8	14.5	12.2
LnGrp LOS	F	D	D	E	E	С	E	С	В	E	В	B
Approach Vol, veh/h		758			925			1118			1069	
Approach Delay, s/veh		45.1			57.5			35.8			18.4	
Approach LOS		D			E			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	60.8	12.0	34.4	24.9	48.7	11.7	34.7				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	13.5	47.5	9.5	30.0	21.5	39.5	8.5	31.0				
Max Q Clear Time (g_c+I1), s	8.5	18.1	7.8	17.9	20.3	16.3	7.7	28.2				
Green Ext Time (p_c), s	0.1	5.5	0.0	3.2	0.1	6.2	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			38.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

	٠	-+	\mathbf{r}	1	+	*	1	t	1	1	ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	1	7	^	1	7	^	1	5	^	1
Traffic Volume (veh/h)	99	600	138	175	456	79	153	675	96	115	825	86
Future Volume (veh/h)	99	600	138	175	456	79	153	675	96	115	825	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	652	150	186	485	84	166	734	104	134	959	100
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	785	333	214	946	416	193	1445	634	159	1378	597
Arrive On Green	0.08	0.22	0.22	0.12	0.27	0.27	0.11	0.41	0.41	0.18	0.78	0.78
Sat Flow, veh/h	1781	3554	1506	1781	3554	1562	1781	3554	1558	1781	3554	1539
Grp Volume(v), veh/h	108	652	150	186	485	84	166	734	104	134	959	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1506	1781	1777	1562	1781	1777	1558	1781	1777	1539
Q Serve(g_s), s	7.2	21.0	10.3	12.3	13.9	5.0	11.0	18.5	5.1	8.7	15.8	2.0
Cycle Q Clear(g_c), s	7.2	21.0	10.3	12.3	13.9	5.0	11.0	18.5	5.1	8.7	15.8	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	785	333	214	946	416	193	1445	634	159	1378	597
V/C Ratio(X)	0.81	0.83	0.45	0.87	0.51	0.20	0.86	0.51	0.16	0.84	0.70	0.17
Avail Cap(c_a), veh/h	220	829	351	260	946	416	215	1445	634	246	1378	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	54.6	44.6	40.4	51.9	37.4	34.2	52.6	26.6	22.6	48.4	10.0	8.5
Incr Delay (d2), s/veh	10.8	6.8	1.0	22.4	0.5	0.2	26.0	1.3	0.6	11.5	2.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.6	10.0	3.9	6.8	6.1	1.9	6.2	7.9	2.0	4.0	3.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	51.4	41.4	74.2	37.9	34.4	78.6	27.9	23.2	59.9	12.3	8.9
LnGrp LOS	E	D	D	E	D	С	E	С	С	E	В	<u> </u>
Approach Vol, veh/h		910			755			1004			1193	
Approach Delay, s/veh		51.4			46.5			35.8			17.4	
Approach LOS		D			D			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	54.3	18.9	31.5	17.5	52.0	13.5	36.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	16.6	38.4	17.5	28.0	14.5	40.5	14.8	30.7				
Max Q Clear Time (g_c+I1), s	10.7	20.5	14.3	23.0	13.0	17.8	9.2	15.9				
Green Ext Time (p_c), s	0.1	4.8	0.1	2.2	0.1	7.1	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

Michael Baker

Appendix E: Opening Year 2026 With Project Synchro Worksheets

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኘኘ	<u>†</u> †	1	۲.	<u>†</u> †	1	ሻሻ	A1⊅		ኘኘ	A1⊅	
Traffic Volume (veh/h)	164	502	123	72	730	57	244	424	97	92	478	155
Future Volume (veh/h)	164	502	123	72	730	57	244	424	97	92	478	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	523	128	76	768	60	268	466	107	112	583	189
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.91	0.91	0.91	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	970	564	97	928	414	334	1340	306	166	1103	357
Arrive On Green	0.07	0.27	0.27	0.05	0.26	0.26	0.03	0.15	0.15	0.05	0.42	0.42
Sat Flow, veh/h	3456	3554	1507	1781	3554	1585	3456	2874	655	3456	2640	854
Grp Volume(v), veh/h	171	523	128	76	768	60	268	287	286	112	392	380
Grp Sat Flow(s),veh/h/ln	1728	1777	1507	1781	1777	1585	1728	1777	1752	1728	1777	1717
Q Serve(g_s), s	5.8	15.1	7.0	5.1	24.4	3.5	9.2	17.3	17.5	3.8	19.8	19.9
Cycle Q Clear(g_c), s	5.8	15.1	7.0	5.1	24.4	3.5	9.2	17.3	17.5	3.8	19.8	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.50
Lane Grp Cap(c), veh/h	228	970	564	97	928	414	334	829	817	166	742	717
V/C Ratio(X)	0.75	0.54	0.23	0.78	0.83	0.14	0.80	0.35	0.35	0.68	0.53	0.53
Avail Cap(c_a), veh/h	302	1111	624	156	1111	495	446	829	817	245	742	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	37.2	26.1	56.0	41.8	34.0	57.0	34.4	34.5	56.2	26.1	26.1
Incr Delay (d2), s/veh	7.0	0.7	0.3	12.9	5.0	0.2	6.9	1.0	1.1	4.7	2.7	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.4	2.5	2.6	11.0	1.3	4.5	8.5	8.4	1.8	8.6	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	37.9	26.4	68.9	46.8	34.3	63.9	35.5	35.6	61.0	28.8	28.9
LnGrp LOS	E	D	С	E	D	С	E	D	D	E	С	<u> </u>
Approach Vol, veh/h		822			904			841			884	
Approach Delay, s/veh		41.1			47.8			44.6			32.9	
Approach LOS		D			D			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	61.5	11.0	37.3	16.1	55.6	12.4	35.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	44.5	10.5	37.5	15.5	37.5	10.5	37.5				
Max Q Clear Time (g_c+l1), s	5.8	19.5	7.1	17.1	11.2	21.9	7.8	26.4				
Green Ext Time (p_c), s	0.1	4.9	0.0	5.0	0.3	5.7	0.1	4.9				
Intersection Summary												
HCM 6th Ctrl Delay			41.6									
HCM 6th LOS			л.0 П									
			U									

Notes

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			र्स	1	۲	<u></u>	1	ľ	↑ 1≱	
Traffic Volume (veh/h)	14	18	28	260	25	188	136	641	148	63	644	17
Future Volume (veh/h)	14	18	28	260	25	188	136	641	148	63	644	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	20	25	39	310	30	224	170	801	185	68	692	18
Peak Hour Factor	0.71	0.71	0.71	0.84	0.84	0.84	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	49	43	251	19	679	230	1395	625	88	1104	29
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.26	0.79	0.79	0.02	0.10	0.10
Sat Flow, veh/h	0	113	98	444	43	1552	1781	3554	1593	1781	3533	92
Grp Volume(v), veh/h	84	0	0	340	0	224	170	801	185	68	348	362
Grp Sat Flow(s),veh/h/ln	210	0	0	486	0	1552	1781	1777	1593	1781	1777	1848
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.4	10.5	10.6	3.9	4.6	22.5	22.5
Cycle Q Clear(g_c), s	52.5	0.0	0.0	52.5	0.0	11.4	10.5	10.6	3.9	4.6	22.5	22.5
Prop In Lane	0.24		0.46	0.91		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	129	0	0	270	0	679	230	1395	625	88	555	577
V/C Ratio(X)	0.65	0.00	0.00	1.26	0.00	0.33	0.74	0.57	0.30	0.78	0.63	0.63
Avail Cap(c_a), veh/h	129	0	0	270	0	679	230	1395	625	171	555	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	28.8	0.0	0.0	39.3	0.0	22.2	42.6	9.0	8.3	58.4	47.1	47.1
Incr Delay (d2), s/veh	12.4	0.0	0.0	142.7	0.0	0.4	19.0	1.7	1.2	4.5	4.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	18.9	0.0	4.2	5.3	2.9	1.4	2.2	11.4	11.8
Unsig. Movement Delay, s/veh							• • =		• -			
LnGrp Delay(d),s/veh	41.2	0.0	0.0	182.1	0.0	22.6	61.7	10.7	9.5	62.9	51.4	51.3
LnGrp LOS	D	A	A	F	A	С	E	В	A	E	D	D
Approach Vol, veh/h		84			564			1156			778	
Approach Delay, s/veh		41.2			118.7			18.0			52.4	
Approach LOS		D			F			В			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	52.6		57.0	20.0	43.0		57.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g_c+I1), s	6.6	12.6		54.5	12.5	24.5		54.5				
Green Ext Time (p_c), s	0.0	9.5		0.0	0.0	4.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			51.1									
HCM 6th LOS			D									

Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		1	- 11	1	۲,	^
Traffic Vol, veh/h	0	37	894	4	52	1027
Future Vol, veh/h	0	37	894	4	52	1027
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	80	-
Veh in Median Storage	,# 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	972	4	57	1116

Major/Minor	Minor1	Ν	/lajor1	Ν	lajor2	
Conflicting Flow All	-	486	0	0	976	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	527	-	-	703	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	· –	527	-	-	703	-
Mov Cap-2 Maneuver	· _	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	\\/D		ND		CD	

Approach	WB	NB	SB	
HCM Control Delay, s	12.4	0	0.5	
HCMLOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	- 527	703	-	
HCM Lane V/C Ratio	-	- 0.076	0.08	-	
HCM Control Delay (s)	-	- 12.4	10.6	-	
HCM Lane LOS	-	- B	В	-	
HCM 95th %tile Q(veh)	-	- 0.2	0.3	-	

Int Delay, s/veh	0.2						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations		1	_ ≜ î≽			^	
Traffic Vol, veh/h	0	35	862	26	0	1027	
Future Vol, veh/h	0	35	862	26	0	1027	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	-	-	-	
Veh in Median Storage	,# 0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	38	937	28	0	1116	

Major/Minor	Minor1	N	lajor1	Ма	ajor2				
Conflicting Flow All	-	483	0	0	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.94	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.32	-	-	-	-			
Pot Cap-1 Maneuver	0	530	-	-	0	-			
Stage 1	0	-	-	-	0	-			
Stage 2	0	-	-	-	0	-			
Platoon blocked, %			-	-		-			
Mov Cap-1 Maneuver	· -	530	-	-	-	-			
Mov Cap-2 Maneuver		-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
					~ ~				

Approach	WB	NB	SB	
HCM Control Delay, s	12.3	0	0	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 530	-
HCM Lane V/C Ratio	-	- 0.072	-
HCM Control Delay (s)	-	- 12.3	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Int Delay, s/veh	0.2							
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations		1	∱ î≽			- 11		
Traffic Vol, veh/h	0	30	858	26	0	1027		
Future Vol, veh/h	0	30	858	26	0	1027		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Stop	Stop	Free	Free	Free	Free		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	0	-	-	-	-		
Veh in Median Storage,	# 0	-	0	-	-	0		
Grade, %	0	-	0	-	-	0		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
M∨mt Flow	0	33	933	28	0	1116		

Major/Minor	Minor1	Ν	lajor1	Ма	ajor2	
Conflicting Flow All	-	481	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	531	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	· -	531	-	-	-	-
Mov Cap-2 Maneuver	· _	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Ammunanah			ND		CD	

