

Traffic Impact Study Report

## **Clayton Community Church**

City of Clayton, California

February 11, 2021



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## EXECUTIVE SUMMARY

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed Clayton Community Church (project) to be located at 1027 Pine Hollow Court in the City of Clayton, as shown in **Figure 1**. The proposed project would construct a 13,823 square foot (sq. ft.) church building, including a sanctuary, offices, and classrooms. There is currently one single family home on the site, which would be retained, and other secondary structures that would be removed. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The church offices are currently located at 6055 Main Street and would remain occupied after project completion. At present, church services are held at Diablo View Middle School. The project site plan dated November 13, 2019, is shown in **Figure 2**.

### **Vehicle Miles Traveled**

The CCTA guidelines include a screening process that describes five scenarios in which a project would be with exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis, 2) small projects, 3) local serving projects, 4) projects in transit priority areas, and 5) projects in low VMT areas. Based on the average number of daily trips generated by the project and expected trip lengths, it is TJKM's opinion that the proposed Clayton Community Church's location and travel characteristics allow it to be classified as both a Small Project and a Locally-Serving Project under the adopted CCTA screening criteria. The project can therefore be presumed to have a **less than significant** VMT impact.

### **Project Trip Generation**

Trip generation for the proposed project was estimated based on published trip generation rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation (10<sup>th</sup> Edition)*. The project is expected to generate 401 total Sunday trips, including 145 peak hour trips (70 in, 75 out). The project is also expected to generate 101 daily trips on weekdays and 87 daily trips on Saturdays.

### **Roadway Operations – Existing Conditions**

Existing Conditions traffic volumes are based on intersection turning movement counts conducted in October 2020, with observed traffic volumes increased by 20 percent to account for reduced traffic volumes under Covid-19 pandemic conditions. Roadway operations were studied for Sunday a.m. peak hour conditions. Under this scenario, all of the study intersections would operate at acceptable LOS A or B during the Sunday peak hour.

### **Roadway Operations – Existing plus Project Conditions**

Under this scenario, all of the study intersections would continue to operate at acceptable LOS A or B during the Sunday peak hour. The City of Clayton target LOS for signalized intersections is LOS D or better. The project **would be consistent** with the City of Clayton General Plan.

***Interaction with Mt. Diablo Elementary School Traffic***

TJKM reviewed the daily bell schedule and drop-off/pickup times for Mt. Diablo Elementary School and compared it to the weekly operation plan for the proposed church in order to identify any overlapping peak times when traffic for both uses might interact. While the majority of school traffic occurs on weekdays before and after school, the majority of church-related traffic would occur on Sunday mornings, with a smaller amount of traffic on weekdays. Based on the existing school bell schedule and planned church operations schedule, it is expected that traffic overlap would generally be minimal. The primary exception would be Wednesdays during the school pickup time, which coincides with parents dropping off students for the church's "Crosswalk" after school program. It is expected that any Mt. Diablo Elementary School students attending the program would walk. While the Crosswalk-related increase in after school traffic on Wednesdays would be noticeable, the added vehicles would use the through lanes on Pine Hollow Road and would not need to enter the school's back parking lot or loading zone on Pine Hollow Road, and they could avoid using Mt. Zion Drive entirely. As such, the added traffic is not expected to substantially exacerbate any existing operational problems during this period.

***Site Access and On-Site Circulation***

TJKM reviewed the project site plan (dated November 13, 2020) to evaluate site access and circulation within the project site. Site access for vehicles and bicycles will be provided from Pine Hollow Court drive via one driveway near the boundary end of the project site. The two existing driveways on the site would be eliminated. The site plan shows internal marked crosswalks between the public sidewalk and entrances, and across the drive aisle fronting the main entrance parking areas and building entrances. Pedestrian circulation on-site is primarily via walkways surrounding the building, which are all a minimum of three feet wide. TJKM understands that a revision to the November 13, 2020, site plan will widen all walkways at least five feet wide.

The parking areas on the site are distributed to the north, west, and south of the church building. All drive aisles are two-way and 25 feet wide, with right-angle parking on one or both sides. The small parking area on the southern end of the site, next to the existing house, would include space for vehicles to turn around. The drive aisle north of the building also provide additional space for vehicles to turn around or maneuver in and out of the parking spaces at the end.

The trash enclosure would be located immediately south of the project driveway, opening onto the main north-south drive aisle. Trucks and emergency vehicles can enter the site, access both buildings, and turn around in the parking area south of the church building. While fire trucks can access the north side of the building, they could not turn around and would need to back out. Subject to final approval by the Contra Costa Fire Protection District, site access and circulation would be **adequate**.

***Parking***

Based on the preliminary project site plan dated November 13, 2020, as well as intended site plan revisions that would affect parking supply, the project would provide 156 parking spaces, including six accessible spaces, 13 compact spaces, 10 spaces marked "clean air/vanpool/EV", 10 spaces with conduit run for future EV, and 121 standard spaces. Accessible parking spaces are all located close to the main

church entrance and include one van accessible space. The site plan also shows one marked loading zone near the main entrance.

Based on the City of Clayton Municipal Code's minimum parking ratio for places of assembly of one space per 50 sq. ft. of assembly space, the 3,341 sq. ft. main worship space would require only 66 parking spaces. If the entire building is divided into office, classroom, and total worship space, the proposed church would require 152 parking spaces total. Under either calculation, the proposed parking supply would be **adequate**.

TJKM has conducted past studies measuring parking demand at other churches in the Bay Area as related to church attendance. These studies produce an average parking demand of one parking space per 2.0-2.5 attendees in the main worship service. The total attendance at the 9:00 a.m. service is expected to be 259, and it is expected that the typical Sunday parking demand would be 104-130 parking spaces. This demand can be fully accommodated by the proposed parking supply without producing any off-site parking impacts in the surrounding neighborhood.

The church expects that their highest attendance events would be for Easter Sunday and Christmas Eve, with total attendance of approximately 600 for each. It is expected that the church may hold additional services for Easter and Christmas, in order to accommodate the total attendance. Parking management activities are planned, including volunteers in the parking lot to direct traffic. In addition to the proposed 156 parking spaces, the church is also in discussion with Mt. Diablo Elementary School to establish an agreement to provide reciprocal overflow event parking. The busy holiday services would be held at times when the school is not in session, and the majority of the church parking lot would be vacant on evenings and Saturdays when the school may hold special events. If church attendees are directed to park only in the staff parking lot and designated on-street staff parking spaces, this increases the available parking supply by 60 spaces, for a total available parking supply of 216 spaces for each service. Based on a conservative parking demand of one space per 2.0 attendees, the highest attendance holiday service could accommodate up to 432 attendees if all overflow parking is available. With two services, a total attendance of 600 could be accommodated. With adequate parking management and traffic direction, it is expected that the church would produce no off-site parking impacts in the surrounding neighborhood.

### ***Pedestrian, Bicycle, and Transit Facilities***

The project does not conflict with existing or planned pedestrian or bicycle facilities. It is expected to add trips to the existing transit services, which can be accommodated by the existing transit capacity. Therefore, the project is estimated to have a **less than significant** impact to pedestrian, bicycle, and transit facilities.

## 1.0 INTRODUCTION

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed Clayton Community Church (project) to be located at 1027 Pine Hollow Court in the City of Clayton, as shown in **Figure 1**. The proposed project would construct a 13,823 square foot (sq. ft.) church building, including a sanctuary, offices, and classrooms. There is currently one single family home on the site, which would be retained, and other secondary structures that would be removed. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The church offices are currently located at 6055 Main Street and would remain occupied after project completion. At present, church services are held at Diablo View Middle School. The project site plan dated November 13, 2019, is shown in **Figure 2**.

The purpose of this report is to provide summaries of changes in vehicle miles traveled (VMT) and traffic impacts on the surrounding transportation system with the proposed project. The VMT analysis is based on the methodology adopted by the Contra Costa Transportation Authority (CCTA). To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, the study intersections were evaluated for consistency with the standards set forth by the level of service (LOS) policies of the City of Clayton, with modifications to account for changes in LOS methodology.

This report also evaluates project-related impacts on non-automobile transportation facilities in the immediate project vicinity. The project site plan was reviewed for adequacy of site access, circulation, and parking.

### 1.1 STUDY INTERSECTIONS AND SCENARIOS

TJKM evaluated traffic conditions at five study intersections during the a.m. peak hour for a typical Sunday. The study intersections were selected based on TJKM's working knowledge of the area. The peak period observed was between 8:30 – 11:00 a.m., when church-related traffic is typically highest. Due to the minimal trip generation for churches during the weekday a.m. (7:00 – 9:00) and p.m. (4:00 – 6:00) peak periods, analysis of these periods is unnecessary.

The study intersections and associated traffic controls are as follows:

1. Pine Hollow Court & Pine Hollow Road (uncontrolled)
2. Mt. Zion Drive/Tiffin Drive & Pine Hollow Road (all-way stop)
3. Mt. Zion Drive & Clayton Road (two-way stop)
4. Mitchell Canyon Road & Pine Hollow Road (all-way stop)
5. Mitchell Canyon Road & Clayton Road (signal)

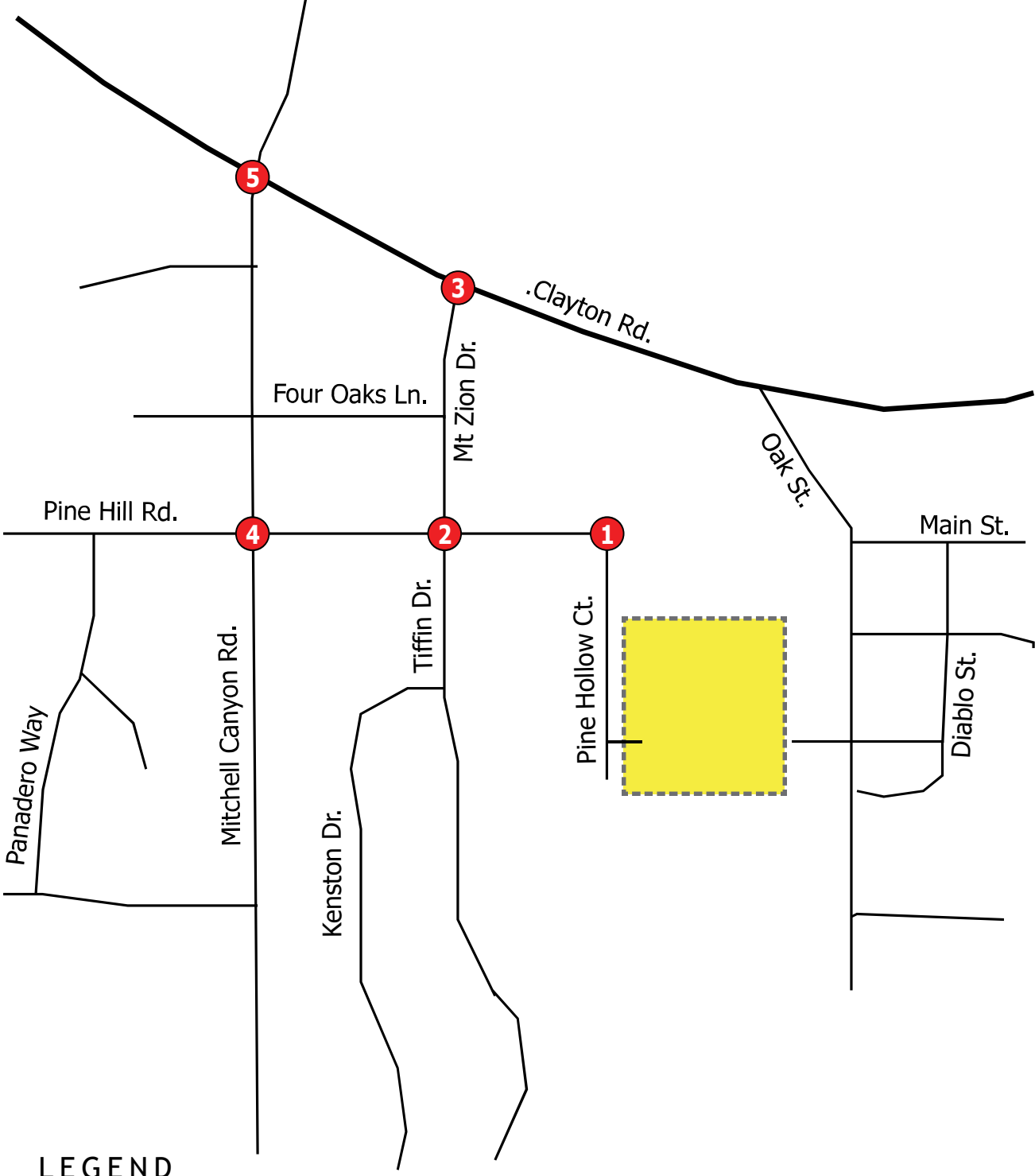
**Figure 1** illustrates the study intersections and the vicinity map of the proposed project.

The roadway operations analysis addresses the following two traffic scenarios:



- **Existing Conditions** – This scenario evaluates the study intersections based on adjusted existing traffic volumes and existing lane geometry and traffic controls. Turning movement counts were collected in October 2020. Due to changes in traffic resulting from Covid-19, observed traffic volumes were increased by 20 percent to estimate non-pandemic conditions.
- **Existing plus Project Conditions** – This scenario is identical to Existing Conditions, but with the addition of net new traffic from the proposed project.

Figure 1: Vicinity Map



LEGEND



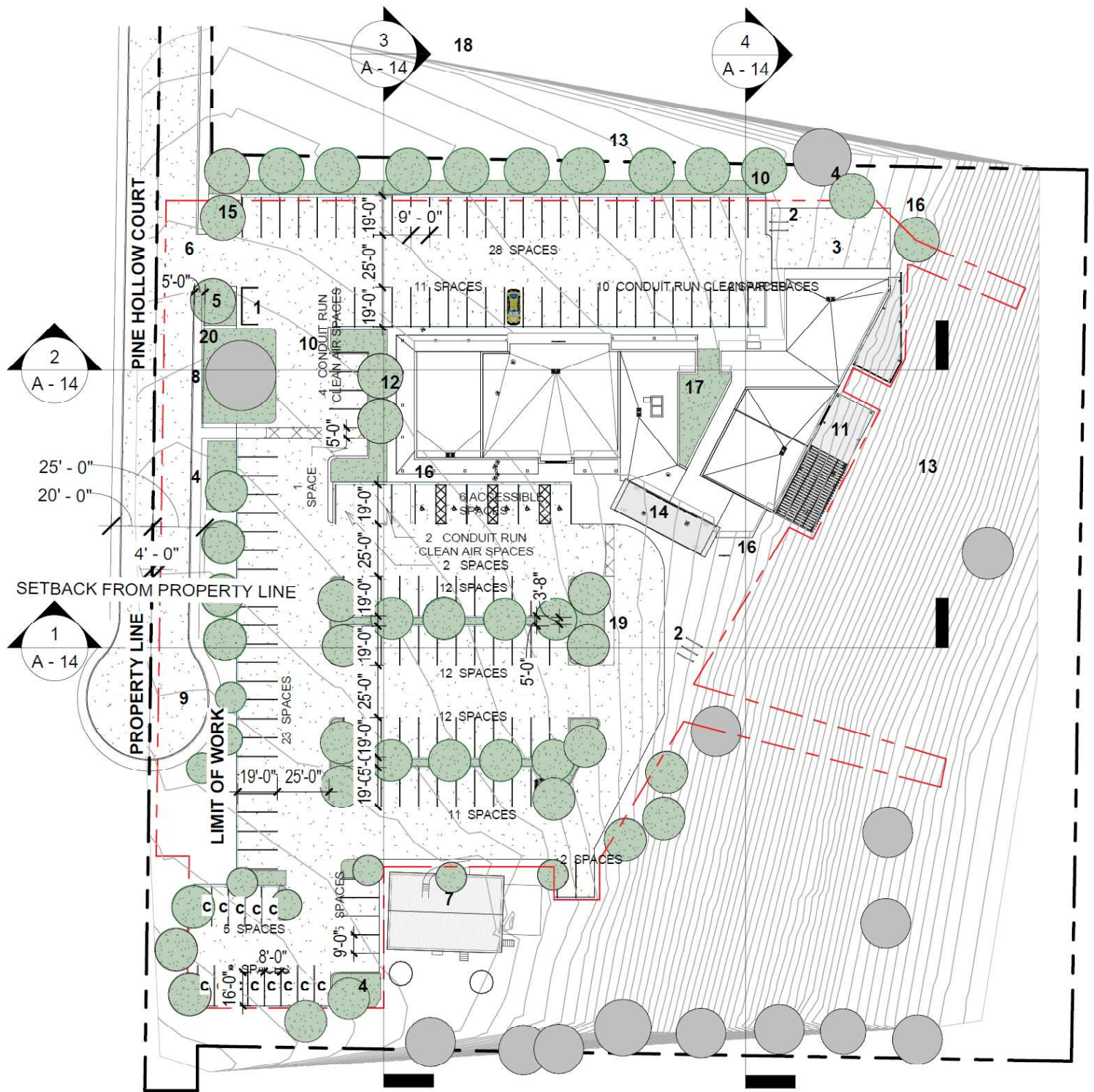
-  Project Site
-  Study Intersections



Figure 2: Site Plan



1 ARCHITECTURAL SITE PLAN  
1/64" = 1'-0"

## 2.0 STUDY METHODOLOGY

Traffic impacts related to the proposed project were evaluated for both compliance with applicable regulatory documents and environmental significance as defined in the California Environmental Quality Act (CEQA). In accordance with the technical advisory published by the Governor's Office of Planning and Research (OPR), a qualitative and quantitative VMT analysis forms the basis of the CEQA analysis for the proposed project. As of July 1, 2020, intersection level of service (LOS) can no longer be used to determine significant impacts for the purpose CEQA.