Approach	WB	NB	SB	
HCM Control Delay, s	12.2	0	0	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 531	-
HCM Lane V/C Ratio	-	- 0.061	-
HCM Control Delay (s)	-	- 12.2	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	A1⊅		۲.	A1⊅		۲	<u></u>	1	۲	<u></u>	1
Traffic Volume (veh/h)	150	410	129	112	837	45	121	616	55	53	686	288
Future Volume (veh/h)	150	410	129	112	837	45	121	616	55	53	686	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	1.00		0.97	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	471	148	135	1008	54	151	770	69	61	789	331
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.80	0.80	0.80	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	907	282	161	1087	58	179	1278	555	78	1076	426
Arrive On Green	0.11	0.34	0.34	0.09	0.32	0.32	0.03	0.12	0.12	0.09	0.61	0.61
Sat Flow, veh/h	1781	2639	822	1781	3416	183	1781	3554	1543	1781	3554	1406
Grp Volume(v), veh/h	172	316	303	135	524	538	151	770	69	61	789	331
Grp Sat Flow(s),veh/h/ln	1781	1777	1685	1781	1777	1823	1781	1777	1543	1781	1777	1406
Q Serve(g_s), s	11.4	17.0	17.3	8.9	34.2	34.3	10.1	24.7	4.8	4.0	18.9	21.0
Cycle Q Clear(g_c), s	11.4	17.0	17.3	8.9	34.2	34.3	10.1	24.7	4.8	4.0	18.9	21.0
Prop In Lane	1.00		0.49	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	610	579	161	565	580	179	1278	555	78	1076	426
V/C Ratio(X)	0.86	0.52	0.52	0.84	0.93	0.93	0.84	0.60	0.12	0.78	0.73	0.78
Avail Cap(c_a), veh/h	223	610	579	240	577	592	209	1278	555	135	1076	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	31.4	31.5	53.7	39.6	39.6	57.1	44.7	36.0	54.2	20.2	20.6
Incr Delay (d2), s/veh	24.0	1.0	1.2	9.7	21.4	21.1	16.8	1.7	0.4	6.3	4.4	13.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	7.3	7.0	4.4	17.8	18.2	5.6	12.0	1.9	1.9	5.7	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.3	32.5	32.7	63.4	61.0	60.6	73.9	46.4	36.3	60.5	24.6	33.7
LnGrp LOS	E	С	С	E	E	E	E	D	D	E	С	C
Approach Vol, veh/h		791			1197			990			1181	
Approach Delay, s/veh		42.1			61.1			49.9			29.0	
Approach LOS		D			Е			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	48.7	15.4	46.2	16.6	41.8	18.4	43.2				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	9.1	36.9	16.2	38.3	14.1	31.9	15.0	39.0				
Max Q Clear Time (g_c+l1), s	6.0	26.7	10.9	19.3	12.1	23.0	13.4	36.3				
Green Ext Time (p_c), s	0.0	4.8	0.0	4.9	0.0	5.3	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			45.7									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	A12∍		ľ	∱1 }		1	<u></u>	1	1	^	1
Traffic Volume (veh/h)	160	324	115	105	510	37	123	617	51	74	803	165
Future Volume (veh/h)	160	324	115	105	510	37	123	617	51	74	803	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	390	139	135	654	47	154	771	64	82	892	183
Peak Hour Factor	0.83	0.83	0.83	0.78	0.78	0.78	0.80	0.80	0.80	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	638	224	162	726	52	178	1592	694	104	1443	632
Arrive On Green	0.12	0.25	0.25	0.09	0.22	0.22	0.20	0.90	0.90	0.08	0.54	0.54
Sat Flow, veh/h	1781	2563	901	1781	3356	241	1781	3554	1550	1781	3554	1556
Grp Volume(v), veh/h	193	269	260	135	346	355	154	771	64	82	892	183
Grp Sat Flow(s),veh/h/ln	1781	1777	1687	1781	1777	1821	1781	1777	1550	1781	1777	1556
Q Serve(g_s), s	12.8	16.1	16.4	8.9	22.7	22.8	10.0	4.8	0.6	5.4	20.8	7.7
Cycle Q Clear(g_c), s	12.8	16.1	16.4	8.9	22.7	22.8	10.0	4.8	0.6	5.4	20.8	7.7
Prop In Lane	1.00		0.53	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	442	420	162	384	394	178	1592	694	104	1443	632
V/C Ratio(X)	0.88	0.61	0.62	0.83	0.90	0.90	0.86	0.48	0.09	0.79	0.62	0.29
Avail Cap(c_a), veh/h	252	442	420	258	400	410	223	1592	694	177	1443	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.55	0.55	0.55
Uniform Delay (d), s/veh	51.7	39.9	40.0	53.7	45.8	45.8	47.2	3.7	3.5	54.7	21.2	18.2
Incr Delay (d2), s/veh	23.3	2.8	3.3	6.3	22.8	22.7	18.1	0.9	0.2	2.8	1.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	7.4	7.2	4.3	12.4	12.7	4.8	1.3	0.2	2.4	7.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.0	42.7	43.3	59.9	68.5	68.4	65.3	4.6	3.7	57.5	22.3	18.8
LnGrp LOS	E	D	D	E	E	E	E	Α	А	E	С	B
Approach Vol, veh/h		722			836			989			1157	
Approach Delay, s/veh		51.6			67.1			14.0			24.2	
Approach LOS		D			E			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	59.3	14.9	34.9	16.0	54.2	18.8	31.0				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (g_c+I1), s	7.4	6.8	10.9	18.4	12.0	22.8	14.8	24.8				
Green Ext Time (p_c), s	0.0	8.9	0.1	2.7	0.1	8.9	0.1	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			36.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲.	^	1	<u> </u>	^	1	ሻ	^	1	٦	<u>^</u>	1
Traffic Volume (veh/h)	74	429	116	81	736	39	246	663	119	95	765	140
Future Volume (veh/h)	74	429	116	81	736	39	246	663	119	95	765	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	530	143	88	800	42	276	745	134	107	860	157
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	886	386	111	879	386	302	1609	707	131	1267	553
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.17	0.45	0.45	0.15	0.71	0.71
Sat Flow, veh/h	1781	3554	1548	1781	3554	1559	1781	3554	1561	1781	3554	1551
Grp Volume(v), veh/h	91	530	143	88	800	42	276	745	134	107	860	157
Grp Sat Flow(s),veh/h/ln	1781	1777	1548	1781	1777	1559	1781	1777	1561	1781	1777	1551
Q Serve(g_s), s	6.0	15.8	9.2	5.8	26.2	2.5	18.3	17.4	6.2	7.0	16.2	4.4
Cycle Q Clear(g_c), s	6.0	15.8	9.2	5.8	26.2	2.5	18.3	17.4	6.2	7.0	16.2	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	886	386	111	879	386	302	1609	707	131	1267	553
V/C Ratio(X)	0.80	0.60	0.37	0.80	0.91	0.11	0.91	0.46	0.19	0.82	0.68	0.28
Avail Cap(c_a), veh/h	126	888	387	141	918	403	319	1609	707	200	1267	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	55.4	39.8	37.3	55.5	43.9	34.9	48.9	22.7	19.7	50.4	13.4	11.7
Incr Delay (d2), s/veh	27.3	1.1	0.6	21.1	12.6	0.1	28.4	1.0	0.6	10.2	2.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	3.6	7.0	3.6	3.3	13.0	1.0	10.3	7.2	2.4	3.2	4.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	40.9	37.9	76.6	56.4	35.0	77.4	23.7	20.3	60.6	15.5	12.6
LnGrp LOS	F	D	D	E	E	D	E	С	С	E	В	B
Approach Vol, veh/h		764			930			1155			1124	
Approach Delay, s/veh		45.3			57.4			36.1			19.4	
Approach LOS		D			E			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	59.8	12.0	34.9	24.9	48.3	12.2	34.7				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	13.5	47.5	9.5	30.0	21.5	39.5	8.5	31.0				
Max Q Clear Time (g_c+I1), s	9.0	19.4	7.8	17.8	20.3	18.2	8.0	28.2				
Green Ext Time (p_c), s	0.1	5.8	0.0	3.3	0.1	6.4	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			38.1									
HCM 6th LOS			D									

Int Delay, s/veh	0.3							
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	<u>ک</u>	- 11	- † 1-		Y			
Traffic Vol, veh/h	6	511	966	6	0	28		
Future Vol, veh/h	6	511	966	6	0	28		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	50	-	-	-	0	-		
Veh in Median Storage	, # -	0	0	-	0	-		
Grade, %	-	0	0	-	0	-		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	7	555	1050	7	0	30		

Major/Minor	Major1	Ν	/lajor2	[Minor2		
Conflicting Flow All	1057	0	-	0	1346	529	
Stage 1	-	-	-	-	1054	-	
Stage 2	-	-	-	-	292	-	
Critical Hdwy	4.14	-	-	-	6.84	6.94	
Critical Hdwy Stg 1	-	-	-	-	5.84	-	
Critical Hdwy Stg 2	-	-	-	-	5.84	-	
Follow-up Hdwy	2.22	-	-	-	3.52	3.32	
Pot Cap-1 Maneuver	655	-	-	-	143	494	
Stage 1	-	-	-	-	296	-	
Stage 2	-	-	-	-	732	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver	655	-	-	-	141	494	
Mov Cap-2 Maneuver	-	-	-	-	239	-	
Stage 1	-	-	-	-	293	-	
Stage 2	-	-	-	-	732	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0.1		0		12.8		
HCM LOS	••••				B		
N			EDT			201 - 4	
winor Lane/Wajor Mvr	nt	EBL	ERI	WRI	WRK 8	SBLN1	
Capacity (veh/h)		655	-	-	-	494	
HCM Lane V/C Ratio		0.01	-	-	-	0.062	
HCM Control Delay (s	5)	10.6	-	-	-	12.8	
HCM Lane LOS		В	-	-	-	B	
HCM 95th %tile Q(ver	ו)	0	-	-	-	0.2	

HCM 6th Signalized Intersection Summary 1: N Azusa Ave & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	^	1	۲	^	1	ሻሻ	4 12		ሻሻ	4 15	
Traffic Volume (veh/h)	253	875	141	182	456	107	205	561	141	206	562	101
Future Volume (veh/h)	253	875	141	182	456	107	205	561	141	206	562	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	291	1006	162	198	496	116	228	623	157	224	611	110
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	1123	604	226	1210	522	286	885	223	280	944	169
Arrive On Green	0.10	0.32	0.32	0.13	0.34	0.34	0.03	0.10	0.10	0.08	0.32	0.32
Sat Flow, veh/h	3456	3554	1496	1781	3554	1534	3456	2787	701	3456	2989	537
Grp Volume(v), veh/h	291	1006	162	198	496	116	228	397	383	224	363	358
Grp Sat Flow(s),veh/h/ln	1728	1777	1496	1781	1777	1534	1728	1777	1711	1728	1777	1749
Q Serve(g_s), s	9.9	32.4	8.8	13.1	12.8	6.5	7.9	25.9	26.0	7.6	21.0	21.2
Cycle Q Clear(g_c), s	9.9	32.4	8.8	13.1	12.8	6.5	7.9	25.9	26.0	7.6	21.0	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.31
Lane Grp Cap(c), veh/h	355	1123	604	226	1210	522	286	564	543	280	561	552
V/C Ratio(X)	0.82	0.90	0.27	0.88	0.41	0.22	0.80	0.70	0.71	0.80	0.65	0.65
Avail Cap(c_a), veh/h	478	1170	624	275	1226	529	311	564	543	305	561	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	39.2	24.3	51.4	30.3	28.2	57.4	48.2	48.3	54.2	35.3	35.3
Incr Delay (d2), s/veh	8.1	9.3	0.3	22.4	0.3	0.3	11.7	6.6	6.9	13.2	5.7	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	14.9	3.1	7.1	5.4	2.4	4.0	13.3	12.9	3.8	9.7	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	48.4	24.7	73.9	30.7	28.5	69.0	54.8	55.2	67.4	40.9	41.1
LnGrp LOS	E	D	С	E	С	С	E	D	Е	E	D	D
Approach Vol, veh/h		1459			810			1008			945	
Approach Delay, s/veh		48.3			40.9			58.2			47.3	
Approach LOS		D			D			E			D	
Timer - Assianed Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc) s	14.2	43.6	19.7	42.4	14.4	43.4	16.8	45.4				
Change Period (Y+Rc) s	4.5	5.5	4.5	4.5	4.5	5.5	4.5	4.5				
Max Green Setting (Gmax) s	10.6	32.4	18.5	39.5	10.8	32.2	16.6	41.4				
Max Q Clear Time (q. $c+11$) s	9.6	28.0	15.0	34.4	9.9	23.2	11.9	14.8				
Green Ext Time (n_c) s	0.1	2.3	0.2	3.5	0.1	37	0.4	5.1				
	5.1	2.0	0.2	5.0		5.1	5.1	.				
			40.0									
HCM 6th Ctrl Delay			49.0									
HUM 6th LUS			D									

Notes

User approved changes to right turn type.

HCM 6th Signalized Intersection Summary 2: N Azusa Ave & Covina Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			स्	1	5	44	1	5	≜ 16	
Traffic Volume (veh/h)	28	26	30	135	32	131	105	744	166	150	826	33
Future Volume (veh/h)	28	26	30	135	32	131	105	744	166	150	826	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1945	1870	1870	1870
Adj Flow Rate, veh/h	36	33	38	145	34	141	113	800	178	161	888	35
Peak Hour Factor	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	62	49	233	45	434	230	1779	814	171	1626	64
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.26	1.00	1.00	0.03	0.15	0.15
Sat Flow, veh/h	96	218	173	632	160	1536	1781	3554	1626	1781	3479	137
Grp Volume(v), veh/h	107	0	0	179	0	141	113	800	178	161	454	469
Grp Sat Flow(s),veh/h/ln	487	0	0	793	0	1536	1781	1777	1626	1781	1777	1839
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	8.7	6.5	0.0	0.0	10.8	28.3	28.3
Cycle Q Clear(g_c), s	31.2	0.0	0.0	27.4	0.0	8.7	6.5	0.0	0.0	10.8	28.3	28.3
Prop In Lane	0.34		0.36	0.81		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	178	0	0	278	0	434	230	1779	814	171	830	860
V/C Ratio(X)	0.60	0.00	0.00	0.64	0.00	0.32	0.49	0.45	0.22	0.94	0.55	0.55
Avail Cap(c_a), veh/h	407	0	0	494	0	672	230	1779	814	171	830	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	40.9	0.0	0.0	40.5	0.0	34.0	41.2	0.0	0.0	57.8	39.0	39.0
Incr Delay (d2), s/veh	4.6	0.0	0.0	3.5	0.0	0.6	7.3	0.8	0.6	41.7	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	5.2	0.0	3.3	3.1	0.2	0.1	7.1	13.8	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	0.0	44.0	0.0	34.6	48.5	0.8	0.6	99.5	40.8	40.7
LnGrp LOS	D	A	A	D	A	С	D	A	A	F	D	<u> </u>
Approach Vol, veh/h		107			320			1091			1084	
Approach Delay, s/veh		45.5			39.9			5.7			49.5	
Approach LOS		D			D			А			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	65.6		38.4	20.0	61.6		38.4				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	11.5	41.5		52.5	15.5	37.5		52.5				
Max Q Clear Time (g_c+I1), s	12.8	2.0		33.2	8.5	30.3		29.4				
Green Ext Time (p_c), s	0.0	10.3		0.7	0.0	4.0		2.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.8									
HCM 6th LOS			С									

Int Delay, s/veh	0.4						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations		1	- 11	1	<u>۲</u>	- 11	
Traffic Vol, veh/h	0	39	992	8	43	1035	
Future Vol, veh/h	0	39	992	8	43	1035	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	150	80	-	
Veh in Median Storage,	,#0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	42	1078	9	47	1125	

Major/Minor	Minor1	Ν	1ajor1	Ν	lajor2	
Conflicting Flow All	-	539	0	0	1087	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	487	-	-	638	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	487	-	-	638	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	

Approach	WB	NB	SB	
HCM Control Delay, s	13.1	0	0.4	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	- 487	638	-	
HCM Lane V/C Ratio	-	- 0.087	0.073	-	
HCM Control Delay (s)	-	- 13.1	11.1	-	
HCM Lane LOS	-	- B	В	-	
HCM 95th %tile Q(veh)	-	- 0.3	0.2	-	

Int Delay, s/veh	0.1						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations		1	- † 1-			- † †	
Traffic Vol, veh/h	0	24	976	18	0	1035	
Future Vol, veh/h	0	24	976	18	0	1035	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	-	-	-	
Veh in Median Storage,	# 0	-	0	-	-	0	
Grade, %	0	-	0	-	-	0	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	26	1061	20	0	1125	

Major/Minor	Minor1	Ν	/lajor1	Ma	ijor2			
Conflicting Flow All	-	541	0	0	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.94	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	-	-	-	-		
Pot Cap-1 Maneuver	0	485	-	-	0	-		
Stage 1	0	-	-	-	0	-		
Stage 2	0	-	-	-	0	-		
Platoon blocked, %			-	-		-		
Mov Cap-1 Maneuver	· -	485	-	-	-	-		
Mov Cap-2 Maneuver	· -	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		

Approach	WB	NB	SB	
HCM Control Delay, s	12.8	0	0	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 485	-
HCM Lane V/C Ratio	-	- 0.054	-
HCM Control Delay (s)	-	- 12.8	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Int Delay, s/veh	0.1							
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations		1	_ ≜ î≽			^		
Traffic Vol, veh/h	0	21	973	18	0	1035		
Future Vol, veh/h	0	21	973	18	0	1035		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Stop	Stop	Free	Free	Free	Free		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	0	-	-	-	-		
Veh in Median Storage,	# 0	-	0	-	-	0		
Grade, %	0	-	0	-	-	0		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	0	23	1058	20	0	1125		

Major/Minor	Minor1	Ν	lajor1	Ma	ajor2		
Conflicting Flow All	-	539	0	0	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.94	-	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.32	-	-	-	-	
Pot Cap-1 Maneuver	0	487	-	-	0	-	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %			-	-		-	
Mov Cap-1 Maneuver	· -	487	-	-	-	-	
Mov Cap-2 Maneuver		-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
A I			ND		00		

Approach	WB	NB	SB	
HCM Control Delay, s	12.8	0	0	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 487	-
HCM Lane V/C Ratio	-	- 0.047	-
HCM Control Delay (s)	-	- 12.8	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.1	-

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	↑ 1≱		ľ	↑ 1≱		۲	<u></u>	1	۲	<u></u>	1
Traffic Volume (veh/h)	184	620	88	89	403	46	93	753	79	94	746	197
Future Volume (veh/h)	184	620	88	89	403	46	93	753	79	94	746	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	674	96	102	463	53	108	876	92	98	777	205
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.86	0.86	0.86	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	858	122	126	691	79	111	1585	691	77	1517	662
Arrive On Green	0.13	0.28	0.28	0.07	0.22	0.22	0.02	0.15	0.15	0.09	0.85	0.85
Sat Flow, veh/h	1781	3095	440	1781	3204	365	1781	3554	1549	1781	3554	1551
Grp Volume(v), veh/h	200	386	384	102	256	260	108	876	92	98	777	205
Grp Sat Flow(s),veh/h/ln	1781	1777	1758	1781	1777	1792	1781	1777	1549	1781	1777	1551
Q Serve(g_s), s	13.2	24.1	24.2	6.8	15.8	16.0	7.3	27.5	6.2	5.2	6.8	3.1
Cycle Q Clear(g_c), s	13.2	24.1	24.2	6.8	15.8	16.0	7.3	27.5	6.2	5.2	6.8	3.1
Prop In Lane	1.00		0.25	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	492	487	126	383	387	111	1585	691	77	1517	662
V/C Ratio(X)	0.88	0.79	0.79	0.81	0.67	0.67	0.97	0.55	0.13	1.27	0.51	0.31
Avail Cap(c_a), veh/h	453	675	668	229	444	448	111	1585	691	77	1517	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	40.1	40.1	54.9	43.1	43.2	58.7	40.0	31.0	54.8	5.5	5.3
Incr Delay (d2), s/veh	4.2	5.2	5.3	4.5	3.8	3.9	65.7	1.1	0.3	191.1	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	11.0	10.9	3.1	7.2	7.4	5.4	13.3	2.4	6.3	1.9	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	45.2	45.4	59.5	46.9	47.1	124.4	41.1	31.3	245.9	6.8	6.5
LnGrp LOS	E	D	D	E	D	D	F	D	С	F	A	<u> </u>
Approach Vol, veh/h		970			618			1076			1080	
Approach Delay, s/veh		47.4			49.1			48.6			28.4	
Approach LOS		D			D			D			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	59.0	13.0	38.3	12.0	56.7	20.4	30.9				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	5.0	5.0				
Max Green Setting (Gmax), s	5.2	34.3	15.4	45.6	7.5	32.0	30.5	30.0				
Max Q Clear Time (g_c+l1), s	7.2	29.5	8.8	26.2	9.3	8.8	15.2	18.0				
Green Ext Time (p_c), s	0.0	3.0	0.0	6.2	0.0	8.6	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			42.6									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	A		۲	∱1 ≽		٦	^	1	٦	^	1
Traffic Volume (veh/h)	170	479	139	118	321	57	109	723	60	146	792	151
Future Volume (veh/h)	170	479	139	118	321	57	109	723	60	146	792	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	494	143	140	382	68	118	786	65	157	852	162
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.92	0.92	0.92	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	560	161	167	569	100	142	1577	686	177	1646	719
Arrive On Green	0.11	0.21	0.21	0.09	0.19	0.19	0.16	0.89	0.89	0.13	0.62	0.62
Sat Flow, veh/h	1781	2677	768	1781	3007	530	1781	3554	1547	1781	3554	1551
Grp Volume(v), veh/h	175	326	311	140	224	226	118	786	65	157	852	162
Grp Sat Flow(s),veh/h/ln	1781	1777	1668	1781	1777	1761	1781	1777	1547	1781	1777	1551
Q Serve(g_s), s	11.6	21.4	21.7	9.3	14.0	14.3	7.7	5.4	0.6	10.4	16.2	5.6
Cycle Q Clear(g_c), s	11.6	21.4	21.7	9.3	14.0	14.3	7.7	5.4	0.6	10.4	16.2	5.6
Prop In Lane	1.00		0.46	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	371	349	167	336	333	142	1577	686	177	1646	719
V/C Ratio(X)	0.87	0.88	0.89	0.84	0.67	0.68	0.83	0.50	0.09	0.89	0.52	0.23
Avail Cap(c_a), veh/h	252	394	370	258	400	396	223	1577	686	177	1646	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.75	0.75	0.75
Uniform Delay (d), s/veh	52.3	46.0	46.1	53.5	45.1	45.2	49.6	4.1	3.8	51.4	15.5	13.4
Incr Delay (d2), s/veh	19.0	19.7	22.4	7.9	4.1	4.5	6.3	0.9	0.2	30.3	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.4	11.1	4.5	6.6	6.7	3.4	1.5	0.2	5.9	5.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	65.7	68.5	61.4	49.2	49.7	55.9	5.0	4.0	81.7	16.4	14.0
LnGrp LOS	E	E	E	E	D	D	E	Α	Α	F	В	B
Approach Vol, veh/h		812			590			969			1171	
Approach Delay, s/veh		68.0			52.3			11.1			24.8	
Approach LOS		E			D			В			С	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	58.8	15.3	30.1	13.6	61.1	17.6	27.7				
Change Period (Y+Rc), s	4.0	5.5	4.0	5.0	4.0	5.5	4.0	5.0				
Max Green Setting (Gmax), s	11.9	45.6	17.4	26.6	15.0	42.5	17.0	27.0				
Max Q Clear Time (g_c+l1), s	12.4	7.4	11.3	23.7	9.7	18.2	13.6	16.3				
Green Ext Time (p_c), s	0.0	9.1	0.1	1.4	0.1	9.3	0.1	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 8: N Azusa Ave & Badillo St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	^	1	۲	^	1	٦	^	1	٦	^	1
Traffic Volume (veh/h)	104	600	138	175	456	84	153	703	96	119	851	92
Future Volume (veh/h)	104	600	138	175	456	84	153	703	96	119	851	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	652	150	186	485	89	166	764	104	138	990	107
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	785	333	214	935	411	193	1437	630	164	1378	597
Arrive On Green	0.08	0.22	0.22	0.12	0.26	0.26	0.11	0.40	0.40	0.18	0.78	0.78
Sat Flow, veh/h	1781	3554	1506	1781	3554	1562	1781	3554	1558	1781	3554	1539
Grp Volume(v), veh/h	113	652	150	186	485	89	166	764	104	138	990	107
Grp Sat Flow(s),veh/h/ln	1781	1777	1506	1781	1777	1562	1781	1777	1558	1781	1777	1539
Q Serve(g_s), s	7.5	21.0	10.3	12.3	14.0	5.3	11.0	19.6	5.1	9.0	16.9	2.2
Cycle Q Clear(g_c), s	7.5	21.0	10.3	12.3	14.0	5.3	11.0	19.6	5.1	9.0	16.9	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	785	333	214	935	411	193	1437	630	164	1378	597
V/C Ratio(X)	0.81	0.83	0.45	0.87	0.52	0.22	0.86	0.53	0.17	0.84	0.72	0.18
Avail Cap(c_a), veh/h	220	829	351	260	935	411	215	1437	630	246	1378	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	54.4	44.6	40.4	51.9	37.7	34.6	52.6	27.1	22.8	48.2	10.1	8.5
Incr Delay (d2), s/veh	11.7	6.8	1.0	22.4	0.5	0.3	26.0	1.4	0.6	12.1	2.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.0	3.9	6.8	6.2	2.1	6.2	8.3	2.0	4.1	3.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	51.4	41.4	74.2	38.2	34.8	78.6	28.5	23.4	60.3	12.6	9.0
LnGrp LOS	E	D	D	E	D	С	E	С	С	E	В	<u> </u>
Approach Vol, veh/h		915			760			1034			1235	
Approach Delay, s/veh		51.6			46.6			36.0			17.7	
Approach LOS		D			D			D			В	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	54.0	18.9	31.5	17.5	52.0	13.9	36.6				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	16.6	38.4	17.5	28.0	14.5	40.5	14.8	30.7				
Max Q Clear Time (g_c+l1), s	11.0	21.6	14.3	23.0	13.0	18.9	9.5	16.0				
Green Ext Time (p_c), s	0.1	4.9	0.1	2.2	0.1	7.3	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

Int Delay, s/veh	0.2									
Movement	EBL	EBT	WBT	WBR	SBL	SBR				
Lane Configurations	<u>الا</u>	- 11	∱ î≽		۰¥					
Traffic Vol, veh/h	20	772	520	6	0	17				
Future Vol, veh/h	20	772	520	6	0	17				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	50	-	-	-	0	-				
Veh in Median Storage	,# -	0	0	-	0	-				
Grade, %	-	0	0	-	0	-				
Peak Hour Factor	92	92	92	92	92	92				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	22	839	565	7	0	18				

Major/Minor	Major1	Ν	/lajor2	I	Minor2	
Conflicting Flow All	572	0	-	0	1033	286
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	464	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	997	-	-	-	228	711
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	997	-	-	-	223	711
Mov Cap-2 Maneuver		-	-	-	354	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	599	-
Approach	EB		WB		SB	
HCM Control Delay s	02		0		10.2	
HCM LOS	0.2		Ū		B	
					5	
Minor Lane/Major Mvr	mt	EBL	EBT	WBT	WBR S	SBLn1
Capacity (veh/h)		997	-	-	-	711
HCM Lane V/C Ratio		0.022	-	-	-	0.026
HCM Control Delay (s	s)	8.7	-	-	-	10.2
HCM Lane LOS		A	-	-	-	В
HCM 95th %tile Q(vel	h)	0.1	-	-	-	0.1

APPENDIX F



July 10, 2023

City of Covina 125 E. College Street Covina, CA 91723

Subject: Vehicle Miles Traveled Analysis for Covina Village Project

Michael Baker International (Michael Baker) has conducted a Vehicle Miles Traveled (VMT) analysis for Covina Village (Project) located at 1000 N. Azusa Avenue in the City of Covina. The Project is a mixed-used development consisting of 80 residential townhomes; 17 live-work townhomes; 950 square-foot coffee shop; 3,500 square-foot fast food restaurant with drive through, and 3,596 square-foot automated car wash and self-vacuum area. **Figure 1** shows the project site plan. The following summarizes the VMT analysis methodology and findings.