### 2.1 VEHICLE MILES TRAVELED

This study evaluates project-related VMT as outlined in the adopted CCTA VMT methodology. The methodology and implementation guidelines were adopted by CCTA in July 2020.

The CCTA guidelines include a screening process that describes five scenarios in which a project would be with exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis, 2) small projects, 3) local serving projects, 4) projects in transit priority areas, and 5) projects in low VMT areas. Using the CCTA methodologies, it appears that the Clayton Community Church will meet the exemption requirements for a small project. The following language is from the Project Screening section of the CCTA VMT methodologies:

**2.2 Small Projects.** Small projects can be presumed to cause a less-than-significant VMT impact. Small projects are defined as having 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.

**2.3: Local-Serving Uses.** Projects that consist of Local-Serving Uses can generally be presumed to have a less-than-significant impact absent substantial evidence to the contrary, since these types of projects will primarily draw users and customers from a relatively small geographic area that will lead to short-distance trips and trips that are linked to other destinations.

### 2.2 LEVEL OF SERVICE ANALYSIS METHODOLOGY

Although Level of Service (LOS) is not relevant to CEQA, LOS can be used to determine conformity with an adopted general plan or congestion management program. LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational LOS are given letter designations from A to F, with A representing the free-flow operating conditions and F representing the severely congested flow with high delays. Typically, LOS C is considered as an ideal condition as it represents stable flow and efficient use of the transportation facility. Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets. The following sections provide detailed study methodology based on the type of intersections.

### Signalized Intersections

The study intersections under traffic signal control were analyzed using the HCM 2010 Operations Methodology for signalized intersections described in Chapter 18 (HCM 2010). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 1** summarizes the relationship between the control delay and LOS for signalized intersections. The LOS assessment under all scenarios is based on current traffic controls and optimized signal timing unless otherwise noted.

**Table 1: Level of Service Definitions for Signalized Intersections**

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: Highway Capacity Manual 2010

### Stop-Controlled Intersections

The study intersections under two-way stop control were analyzed using the HCM 2010 Operations Methodology for two-way stop controlled intersections described in Chapter 19 (HCM 2010) and for all-way stop controlled intersections described in Chapter 20 (HCM 2010). LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At one- or two-way stop controlled intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the

average of all movements in that lane. **Table 2** summarizes the relationship between delay and LOS for stop-controlled intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections, as drivers expect less delay at stop-controlled intersections.

Each of the study intersections was analyzed using Synchro Version 10 software and HCM 2010 methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted.

**Table 2: Level of Service Definitions for Stop Controlled Intersections**

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: Highway Capacity Manual 2010

## 2.2 LEVEL OF SERVICE STANDARDS

Although level of service is no longer used for identifying impacts under CEQA, level of service analysis is still used for determining consistency with adopted agency plans and standards. Where standards refer to significant environmental impacts, this analysis instead identifies these as significant inconsistencies with adopted plans.

### Signalized Intersections

The City of Clayton General Plan does not provide specific acceptable LOS standards or thresholds of significance. LOS is described in terms of volume-to-capacity ratios based on prior editions of the Highway Capacity Manual and related to LOS targets for design improvements of the City's transportation network. This target is LOS D or better for roadway segments and intersections. For the purpose of evaluating project consistency with the General Plan, and consistent with professional standards and thresholds established by other nearby jurisdictions, a project-related inconsistency would be considered significant if:

- The project traffic added to existing conditions would result in the level of service deteriorating below LOS D.
- For intersections that already operate at unacceptable levels of service (E or F), the project trips result in an increase in delay by 5.0 seconds or more.



For unsignalized intersections, LOS results and project-related changes are reported, but no significance standards are applied.

## 2.4 CONTRA COSTA COUNTY GROWTH MANAGEMENT PROGRAM

The Central County is a subregional area composed of the cities of Walnut Creek, Pleasant Hill, Clayton, Concord, Martinez, and nearby portions of unincorporated Contra Costa County. The current *Central County Action Plan* (2017) provides guidance for transportation planning through 2040. It establishes Multimodal Transportation Service Objectives (MTSOs) for Routes of Regional Significance (RORS) within the area and defines how each component agency and committee is involved in the review of proposed projects.

In the project vicinity, Clayton Road is designated as a RORS. The following MTSO applies to Clayton Road within the study area:

- Maintain 15 mph average speed for both directions during the [weekday] a.m. and p.m. peak hours.

Pursuant to the Growth Management Program's Implementation Guide, the adopted MTSOs within sub-regional plans, such as the Central County Action Plan, should were previously able to serve as thresholds of significance in the CEQA review of proposed development projects (pg. 3). However, CCTA's adoption of VMT standards is intended to supersede existing delay-related standards that previously applied under the Growth Management Plan. In addition, this standard applies to roadway segment speeds during weekday peak periods, and project-related traffic during the weekday peak periods is expected to be minimal. As such, it does not directly apply within the scope of this traffic analysis.

### 3.0 EXISTING CONDITIONS

This section describes existing conditions in the immediate project site vicinity, including roadway facilities, a summary of bicycle and pedestrian facilities, and available transit service. Existing traffic volumes and roadway operations are described in section 3.1.

#### 3.1 EXISTING SETTING AND ROADWAY SYSTEM

Important roadways in the immediate vicinity of the project site are discussed below.

**Clayton Road** is a generally east-west, four lane divided arterial road, designated as a Roadway of Regional Significance (RORS) by CCTA. The posted speed limit on Clayton Road is 40 mph. Clayton Road connects the project vicinity to the City of Concord in the west. In the project vicinity, Clayton Road has continuous sidewalks on the north side of the street and continuous sidewalks on the south side west of Mt. Zion Drive. East of Mt. Zion Drive, the sidewalk continues east as a multiuse path connecting to the Town Center.

**Mitchell Canyon Road** is a north-south, two lane collector. The posted speed on Mitchell Canyon Road is 25 mph. Within the project vicinity, sidewalks are generally intermittent or absent.

**Pine Hollow Road** is an east-west, two-lane collector. The posted speed on Pine Hollow Road is 25 mph. Pine Hollow Road has continuous sidewalks on the north side of the street, and west of Mt. Zion Drive/Tiffin Drive, it has a buffered, paved path that acts as a sidewalk.

**Mt. Zion Drive** is a short north-south, two lane collector fronting Mt. Diablo Elementary School. It is northbound-only for most of its length, serving as a school drop-off/pick-up zone. South of Pine Hollow Road, it continues south as Tiffin Drive. The speed limit on Mt. Zion Drive is 25 mph. It features a mix of angled and parallel parking spaces on both sides.

**Tiffin Drive** is a north-south, two lane local street south of Pine Hollow Road. The speed limit on Tiffin Drive is 25 mph. There are continuous sidewalks on both sides along the majority of its length.

**Pine Hollow Court** is a short north-south local street fronting the project site. Parking is generally prohibited, and the roadway narrows to a single lane approximately 150 ft. south of Pine Hollow Road. The intersection of Pine Hollow Road and Pine Hollow Court is uncontrolled, with Pine Hollow Court acting as an extension of Pine Hollow Road.

#### 3.2 EXISTING PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

The project is located in a residential neighborhood with inconsistent sidewalk access. As noted above, although some streets provide sidewalks on both sides, others do not. There is a continuous sidewalk available to connect the northern boundary of the project site to Clayton Road, and sidewalks are present on Pine Hollow Road to the west. Pedestrians can also access the two County Connection bus stops on Clayton Road. In the project vicinity, bicycle lanes are provided on Clayton Road, and the sidewalk on the



southern side of Clayton Road becomes a shared use path east of Mt. Zion Road that crosses Mitchell Creek and connects to the Town Center via Oak Street.

## 4.0 TRIP GENERATION AND VEHICLE MILES TRAVELED

This section discusses the characteristics of traffic volumes and vehicle miles traveled (VMT) generated by the proposed project. These characteristics are then compared to the adopted CCTA VMT screening thresholds described in section 2.1.

### 4.1 PROJECT TRIP GENERATION

TJKM used two methodologies to estimate daily traffic generation.

#### ITE Method

The Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition, describes weekday, Saturday and Sunday daily trip generation based on square footage of the church. This analysis is based on a preliminary building size of 14,510 sq. ft., although the proposed building has since been reduced to 13,823 sq. ft. This will yield total trip generation for both weekdays, Saturdays and Sundays. Details are shown in **Table 3**. This shows that the average trips per day for 7 days is 142; for weekdays only it is 101.

**Table 3: Trip Generation using ITE Trip Generation, 10<sup>th</sup> Edition, for Church**

Day	Size (ITE 560)	Daily Rate (Trips/KSF)	24-hour trips	Weekday Factor	Weekly Trips
Sunday	14.51 KSF	27.63	401	1	401
Saturday	14.51 KSF	5.99	87	1	87
Weekday	14.51 KSF	6.95	101	5	504
		Total	588	7	992
Average Trips/day for 7 days = $992/7 = 142$ ; Average weekday trips/day = 101					

#### Operational Plan Method

Clayton Community Church has provided a comprehensive listing of all church events by time of day, day of week, and attendance. This enables a full estimation of all travel to and from the church on a daily basis. TJKM has made conservative estimates of automobile occupancy at each event. Small events assume one person per vehicle, full Sunday church events assume 2.0 to 2.5 persons per vehicle, based on TJKM direct measurements in previous church studies. See **Table 4** for trip generation using this methodology.

**Table 4: Trip Generation based on Weekly Operational Plan**

Time	Event	Attendance	Persons/ Vehicle	Vehicles	Trips
<b>Sundays</b>					
9-10:15	Worship Service	217	2.0	109	218
9-10:15	Nursery/Toddlers	12	--		--
9-10:15	Elementary (K-5)	30	--		--
10:15-12	Worship Service	100	2.0	50	100
10:15-12	Nursery/Toddlers	12	--		--
10:15-12	Elementary (K-5)	30	--		--
10:15-12	Junior/Senior High School (6-12)	20	--		--
7-8 p.m.	AA Meeting	12	1.0	12	24
	<b>Sunday Sub-Total</b>	<b>433</b>			<b>342</b>
<b>Mondays</b>					
9-10	Staff	10	1.0	10	20
<b>Tuesdays</b>					
9-11	Women's Craft Group	10	1.0	10	20
7-9 p.m.	Worship Team	10	1.0	10	20
<b>Wednesdays</b>					
9-11	WOW (Women's Group)	40	1.5	27	54
12-2:30	"Crosswalk" (Grades 2-5)	40	1.5	27	54
7-8:30 p.m.	Youth Group	25	1.5	17	34
<b>Thursdays</b>					
7-8:30 p.m.	Women's Bible Study	15	1.0	15	30
7-8:30 p.m.	Men's Bible Study	40	1.5	27	54
<b>Weekdays – Tuesdays thru Fridays</b>					
	Work trips by staff	10	1	10	80
<b>One Friday/Month</b>					
7-9 p.m.	Worship Night	50	2.0	7	14
<b>One Saturday/Month</b>					
8-9:30	Men's Breakfast	40	1.5	7	14
	<b>Monday – Saturday Sub-Total</b>				<b>394</b>
	<b>Average Weekday</b>				<b>76</b>
	<b>Total Weekly Trips</b>				<b>736</b>
<b>Average Trips/Day for 7 days = 736/7 = 105; Average weekday trips/ day = 380/5 = 76</b>					

It can be seen that by using the generic church rate using ITE data, the average trips per weekday is 98 trips; when using data specific to Clayton Community Church, the average weekday trips is 101 trips. When considering all trips for seven days using ITE data the average trips per day is 142 trips; when considering Clayton Community Church data, the average trips per day is 105 trips.

#### 4.2 PROJECT-RELATED VEHICLE MILES TRAVELED

As noted above, this project generates between 105 and 142 trips per day, depending on the methodology used. TJKM assumes the methodology that is based on the proposed operation plan of Clayton Community Church is more accurate than the generic church category contained in the ITE document. ITE is a solid reference based on dozen of studies conducted at actual churches, and where a

new church is being established without a history of actual daily usage of the facilities, that is the appropriate resource.

Using both sets of daily trips and an allowable VMT of 836<sup>1</sup>, this allows average one-way trip lengths of 7.96 miles (836/105) or 5.89 miles (836/142). It appears average one-way trip lengths of 6 miles or less is a realistic assumption. For example, the most distant Clayton addresses are about 3.5 miles, with most locations within about 2 to 3 miles of the church. The downtown Concord BART station is located about 6 miles from the church. All areas in Clayton and large portions of Concord and Walnut Creek lie within a six mile driving radius. An even larger number of homes are located within the more realistic 7.96 mile range. It is likely that staff and members of the church are located, on average, within six miles of the new church location. This process, treats all trips and VMT as new, whereas many of the staff and church attendees have attended Clayton Community Church at various locations within the community. Further, the new church would relocate the existing services from Diablo View Middle School to a more central location within the City of Clayton.

Consequently, it is TJKM's opinion that the proposed Clayton Community Church's location and travel characteristics allow it to be classified as both a Small Project and a Locally-Serving Project, based on the adopted CCTA screening criteria. The project can therefore be presumed to have a **less than significant** VMT impact.

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<sup>1</sup> "This threshold ties directly to the OPR Technical Advisory which notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Using statewide average data from the California Statewide Household Travel Survey (CHTS), the amount of daily VMT associated with 10,000 square feet of non-residential space is 836 VMT. Also using statewide average CHTS data, this level of VMT is associated with 20 housing units. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 20 housing units or 10,000 square feet of non-residential space could be considered not to lead to a significant impact."

- From "VMT Analysis Methodology for Land Use Projects in Contra Costa", Fehr & Peers (July 1, 2020)

## 5.0 ROADWAY OPERATIONS ANALYSIS

This section describes traffic operations at the five study intersections. Although intersection level of service cannot be used for identifying impacts under CEQA, it can be used to determine conformity with an adopted general plan or congestion management program.

### 5.1 EXISTING CONDITIONS

#### 5.1.1 Existing Peak Hour Traffic Volumes

The existing operations of the five study intersections were evaluated for New turning movement counts at the seven study intersections were collected in October 2020. The peak period observed was between 8:30 – 11:00 a.m., when church-related traffic is typically highest. The peak hour traffic volumes are defined as the highest one-hour volumes during the peak period. Due to changes in traffic resulting from Covid-19, observed traffic volumes were increased by 20 percent to estimate non-pandemic conditions.

**Appendix B** includes the available data sheets for all study intersections. **Figure 3** illustrates the existing conditions lane geometry, traffic controls, and peak hour traffic volumes at the study intersections.