Background - SB743 and VMT

In December 2018, new California Environmental Quality Act (CEQA) guidelines were approved that shift traffic analysis from delay and operations to VMT when evaluating Transportation Impacts under CEQA. This change in methodology is a result of Senate Bill 743 (SB743), which was signed into law in September 2013. SB743 "creates a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 requires OPR to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Particularly within areas served by transit, those alternative criteria must 'promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.'¹"²

Measurements of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." ³ According to SB743, projects should aim to reduce VMT and mitigate potential VMT impacts through the implementation of TDM strategies. Agencies must fully implement the new CEQA guidelines for Transportation by July 1, 2020.

As part of the development of the new CEQA guidelines, the Governor's Office of Planning and Research (OPR) prepared a **Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018** (Technical Advisory). The Technical Advisory provides guidance for local jurisdictions in developing methodologies and thresholds for evaluating VMT. The Technical Advisory provides VMT thresholds for residential, employment and other uses. For all projects, the Technical Advisory recommends establishing the VMT threshold at 85% or less of an adopted VMT baseline including VMT/capita for residential projects, VMT/employee for employment projects and total VMT for all other uses.

³ Public Resources Code Section 21099(b)(1)



¹ Public Resources Code Section 21099(b)(1)

² Office of Planning and Research, http://www.opr.ca.gov/ceqa/updates/sb-743/
INTERNATIONAL





Michael Baker

INTERNATIONAL

City of Covina VMT Guidelines

On March 17, 2020, the City of Covina approved a Memorandum of Agreement (MOA) with the San Gabriel Valley Council of Governments (SGVCOG) to participate in the San Gabriel Valley Regional VMT Analysis Model, along with 25 other cities in the San Gabriel Valley. Fehr & Peers was selected by SGVCOG to complete the San Gabriel Valley Regional VMT Analysis Model. City staff will utilize this model to analyze project related VMT to determine whether transportation impacts from proposed developments will constitute a significant environmental impact under CEQA.

On June 9, 2020, Planning Commission recommended that Resolution No. 2020-011PC be forwarded to City Council to adopt VMT thresholds of significance for the purposes of analyzing transportation impacts under CEQA. The VMT screening criteria, VMT maps, and thresholds of significance were outlined in the June 9th Planning Commission staff report.

The City of Covina established a baseline VMT using the VMT rates for the SGVCOG's Southeast Subarea where the City of Covina is located. A project's VMT will be compared to the baseline VMT when determining potential significant impacts. For land use projects, the City has decided a significant VMT impact occurs when a project VMT (per capita, per employee, or per service population) is higher than 85% of the baseline VMT.

For purposes of this analysis, the VMT screening criteria, online VMT tool, and thresholds of significance outlined in the *City of Covina Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* dated October 2020 was utilized to evaluate VMT impacts for the Project.

Project Trip Generation

The Project proposes to demolish and redevelop the existing property located at 1000 N. Azusa Avenue. The property includes a vacant and unoccupied grocery store and parking lot. The Project plans to construct 80 residential townhomes, 17 live-work townhomes, 950 square-foot coffee shop, 3,500 square-foot fast-food restaurant with drive through window, and 3,596 square-foot automated car wash with self-vacuum area. Trip rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition* were utilized to estimate the number of existing and project-related traffic. Pass-by trip reductions were also applied for the commercial projects in accordance with *ITE's Trip Generation Handbook, 3rd Edition*. **Table 1** shows the trip rates used to calculate the trip generation of the site.

Land Lico		Daily Trip Pata		AM Peak Hour Rate				PM Peak Hour Rate					
Land Ose	Code ¹	ode ¹ Daily Trip Rate		Tot	al	In	:	Out	Tot	tal	In	:	Out
Multifamily Housing (Mid-Rise)	221	4.289	/DU	0.32	/DU	23%	:	77%	0.39	/DU	61%	•••	39%
Automated Car Wash ²	948	781.00	/CWT	49.00	/CWT	50%	:	50%	77.5	/cw	50%	:	50%
Coffee Shop w/ Drive Thru	937	86.316	/KSF	86.32	/KSF	51%	:	49%	38.9	/KSF	50%		50%
Fast Food Restaurant with Drive-Thru Window	934	475.43	/KSF	45.43	/KSF	51%	:	49%	33.7	/KSF	52%	:	48%
Supermarket	850	93.84	/KSF	2.86	/KSF	59%	:	41%	8.95	/KSF	50%	:	50%

Table 1 – ITE Trip Generation Rates

¹ Source: ITE Trip Generation Manual, 11th Edition. Rates shown are based on fitted curve equation as applicable. Where fitted curve is not available, average rates were used.

²Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Manual, therefore, daily rates assumes 10% of PM peak hour. AM rates assume 6 .2% of the daily rate.



As shown in **Table 2**, the Project is expected to generate 1,665 daily vehicle trips with 236 AM and 178 PM peak hour trips. The existing 81,330 square-foot grocery store generated 4,685 daily vehicle trips with 233 AM and 418 PM peak hour trips. The net new trips generated by the Project is forecast to be 3,020 fewer daily vehicle trips with 3 additional AM peak hour trips and 240 fewer PM peak hour trips when compared to the trips previously generated at the site.

Land Lico		oncity	Daily Tring	AM Pea	ak Hour Trips	PM Peak Hour Trips		
	intensity		Daily Trips	Total	In : Out	Total	In : Out	
	OSED PROJE	СТ						
Multifamily Housing (Mid-Rise)	97	DU	416	31	7:24	38	23 : 15	
Automated Car Wash 2	1	CWT	781	49	25 : 24	78	39:39	
Car Wash Pass-By Trip Reduction (56% Daily, AM and	l PM Peal	k) ^{1,2}	-437	-27	-14 : -13	-44	-22 : -22	
Sub-Total Trip Generation for Car W	Vash		344	22	11 : 11	34	17 : 17	
Coffee Shop w/ Drive Thru	0.95	KSF	507	82	42 : 40	37	19 : 19	
Coffee Shop Pass-By Trip Reduction (89% Daily, AM c	eak) ¹	-451	-73	-37 : -36	-33	-17 : -17		
Sub-Total Trip Generation for Coffe	56	102	52 : 50	46	23 : 23			
Fast Food Restaurant with Drive-Thru Window	3.500	KSF	1664	159	81 : 78	118	61 : 57	
Fast Food Pass-By Trip Reduction (49% Daily, AM and	l PM Peal	k) ¹	-815	-78	-40 : -38	-58	-30 : -28	
Sub-Total Trip Generation for Fast Food wit	h Drive-T	hru	849	81	41 : 40	60	31 : 29	
Sub-Total Trip Generation (Proposed	Project)		1665	236	111 : 125	178	94 : 84	
	EX	ISTING USE						
Supermarket	81.33	KSF	7,321	233	137 : 96	654	327 : 327	
Supermarket Pass-By Trip Reduction (36% Daily and a	-2636	0	0:0	-235	-118 : -118			
Sub-Total Trip Generation for Existin	4685	233	137 : 96	418	209 : 209			
TOTAL NET NEW TRIP GENERATION (Proposed Pro	oject - Ex	isting Use)	-3020	3	-26 : 29	-240	-115 : -125	

Table 2 – Covina Village Trip Generation

Notes:

¹Pass-By Trip Rates taken from ITE's Trip Generation Handbook, 3rd Edition.

²Pass-By Trip Rates for an Automated Car Wash are not available in the ITE Trip Generation Handbook, therefore, a Gas/Service Station (LU Code 945) was used since both uses are similar in trip characteristics.

DU = Dwelling Unit

CWT = Car Wash Tunnels

KSF = 1,000 Square Feet

VMT Screening Criteria

The City of Covina uses VMT screening criteria to streamline land use project review for VMT impacts. If a project does not pass the initial screening test, a full VMT analysis is warranted. Three screening criteria have been considered:

- Project Type Screening
- Transit Priority Area (TPA) Screening, and
- Low VMT Area Screening.

If the project is "screened out" based on any one of the three criteria, a full VMT analysis is not required, and the project is presumed to have a less-than-significant VMT impact. Since the project includes both residential and retail uses, each of the land uses are evaluated separately.



The project was evaluated against the screening criteria using the SGVCOG VMT Evaluation Tool at: <u>https://apps.fehrandpeers.com/SGVCOGVMT</u> and the findings are summarized in the following sections.

Project Type Screening

The City of Covina has identified local serving project types that may be presumed to have a less-thansignificant impact. Local serving projects are more likely to serve the local population and reduce the need for people to drive further away, thus reduce VMT. Examples include local serving K-12 schools, local parks, day care centers, new retail buildings less than 50,000 square-feet, projects that generate less than 110 daily vehicle trips, community institutions (public libraries, fire stations), etc. Each of the land uses proposed as part of the mixed-use project were evaluated separately.

Residential: Based on the trip generation table, the residential component of the project generates 4,269 fewer daily trips (4,685 - 416) due to the existing grocery store which does not exceed the 110 daily vehicle trip threshold. Therefore, the residential component of this project is screened out based on the Project Type Screening.

Project Type Screening Criteria Met (Residential): YES

Retail: According to the site plan, the retail portion of the project includes a 950 square-foot coffee shop; 3,500 square-foot fast food restaurant with drive through, and 3,596 square-foot automated car wash and self-vacuum area for a total of 8,046 square feet of retail. These land uses for the project are consistent with the local serving project types and the total square footage of the retail falls below the 50,000 square foot "Project Type" screening criteria for new retail buildings. Therefore, the retail component of the project would be screened out and determined to have a less-than-significant impact.

Project Type Screening Criteria Met (Retail): YES

Transit Priority Area (TPA) Screening:

Projects located within a Transit Priority Area (TPA) may be presumed to have a less-than-significant impact and would not be required to prepare a full VMT analysis. TPA's are defined as locations within ½ mile around an existing major stop or an existing stop along a high-quality transit corridor per the definitions below:

<u>Major Transit Stop</u>⁴ – a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Figure 2 shows the TPA's within the City of Covina indicated by the light brown shaded areas. As shown, the proposed project is located within a TPA.

⁴ Public Resource Code, 21064.3





Figure 2 – City of Covina Transit Priority Area



<u>High-Quality Transit Corridor</u>⁵ – a corridor with fixed route bus service with service intervals no longer than 15 minutes during the peak commute hours.

Foothill Transit operates the local bus service in the City of Covina. Foothill Transit Route 280 travels along Azusa Avenue adjacent to the project site. The nearest bus stop is located on the northeast corner of Azusa Avenue / Cypress Street approximately 300-foot walking distance from the project site. Service is provided Monday through Friday, weekends and holidays. According to the Foothill Transit website, the average headway during the weekday are 15 minutes from 7:00 AM to 9:00 AM and from 2:00 PM to 7:00 PM with 20 to 30 minutes headways outside the peak periods.

Although the project is located within a TPA, additional criterion needs to be evaluated. For the project, if any of the following criteria are met, then the project <u>may not be screened out despite being located within a TPA</u>:

- Does the project have a Floor Area Ratio (FAR) of less than 0.75?
 Response: Yes. The project has a FAR of 0.322 (71,781 SF / 222,530 SF).
- 2.) Does the project include more parking for use by residents, customers, or employees of the project than required by the City?
 Reserves Yes For the residential expression the project is required to provide 241 perkins.

Response: Yes. For the residential component, the project is required to provide 241 parking spaces and is providing 284 spaces. This translates to 43 more parking spaces than required by the City's Municipal Code. For the commercial component, the project is required to provide 53 parking spaces and the project is providing 73 spaces which is 20 more parking spaces than required.

3.) Is the project inconsistent with the applicable Sustainable Communities Strategy?

Response: No. The project is not inconsistent. The project is consistent with the Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted 2020 by the Southern California Association of Governments (SCAG). The project appears to be consistent with the goals and policies outlined in this document. For example, one of the RTP/SCS strategies is to "Plan for additional housing and jobs near transit." This project is located along a transit corridor and within walking distance to nearby retail and commercial uses.

4.) Does the project replace affordable residential units with a smaller number of moderate or high-income residential units?
 Response: No. The existing site is vacant and contains remnant site improvements including an 81,333 SF building formerly occupied by an Albertson's grocery store.

The project is located within a TPA, however the project does not meet the TPA screening criteria as outlined in the OPR Technical Advisory (e.g. minimum FAR requirement is not met and the project provides more parking spaces than required by the City). Therefore, the TPA screening criteria is not fully met.

⁵ Public Resource Code, 21155



TPA Screening Criteria Met: NO

Low VMT Area Screening:

Projects that are located within a low VMT areas would be screened out and a full VMT analysis would not be required. In addition, projects within these low VMT areas may be presumed to have a less-thansignificant impact. Low VMT is defined as areas of the City where the VMT falls below the City's adopted threshold of significance.