#### 5.1.2 Roadway and Intersection Operations – Existing Conditions

The existing operations of the study intersections were evaluated based on existing vehicle volumes during the Sunday a.m. peak period, as described above. Existing peak hour factors (PHF), pedestrian, and bicycle volumes were also included. The results of the LOS analysis using the HCM 2010 methodology and Synchro 10 software program for Existing Conditions are summarized in **Table 5**. It should be noted that although the intersection of Pine Hollow Court & Pine Hollow Road is uncontrolled and therefore experiences no control delay, it is included for informational purposes.

Under this scenario, all of the study intersections would operate at acceptable LOS A or B during the Sunday peak hour. LOS worksheets and are provided in **Appendix D**.

**Table 5: Intersection Level of Service Analysis – Existing Conditions**

ID	Study Intersections	Control	Delay <sup>1</sup>	LOS <sup>2</sup>
1	Pine Hollow Ct. & Pine Hollow Rd.	Uncontrolled	0.0	A
2	Mt Zion Dr./Tiffin Dr. & Pine Hollow Rd.	All-Way Stop	7.1	A
3	Mt Zion Dr. & Clayton Rd.	Two-Way Stop	9.9	A
4	Mitchell Canyon Rd. & Pine Hollow Rd.	All-Way Stop	8.0	A
5	Mitchell Canyon Rd. & Clayton Rd.	Signal	15.3	B

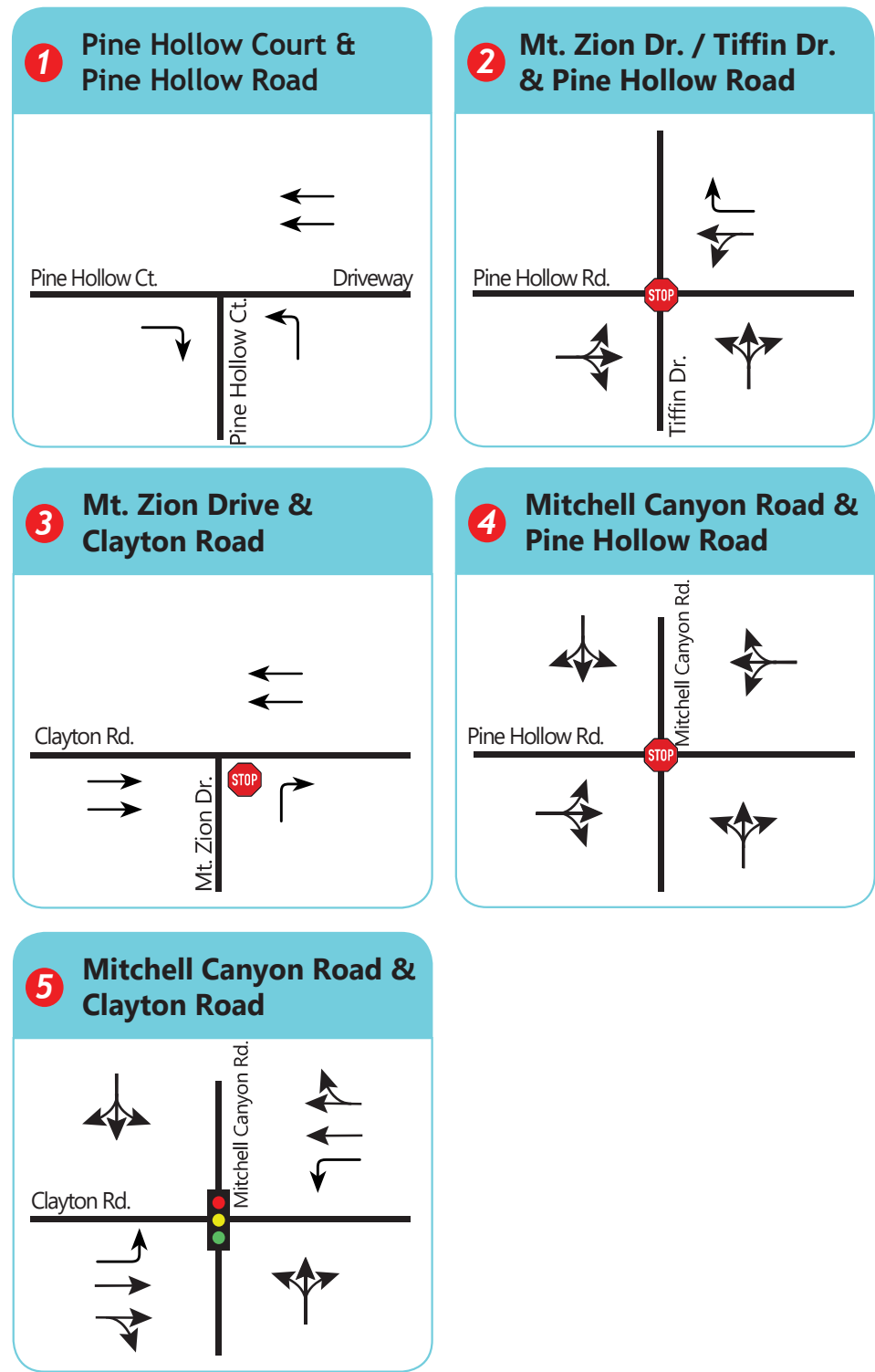
Notes:

<sup>1</sup> Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

<sup>2</sup> LOS – Level of Service

**Bold** text indicates intersection operates at a deficient level of service.

Figure 3a: Existing Conditions Lane Geometry and Traffic Controls



LEGEND

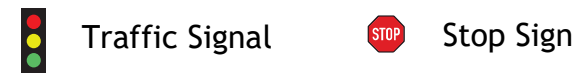
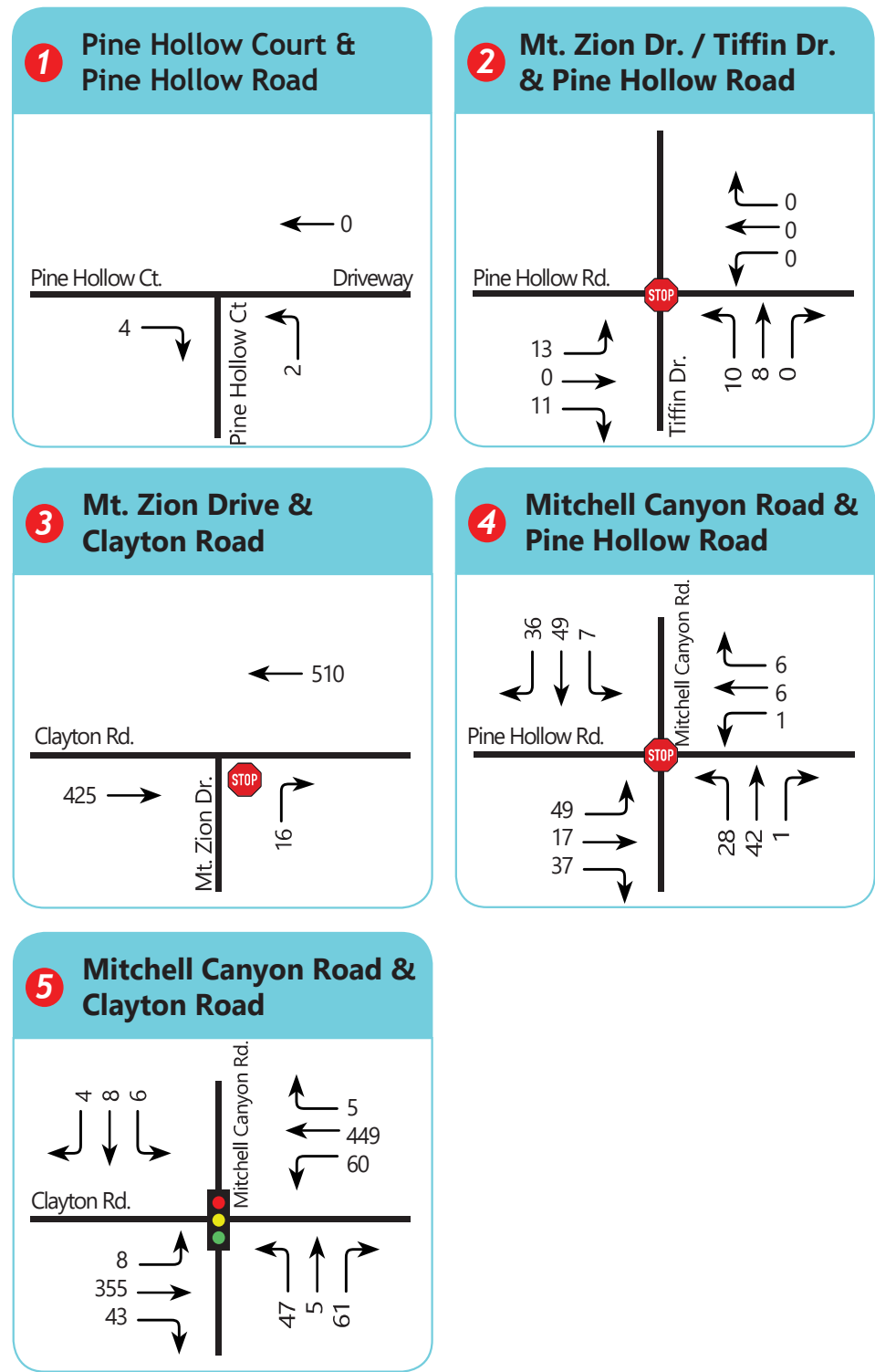


Figure 3b: Existing Conditions Sunday AM Peak Hour Volumes



LEGEND

XX Sunday AM Volumes

Traffic Signal



Stop Sign



## 5.2 EXISTING PLUS PROJECT CONDITIONS

This analysis scenario presents the impacts of the proposed church (project) on the study intersections and the surrounding roadway system. This scenario is similar to Existing Conditions, but with the addition of projected traffic from the proposed development.

### 5.2.1 Project Trip Generation

TJKM developed estimated project trip generation for the proposed project based on published trip generation rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation (10<sup>th</sup> Edition)*. For the proposed project, TJKM used published trip rates for the ITE land use Church (ITE Code 560). **Table 6** summarizes project trip generation based on average ITE rates. This analysis is based on a preliminary building size of 14,510 sq. ft., although the proposed building has since been reduced to 13,823 sq. ft. The project is expected to generate 401 total Sunday trips, including 145 peak hour trips (70 in, 75 out). The project is also expected to generate 101 daily trips on weekdays and 87 daily trips on Saturdays. ITE average trip generation rates are typically used for planning purposes, as operational plans for a given use may change over time and may not represent typical operations long-term. Compared to the proposed operations schedule shown in **Table 4**, the ITE average rates produce a higher total number of trips for Sundays (401 vs. 342 from operations plan) and a similar number of Sunday peak hour trips (145 vs. 149).

**Table 6: Project Trip Generation**

Land Use (ITE Code) <sup>1</sup>	Size	Weekday Daily		Saturday Daily		Sunday Daily		Sunday Peak Hour				
		Rate	Trips	Rate	Trips	Rate	Trips	Rate	In:Out	In	Out	Total
<b>Proposed Uses</b>												
Church (560)	14.51 ksf	6.95	101	5.99	87	27.63	401	9.99	48:52	70	75	145
<b>New Trips</b>			<b>101</b>		<b>87</b>		<b>401</b>			<b>70</b>	<b>75</b>	<b>145</b>

Notes:

<sup>1</sup> Source: ITE *Trip Generation 10<sup>th</sup> Edition*

### 5.2.2 Project Trip Distribution and Assignment

Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area. Assignment determines the various routes that vehicles would take from the project site to each destination using the estimated trip distribution. For the purposes of trip distribution and assignment, new trips from **Table 6** were used. Trip distribution assumptions were based on TJKM's working knowledge of the area

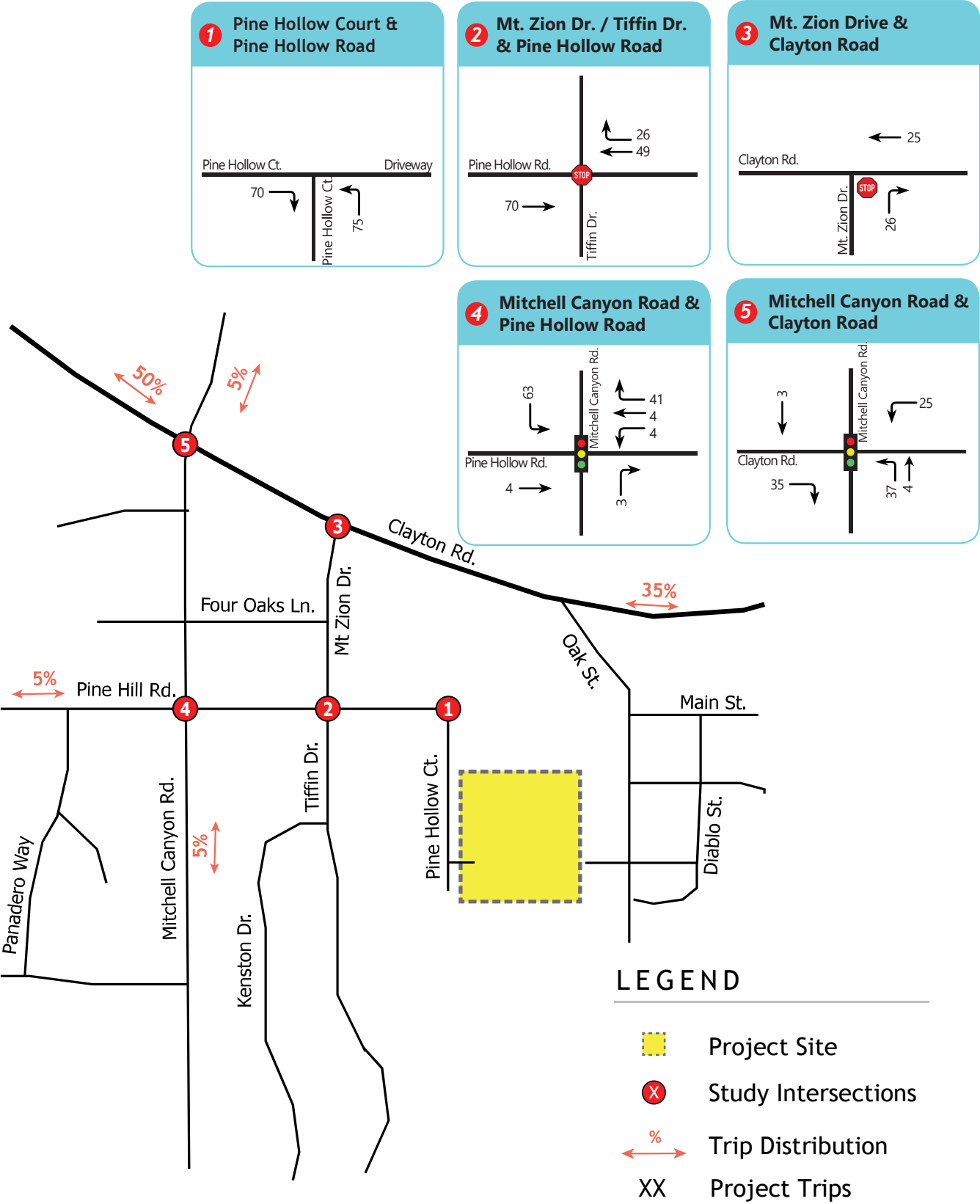
New trips associated with the proposed project were distributed as follows:

- 50 percent to/from Clayton Road to the west
- 35 percent to/from Clayton Road to the east
- Five percent to/from Mitchell Canyon Road to the north
- Five percent to/from Mitchell Canyon Road to the south
- Five percent to/from Pine Hollow Drive to the west.



**Figure 4** illustrates the trip distribution percentages and the trip assignment developed for the proposed project. The assigned project trips were then added to traffic volumes under Existing Conditions to generate Existing plus Project Conditions traffic volumes.

Figure 4: Trip Distribution and Assignment



### 5.2.3 Roadway and Intersection Operations – Existing plus Project Conditions

**Figure 5** shows projected turning movement volumes at all of the study intersections for Existing plus Project Conditions. The intersection LOS analysis results for Existing plus Project Conditions are summarized in **Table 7**. Peak hour factors and intersection signal timing and phasing are identical to Existing Conditions.