The San Gabriel Valley Regional VMT Analysis Model was used to measure VMT performance for individual traffic analysis zones (TAZ) within the City of Covina. TAZ's are geographic polygons similar to Census block groups used to represent areas of homogenous travel behavior. Based on the results of the model, TAZ's within the City are categorized as follows:

- 15% or more below Subarea Average VMT
- 0 to 15% below Subarea Average VMT, or
- higher than Subarea Average VMT

The SGVCOG VMT Evaluation Online Tool was used to determine if the residential and retail portions of the project screened out. 15% or more below the Subarea Average VMT is determined to be "less-than-significant" as it falls below the City's established threshold of significance.

Since the project consists of both residential and retail, the residential component of the project was compared to the residential home-based VMT per capita metric (17.48) and the retail component of the project was compared to the commercial home-based work VMT per worker metric (19.75).

Residential: In the SGVCOG VMT Evaluation Tool Report, the home-based VMT per capita is 17.48. The residential VMT screening results show the Project VMT rate at 14.7 with the project and Tier 1 VMT reductions. The Tier 1 VMT reduction demonstrates the residential density of the project at 5.75 is higher than existing residential density at 5.21. As shown, the residential VMT rate at 14.7 passes the Low VMT Screening Analysis. Therefore, the residential component of the project is screened out.

Low VMT Area Screening Criteria Met (Residential Component): YES

Retail: In the SGVCOG VMT Evaluation Tool Report, the home-based work VMT per worker is 19.75. The commercial VMT screening results show the Project VMT rate at 16.0 with the project. As shown, the commercial VMT rate at 16.0 passes the Low VMT Screening Analysis. Therefore, the retail component of the project is screened out.

Low VMT Area Screening Criteria Met (Retail Component): YES

The SGVCOG VMT Evaluation Tool Report for this project is provided as an attachment to this memorandum.



Conclusion

The purpose of this VMT analysis was to determine if the Covina Village project would result in a VMT impact according to the CEQA guidelines and the City's VMT screening criteria. Based on the City's *Transportation Study Guidelines* (October 2020), if the project meets the criteria of any of the identified screening criteria, the project can be determined to have a less than significant impact if substantial evidence is provided. Michael Baker reviewed the Project Type, TPA and Low VMT Area screening criteria and determined the following:

- Project Type: The retail component of the project falls below the 50,000 square foot Project Type Screening threshold for new retail projects. Therefore, the retail component of the project is screened out. The residential component generates less than 110 vehicle trips per day based on the existing trip credit of the grocery store; therefore, the residential component was screened out based on Project Type.
- Transit Priority Area (TPA): Using the SGVCOG VMT Evaluation Tool online, the project is located within a TPA. Additional criteria are required for projects located within TPA's such as minimum FAR's, parking requirements, consistency with the SCS and affordable housing considerations. The project did not meet the additional TPA criteria as the minimum FAR requirement is not met and the project is providing more parking spaces than required by the City.
- Low VMT Area: The project passes the Low VMT Screening Analysis for both the residential and retail components of the project according to the online SGVCOG VMT Evaluation Tool Report.

Based on the findings that the Project Type and Low VMT Area screening criteria are met, the retail component of the project is considered to have a less-than-significant VMT impact and no mitigation measures or further analysis is required.

The residential component of the project meets the Project Type and Low VMT Area screening criteria. Therefore, the residential portion of the project is considered to have a less-than-significant VMT impact and no mitigation measures or further analysis is required.



SGVCOG VMT Evaluation Tool Report



Project Details

Timestamp of Analysis: July 06, 2023, 11:36:50 AM

Project Name: Covina Village	Project Name:	Covina Village
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Project Description: 80 townhomes, 17 live/work units, 950 SF coffee shop, 3500 SF fast food, 3596 SF car wash (8 KSF commercial)

Project Location





Analysis Details

Data Version: SCAG Regional Travel Demand Model 2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2023

Project Land Use

Residential:	
Single Family DU:	
Multifamily DU:	97
Total DUs:	97
Non-Residential:	
Office KSF:	
Local Serving Retail KSF:	8
Industrial KSF:	
Residential Affordability (percent of all units):	
Extremely Low Income:	0 %
Very Low Income:	0 %
Low Income:	0 %
Dorking	

Parking: Motor Vehicle Parking: Bicycle Parking:



Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:		Residential			
VMT Without Project 1:		Home	e-based VMT per Capita		
VMT Baseline Description 1:		Subarea Average			
VMT Baseline Value 1:		17.48	}		
VMT Threshold Description 1:		-15%			
Land Use 1 has been Pre-Screened	by the Local Jurisdiction:	N/A			
	Without Project		With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions	
Project Generated Vehicle Miles Traveled (VMT) Rate	15.1		14.7	14.7	
Low VMT Screening Analysis	No (Fail)		Yes (Pass)	Yes (Pass)	
16 14 12 10 8 4 2 0	14.86 9.1 15.1 VMT Metric Value Before Project 1	VMT: 14	14.7 VMT With Project and Tier 1-3 VMT Reductions	14.7 VMT With Project and All VMT Reductions	
		VIVII. 14			

Commercial Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 2:		Comr	nercial	
VMT Without Project 2:		Home-based Work VMT per Worker		
VMT Baseline Description 2:		Suba	rea	
VMT Baseline Value 2:		19.75	5	
VMT Threshold Description 2:		-15%		
Land Use 2 has been Pre-Screened	by the Local Jurisdiction:	N/A		
	Without Project		With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	16		16	16
Low VMT Screening Analysis	Yes (Pass)		Yes (Pass)	Yes (Pass)
18 16 14 12 10 10 10 10 4 2 0	9.6 9.6 16 VMT Metric Value Before Project 2	VMT: 16	16 VMT With Project and Tier 1-3 VMT Reductions 5.79 Land Use 2 Max Reduction	16 VMT With Project and All VMT Reductions Possible: 9.6 VMT Values
		vivii. IC		

SGVCOG VMT Evaluation Tool Report



Tier 1 Project Characteristics

PC01 Increase Residential Density

Existing Residential Density:	5.21
With Project Residential Density:	5.75

APPENDIX G



TRAFFIC ENGINEERING, INC. TRAFFIC ENGINEERING & TRANSPORTATION PLANNING CONSULTANTS

March 28, 2023

Jennifer Colicchio PKL INVESTMNETS LLS 2863 Maricopa Street Torrance, CA 90503

Subject: Covina Village Queue Study – City of Covina

Dear Jennifer Colicchio:

TJW ENGINEERING, INC. (TJW) is pleased to submit this queue study for the proposed Project located at 1000 North Azusa Avenue in the City of Covina. The purpose of this study is to assess if drive-through demand can be accommodated by the Project.

Project Description

The Project consists of the following uses:

- Residential Development
 - \circ 80 townhome units
 - 17 live/work units
- Commercial Development
 - Single-tunnel drive-through car wash (Quick Quack)
 - o 950 square foot coffee shop with drive-through (Dutch Bros. Coffee)
 - o 3,500 square foot restaurant with drive-through

Queue analysis has been conducted for commercial uses only. The proposed site plan is shown in **Appendix A**.

Drive-Through Queue Analysis Methodology

Queue observations at 3 comparable sites were conducted for each commercial land use, with data collected in 5-minute increments. The sites are as follows:

- Car Wash
 - Covina Express Car Wash, 154 E. Arrow Hwy., Covina, CA
 - Fast5Xpress Car Wash, 935 E. Huntington Dr., Monrovia, CA
 - Whittier Express Car Wash, 13945 Telegraph Rd., Whittier, CA
- Dutch Bros. Coffee
 - 13322 Limonite Ave., Eastvale, CA
 - o 32690 Yucaipa Blvd., Yucaipa, CA
 - 15211 Hook Blvd., Victorville, CA
- Panera Bread With Drive-Through (Restaurant with Drive-Through Comparable)
 - o 1054 W. Gladstone St., San Dimas, CA
 - o 423 S. Associated Rd., Brea, CA
 - $\circ \quad$ 1750 S. State College Blvd., Anaheim, CA

Car Wash sites were observed from 7:00 AM-8:00 PM (except for the Whittier site, which is open from 8:00 AM-5:00 PM) on Wednesday January 11, Thursday January 12, Saturday January 21, and Saturday January 28, 2023. Panera Bread sites were observed from 11:00 AM-2:00 PM and 4:00-7:00 PM on Wednesday January 11, Thursday January 12, and Saturday January 21, 2023. Dutch Bros. Coffee sites were observed from 6:00-9:00 AM, 11:00 AM-2:00 PM, and 4:00-7:00 PM on Wednesday January 21, 2023.

The data has been utilized to determine the 85th percentile queue length, which is typically used to determine the appropriate vehicle stacking capacity needed for land uses with drive-throughs.

Drive-Through Queue Observation Results

Based on the collected data, **Table 1**, **Table 2**, and **Table 3** show the number of times a certain queue length occurred, and the probability of that queue length being exceeded for the car wash, Dutch Bros. Coffee, and restaurant sites, respectively. Complete observation data is provided in **Appendix B**.

It should be noted that the Eastvale Dutch Bros. Coffee site experienced much larger queues on the observed Saturday compared to the 5 other sets of Dutch Bros. Coffee data. Without the Saturday Eastvale Dutch Bros. Coffee data included, the 85th percentile queue would be 10 vehicles. In an effort to provide a conservative analysis, the 85th percentile calculation includes the data and results in an 85th percentile queue of 19 vehicles.



Queue Length (Vehicles)	Number of Occurrences	Total Number of Data Points	Probability of Exceeding Queue Length		
0	199	199	53.29%		
1	89	288	32.39%		
2	50	338	20.66%		
3	23	361	15.26%		
4	12	373	12.44%		
5	8	381	10.56%		
6	19	400	6.10%		
7	6	406	4.69%		
8	3	409	3.99%		
9	2	411	3.52%		
10	3	414	2.82%		
11	2	416	2.35%		
12	3	419	1.64%		
13	4	423	0.70%		
14	3	426	0.00%		
85th Percentile Info					
Queue Length: 4 Vehicles Data Point: 363rd					

Table 1Car Wash Drive-Through Queue Analysis



Probability of					
Queue Length	Number of	Total Number of			
(Vehicles)	Occurrences	Data Points	Exceeding		
0	11	11			
0	11	20	96.78%		
1	15	26	92.40%		
2	29	55	83.92%		
3	3/	92	/3.10%		
4	30	122	64.33%		
5	29	151	55.85%		
6	19	170	50.29%		
7	24	194	43.27%		
8	14	208	39.18%		
9	14	222	35.09%		
10	18	240	29.82%		
11	15	255	25.44%		
12	7	262	23.39%		
13	5	267	21.93%		
14	5	272	20.47%		
15	4	276	19.30%		
16	2	278	18.71%		
17	3	281	17.84%		
18	7	288	15.79%		
19	5	293	14.33%		
20	6	299	12.57%		
21	5	304	11.11%		
22	3	307	10.23%		
23	4	311	9.06%		
20	4	315	7 89%		
25	4	319	6 73%		
25	3	322	5.85%		
20	3	325	J.85%		
27	0	325	4.97%		
20	1	325	4.57%		
29	<u>ר</u>	270	4.00%		
3U 21	2	320 221	4.03%		
22	2	224	3.22%		
32	3	334 225	2.34%		
33		335	2.05%		
34	1	336	1.75%		
35	1	33/	1.46%		
36	2	339	0.88%		
37	2	341	0.29%		
38	1	342	0.00%		
	85th Perce	entile info			
Oueue Length: 19 Vehicles Data Point: 291st					

Table 2Dutch Bros. Coffee Drive-Through Queue Analysis



Queue Length (Vehicles)	Number of Occurrences	Total Number of Data Points	Probability of Exceeding Queue Length		
0	50	50	78.07%		
1	60	110	51.75%		
2	48	158	30.70%		
3	25	183	19.74%		
4	25	208	8.77%		
5	14	222	2.63%		
6	5	227	0.44%		
7	1	228	0.00%		
85th Percentile Info					
Queue Length:	4 Vehicles	Data Point:	194th		

 Table 3

 Restaurant With Drive-Through Queue Analysis

Based on the observed queue data, the 85th percentile queue length for the car wash is 4 vehicles which occurred at the 363rd data point. In short, 85% of instances will show 4 vehicles or less within the queue. The maximum observed queue was 14 vehicles, which occurred 3 times.

Based on the observed queue data, the 85th percentile queue length for the Dutch Bros. Coffee is 19 vehicles which occurred at the 291st data point. In short, 85% of instances will show 19 vehicles or less within the queue. The maximum observed queue was 38 vehicles, which occurred once. As mentioned previously, the Eastvale Dutch Bros. Coffee site experienced much larger queues on the observed Saturday compared to the 5 other sets of Dutch Bros. Coffee data. Without the Saturday Eastvale Dutch Bros. Coffee data included, the maximum observed queue would be a one-time occurrence of 25 vehicles.

Based on the observed queue data, the 85th percentile queue length for the restaurant with drive-through is 4 vehicles which occurred at the 194th data point. In short, 85% of instances will show 4 vehicles or less within the queue. The maximum observed queue was 7 vehicles, which occurred once.

Drive-Through Queue Capacities

As shown in **Appendix B**, the car wash drive-through lanes will have room for approximately 21 vehicles before it spills into the nearest drive aisle. This amounts to 17 vehicles more than the 85th percentile queue. As such, the Quick Quack Car Wash drive-through queue is not expected to affect neighboring business operations and circulation.

As also shown in **Appendix B**, the Dutch Bros. Coffee drive-through lanes will have room for approximately 23 vehicles before it spills into the nearest drive aisle. This amounts to 4 vehicles more than the 85th



percentile queue. As such, the Dutch Bros. Coffee drive-through queue is not expected to affect neighboring business operations and circulation.

As also shown in **Appendix B**, the restaurant drive-through lanes will have room for approximately 15 vehicles before it spills into the nearest drive aisle. This amounts to 11 vehicles more than the 85th percentile queue. As such, the restaurant drive-through queue is not expected to affect neighboring business operations and circulation.

Dutch Bros. Coffee Circulation Analysis

The Dutch Bros. Coffee drive-through lane capacity of 23 vehicles is expected to accommodate the 85th percentile queue of 19 vehicles before spilling into the nearest drive aisle. If the queue were to exceed 23 vehicles, approximately 32 vehicles could be accommodated before spilling onto Azusa Avenue.

As mentioned previously, the Eastvale Dutch Bros. Coffee site experienced much larger queues on the observed Saturday compared to the 5 other observed sites/days. Without the Saturday Eastvale Dutch Bros. Coffee data included, the maximum observed queue would be a one-time occurrence of 25 vehicles. Because approximately 32 vehicles could be accommodated before spilling onto Azusa Avenue, the Dutch Bros. Coffee drive-through queue is not expected to affect through traffic on Azusa Avenue.

With the Saturday Eastvale Dutch Bros. Coffee data included, there is a 2% chance that the queue would be comprised of more than 32 vehicles. In short, 98% of instances will show 32 vehicles or less within the queue.

Dutch Bros. Coffee Contingency Plan

In the event that the Dutch Bros. Coffee queue reaches the drive-through lane capacity (23 vehicles), a contingency plan is recommended to be utilized. It is recommended that Dutch Bros. Coffee employees use cones and temporary signage to close off the Dutch Bros. Coffee driveway inbound access, and use signage to direct customers to enter at the southern Quick Quack Car Wash driveway. This will allow vehicles to queue on site instead of affecting circulation along Azusa Avenue. The queue would form in the drive aisle where the live/work shared parking spaces are located. Based on the queue data, the maximum queue occurred on a Saturday. Because the office space of the live/work units will likely not be open during the weekend, the queue is not anticipated to affect office operations within the live/work units with the contingency plan in place.



<u>Summary</u>

The 85th percentile queue length for the car wash is 4 vehicles and the maximum observed queue was 14 vehicles. The car wash drive-through lanes will have room for approximately 21 vehicles before it spills into the nearest drive aisle. As such, the Quick Quack Car Wash drive-through queue is not expected to affect neighboring business operations and circulation.

The 85th percentile queue length for the restaurant is 4 vehicles and the maximum observed queue was 7 vehicles. The restaurant drive-through lanes will have room for approximately 15 vehicles before it spills into the nearest drive aisle. As such, the restaurant drive-through queue is not expected to affect neighboring business operations and circulation.

The 85th percentile queue length for the Dutch Bros. Coffee is 19 vehicles and the maximum observed queue was 38 vehicles. The Dutch Bros. Coffee drive-through lanes will have room for approximately 23 vehicles before it spills into the nearest drive aisle.

The Eastvale Dutch Bros. Coffee site experienced much larger queues on the observed Saturday compared to the 5 other observed sites/days. Without the Saturday Eastvale Dutch Bros. Coffee data included, the maximum observed queue would be a one-time occurrence of 25 vehicles. With the Saturday Eastvale Dutch Bros. Coffee data included, there is a 2% chance that the queue would be comprised of more than 32 vehicles.

In the event that the Dutch Bros. Coffee queue reaches the drive-through lane capacity (23 vehicles), a contingency plan is recommended to be utilized. It is recommended that Dutch Bros. Coffee employees use cones and temporary signage to close off the Dutch Bros. Coffee driveway inbound access, and use signage to direct customers to enter at the southern Quick Quack Car Wash driveway. This will allow vehicles to queue on site instead of affecting circulation along Azusa Avenue. The queue would form in the drive aisle where the live/work shared parking spaces are located. Based on the queue data, the maximum queue occurred on a Saturday. Because the office space of the live/work units will likely not be open during the weekend, the queue is not anticipated to affect office operations within the live/work units with the contingency plan in place.



Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

Though

Thomas Wheat, PE, TE President

Registered Civil Engineer #69467 Registered Traffic Engineer #2565



David Chew, PTP Transportation Planner

But abut

Brandon Alvarado, EIT Transportation Planner



APPENDIX A

PROJECT SITE PLAN





RETAIL / COMMERCIAL + LIVE WORK + TOWNHOMES TENTATIVE TRACT MAP NO. 82315 & TENTATIVE PARCEL MAP NO. 84018 845 WEST CYPRESS STREET & 1000 NORTH AZUSA AVENUE IN THE CITY OF COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PROJECT SUMMARY:	
OWNER (TTM NO. 82315):	MELIA HOMES 8951 RESEARCH DRIVE, SUITE 100 IRVINE, CA 92618
OWNER (TPM NO. 84018):	PKL INVESTMENTS, LLC 2863 MARICOPA STREET TORRANCE, CA 90503
ENGINEER:	LAND DEVELOPMENT CONSULTANTS 1520 BROOKHOLLOW DRIVE, SUITE 33 SANTA ANA, CA 92705
ARCHITECT:	SUMMA ARCHITECTURE 5256 S. MISSION ROAD, SUITE 404 BONSALL, CA 92003
SOILS ENGINEER:	GEOTEK, INC. 1548 N. MAPLE STREET CORONA, CA 92878
PROJECT LOCATION:	1000 NORTH AZUSA AVENUE 845 WEST CYPRESS STREET COVINA, CA 91722
APNs:	8421-001-016 & 8421-001-061
FLOOD ZONE:	ZONE "X" (FLOOD INSURANCE RATE MAP) COMMUNITY PANEL No. 06037C1700F
EXISTING GENERAL PLAN:	GENERAL COMMERCIAL
PROPOSED GENERAL PLAN:	COVINA VILLAGE SPECIFIC PLAN
EXISTING ZONING:	COMMERCIAL ZONE (HIGHWAY) (C-4)
PROPOSED ZONING:	SPECIFIC PLAN
PROJECT SITE AREA:	348,165 SF = 7.993 ACRES
STREET DEDICATION:	3,379 SF = 0.078 ACRES
NET SHE AREA.	344,700 31 - 7.913 ACKES
TTM NO. 82315 (RESIDENTIAL): 97 UNITS <u>3 STORY ROW TOWN/LIVE-WORK</u> 13 - PLAN 1 1,337 SF 21 - PLAN 2 1,531 SF 25 - PLAN 3 1,654 SF 21 - PLAN 4 1,800 SF 8 - PLAN 5 1,976 SF 0 DLAN 6 1082 SE	222,530 SF = 5.109 ACRES 2 BD + DEN 2 BD + DEN 3 BD + DEN 4 BD 3 BD + WORKSPACE 3 BD + WORKSPACE
PARKING SUMMARY GARAGE STALLS PROVIDED ON-SITE OPEN STALLS SHARED LIVE/WORK OPEN STALL TOTAL PARKING PROVIDED (2.93 STALLS/UNIT)	194 STALLS 49 STALLS <u>S 41 STALLS</u> 284 STALLS
COMMON OPEN SPACE38PRIVATE OPEN SPACE1TOTAL OPEN SPACE49	B,877 SF (400.8 SF/UNIT) 10,191 SF (105.0 SF/UNIT) 9,068 SF (505.8 SF/UNIT)
TPM NO. 84018 (COMMERCIAL): PARCEL 1: (QUICK QUACK CAR V PARCEL 2: (DUTCH BROS) PARCEL 3: (TBD)	WASH) 122,256 SF = 2.806 ACRES 58,430 SF = 1.341 ACRES 29,584 SF = 0.679 ACRES 34,242 SF = 0.786 ACRES
PARCEL 1 BUILDING (QUICK QUA PARCEL 2 BUILDING (DUTCH BRC PARCEL 3 BUILDING (TBD):	CK): 3,596 SF OS): 950 SF 3,500 SF
PARKING SUMMARY:VACUUM:15 SPACNON-STANDARD:4 SPACSTANDARD:51 SPACSHARED LIVE/WORK:41 SPAC	ES (14' X 19') ES ES (9' X 18') ES (9' X 18')
IUTAL: 111 SPACE	25

40' 0 40' 80' 120 SCALE: 1"=40' APPENDIX B

QUEUE OBSERVATION DATA AND QUEUE VISUALIZATION

LOCATION: Covina Express Car Wash, 154 E Arrow Hwy CITY: Covina, CA

DAY: Thursday DATE: 1/12/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to Payment Kiosk	to Car Wash Entrance	into Parking Lot	TOTAL
7:00	0	0	0	0
7:10	0	0	0	0
7:20	0	1	0	1
7:30	0	1	0	1
7:50	0	0	0	0
8:00	0	0	0	0
8:10	0	0	0	0
8:20	0	0	0	0
8:30	0	2	0	2
8:50	1	1	0	2
9:00	0	0	0	0
9:10	1	0	0	1
9:20	0	0	0	0
9:30	1	0	0	1
9:50	0	0	0	0
10:00	0	0	0	0
10:10	0	0	0	0
10:20	0	1	0	1
10:30	0 0	0	0	0 0
10:50	0	0	0	0
11:00	1	1	0	2
11:10	0	0	0	0
11:20	0	1	0	1
11:30	0	0	0	0
11:40	0	0	0	0
12:00	0	0	0	0
12:10	0	0	0	0
12:20	1	0	0	1
12:30	0	1	0	1
12:40	0	0	0	0
13:00	0	0	0	0
13:10	0	0	0	0
13:20	0	1	0	1
13:30	0	1	0	1
13:40	2 1	0	0	3
14:00	0	0	0	0
14:10	0	0	0	0
14:20	0	0	0	0
14:30	0	0	0	0
14:40	0	1	0	0
15:00	0	0	0	0
15:10	0	1	0	1
15:20	0	0	0	0
15:30	0	0	0	0
15:40	0	0	0	0
16:00	0	0	0	0
16:10	1	0	0	1
16:20	0	0	0	0
16:30	0	0	0	0
16:40 16:50	0	U 1	0	U 1
17:00	0	0	0	0
17:10	0	0	0	0
17:20	1	2	0	3
17:30	0	0	0	0
17:40	0	1	0	1
18:00	0	1	0	1
18:10	0	0	0	0
18:20	0	1	0	1
18:30	0	1	0	1
18:40	U 1	0	0	U 1
19:00	0	0	0	0
19:10	0	0	0	0
19:20	0	0	0	0
19:30	0	0	0	0
19:40	0	0	0	0
20:00	0	0	0	0

LOCATION:Covina Express Car Wash, 154 E Arrow HwyCITY:Covina, CA

DAY: Saturday DATE: 1/21/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to Payment Kiosk	to Car Wash Entrance	into Parking Lot	TOTAL
7:00				0
7:10	0	0	0	0
7:20	0	1	0	1
7:30	0	0	0	0
7:40	0	0	0	0
8:00	0	0	0	0
8:10	0	0	0	0
8:20	0	0	0	0
8:30	0	0	0	0
8:40	0	2	0	<u> </u>
9:00	0	4	0	4
9:10	0	1	0	1
9:20	0	0	0	0
9:30	0	0	0	0
9:40	2	2	0	4
10:00	2	1	0	3
10:10	1	2	0	3
10:20	1	0	0	1
10:30	0	1	0	1
10:40	1	1 2	0	<u>з</u>
11:00	0	1	0	
11:10	0	2	0	2
11:20	3	3	0	6
11:30	3	5	0	8
11:40	3	4	0	7
11:50	3	4 4	0	7
12:10	3	3	0	6
12:20	2	4	0	6
12:30	3	3	0	6
12:40	3	3	0	6
12:50	2	1	0	3
13:10	0	1	0	1
13:20	2	5	0	7
13:30	3	3	0	6
13:40	0	0	0	0
13:50	0	1	0	1
14:10	1	2	0	3
14:20	2	1	0	3
14:30	3	2	0	5
14:40	3	3	0	6
14:50	0	1	0	1
15:10	0	1	0	1
15:20	2	3	0	5
15:30	0	0	0	0
15:40	2	0	0	2
15:50	2	0	0	2
16:00	1	U 1	0	2
16:20	1	0	0	- 1
16:30	0	0	0	0
16:40	0	0	0	0
16:50		0	0	1
17:10	0	1	0	1
17:20	2	1	0	3
17:30	1	0	0	1
17:40	0	0	0	0
1/:50	0	0	0	0
18:10	0	0	0	0
18:20	0	0	0	0
18:30	1	1	0	2
18:40	0	0	0	0
18:50	0	0	0	0
19:00 19:10	0 0	0	0	0 0
19:20	0	0	0	0
19:30	0	0	0	0
19:40	0	0	0	0
19:50	0	0	0	0
20:00	0	0	0	0