Under this scenario, all of the study intersections would continue to operate at acceptable LOS A or B during the Sunday peak hour. The City of Clayton target LOS for signalized intersections is LOS D or better. The project **would be consistent** with the City of Clayton General Plan. LOS worksheets are provided in **Appendix E**.

**Table 7: Intersection Level of Service Analysis – Existing plus Project Conditions**

ID	Study Intersections	Control <sup>6</sup>	Existing Conditions		Existing Plus Project Conditions		Change in Delay
			Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	
1	Pine Hollow Ct. & Pine Hollow Rd.	Uncontrolled	0.0	A	0.0	A	0.0
2	Mt Zion Dr./Tiffin Dr. & Pine Hollow Rd.	All-Way Stop	7.1	A	7.8	A	0.7
3	Mt Zion Dr. & Clayton Rd.	Two-Way Stop	9.9	A	10.2	B	0.3
4	Mitchell Canyon Rd. & Pine Hollow Rd.	All-Way Stop	8.0	A	8.9	A	0.9
5	Mitchell Canyon Rd. & Clayton Rd.	Signal	15.3	B	15.6	B	0.3

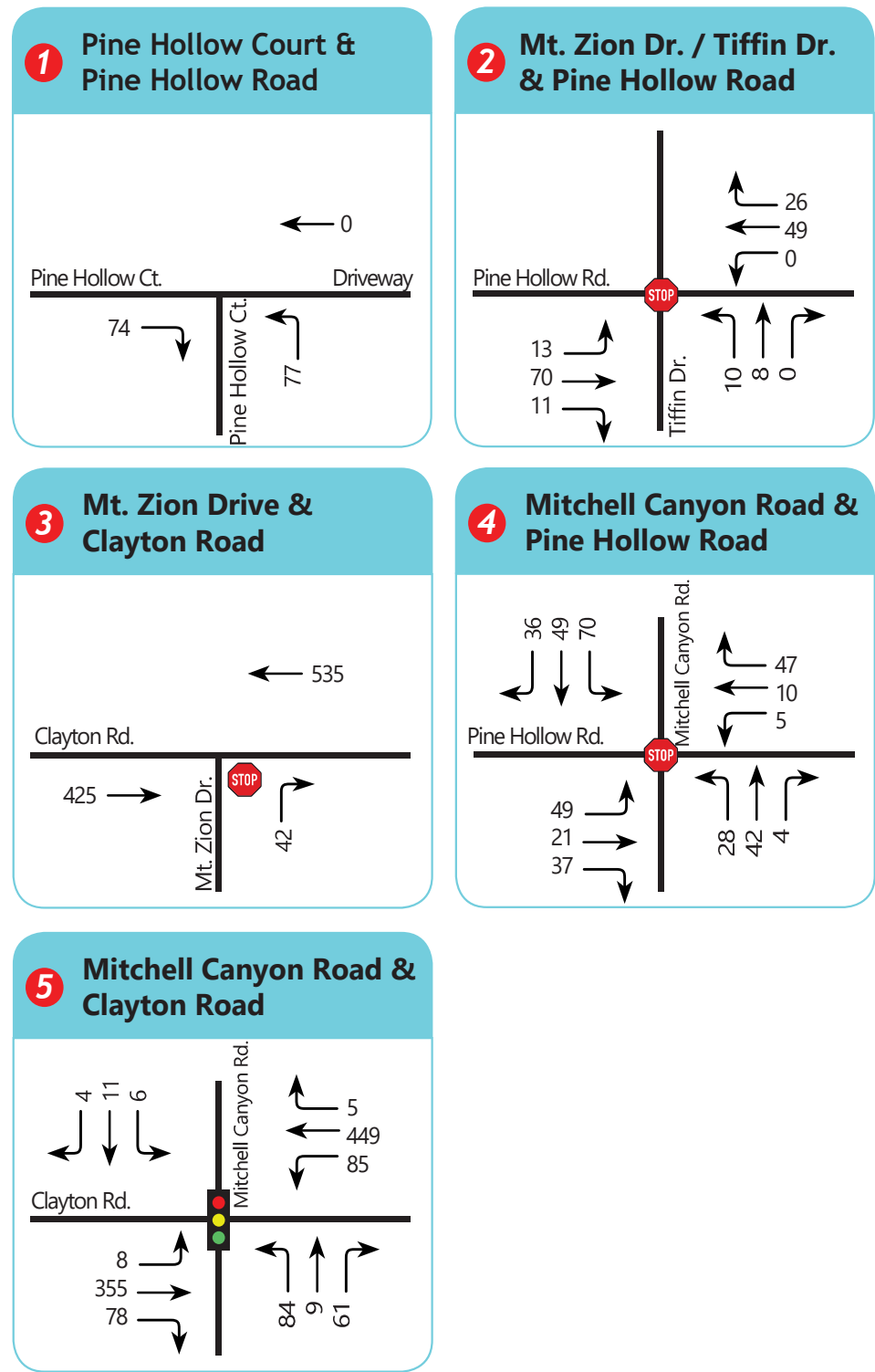
Notes:

<sup>1</sup> Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

<sup>2</sup> LOS – Level of Service

**Bold** text indicates intersection operates at a deficient level of service. **Red** indicates a significant deficiency.

Figure 5: Existing Conditions Plus Project Conditions Sunday AM Peak Hour Volumes



LEGEND

XX Sunday AM Volumes

 Traffic Signal

 Stop Sign



#### 5.2.4 Interaction with Mt. Diablo Elementary School Traffic

TJKM reviewed the daily bell schedule and drop-off/pickup times for Mt. Diablo Elementary School and compared it to the weekly operation plan for the proposed church in order to identify any overlapping peak times when traffic for both uses might interact. While the majority of school traffic occurs on weekdays before and after school, the majority of church-related traffic would occur on Sunday mornings, with a smaller amount of traffic on weekdays. As such, the interaction of weekday traffic from each use is of greatest concern.

The Mt. Diablo Elementary School start time is 7:40 a.m., with students permitted to arrive no earlier than 7:30. The end time is 2:15 p.m. on Mondays, Tuesdays, Thursdays, and Fridays. Wednesdays feature a modified bell schedule, with early release at 12:25 p.m. for grades 1-5. TK and Kindergarten, which are divided into early and late sessions, would include late arrivals at 9:45 a.m. (9:30 a.m. on Wednesdays) and early pickups at 11:15 a.m. (12:30 p.m. on Wednesdays). Based on the bell schedule and posted no-parking hours for the Pine Hollow Road loading zone, it is expected that the majority of drop-off traffic would be confined to approximately 7:30 – 8:15 a.m. Monday through Friday, and the majority of pickup traffic would be confined to approximately 2:15-3:00 p.m. most days and 12:05-12:50 p.m. on Wednesdays. Based on the ITE trip generation rate for Elementary School (ITE code 520) in the school p.m. peak hour, which is 0.34 trips per student, and an estimated enrollment of 800 students<sup>2</sup>, the school is expected to generate approximately 272 total trips during the afternoon pick-up period. The school bell schedule and traffic circulation plan are included in **Appendix C**. The school also occasionally hosts evening events.

As shown in **Table 4**, the church plans to host weekday morning activities starting at 9:00 a.m. on Mondays, Tuesdays, and Wednesdays. On Wednesdays, the church would also provide an after school program for grades 2-5 from 12-2:30 p.m., coinciding with the 12:25 p.m. early release time for these grades at the school. Currently, the “Crosswalk” after school program on Wednesdays is held at the church offices on Main Street. All other weekday activities would begin in the evening at 7:00 p.m.

Based on the existing school bell schedule and planned church operations schedule, it is expected that traffic overlap would generally be minimal. The primary exception would be Wednesdays during the school pickup time, which coincides with parents dropping off students for the after school program. It is expected that any Mt. Diablo Elementary School students attending the program would walk. As shown in **Table 4**, the 40-student program could add approximately 27 vehicles/54 trips to the Wednesday pick-up period, if all students were driven and none came from the school. If approximately half of students attending the Crosswalk program were driven from other schools, generating 27 vehicle trips, this would constitute an increase of 10 percent compared to the estimated baseline after school pick-up traffic.

Since the school has been closed due to COVID-19 conditions, TJKM has not been able to observe traffic conditions during full school operations. It is likely, however, that congestion does exist near the school during before- and after-school periods. TJKM concludes that because of limited overlap between school

<sup>2</sup> The California Department of Education reports a total enrollment of 786 students during the 2019-2020 school year at Mt. Diablo Elementary School.

and church activities, no degradation of school-time congestion should occur on most weekdays. While the Crosswalk-related increase in after school traffic on Wednesdays would be noticeable, the added vehicles would use the through lanes on Pine Hollow Road and would not need to enter the school's back parking lot or loading zone on Pine Hollow Road, and they could avoid using Mt. Zion Drive entirely. As such, the added traffic is not expected to substantially exacerbate any existing operational problems during this period.

## 6.0 ADDITIONAL ANALYSIS

The following sections provide additional analyses of other transportation issues associated with the project site, including:

- Site access and onsite circulation;
- Parking analysis;
- Pedestrian, bicycle and transit access and impacts;

The analyses in these sections are based on professional judgment in accordance with the standards and methods employed by traffic engineers. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

### 6.1 SITE ACCESS AND ON-SITE CIRCULATION

This section analyzes site access and internal circulation for vehicles, pedestrians, and bicycles, based on the preliminary site plan presented in **Figure 2** (dated November 13, 2020). TJKM reviewed internal and external access for the project site for vehicles, pedestrians, and bicycles and on-site vehicle circulation. It should be noted that the site plan and civil engineering drawings may undergo future refinements in response to comments from City staff.

#### Site Access

Site access for vehicles and bicycles will be provided from Pine Hollow Court drive via one driveway near the boundary end of the project site. The two existing driveways on the site would be eliminated. Although a second driveway may reduce congestion during the busiest periods, the proposed site access is adequate. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The site plan shows a continuous pedestrian path from the project frontage to the entrances of the main building.

#### On-Site Circulation

Pedestrian circulation on-site is primarily via walkways surrounding the building, which are all a minimum of five feet wide. The site plan shows pedestrian crossings on the main drive aisle, connecting to the project frontage to building entrances, and on the drive aisle fronting the main entrance.

The parking areas on the site are distributed to the north, west, and south of the church building. All drive aisles are two-way and 25 feet wide, with right-angle parking on one or both sides. The small parking area on the southern end of the site, next to the existing house, would include space for vehicles to turn around. The drive aisle north of the building also provides additional space for vehicles to turn around or maneuver in and out of the parking spaces at the end.

The trash enclosure would be located immediately south of the project driveway, opening onto the main north-south drive aisle. Trucks and emergency vehicles can enter the site, access both buildings, and turn around in the parking area south of the church building. While fire trucks can access the north side of the

building, they could not turn around and would need to back out. Subject to final approval by the Contra Costa Fire Protection District, site access and circulation would be **adequate**.

## 6.2 PARKING ANALYSIS

This section discusses vehicle parking for the proposed project and includes an assessment of whether the proposed parking supply is adequate based on the proposed project size, zoning regulations, and planned operation. As shown in the site plan presented in **Figure 2** (dated February 9, 2021), the project would provide 156 parking spaces, including six accessible spaces, 13 compact spaces, 16 spaces marked "clean air/vanpool/EV", 10 spaces with conduit run for future EV, and 121 standard spaces. Accessible parking spaces are all located close to the main church entrance and include one van accessible space.

### Required Parking Supply

The City of Clayton Municipal Code (chapter 17.37) specifies parking and loading requirements for various land uses and specific plan areas. For religious assembly uses, parking is required at a rate of one space per three fixed seats (with 20 inches of bench equaling one seat) or one space per 50 sq. ft. of assembly area. A detailed floor plan of the proposed church shows that the seating area of the sanctuary would be 3,341 sq. ft. Using the rate based on assembly area alone, the church would require only 67 parking spaces. Based on the proposed parking supply of 156 spaces, the sanctuary could accommodate up to 468 fixed seats.

The project plans also break down parking requirements assuming that the classroom and office space accessory to the assembly use would require separate parking supplies. The church floor plan shows a total of 4,722 sq. ft. of worship space (sanctuary, plus stage, sound box, and lobby), 4,444 sq. ft. of classroom space, and 4,610 sq. ft. of office and other spaces. Using the Municipal Code's required parking ratios of one space per 250 sq. ft. of office, one space per 100 sq. ft. of classrooms, and one space per 50 sq. ft. of assembly (including stage and lobby), the project would require a total of 156 parking spaces. With this more conservative calculation of required parking, the project would still provide **adequate** parking.

The Municipal Code specifies that commercial and quasi-public uses must provide bicycle parking spaces in the amount of one plus 10 percent of the requirement for automobile spaces. Based on an expected parking requirement of 156 spaces, the church would be required to provide 16 spaces. The project plans include bike racks accommodating 17 bicycles, exceeding City requirements. For uses between 10,000-20,000 sq. ft., one truck loading space (10 ft. x 35 ft. x 14 ft.) must be provided. The site plan shows a designated loading zone on the drive aisle fronting the main building entrance. Although the loading zone is within the drive aisle, there is adequate width for other vehicles to pass trucks stopped in this space.

### Typical Parking Demand

TJKM has conducted past studies measuring parking demand at other churches in the Bay Area as related to church attendance. These studies produce an average parking demand of one parking space per 2.0-2.5 attendees in the main worship service. As shown in **Table 4**, the total attendance at the 9:00 a.m. service is expected to be 259, including children. This corresponds to a typical parking demand of 104-130



spaces. This demand can be fully accommodated by the proposed parking supply without producing any off-site parking impacts in the surrounding neighborhood.

### **Special Event Parking**

The church expects that their highest attendance events would be for Easter Sunday and Christmas Eve, with total attendance of approximately 600 for each. For comparison, as shown in **Table 4**, the two services on a Sunday would have typical total attendance of 401, including children. It is expected that the church may hold additional services for Easter and Christmas, in order to accommodate the total attendance. Parking management activities are planned, including volunteers in the parking lot to direct traffic.

In addition to the proposed 156 parking spaces, the church is also in discussion with Mt. Diablo Elementary School to establish an agreement to provide reciprocal overflow event parking. The busy holiday services would be held at times when the school is not in session, and the majority of the church parking lot would be vacant on evenings and Saturdays when the school may hold special events. The elementary school has a gated off-street staff parking lot providing 27 standard and two accessible parking spaces. The school also has striped on-street parking spaces on Mt. Zion Drive designated as staff parking, consisting of 29 standard and two accessible spaces. If church attendees are directed to park only in the staff parking lot and designated on-street staff parking spaces, this increases the available parking supply by 60 spaces, for a total available parking supply of 216 spaces. Based on a conservative parking demand of one space per 2.0 attendees, the highest attendance holiday service could accommodate up to 432 attendees per service if all overflow parking is available. A total attendance of 600 in two services could be accommodated. With adequate parking management and traffic direction, it is expected that the church would produce no off-site parking impacts in the surrounding neighborhood.

## **6.3 PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES**

For CEQA purposes, potential impacts to pedestrian, bicycle, and transit facilities are evaluated based on disruptions to existing facilities and consistency with applicable adopted programs, plans, ordinance or policy addressing these facilities.

### **Pedestrian Facilities**

The project will connect to existing pedestrian facilities and would extend the existing sidewalk on Pine Hollow Court to cover the entire project frontage. Although existing pedestrian facilities near the project include discontinuous sidewalks, the project is not expected to create any disruptions or inconsistencies with existing pedestrian facilities or plans. Therefore, the project would have a **less-than-significant** impact on pedestrian facilities.

### **Bicycle Facilities**

The proposed project will have adequate bicycle access to the project site from the surrounding area and is not expected to create any inconsistencies with bicycle facilities or plans. Therefore, the project would have a **less-than-significant** impact on bicycle facilities.

### **Transit Facilities**

In addition to disruptions and inconsistencies as noted above, a proposed project is considered to have a significant impact on transit if it is expected to generate additional transit trips and does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops. Pedestrians can access the closest transit stops on Clayton Road via a continuous path of sidewalks and crosswalks, and bicyclists can access these stops via low speed roadways and the existing bike lanes on Clayton Road. The transit service within the immediate project vicinity operates within capacity, and additional trips generated by the proposed project could be accommodated by existing bus services. Therefore, the project would have a **less-than-significant** impact on transit facilities.

## **Appendix A – Level of Service Methodology**

# LEVEL OF SERVICE METHODOLOGY

## LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, *Highway Capacity Manual 2000*. *Highway Capacity Manual 2000* represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I.

**Table A-I**

**Level of Service Description**

Facility Type	Uninterrupted Flow	Interrupted Flow
	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: *Highway Capacity Manual 2000*

## Urban Streets

The term “urban streets” refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

**Table A-II**

**Functional and Design Categories for Urban Streets**

Criterion	Functional Category			
	Principal Arterial		Minor Arterial	
Mobility function Access function Points connected  Predominant trips served	Very important Very minor Freeways, important activity centers, major traffic generators Relatively long trips between major points and through trips entering, leaving, and passing through city		Important Substantial Principal arterials  Trips of moderate length within relatively small geographical areas	
Criterion	Design Category			
	High-Speed	Suburban	Intermediate	Urban
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: *Highway Capacity Manual 2000*

**Table A-III**

**Urban Street Class based on Function and Design Categories**

Design Category	Functional Category	
	Principal Arterial	Minor Arterial
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: *Highway Capacity Manual 2000*

**Table A-IV****Urban Street Levels of Service by Class**

<b>Urban Street Class</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
<b>Level of Service</b>	<b>Average Travel Speed (mph)</b>			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: *Highway Capacity Manual 2000*

## Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

## Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A



description of levels of service for signalized intersections can be found in Table A-V.

**Table A-V**

**Description of Level of Service for Signalized Intersections**

<b>Level of Service</b>	<b>Description</b>
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: *Highway Capacity Manual 2000*

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

### Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

## Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

**Table A-VI**

**Description of Level of Service for Two-Way Stop Controlled Intersections**

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: *Highway Capacity Manual 2000*

## **Appendix B – Traffic Counts Worksheets**

National Data Surveying Services  
Intersection Turning Movement Count

**Location:** Pine Hollow Ct & Pine Hollow Rd  
**City:** Clayton  
**Control:** No Control

**Project ID:** 20-080132-001  
**Date:** 10/11/2020

		Total																	
NS/EW Streets:		Pine Hollow Ct				Pine Hollow Ct				Pine Hollow Rd				Pine Hollow Rd					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
	8:30 AM	0	0	0	0	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	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
	10:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :		100.00%	0.00%	0.00%	0.00%	0	0	0	0	0.00%	0.00%	100.00%	0.00%	0	0	0	0	5	
PEAK HR :		10:15 AM - 11:15 AM																TOTAL	
PEAK HR VOL :		2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	5	
PEAK HR FACTOR :		0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.625	

**Project ID:** 20-080132-001  
**Date:** 10/11/2020

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Pine Hollow Ct & Pine Hollow Rd  
**City:** Clayton

**Project ID:** 20-080132-001  
**Date:** 10/11/2020

### Pedestrians (Crosswalks)

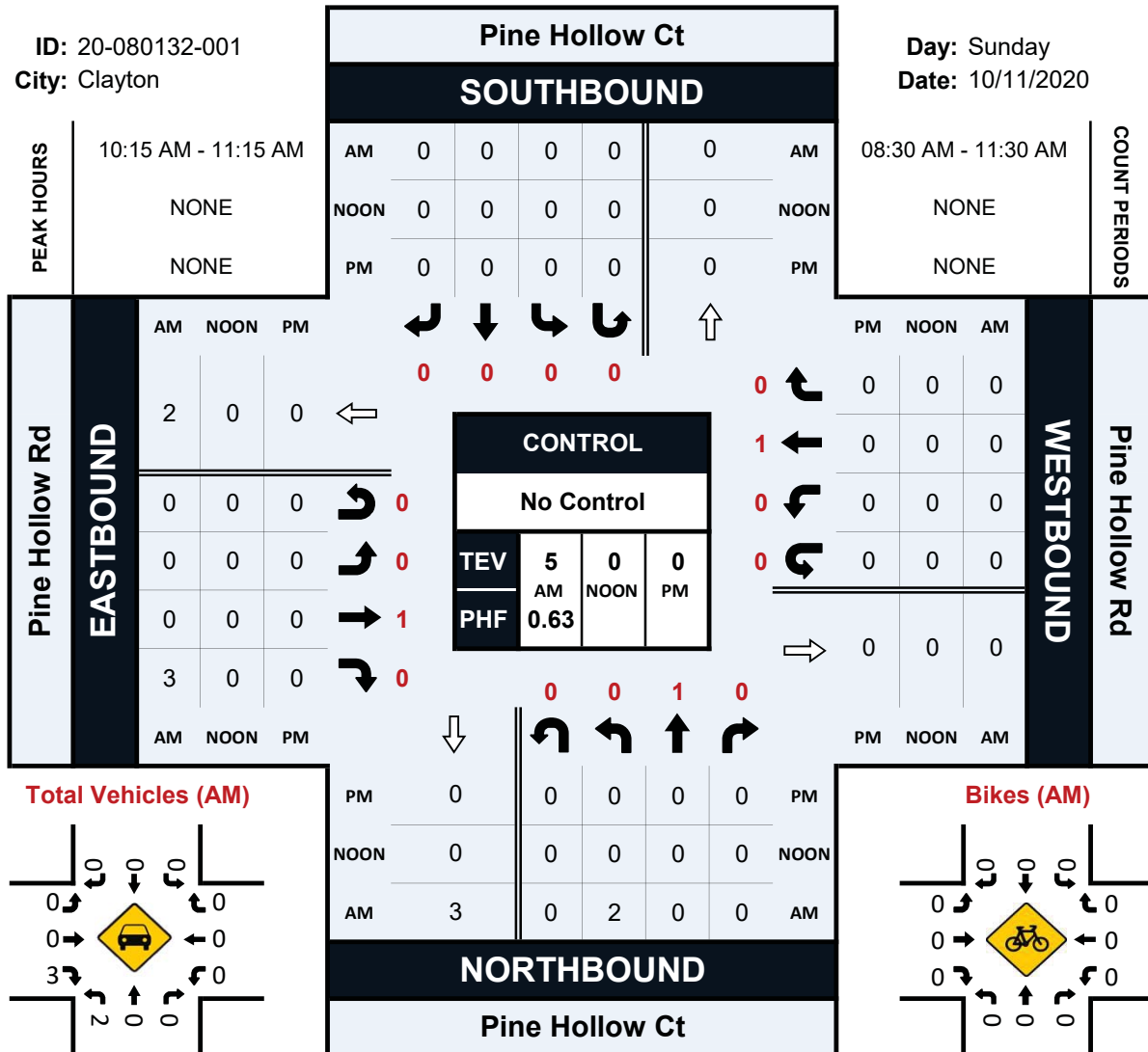
NS/EW Streets:	Pine Hollow Ct		Pine Hollow Ct		Pine Hollow Rd		Pine Hollow Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	1	2
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	2	0	2	0	0	0	4
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	1
<b>TOTAL VOLUMES :</b>	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
<b>APPROACH %'s :</b>	0	0	3	0	2	0	2	1	8
<b>PEAK HR :</b>	10:15 AM - 11:15 AM								
<b>PEAK HR VOL :</b>	0	0	2	0	2	0	0	0	4
<b>PEAK HR FACTOR :</b>			0.250		0.250				0.250
				0.250		0.250			

# Pine Hollow Ct & Pine Hollow Rd

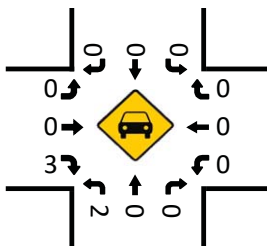
## Peak Hour Turning Movement Count

ID: 20-080132-001  
City: Clayton

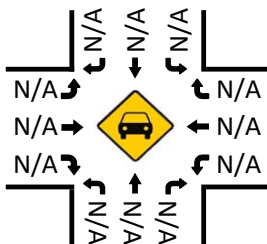
Day: Sunday  
Date: 10/11/2020



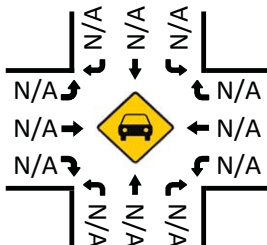
**Total Vehicles (AM)**



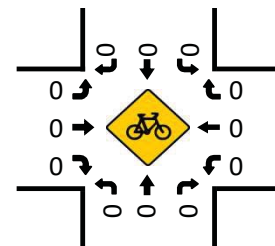
**Total Vehicles (Noon)**



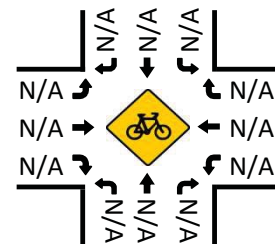
**Total Vehicles (PM)**



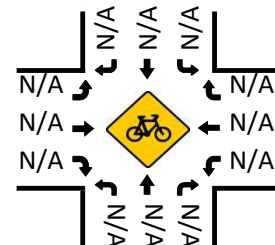
**Bikes (AM)**



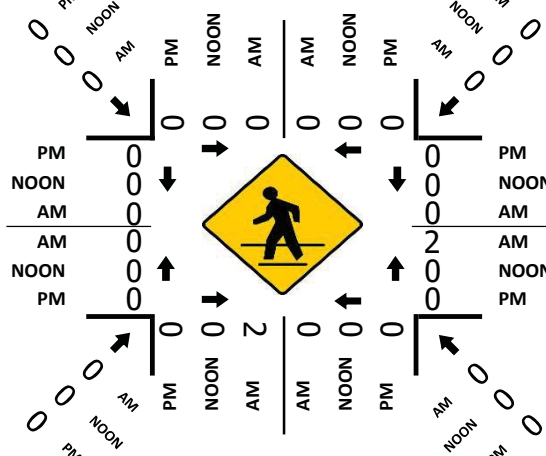
**Bikes (Noon)**



**Bikes (PM)**



**Pedestrians (Crosswalks)**



Comment 4:

[illegible]



Comment 4:

[illegible]

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-001

Date : 10/11/2020

## Unshifted Count = All Vehicles & UtURNS

	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					Total	UtURNS Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2	0
10:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	3	0
Grand Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	3	0	3	5	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		100.0%	0.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	60.0%	0.0%	60.0%	100.0%	

AM PEAK HOUR	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 10:15 to 11:15																					
Peak Hour For Entire Intersection Begins at 10:15																					
10:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2
10:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	3	0	3	5
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		100.0%	0.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.000	.000	.375	.000	.375	.625

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-001

Date : 10/11/2020

## Bank 1 Count = Bikes & Peds

	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	0	5
Grand Total	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	3	0	0	8
Apprch %	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	

AM PEAK HOUR	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:15 to 11:15																					
Peak Hour For Entire Intersection Begins at 10:15																					
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
% App Total	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.000	.000		.000	.000	.000		.000	.000	.000	.000	.000		.000	.000

**Project ID:** 20-080132-002  
**Date:** 10/11/2020

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mt Zion Dr/Tiffin Dr & Pine Hollow Rd  
**City:** Clayton  
**Control:** 3-Way Stop(NB/EB/WB)

**Project ID:** 20-080132-002  
**Date:** 10/11/2020

### Bikes

NS/EW Streets:	Mt Zion Dr/Tiffin Dr				Mt Zion Dr/Tiffin Dr				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	1 WR	0 WU	
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
10:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
10:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
11:15 AM	0	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
<b>APPROACH %'s :</b>	0	5	0	0	0	5	0	0	10	2	0	0	0	0	0	0	22
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	83.33%	16.67%	0.00%	0.00%					
<b>PEAK HR :</b>	09:15 AM - 10:15 AM																TOTAL
<b>PEAK HR VOL :</b>	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3
<b>PEAK HR FACTOR :</b>	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
						0.250				0.250							

# National Data Surveying Services Intersection Turning Movement Count

**Location:** Mt Zion Dr/Tiffin Dr & Pine Hollow Rd  
**City:** Clayton

**Project ID:** 20-080132-002  
**Date:** 10/11/2020

## Pedestrians (Crosswalks)

NS/EW Streets:	Mt Zion Dr/Tiffin Dr		Mt Zion Dr/Tiffin Dr		Pine Hollow Rd		Pine Hollow Rd			
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL	
	EB	WB	EB	WB	NB	SB	NB	SB		
	8:30 AM	0	1	0	2	0	0	0		3
	8:45 AM	2	0	3	1	0	1	0		7
	9:00 AM	0	0	1	0	2	2	0		5
	9:15 AM	0	0	0	0	2	0	0		2
	9:30 AM	1	0	0	0	0	2	0		3
	9:45 AM	0	1	0	0	0	1	0		3
	10:00 AM	1	0	0	0	0	0	0		1
	10:15 AM	0	1	0	0	0	0	0		1
10:30 AM	2	0	1	0	3	0	0	0	6	
10:45 AM	0	0	2	4	0	2	0	0	8	
11:00 AM	0	1	0	1	0	3	0	0	5	
11:15 AM	2	1	1	4	0	0	0	0	8	
TOTAL VOLUMES : APPROACH %'s :	EB 8 61.54%	WB 5 38.46%	EB 8 40.00%	WB 12 60.00%	NB 7 38.89%	SB 11 61.11%	NB 0 0.00%	SB 1 100.00%	TOTAL 52	
PEAK HR :	09:15 AM - 10:15 AM								TOTAL	
PEAK HR VOL : PEAK HR FACTOR :	2 0.500	1 0.250	0	0	2 0.250	3 0.375	0 0.250	1 0.250	9 0.750	



Comment 4:

[illegible]



Comment 4:

Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS			
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 AM	0	0	0	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	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	2	0	0	0	4			
8:45 AM	0	1	0	2	0	0	0	1	0	0	0	4	1	0	0	4			
9:00 AM	0	1	0	0	0	0	0	4	0	0	0	1	0	0	0	4			
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
9:30 AM	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	5			
9:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	1			
10:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7			
10:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	10			
10:30 AM	0	0	0	2	0	0	0	3	0	0	0	1	1	2	0	13			
10:45 AM	0	0	0	0	0	0	0	0	0	0	2	6	0	2	10	0			
11:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	3	0	0	8			
11:15 AM	0	1	0	3	0	0	0	0	0	3	0	5	1	0	0	5			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	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	0	0	0			
5:00 PM	0	0	0	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	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-002

Date : 10/11/2020

## Unshifted Count = All Vehicles & Uturns

	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	5	0
8:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	3	0
9:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	0
9:15	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	2	0	1	0	3	6	0
Total	0	0	0	0	0	0	0	0	0	0	5	2	0	0	7	7	0	2	0	9	16	0
9:30	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	1	0	3	0	4	8	0
9:45	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	3	0	2	0	5	9	0
10:00	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	5	0	3	0	8	12	0
10:15	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	1	1	0	2	5	0
Total	0	0	0	0	0	0	0	1	0	1	8	6	0	0	14	9	1	9	0	19	34	0
10:30	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	4	0	1	0	5	8	0
10:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	1	0	4	5	0
11:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	3	0	5	7	0
11:15	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	4	0	2	0	6	10	0
Total	0	0	0	0	0	0	1	0	0	1	7	2	0	0	9	11	2	7	0	20	30	0
Grand Total	0	0	0	0	0	0	1	1	0	2	20	10	0	0	30	27	3	18	0	48	80	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	50.0%	50.0%	0.0%		66.7%	33.3%	0.0%	0.0%		56.3%	6.3%	37.5%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%	0.0%	2.5%	25.0%	12.5%	0.0%	0.0%	37.5%	33.8%	3.8%	22.5%	0.0%	60.0%	100.0%	

AM PEAK HOUR	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 09:15 to 10:15																					
Peak Hour For Entire Intersection Begins at 09:15																					
9:15	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	2	0	1	0	3	6
9:30	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	1	0	3	0	4	8
9:45	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	3	0	2	0	5	9
10:00	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	5	0	3	0	8	12
Total Volume	0	0	0	0	0	0	0	0	0	0	8	7	0	0	15	11	0	9	0	20	35
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		53.3%	46.7%	0.0%	0.0%		55.0%	0.0%	45.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.583	.000	.000	.938	.550	.000	.750	.000	.625	.729