LOCATION:Fast5Xpress Car Wash, 935 E Huntington DrCITY:Monrovia, CA

DAY: Thursday DATE: 1/12/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to	to	into	TOTAL
7.00	Payment Kiosk	Car Wash Entrance	Parking Lot	-
7:00	0	0	0	0
7:20	0	0	0	0
7:30	0	0	0	0
7:40	0	0	0	0
7:50	0	0	0	0
8:00	0	1	0	0
8:20	0	1	0	1
8:30	0	0	0	0
8:40	0	0	0	0
8:50	0	0	0	0
9:10	1	0	0	1
9:20	1	1	0	2
9:30	1	0	0	1
9:40	0	0	0	0
9:50	1	1	0	2
10:10	1	0	0	1
10:20	2	1	0	3
10:30	3	2	0	5
10:40	1	2	0	3
10:50	0	0	0	0
11:00	2	 	0	2
11:20	1	0	0	1
11:30	1	2	0	3
11:40	0	2	0	2
11:50	0	0	0	0
12:00	1	0	0	1
12:20	1	1	0	2
12:30	2	0	0	2
12:40	1	3	0	4
12:50	2	1	0	3
13:00	0	0	0	0
13:20	1	1	0	2
13:30	0	0	0	0
13:40	1	0	0	1
13:50	0	1	0	1
14:00	1	0	0	1
14:10	0	1	0	1
14:30	0	0	0	0
14:40	0	2	0	2
14:50	2	2	0	4
15:00	0	1	0	1
15:10	0	2	0	3
15:30	2	0	0	2
15:40	1	2	0	3
15:50	1	0	0	1
16:00	0	0	0	0
16:10 16:20	3 2	<u> </u>	0	5 2
16:30	1	0	0	1
16:40	0	4	0	4
16:50	1	0	0	1
17:00	3	1	0	4
17:10	<u>3</u>	1	0	4
17:30	1	1	0	2
17:40	1	1	0	2
17:50	0	1	0	1
18:00	0	1	0	1
18:10	1	U 1	0	1
18:30	1	0	0	1
18:40	0	0	0	0
18:50	0	0	0	0
19:00	0	0	0	0
19:10	0	0	0	0
19:20	0	0	0	0
19:40	0	0	0	0
19:50	0	0	0	0
20:00	0	0	0	0

LOCATION:Fast5Xpress Car Wash, 935 E Huntington DrCITY:Monrovia, CA

DAY: Saturday DATE: 1/21/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to Dournant Kiesk	to Car Wash Entrance	into Darking Let	TOTAL
7:00	Payment Klosk	Car wash Entrance	Parking Lot	6
7:10	1	1	0	2
7:20	0	2	0	2
7:30	1	0	0	1
7:40	0	1	0	1
7:50	1	1	0	2
8:00	2	1	0	3
8:20	3	1	0	4
8:30	1	0	0	1
8:40	3	2	0	5
8:50	1	1	0	2
9:00	2	4	0	6
9:10	0	1	0	2
9:30	0	4	0	4
9:40	1	0	0	1
9:50	3	3	0	6
10:00	3	4	0	7
10:10	3	3	0	6
10:30	2	3	0	5
10:40	1	1	0	2
10:50	2	4	0	6
11:00	2	4	0	6
11:10	2	4	0	6
11:20	2	<u>ل</u>	0	<u>ک</u>
11:40	3	3	0	6
11:50	2	8	0	10
12:00	2	9	0	11
12:10	2	10	0	12
12:20	3	11	0	14
12:30	2	11	0	13
12:50	3	6	0	9
13:00	1	3	0	4
13:10	2	6	0	8
13:20	2	10	0	12
13:30	2	4	0	6
13:50	2	8	0	10
14:00	3	10	0	13
14:10	4	9	0	13
14:20	3	11	0	14
14:30	3	6	0	9
14:40	1	5	0	6
15:00	3	11	0	14
15:10	2	4	0	6
15:20	2	5	0	7
15:30	1	10	0	11
15:40	3	10	0	13
15:50 16:00	<u>३</u>	3 2	0	<u>р</u> 2
16:10	2	0	0	2
16:20	2	0	0	2
16:30	0	0	0	0
16:40	2	0	0	2
10:50	1	1	0	3 1
17:10	0	0	0	0
17:20	2	0	0	2
17:30	1	1	0	2
17:40	0	0	0	0
1/:50	0	0	0	0
18:10	0	0	0	0
18:20	1	0	0	1
18:30	1	1	0	2
18:40	1	1	0	2
18:50	0	0	0	0
19:00	0	0	0	0
19:20	0	0	0	0
19:30	0	0	0	0
19:40	0	0	0	0
19:50	0	0	0	0
20:00	0	0	0	0

LOCATION:Whittier Express Car Wash, 13945 Telegraph RdCITY:Whittier, CA

DAY: Wednesday DATE: 1/11/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to	to	into	TOTAL
	Payment Kiosk	Car Wash Entrance	Parking Lot	
8:00	0	0	0	0
8:10	0	0	0	0
8:20	0	0	0	0
8:30	0	0	0	0
8:40	0	0	0	0
8:50	0	0	0	0
9:00	0	0	0	0
9:10	0	0	0	0
9:20	0	0	0	0
9:30	0	0	0	0
9:40	1	0	0	1
9:50	0	0	0	0
10:00	0	0	0	0
10:10	0	0	0	0
10:20	0	0	0	0
10:30	0	0	0	0
10:40	0	1	0	1
10:50	0	0	1	1
11:00	0	0	0	0
11:10	0	0	0	0
11:20	0	0	0	0
11:30	0	0	0	0
11:40	0	0	0	0
11:50	0	0	0	0
12:00	0	0	0	0
12:10	0	0	0	0
12:20	0	0	0	0
12:30	0	0	0	0
12:40	1	1	0	2
12:50	0	0	0	0
13:00	0	0	0	0
13:10	0	0	0	0
13:20	1	0	0	1
13:30	0	0	0	0
13:40	0	0	0	0
13:50	0	0	0	0
14:00	1	0	0	1
14:10	0	0	0	0
14:20	0	0	0	0
14:30	1	1	0	2
14:40	0	3	0	3
14:50	0	0	0	0
15:00	0	0	0	0
15:10	0	0	0	0
15:20	1	0	0	1
15:30	0	2	0	2
15:40	0	0	0	0
15:50	0	0	0	0
16:00	0	0	0	0
16:10	0	0	0	0
16:20	0	0	0	0
16:30	0	2	0	2
16:40	0	0	0	0
16:50	0	0	0	0
17:00	0	0	0	0

Counts Unlimited, Inc. PO Box 1178 Corona, CA 92878 951-268-6268

LOCATION:Whittier Express Car Wash, 13945 Telegraph RdCITY:Whittier, CA

DAY: Saturday DATE: 1/28/2023

	Tunnel Entrance	Payment Kiosk	Car Wash Entrance	
TIME	to	to	into	TOTAL
	Payment Kiosk	Car Wash Entrance	Parking Lot	
8:00	0	0	0	0
8:10	0	0	0	0
8:20	0	0	0	0
8:30	0	0	0	0
8:40	1	0	0	1
8:50	0	0	0	0
9:00	0	0	0	0
9:10	0	0	0	0
9:20	1	0	0	1
9:30	0	0	0	0
9:40	1	0	0	1
9:50	0	0	0	0
10:00	1	0	0	1
10:10	0	0	0	0
10:20	2	0	0	2
10:30	0	0	0	0
10:40	1	0	0	1
10:50	0	0	0	0
11:00	0	0	0	0
11:10	0	0	0	0
11:20	0	0	0	0
11:30	0	0	0	0
11:40	0	0	0	0
11:50	1	0	0	1
12:00	1	2	0	3
12:10	0	0	0	0
12:20	2	1	0	3
12:30	2	0	0	2
12:40	1	0	0	1
12:50	1	1	0	2
13:00	0	2	0	2
13:10	0	1	0	1
13:20	0	2	0	2
13:30	1	0	0	1
13:40	0	0	0	0
13:50	0	0	0	0
14:00	0	0	0	0
14:10	0	0	0	0
14:20	1	0	0	1
14:30	0	0	0	0
14:40	0	1	0	1
14:50	0	0	0	0
15:00	1	0	0	1
15:10	0	0	0	0
15:20	0	0	0	0
15:30	0		0	1
15:40	0	0	0	U
15:50		0	0	1
16:00	0	0	U	Ű
16:10	0	0	U	U
16:20	0	0	0	U
16:30	0	0	0	Ű
16:40	0	0	0	Ű
16:50		0	0	Ű
17:00	U	U	U	U

Counts Unlimited, Inc. PO Box 1178 Corona, CA 92878 951-268-6268

LOCATION:Dutch Bros, 13322 Limonite AveCITY:Eastvale, CA

DAY: Wednesday DATE: 1/11/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	1	2	0	3
6:10	2	3	0	5
6:20	1	4	0	5
6:30	2	0	0	2
6:40	2	0	0	2
6:50	0	0	0	0
7:00	1	3	0	4
7:10	1	10	0	11
7:20	1	6	0	7
7:30	1	6	0	7
7:40	1	4	0	5
7:50	1	2	0	3
8:00	0	1	0	1
8:10	2	5	0	7
8:20	1	3	0	4
8:30	1	3	0	4
8:40	2	6	0	8
8:50	1	6	0	7
9:00	1	6	0	7

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	1	7	0	8
11:10	1	4	0	5
11:20	1	5	0	6
11:30	1	5	0	6
11:40	1	1	0	2
11:50	1	11	0	12
12:00	1	13	0	14
12:10	1	9	0	10
12:20	1	11	0	12
12:30	1	4	0	5
12:40	2	10	0	12
12:50	1	5	0	6
13:00	1	8	0	9
13:10	1	9	0	10
13:20	2	7	0	9
13:30	1	9	0	10
13:40	1	6	0	7
13:50	2	2	0	4
14:00	1	6	0	7

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	2	4	0	6
16:10	1	10	0	11
16:20	1	10	0	11
16:30	1	9	0	10
16:40	1	11	0	12
16:50	1	7	0	8
17:00	2	4	0	6
17:10	1	0	0	1
17:20	0	2	0	2
17:30	1	5	0	6
17:40	1	5	0	6
17:50	0	0	0	0
18:00	1	3	0	4
18:10	1	1	0	2
18:20	1	2	0	3
18:30	2	2	0	4
18:40	1	2	0	3
18:50	1	5	0	6
19:00	1	5	0	6

LOCATION:Dutch Bros, 13322 Limonite AveCITY:Eastvale, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	1	7	0	8
6:10	1	9	0	10
6:20	1	8	0	9
6:30	1	9	0	10
6:40	1	10	0	11
6:50	1	13	0	14
7:00	1	17	0	18
7:10	1	19	0	20
7:20	1	18	0	19
7:30	1	17	0	18
7:40	1	17	0	18
7:50	1	19	0	20
8:00	1	20	2	23
8:10	1	20	2	23
8:20	1	20	2	23
8:30	1	17	0	18
8:40	1	19	4	24
8:50	1	20	4	25
9:00	1	18	0	19

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	1	19	17	37
11:10	1	20	16	37
11:20	1	20	15	36
11:30	1	20	12	33
11:40	1	20	11	32
11:50	1	18	13	32
12:00	1	19	12	32
12:10	1	20	15	36
12:20	1	20	13	34
12:30	1	19	11	31
12:40	1	20	6	27
12:50	1	20	5	26
13:00	1	19	2	22
13:10	1	17	11	29
13:20	1	17	12	30
13:30	1	18	0	19
13:40	1	19	0	20
13:50	2	20	1	23
14:00	1	19	4	24

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	1	20	17	38
16:10	1	20	14	35
16:20	1	20	9	30
16:30	2	20	3	25
16:40	1	20	4	25
16:50	1	20	1	22
17:00	1	20	10	31
17:10	1	20	6	27
17:20	1	19	2	22
17:30	1	20	3	24
17:40	1	20	0	21
17:50	1	20	5	26
18:00	1	19	1	21
18:10	1	19	7	27
18:20	1	20	10	31
18:30	1	20	5	26
18:40	1	19	0	20
18:50	1	17	0	18
19:00	1	18	0	19

LOCATION:Dutch Bros, 32690 Yucaipa BoulevardCITY:Yucaipa, CA

DAY: Wednesday DATE: 1/11/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	1	0	0	1
6:10	2	1	0	3
6:20	3	1	0	4
6:30	3	2	0	5
6:40	4	0	0	4
6:50	2	0	0	2
7:00	1	0	0	1
7:10	3	0	0	3
7:20	2	1	0	3
7:30	4	1	0	5
7:40	1	0	0	1
7:50	1	0	0	1
8:00	2	3	0	5
8:10	4	7	0	11
8:20	6	4	0	10
8:30	3	0	0	3
8:40	4	2	0	6
8:50	2	3	0	5
9:00	1	1	0	2

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	5	2	0	7
11:10	6	9	0	15
11:20	5	11	2	18
11:30	5	13	0	18
11:40	4	6	0	10
11:50	6	2	0	8
12:00	2	1	0	3
12:10	3	2	0	5
12:20	5	2	0	7
12:30	5	3	0	8
12:40	2	1	0	3
12:50	1	2	0	3
13:00	1	0	0	1
13:10	3	9	0	12
13:20	4	5	0	9
13:30	4	2	0	6
13:40	5	6	0	11
13:50	4	5	0	9
14:00	1	2	0	3