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-002

Date : 10/11/2020

## Bank 1 Count = Bikes & Peds

	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
8:30	0	1	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3
8:45	0	1	0	2	1	0	0	0	1	0	0	0	0	4	0	1	0	0	0	1	2	7
9:00	0	1	0	0	1	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	1	5
9:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	3	3	0	0	0	7	0	0	0	0	7	0	1	0	0	0	1	4	17
9:30	0	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
9:45	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	1	2	2	3
10:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	1
Total	0	1	0	4	1	0	0	0	3	0	0	0	0	0	0	4	0	0	1	4	5	8
10:30	0	0	0	2	0	0	0	0	3	0	0	0	0	1	0	1	2	0	0	3	3	6
10:45	0	0	0	0	0	0	0	0	2	0	0	2	0	6	2	0	0	0	0	0	2	8
11:00	0	0	0	1	0	0	0	0	3	0	0	0	0	1	0	3	0	0	0	3	3	5
11:15	0	1	0	3	1	0	0	0	0	0	0	3	0	5	3	1	0	0	0	1	5	8
Total	0	1	0	6	1	0	0	0	8	0	0	5	0	13	5	5	2	0	0	7	13	27
Grand Total	0	5	0	13	5	0	0	0	18	0	0	5	0	20	5	10	2	0	1	12	22	52
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			83.3%	16.7%	0.0%				
Total %	0.0%	22.7%	0.0%		22.7%	0.0%	0.0%	0.0%		0.0%	0.0%	22.7%	0.0%		22.7%	45.5%	9.1%	0.0%		54.5%	100.0%	

AM PEAK HOUR	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 09:15 to 10:15																					
Peak Hour For Entire Intersection Begins at 09:15																					
9:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
9:45	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	1	2	2
10:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	3	1	0	0	0	5	0	0	0	0	0	0	2	0	0	1	2	3
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			100.0%	0.0%	0.0%			
PHF	.000	.250	.000		.250	.000	.000	.000		.000	.000	.000		.000	.000	.250	.000	.000		.250	.375

National Data Surveying Services  
Intersection Turning Movement Count

**Location:** Mt Zion Dr & Clayton Rd  
**City:** Clayton  
**Control:** 1-Way Stop(NB)

**Project ID:** 20-080132-003  
**Date:** 10/11/2020

		Total																	
NS/EW Streets:		Mt Zion Dr				Mt Zion Dr				Clayton Rd				Clayton Rd					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		0	0	1	0	0	0	0	0	0	2	0	0	0	2	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	8:30 AM	0	0	2	0	0	0	0	0	0	43	0	0	0	67	0	0	112	
	8:45 AM	0	0	2	0	0	0	0	0	0	69	0	0	0	75	0	0	146	
	9:00 AM	0	0	1	0	0	0	0	0	0	45	0	0	0	95	0	0	141	
	9:15 AM	0	0	3	0	0	0	0	0	0	56	0	0	0	71	0	0	130	
	9:30 AM	0	0	5	0	0	0	0	0	0	75	0	0	0	88	0	0	168	
	9:45 AM	0	0	6	0	0	0	0	0	0	79	0	0	0	93	0	0	178	
	10:00 AM	0	0	5	0	0	0	0	0	0	79	0	0	0	84	0	0	168	
	10:15 AM	0	0	1	0	0	0	0	0	0	75	0	0	0	96	0	0	172	
	10:30 AM	0	0	3	0	0	0	0	0	0	73	0	0	0	100	0	0	176	
	10:45 AM	0	0	3	0	0	0	0	0	0	98	0	0	0	100	0	0	201	
	11:00 AM	0	0	1	0	0	0	0	0	0	88	0	0	0	101	0	0	190	
	11:15 AM	0	0	6	0	0	0	0	0	0	95	0	0	0	124	0	0	225	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :		0	0	38	0	0	0	0	0	0	875	0	0	0	1094	0	0	2007	
PEAK HR :		10:30 AM - 11:30 AM																TOTAL	
PEAK HR VOL :		0	0	13	0	0	0	0	0	0	354	0	0	0	425	0	0	792	
PEAK HR FACTOR :		0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.000	0.000	0.000	0.857	0.000	0.000	0.880	
		0.542								0.903				0.857					

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mt Zion Dr & Clayton Rd  
**City:** Clayton  
**Control:** 1-Way Stop(NB)

**Project ID:** 20-080132-003  
**Date:** 10/11/2020

### Bikes

NS/EW Streets:	Mt Zion Dr				Mt Zion Dr				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
8:30 AM	1	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	8
8:45 AM	0	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	3
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
9:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
10:15 AM	0	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0	5
10:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
10:45 AM	0	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0	5
11:00 AM	0	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
11:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	4
<b>TOTAL VOLUMES :</b>	NL 1	NT 0	NR 14	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 26	ER 3	EU 0	WL 0	WT 7	WR 0	WU 0	<b>TOTAL</b> 51
<b>APPROACH %'s :</b>	6.67%	0.00%	93.33%	0.00%					0.00%	89.66%	10.34%	0.00%	0.00%	100.00%	0.00%	0.00%	
<b>PEAK HR :</b>	10:30 AM - 11:30 AM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	0	0	9	0	0	0	0	0	0	4	0	0	0	3	0	0	16
<b>PEAK HR FACTOR :</b>	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.800
			0.750							0.500				0.750			

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mt Zion Dr & Clayton Rd  
**City:** Clayton

**Project ID:** 20-080132-003  
**Date:** 10/11/2020

### Pedestrians (Crosswalks)

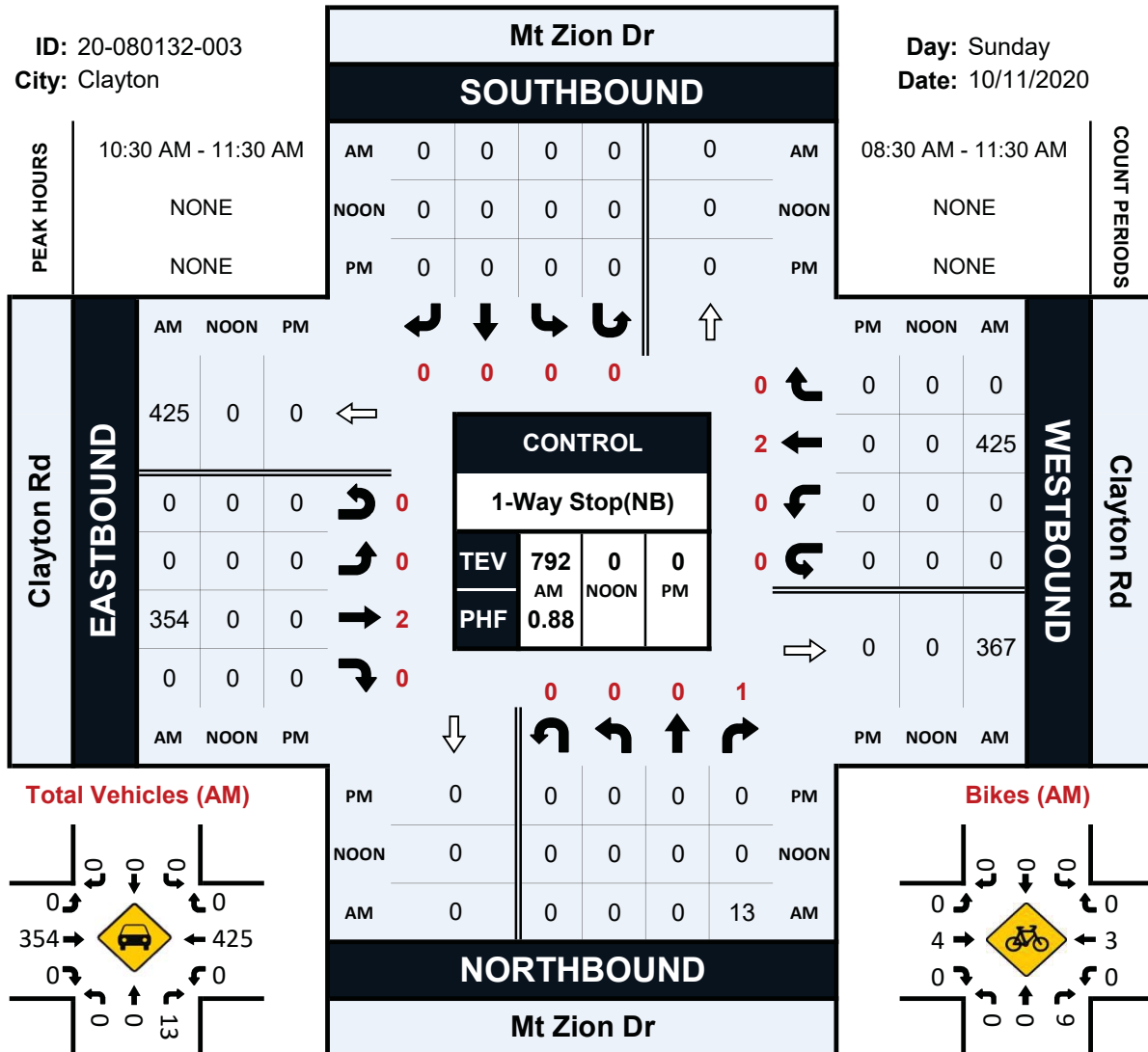
NS/EW Streets:	Mt Zion Dr		Mt Zion Dr		Clayton Rd		Clayton Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	1
9:00 AM	0	0	1	2	0	0	0	0	3
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	1
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	1	0	0	0	0	0	1
11:00 AM	0	0	1	0	0	0	0	0	1
11:15 AM	0	0	0	1	0	0	0	0	1
<b>TOTAL VOLUMES :</b>	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
<b>APPROACH %'s :</b>	0	0	5	4	0	0	0	0	9
			55.56%	44.44%					
<b>PEAK HR :</b>	10:30 AM - 11:30 AM								TOTAL
<b>PEAK HR VOL :</b>	0	0	2	1	0	0	0	0	3
<b>PEAK HR FACTOR :</b>			0.500	0.250					0.750
			0.750						

## Mt Zion Dr &amp; Clayton Rd

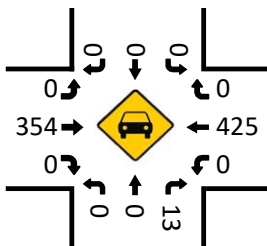
## Peak Hour Turning Movement Count

ID: 20-080132-003  
City: Clayton

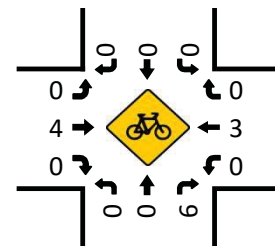
Day: Sunday  
Date: 10/11/2020



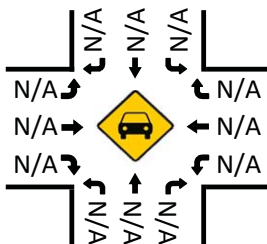
Total Vehicles (AM)



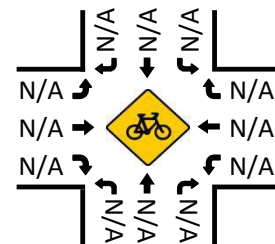
Bikes (AM)



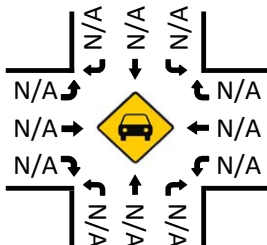
Total Vehicles (Noon)



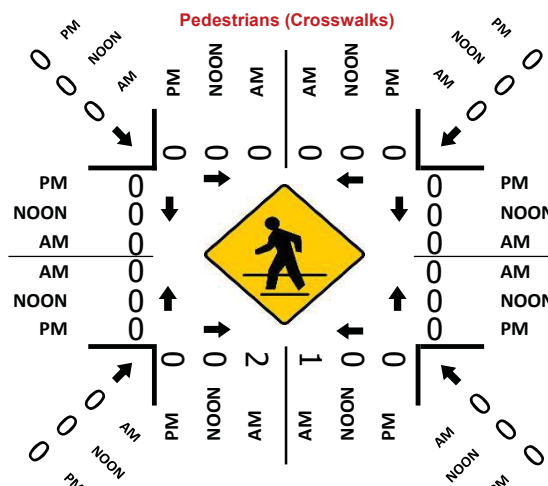
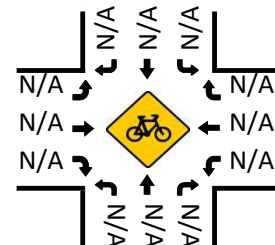
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



Comment 4:

[illegible]



Comment 4:

[illegible]

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-003

Date : 10/11/2020

## Unshifted Count = All Vehicles & Uturns

	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
8:30	0	0	0	0	0	0	67	0	0	67	0	0	2	0	2	0	43	0	0	43	112	0
8:45	0	0	0	0	0	0	75	0	0	75	0	0	2	0	2	0	69	0	0	69	146	0
9:00	0	0	0	0	0	0	95	0	0	95	0	0	1	0	1	0	45	0	0	45	141	0
9:15	0	0	0	0	0	0	71	0	0	71	0	0	3	0	3	0	56	0	0	56	130	0
Total	0	0	0	0	0	0	308	0	0	308	0	0	8	0	8	0	213	0	0	213	529	0
9:30	0	0	0	0	0	0	88	0	0	88	0	0	5	0	5	0	75	0	0	75	168	0
9:45	0	0	0	0	0	0	93	0	0	93	0	0	6	0	6	0	79	0	0	79	178	0
10:00	0	0	0	0	0	0	84	0	0	84	0	0	5	0	5	0	79	0	0	79	168	0
10:15	0	0	0	0	0	0	96	0	0	96	0	0	1	0	1	0	75	0	0	75	172	0
Total	0	0	0	0	0	0	361	0	0	361	0	0	17	0	17	0	308	0	0	308	686	0
10:30	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	73	0	0	73	176	0
10:45	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	98	0	0	98	201	0
11:00	0	0	0	0	0	0	101	0	0	101	0	0	1	0	1	0	88	0	0	88	190	0
11:15	0	0	0	0	0	0	124	0	0	124	0	0	6	0	6	0	95	0	0	95	225	0
Total	0	0	0	0	0	0	425	0	0	425	0	0	13	0	13	0	354	0	0	354	792	0
Grand Total	0	0	0	0	0	0	1094	0	0	1094	0	0	38	0	38	0	875	0	0	875	2007	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.5%	0.0%	0.0%	54.5%	0.0%	0.0%	1.9%	0.0%	1.9%	0.0%	43.6%	0.0%	0.0%	43.6%	100.0%	

AM PEAK HOUR	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	73	0	0	73	176
10:45	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	98	0	0	98	201
11:00	0	0	0	0	0	0	101	0	0	101	0	0	1	0	1	0	88	0	0	88	190
11:15	0	0	0	0	0	0	124	0	0	124	0	0	6	0	6	0	95	0	0	95	225
Total Volume	0	0	0	0	0	0	425	0	0	425	0	0	13	0	13	0	354	0	0	354	792
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.857	.000	.000	.857	.000	.000	.542	.000	.542	.000	.903	.000	.000	.903	.880

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-003

Date : 10/11/2020

## Bank 1 Count = Bikes & Peds

	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	6	0	0	6	8	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	1	0	3	4	1
9:00	0	0	0	0	0	0	1	0	0	1	0	0	0	3	0	0	1	1	0	2	3	3
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0
Total	0	0	0	0	0	0	2	0	0	2	1	0	1	4	2	0	11	2	0	13	17	4
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	1	0	7	7	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0
10:00	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	3	0	0	3	4	1
10:15	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	4	2	4	0	11	1	0	12	18	2
10:30	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2	0
10:45	0	0	0	0	0	0	1	0	0	1	0	0	2	1	2	0	2	0	0	2	5	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	2	0	0	2	5	1
11:15	0	0	0	0	0	0	1	0	0	1	0	0	3	1	3	0	0	0	0	0	4	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	9	3	9	0	4	0	0	4	16	3
Grand Total	0	0	0	0	0	0	7	0	0	7	1	0	14	9	15	0	26	3	0	29	51	9
Apprch %	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			6.7%	0.0%	93.3%			0.0%	89.7%	10.3%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	13.7%	0.0%		13.7%	2.0%	0.0%	27.5%		29.4%	0.0%	51.0%	5.9%		56.9%	100.0%	

AM PEAK HOUR	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
10:45	0	0	0	0	0	0	1	0	0	1	0	0	2	1	2	0	2	0	0	2	5
11:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	2	0	0	2	5
11:15	0	0	0	0	0	0	1	0	0	1	0	0	3	1	3	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	9	3	9	0	4	0	0	4	16
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.750	.000		.750	.000	.000	.750		.750	.000	.500	.000		.500	.800

National Data Surveying Services  
Intersection Turning Movement Count

**Location:** Mitchell Canyon Rd & Pine Hollow Rd  
**City:** Clayton  
**Control:** 4-Way Stop

**Project ID:** 20-080132-004  
**Date:** 10/11/2020

		Total																	
NS/EW Streets:		Mitchell Canyon Rd				Mitchell Canyon Rd				Pine Hollow Rd				Pine Hollow Rd					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
	8:30 AM	2	3	0	0	0	6	6	0	2	3	2	0	0	1	1	0	26	
	8:45 AM	2	6	0	0	1	4	7	0	3	1	4	0	0	0	1	0	29	
	9:00 AM	5	7	0	0	0	8	10	0	0	1	3	0	0	0	1	0	35	
	9:15 AM	4	7	0	0	1	5	7	0	7	2	3	0	0	1	1	0	38	
	9:30 AM	2	5	0	0	3	6	6	0	9	1	7	0	0	1	2	0	42	
	9:45 AM	8	8	1	0	1	9	14	0	6	3	10	0	0	0	0	0	60	
	10:00 AM	6	8	0	0	2	12	6	0	9	6	12	0	0	2	3	0	66	
	10:15 AM	10	8	1	0	1	7	8	0	9	2	13	0	1	0	1	0	61	
	10:30 AM	5	8	0	0	2	7	4	0	7	3	5	0	0	2	0	0	43	
	10:45 AM	2	11	0	0	1	15	12	0	16	3	1	0	0	1	1	0	63	
	11:00 AM	9	14	0	0	4	11	4	0	7	1	11	0	0	0	1	0	62	
	11:15 AM	4	12	0	0	2	10	14	0	11	4	4	0	0	1	2	0	64	
TOTAL VOLUMES :		NL 59	NT 97	NR 2	NU 0	SL 18	ST 100	SR 98	SU 0	EL 86	ET 30	ER 75	EU 0	WL 1	WT 9	WR 14	WU 0	TOTAL 589	
APPROACH %'s :		37.34%	61.39%	1.27%	0.00%	8.33%	46.30%	45.37%	0.00%	45.03%	15.71%	39.27%	0.00%	4.17%	37.50%	58.33%	0.00%		
PEAK HR :		10:00 AM - 11:00 AM																TOTAL 233	
PEAK HR VOL :		23	35	1	0	6	41	30	0	41	14	31	0	1	5	5	0		
PEAK HR FACTOR :		0.575	0.795	0.250	0.000	0.750	0.683	0.625	0.000	0.641	0.583	0.596	0.000	0.250	0.625	0.417	0.000	0.883	
		0.776				0.688				0.796				0.550					



# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mitchell Canyon Rd & Pine Hollow Rd  
**City:** Clayton

**Project ID:** 20-080132-004  
**Date:** 10/11/2020

### Pedestrians (Crosswalks)

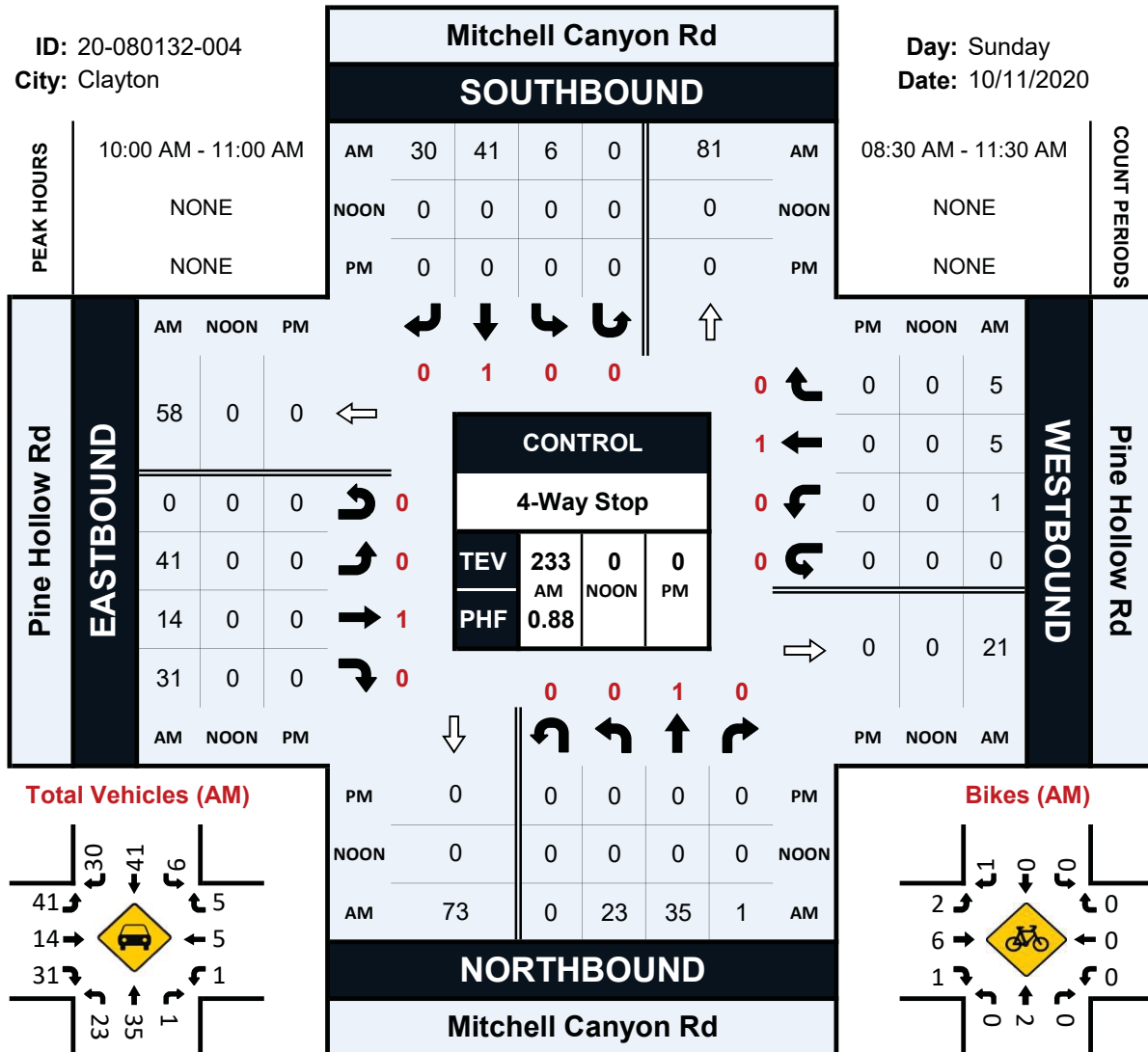
NS/EW Streets:	Mitchell Canyon Rd		Mitchell Canyon Rd		Pine Hollow Rd		Pine Hollow Rd	
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
8:30 AM	0	1	0	2	0	0	0	0
8:45 AM	3	1	4	1	0	0	0	1
9:00 AM	4	2	1	3	1	4	0	2
9:15 AM	0	0	1	3	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	1	0
10:00 AM	2	0	0	1	0	1	0	0
10:15 AM	0	1	0	0	0	0	0	0
10:30 AM	1	0	1	0	1	0	0	0
10:45 AM	0	0	2	4	0	0	0	0
11:00 AM	0	0	0	1	0	0	0	1
11:15 AM	2	1	1	5	0	0	0	0
<b>TOTAL VOLUMES :</b>	EB 12	WB 6	EB 11	WB 20	NB 2	SB 5	NB 1	SB 4
<b>APPROACH %'s :</b>	66.67%	33.33%	35.48%	64.52%	28.57%	71.43%	20.00%	80.00%
<b>PEAK HR :</b>	10:00 AM - 11:00 AM							
<b>PEAK HR VOL :</b>	3	1	3	5	1	1	0	0
<b>PEAK HR FACTOR :</b>	0.375	0.250	0.375	0.313	0.250	0.250		
	0.500		0.333		0.500			
								<b>TOTAL</b> 14 0.583

# Mitchell Canyon Rd & Pine Hollow Rd

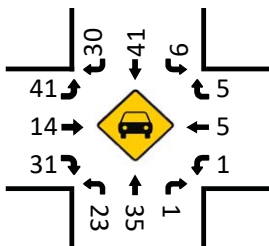
## Peak Hour Turning Movement Count

ID: 20-080132-004  
City: Clayton

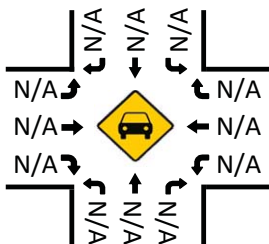
Day: Sunday  
Date: 10/11/2020



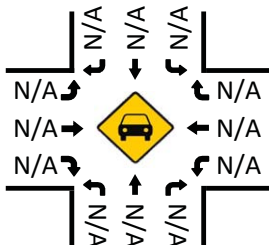
**Total Vehicles (AM)**



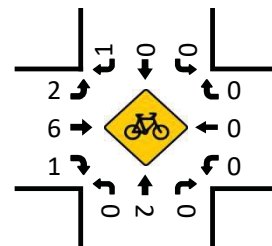
**Total Vehicles (Noon)**



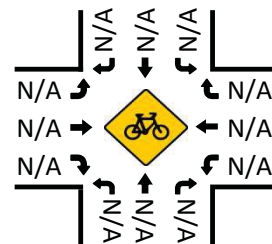
**Total Vehicles (PM)**



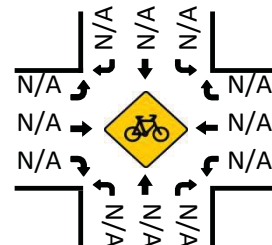
**Bikes (AM)**



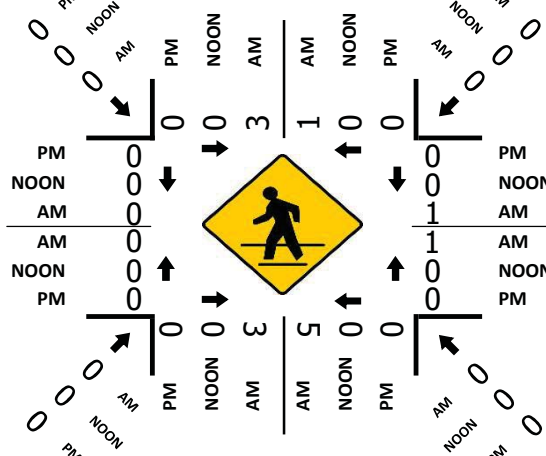
**Bikes (Noon)**



**Bikes (PM)**



**Pedestrians (Crosswalks)**



Comment 4:

Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS			
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 AM	0	0	0	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	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90			
8:30 AM	0	6	6	0	0	1	1	0	2	3	0	0	2	3	2	0	128		
8:45 AM	1	4	7	0	0	0	1	0	2	6	0	0	3	1	4	0	144		
9:00 AM	0	8	10	0	0	0	0	0	5	7	0	0	0	1	3	0	175		
9:15 AM	1	5	7	0	0	1	1	0	4	7	0	0	7	2	3	0	206		
9:30 AM	3	6	6	0	0	1	2	0	2	5	0	0	9	1	7	0	229		
9:45 AM	1	9	14	0	0	0	0	0	8	8	1	0	6	3	10	0	230		
10:00 AM	1	2	6	0	0	2	2	0	2	2	0	0	9	6	12	0	233		
10:15 AM	1	7	8	0	1	0	1	0	10	8	1	0	9	2	13	0	229		
10:30 AM	2	7	4	0	0	2	0	0	5	8	0	0	7	3	5	0	232		
10:45 AM	1	15	12	0	0	1	0	0	11	16	0	0	3	1	0	0	189		
11:00 AM	4	11	4	0	0	0	1	0	9	14	0	0	7	1	11	0	226		
11:15 AM	2	10	14	0	0	1	2	0	4	12	0	0	11	4	4	0	64		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	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	0	0	0	0		
5:00 PM	0	0	0	0	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	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		



Comment 4:

Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS			
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 AM	0	0	0	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	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9			
8:30 AM	0	0	1	1	0	0	0	0	0	0	2	0	0	0	4	0			
8:45 AM	0	0	0	4	0	0	0	0	0	0	5	0	1	0	1	12			
9:00 AM	1	1	6	6	0	0	5	0	1	4	0	0	0	0	2	10			
9:15 AM	0	1	0	0	0	0	0	0	1	1	4	0	0	0	0	7			
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	9			
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	12			
10:00 AM	0	0	2	2	0	0	1	0	0	0	1	0	0	2	0	12			
10:15 AM	0	0	1	1	0	0	0	0	0	0	0	2	2	0	0	17			
10:30 AM	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	13			
10:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	1	1	0	9			
11:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	1			
11:15 AM	0	0	0	3	0	0	0	0	0	0	6	0	1	0	0	1			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	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	0	0	0			
5:00 PM	0	0	0	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	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-004

Date : 10/11/2020

## Unshifted Count = All Vehicles & Uturns

	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
8:30	0	6	6	0	12	0	1	1	0	2	2	3	0	0	5	2	3	2	0	7	26	0
8:45	1	4	7	0	12	0	0	1	0	1	2	6	0	0	8	3	1	4	0	8	29	0
9:00	0	8	10	0	18	0	0	1	0	1	5	7	0	0	12	0	1	3	0	4	35	0
9:15	1	5	7	0	13	0	1	1	0	2	4	7	0	0	11	7	2	3	0	12	38	0
Total	2	23	30	0	55	0	2	4	0	6	13	23	0	0	36	12	7	12	0	31	128	0
9:30	3	6	6	0	15	0	1	2	0	3	2	5	0	0	7	9	1	7	0	17	42	0
9:45	1	9	14	0	24	0	0	0	0	0	8	8	1	0	17	6	3	10	0	19	60	0
10:00	2	12	6	0	20	0	2	3	0	5	6	8	0	0	14	9	6	12	0	27	66	0
10:15	1	7	8	0	16	1	0	1	0	2	10	8	1	0	19	9	2	13	0	24	61	0
Total	7	34	34	0	75	1	3	6	0	10	26	29	2	0	57	33	12	42	0	87	229	0
10:30	2	7	4	0	13	0	2	0	0	2	5	8	0	0	13	7	3	5	0	15	43	0
10:45	1	15	12	0	28	0	1	1	0	2	2	11	0	0	13	16	3	1	0	20	63	0
11:00	4	11	4	0	19	0	0	1	0	1	9	14	0	0	23	7	1	11	0	19	62	0
11:15	2	10	14	0	26	0	1	2	0	3	4	12	0	0	16	11	4	4	0	19	64	0
Total	9	43	34	0	86	0	4	4	0	8	20	45	0	0	65	41	11	21	0	73	232	0
Grand Total	18	100	98	0	216	1	9	14	0	24	59	97	2	0	158	86	30	75	0	191	589	0
Apprch %	8.3%	46.3%	45.4%	0.0%		4.2%	37.5%	58.3%	0.0%		37.3%	61.4%	1.3%	0.0%		45.0%	15.7%	39.3%	0.0%			
Total %	3.1%	17.0%	16.6%	0.0%	36.7%	0.2%	1.5%	2.4%	0.0%	4.1%	10.0%	16.5%	0.3%	0.0%	26.8%	14.6%	5.1%	12.7%	0.0%	32.4%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 10:00 to 11:00																					
Peak Hour For Entire Intersection Begins at 10:00																					
10:00	2	12	6	0	20	0	2	3	0	5	6	8	0	0	14	9	6	12	0	27	66
10:15	1	7	8	0	16	1	0	1	0	2	10	8	1	0	19	9	2	13	0	24	61
10:30	2	7	4	0	13	0	2	0	0	2	5	8	0	0	13	7	3	5	0	15	43
10:45	1	15	12	0	28	0	1	1	0	2	2	11	0	0	13	16	3	1	0	20	63
Total Volume	6	41	30	0	77	1	5	5	0	11	23	35	1	0	59	41	14	31	0	86	233
% App Total	7.8%	53.2%	39.0%	0.0%		9.1%	45.5%	45.5%	0.0%		39.0%	59.3%	1.7%	0.0%		47.7%	16.3%	36.0%	0.0%		
PHF	.750	.683	.625	.000	.688	.250	.625	.417	.000	.550	.575	.795	.250	.000	.776	.641	.583	.596	.000	.796	.883