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	5	6	0	11
16:10	4	3	0	7
16:20	5	5	0	10
16:30	4	6	0	10
16:40	5	2	0	7
16:50	5	2	0	7
17:00	5	5	0	10
17:10	2	5	0	7
17:20	5	6	0	11
17:30	5	6	0	11
17:40	6	3	0	9
17:50	1	1	0	2
18:00	2	2	0	4
18:10	3	1	0	4
18:20	4	0	0	4
18:30	1	8	0	9
18:40	5	2	0	7
18:50	2	2	0	4
19:00	1	1	0	2

LOCATION:Dutch Bros, 32690 Yucaipa BoulevardCITY:Yucaipa, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	1	0	0	1
6:10	2	0	0	2
6:20	1	0	0	1
6:30	3	1	0	4
6:40	1	1	0	2
6:50	2	1	0	3
7:00	4	1	0	5
7:10	4	0	0	4
7:20	5	0	0	5
7:30	2	2	0	4
7:40	3	2	0	5
7:50	1	1	0	2
8:00	3	5	0	8
8:10	4	6	0	10
8:20	5	5	0	10
8:30	4	4	0	8
8:40	5	10	0	15
8:50	4	12	0	16
9:00	5	10	0	15

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	4	5	0	9
11:10	5	6	0	11
11:20	3	11	0	14
11:30	5	12	0	17
11:40	5	9	0	14
11:50	2	5	0	7
12:00	4	8	0	12
12:10	4	10	1	15
12:20	5	12	2	19
12:30	5	12	4	21
12:40	4	13	3	20
12:50	4	14	2	20
13:00	4	12	1	17
13:10	5	14	2	21
13:20	4	13	0	17
13:30	3	12	1	16
13:40	4	11	6	21
13:50	4	12	8	24
14:00	4	15	6	25

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	5	8	0	13
16:10	5	8	0	13
16:20	3	4	0	7
16:30	5	4	0	9
16:40	5	6	0	11
16:50	5	8	0	13
17:00	5	6	0	11
17:10	4	6	0	10
17:20	4	7	0	11
17:30	1	1	0	2
17:40	5	4	0	9
17:50	4	6	0	10
18:00	5	5	0	10
18:10	5	6	0	11
18:20	5	8	0	13
18:30	5	4	0	9
18:40	5	8	0	13
18:50	4	8	0	12
19:00	5	9	0	14

LOCATION:Dutch Bros, 15211 Hook BoulevardCITY:Victorville, CA

DAY: Wednesday DATE: 1/11/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	0	0	0	0
6:10	2	1	0	3
6:20	0	0	0	0
6:30	0	0	0	0
6:40	2	0	0	2
6:50	4	0	0	4
7:00	2	0	0	2
7:10	2	0	0	2
7:20	4	0	0	4
7:30	4	0	0	4
7:40	5	1	0	6
7:50	3	1	0	4
8:00	5	4	0	9
8:10	5	1	0	6
8:20	5	3	0	8
8:30	7	2	0	9
8:40	6	4	0	10
8:50	5	2	0	7
9:00	3	0	0	3

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	4	1	0	5
11:10	3	0	0	3
11:20	4	1	0	5
11:30	2	1	0	3
11:40	4	0	0	4
11:50	0	0	0	0
12:00	4	1	0	5
12:10	4	0	0	4
12:20	4	0	0	4
12:30	5	0	0	5
12:40	1	0	0	1
12:50	0	0	0	0
13:00	0	0	0	0
13:10	5	0	0	5
13:20	3	0	0	3
13:30	2	1	0	3
13:40	2	0	0	2
13:50	0	0	0	0
14:00	2	0	0	2

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	3	1	0	4
16:10	2	1	0	3
16:20	3	0	0	3
16:30	1	0	0	1
16:40	2	0	0	2
16:50	2	0	0	2
17:00	3	0	0	3
17:10	5	2	0	7
17:20	6	1	0	7
17:30	4	2	0	6
17:40	5	1	0	6
17:50	5	0	0	5
18:00	2	1	0	3
18:10	5	1	0	6
18:20	4	0	0	4
18:30	3	0	0	3
18:40	2	0	0	2
18:50	2	0	0	2
19:00	3	0	0	3

LOCATION:Dutch Bros, 15211 Hook BoulevardCITY:Victorville, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
6:00	0	0	0	0
6:10	0	0	0	0
6:20	1	0	0	1
6:30	1	0	0	1
6:40	2	0	0	2
6:50	1	0	0	1
7:00	2	2	0	4
7:10	3	0	0	3
7:20	2	0	0	2
7:30	3	0	0	3
7:40	3	0	0	3
7:50	5	0	0	5
8:00	1	1	0	2
8:10	5	0	0	5
8:20	6	3	0	9
8:30	3	0	0	3
8:40	1	0	0	1
8:50	4	0	0	4
9:00	6	1	0	7

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	5	6	0	11
11:10	4	6	0	10
11:20	3	4	0	7
11:30	2	0	0	2
11:40	5	3	0	8
11:50	4	2	0	6
12:00	5	2	0	7
12:10	3	0	0	3
12:20	3	3	0	6
12:30	3	2	0	5
12:40	2	3	0	5
12:50	4	1	0	5
13:00	4	1	0	5
13:10	3	1	0	4
13:20	3	0	0	3
13:30	5	2	0	7
13:40	5	2	0	7
13:50	2	0	0	2
14:00	4	2	0	6

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	4	4	0	8
16:10	5	3	0	8
16:20	5	0	0	5
16:30	3	0	0	3
16:40	4	0	0	4
16:50	3	0	0	3
17:00	5	3	0	8
17:10	3	0	0	3
17:20	3	0	0	3
17:30	5	0	0	5
17:40	4	0	0	4
17:50	2	1	0	3
18:00	2	0	0	2
18:10	2	0	0	2
18:20	5	0	0	5
18:30	6	2	0	8
18:40	3	2	0	5
18:50	3	0	0	3
19:00	3	1	0	4
LOCATION:Panera Bread, 1054 W Gladstone StreetCITY:San Dimas, CA

DAY: Thursday DATE: 1/12/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	0	1	0	1
11:10	2	0	0	2
11:20	1	2	0	3
11:30	1	0	0	1
11:40	2	0	0	2
11:50	2	1	0	3
12:00	0	1	0	1
12:10	2	0	0	2
12:20	1	1	0	2
12:30	2	1	0	3
12:40	1	3	0	4
12:50	1	3	0	4
13:00	1	0	0	1
13:10	0	0	0	0
13:20	3	2	0	5
13:30	3	2	0	5
13:40	1	0	0	1
13:50	0	1	0	1
14:00	0	0	0	0

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	2	2	0	4
16:10	2	0	0	2
16:20	2	3	0	5
16:30	3	3	0	6
16:40	1	1	0	2
16:50	0	0	0	0
17:00	0	1	0	1
17:10	1	2	0	3
17:20	3	1	0	4
17:30	1	2	0	3
17:40	1	0	0	1
17:50	2	2	0	4
18:00	0	1	0	1
18:10	1	1	0	2
18:20	1	2	0	3
18:30	1	3	0	4
18:40	1	3	0	4
18:50	3	1	0	4
19:00	0	1	0	1

LOCATION:Panera Bread, 1054 W Gladstone StreetCITY:San Dimas, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	0	0	0	0
11:10	0	0	0	0
11:20	1	0	0	1
11:30	0	0	0	0
11:40	0	0	0	0
11:50	1	0	0	1
12:00	1	1	0	2
12:10	0	0	0	0
12:20	0	0	0	0
12:30	1	2	0	3
12:40	3	1	0	4
12:50	2	0	0	2
13:00	1	0	0	1
13:10	0	0	0	0
13:20	0	0	0	0
13:30	2	0	0	2
13:40	0	0	0	0
13:50	2	0	0	2
14:00	3	1	0	4

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	1	0	0	1
16:10	2	0	0	2
16:20	0	0	0	0
16:30	0	0	0	0
16:40	1	0	0	1
16:50	1	1	0	2
17:00	0	0	0	0
17:10	0	0	0	0
17:20	2	2	0	4
17:30	2	0	0	2
17:40	1	1	0	2
17:50	2	0	0	2
18:00	0	1	0	1
18:10	0	0	0	0
18:20	0	0	0	0
18:30	2	0	0	2
18:40	3	2	0	5
18:50	2	3	0	5
19:00	4	1	0	5

LOCATION:Panera Bread, 423 S Associated RdCITY:Brea, CA

DAY: Thursday DATE: 1/12/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	2	0	0	2
11:10	2	0	0	2
11:20	1	0	0	1
11:30	0	0	0	0
11:40	3	0	0	3
11:50	1	0	0	1
12:00	1	0	0	1
12:10	1	0	0	1
12:20	2	1	0	3
12:30	0	2	0	2
12:40	1	1	0	2
12:50	3	2	0	5
13:00	0	0	0	0
13:10	0	1	0	1
13:20	2	0	0	2
13:30	3	0	0	3
13:40	2	0	0	2
13:50	1	0	0	1
14:00	2	0	0	2

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	2	0	0	2
16:10	3	0	0	3
16:20	1	0	0	1
16:30	1	0	0	1
16:40	0	1	0	1
16:50	3	0	0	3
17:00	1	0	0	1
17:10	0	2	0	2
17:20	3	1	0	4
17:30	0	0	0	0
17:40	4	0	0	4
17:50	4	1	0	5
18:00	2	1	0	3
18:10	1	1	0	2
18:20	2	1	0	3
18:30	0	0	0	0
18:40	1	1	0	2
18:50	3	0	0	3
19:00	3	1	0	4

LOCATION:Panera Bread, 423 S Associated RdCITY:Brea, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	4	0	0	4
11:10	4	3	0	7
11:20	4	2	0	6
11:30	4	0	0	4
11:40	1	0	0	1
11:50	1	0	0	1
12:00	0	0	0	0
12:10	3	2	0	5
12:20	4	1	0	5
12:30	3	0	0	3
12:40	3	1	0	4
12:50	3	1	0	4
13:00	2	0	0	2
13:10	0	1	0	1
13:20	3	0	0	3
13:30	2	1	0	3
13:40	1	1	0	2
13:50	3	0	0	3
14:00	2	0	0	2

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	1	0	0	1
16:10	1	1	0	2
16:20	0	0	0	0
16:30	3	1	0	4
16:40	1	1	0	2
16:50	2	0	0	2
17:00	1	0	0	1
17:10	1	0	0	1
17:20	2	1	0	3
17:30	1	0	0	1
17:40	0	0	0	0
17:50	1	2	0	3
18:00	3	2	0	5
18:10	2	0	0	2
18:20	0	0	0	0
18:30	1	1	0	2
18:40	2	0	0	2
18:50	0	0	0	0
19:00	2	2	0	4

LOCATION:Panera Bread, 1750 S State College BlvdCITY:Anaheim, CA

DAY: Wednesday DATE: 1/11/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	0	1	0	1
11:10	1	0	0	1
11:20	2	0	0	2
11:30	0	1	0	1
11:40	0	0	0	0
11:50	0	0	0	0
12:00	3	1	0	4
12:10	3	0	0	3
12:20	2	0	0	2
12:30	0	0	0	0
12:40	4	2	0	6
12:50	4	2	0	6
13:00	2	3	0	5
13:10	2	0	0	2
13:20	4	2	0	6
13:30	3	1	0	4
13:40	1	0	0	1
13:50	0	0	0	0
14:00	1	0	0	1

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	0	0	0	0
16:10	1	0	0	1
16:20	1	0	0	1
16:30	1	0	0	1
16:40	1	0	0	1
16:50	2	3	0	5
17:00	2	0	0	2
17:10	0	0	0	0
17:20	2	0	0	2
17:30	2	0	0	2
17:40	0	0	0	0
17:50	1	0	0	1
18:00	0	0	0	0
18:10	0	2	0	2
18:20	4	0	0	4
18:30	3	1	0	4
18:40	3	2	0	5
18:50	1	0	0	1
19:00	0	0	0	0

LOCATION:Panera Bread, 1750 S State College BlvdCITY:Anaheim, CA

DAY: Saturday DATE: 1/21/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:00	0	0	0	0
11:10	0	0	0	0
11:20	0	0	0	0
11:30	1	1	0	2
11:40	0	0	0	0
11:50	0	0	0	0
12:00	0	0	0	0
12:10	3	0	0	3
12:20	0	1	0	1
12:30	2	0	0	2
12:40	1	0	0	1
12:50	0	0	0	0
13:00	1	0	0	1
13:10	2	1	0	3
13:20	1	0	0	1
13:30	0	0	0	0
13:40	0	0	0	0
13:50	1	0	0	1
14:00	1	0	0	1

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
16:00	1	0	0	1
16:10	1	0	0	1
16:20	0	1	0	1
16:30	2	1	0	3
16:40	1	0	0	1
16:50	0	0	0	0
17:00	0	0	0	0
17:10	1	0	0	1
17:20	0	1	0	1
17:30	1	0	0	1
17:40	0	1	0	1
17:50	1	0	0	1
18:00	0	0	0	0
18:10	1	0	0	1
18:20	0	0	0	0
18:30	0	0	0	0
18:40	1	3	0	4
18:50	2	0	0	2
19:00	2	0	0	2





ADDITIONAL CAPACITY

DRIVE-THROUGH CAPACITY