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-004

Date : 10/11/2020

## Bank 1 Count = Bikes & Peds

	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	1	1	1	0	0	0	0	0	0	0	0	2	0	0	0	4	0	4	5	3
8:45	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0	0	1	0	1	1	1	10
9:00	0	1	1	6	2	0	0	0	5	0	0	1	0	4	1	0	0	0	2	0	3	17
9:15	0	1	0	0	1	0	0	0	0	0	1	1	0	4	2	0	0	0	0	0	3	4
Total	0	2	2	11	4	0	0	0	5	0	1	2	0	15	3	0	1	4	3	5	12	34
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	3	3	1
10:00	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
10:15	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	5	1
Total	0	0	1	3	1	0	0	0	1	0	0	0	0	2	0	3	4	1	1	8	9	7
10:30	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	3	0	0	3	4	3
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	1	1	0	2	3	6
11:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	1	4	5	2
11:15	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	1	1	9
Total	0	0	0	4	0	0	0	0	1	0	1	2	0	14	3	1	8	1	1	10	13	20
Grand Total	0	2	3	18	5	0	0	0	7	0	2	4	0	31	6	4	13	6	5	23	34	61
Apprch %	0.0%	40.0%	60.0%			0.0%	0.0%	0.0%			33.3%	66.7%	0.0%			17.4%	56.5%	26.1%				
Total %	0.0%	5.9%	8.8%		14.7%	0.0%	0.0%	0.0%		0.0%	5.9%	11.8%	0.0%		17.6%	11.8%	38.2%	17.6%		67.6%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:00 to 11:00																					
Peak Hour For Entire Intersection Begins at 10:00																					
10:00	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
10:15	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	5
10:30	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	3	0	0	3	4
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	1	1	0	2	3
Total Volume	0	0	1	4	1	0	0	0	2	0	0	2	0	8	2	2	6	1	0	9	12
% App Total	0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			22.2%	66.7%	11.1%			
PHF	.000	.000	.250		.250	.000	.000	.000		.000	.000	.500	.000		.500	.250	.500	.250		.563	.600

National Data Surveying Services  
Intersection Turning Movement Count

**Location:** Mitchell Canyon Rd & Clayton Rd  
**City:** Clayton  
**Control:** Signalized

**Project ID:** 20-080132-005  
**Date:** 10/11/2020

		Total																	
NS/EW Streets:		Mitchell Canyon Rd				Mitchell Canyon Rd				Clayton Rd				Clayton Rd					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU		
	8:30 AM	3	1	3	0	0	2	2	0	1	40	5	0	6	58	1	0	122	
	8:45 AM	6	0	4	0	1	0	1	0	0	65	4	0	9	64	1	1	156	
	9:00 AM	9	0	3	0	0	0	0	0	2	43	6	0	12	82	0	0	157	
	9:15 AM	5	1	10	0	0	0	4	0	3	44	5	0	8	64	0	0	144	
	9:30 AM	7	0	9	0	0	1	1	0	0	65	7	0	9	72	1	0	172	
	9:45 AM	10	0	9	0	2	1	2	0	1	68	4	0	17	82	0	0	196	
	10:00 AM	9	0	12	0	2	0	4	0	1	66	12	0	12	71	2	0	191	
	10:15 AM	6	1	11	0	5	1	3	0	2	59	5	0	10	81	2	0	186	
	10:30 AM	4	1	9	0	0	3	0	0	2	66	6	0	6	96	0	0	193	
	10:45 AM	13	0	16	0	1	2	0	0	2	79	14	0	14	86	1	0	228	
	11:00 AM	11	1	10	0	1	1	1	0	1	74	8	0	13	87	1	1	210	
	11:15 AM	11	2	16	0	3	1	2	0	2	77	8	0	16	105	2	0	245	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :		44.13%	3.29%	52.58%	0.00%	31.91%	25.53%	42.55%	0.00%	2.01%	88.08%	9.92%	0.00%	12.08%	86.73%	1.01%	0.18%	2200	
PEAK HR :		10:30 AM - 11:30 AM																TOTAL	
PEAK HR VOL :		39	4	51	0	5	7	3	0	7	296	36	0	49	374	4	1	876	
PEAK HR FACTOR :		0.750	0.500	0.797	0.000	0.417	0.583	0.375	0.000	0.875	0.937	0.643	0.000	0.766	0.890	0.500	0.250	0.894	
		0.810				0.625				0.892				0.870					

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mitchell Canyon Rd & Clayton Rd  
**City:** Clayton  
**Control:** Signalized

**Project ID:** 20-080132-005  
**Date:** 10/11/2020

### Bikes

NS/EW Streets:	Mitchell Canyon Rd				Mitchell Canyon Rd				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
8:30 AM	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0	7
8:45 AM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
9:00 AM	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	4
9:15 AM	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4
9:30 AM	1	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0	8
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
10:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
10:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	4
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
<b>TOTAL VOLUMES :</b>	NL 3	NT 1	NR 5	NU 0	SL 2	ST 1	SR 0	SU 0	EL 0	ET 22	ER 1	EU 0	WL 3	WT 4	WR 0	WU 0	<b>TOTAL</b> 42
<b>APPROACH %'s :</b>	33.33%	11.11%	55.56%	0.00%	66.67%	33.33%	0.00%	0.00%	0.00%	95.65%	4.35%	0.00%	42.86%	57.14%	0.00%	0.00%	
<b>PEAK HR :</b>	10:30 AM - 11:30 AM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	1	1	0	0	0	0	0	0	0	4	0	0	0	3	0	0	9
<b>PEAK HR FACTOR :</b>	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.563
	0.500								0.500				0.750				

# National Data Surveying Services

## Intersection Turning Movement Count

**Location:** Mitchell Canyon Rd & Clayton Rd  
**City:** Clayton

**Project ID:** 20-080132-005  
**Date:** 10/11/2020

### Pedestrians (Crosswalks)

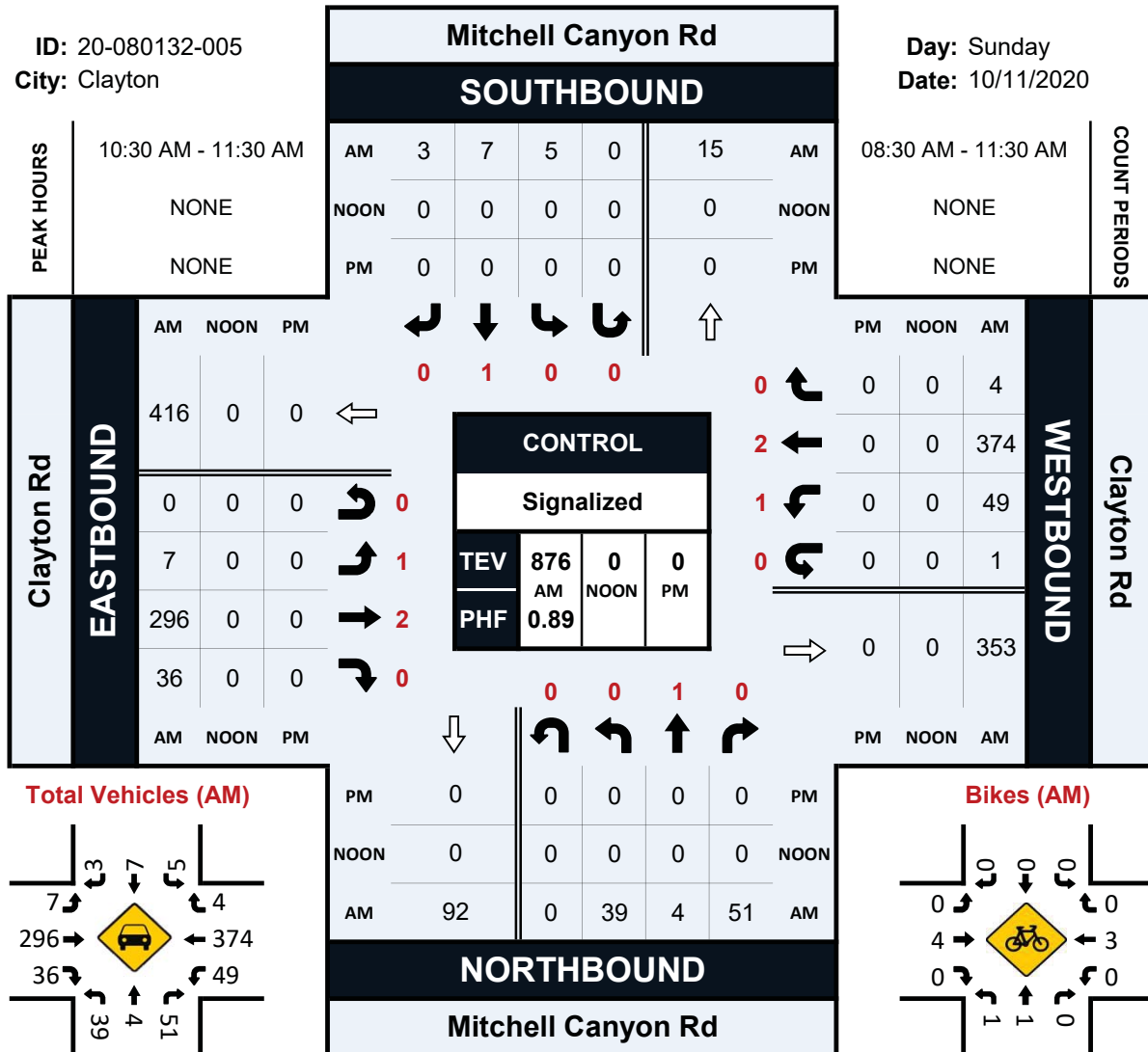
NS/EW Streets:	Mitchell Canyon Rd		Mitchell Canyon Rd		Clayton Rd		Clayton Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	1	0	0	0	0	0	3
9:00 AM	0	1	1	1	0	0	0	0	3
9:15 AM	0	3	0	0	0	2	0	0	5
9:30 AM	2	1	0	0	0	2	0	0	5
9:45 AM	2	1	0	0	0	0	0	0	3
10:00 AM	0	1	0	1	1	1	0	0	4
10:15 AM	0	2	0	0	0	0	0	0	2
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	1	0	0	2
11:00 AM	0	2	1	1	0	1	0	0	5
11:15 AM	2	1	0	1	0	0	0	0	4
<b>TOTAL VOLUMES :</b>	EB 7	WB 14	EB 3	WB 4	NB 1	SB 7	NB 0	SB 0	TOTAL 36
<b>APPROACH %'s :</b>	33.33%	66.67%	42.86%	57.14%	12.50%	87.50%			
<b>PEAK HR :</b>	10:30 AM - 11:30 AM								TOTAL
<b>PEAK HR VOL :</b>	3	3	1	2	0	2	0	0	11
<b>PEAK HR FACTOR :</b>	0.375	0.375	0.250	0.500		0.500			0.550
	0.500		0.375		0.500				

# Mitchell Canyon Rd & Clayton Rd

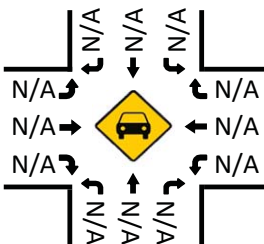
## Peak Hour Turning Movement Count

ID: 20-080132-005  
City: Clayton

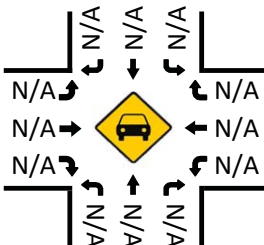
Day: Sunday  
Date: 10/11/2020



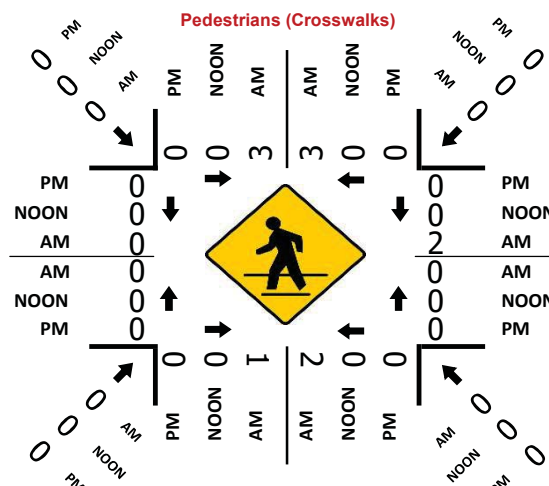
**Total Vehicles (Noon)**



**Total Vehicles (PM)**



**Bikes (PM)**



Comment 4:

[illegible]



Comment 4:

Michel Canyon Rd Southbound					Clayton Rd Westbound					Michel Canyon Rd Northbound					Clayton Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS			
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 AM	0	0	0	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	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0			
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0	18			
8:45 AM	0	0	0	2	0	0	0	0	0	0	1	2	0	2	0	19			
9:00 AM	0	0	1	0	0	0	0	0	0	0	1	2	0	1	1	16			
9:15 AM	2	1	0	3	0	2	0	2	1	0	0	0	0	0	0	16			
9:30 AM	0	0	0	3	0	0	0	2	1	0	1	0	0	6	0	15			
9:45 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	9			
10:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	3	3	13	0			
10:15 AM	0	0	0	2	1	0	0	0	0	0	2	0	0	0	0	11			
10:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	9			
10:45 AM	0	0	1	0	0	0	0	0	0	1	0	2	0	1	0	7			
11:00 AM	0	0	0	2	0	0	0	1	0	0	0	2	0	2	0	3			
11:15 AM	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	1			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	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	0	0	0			
5:00 PM	0	0	0	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	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-005

Date : 10/11/2020

## Unshifted Count = All Vehicles & Uturns

	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
8:30	0	2	2	0	4	6	58	1	0	65	3	1	3	0	7	1	40	5	0	46	122	0
8:45	1	0	1	0	2	9	64	1	1	75	6	0	4	0	10	0	65	4	0	69	156	1
9:00	0	0	0	0	0	12	82	0	0	94	9	0	3	0	12	2	43	6	0	51	157	0
9:15	0	0	4	0	4	8	64	0	0	72	5	1	10	0	16	3	44	5	0	52	144	0
Total	1	2	7	0	10	35	268	2	1	306	23	2	20	0	45	6	192	20	0	218	579	1
9:30	0	1	1	0	2	9	72	1	0	82	7	0	9	0	16	0	65	7	0	72	172	0
9:45	2	1	2	0	5	17	82	0	0	99	10	0	9	0	19	1	68	4	0	73	196	0
10:00	2	0	4	0	6	12	71	2	0	85	9	0	12	0	21	1	66	12	0	79	191	0
10:15	5	1	3	0	9	10	81	2	0	93	6	1	11	0	18	2	59	5	0	66	186	0
Total	9	3	10	0	22	48	306	5	0	359	32	1	41	0	74	4	258	28	0	290	745	0
10:30	0	3	0	0	3	6	96	0	0	102	4	1	9	0	14	2	66	6	0	74	193	0
10:45	1	2	0	0	3	14	86	1	0	101	13	0	16	0	29	2	79	14	0	95	228	0
11:00	1	1	1	0	3	13	87	1	1	102	11	1	10	0	22	1	74	8	0	83	210	1
11:15	3	1	2	0	6	16	105	2	0	123	11	2	16	0	29	2	77	8	0	87	245	0
Total	5	7	3	0	15	49	374	4	1	428	39	4	51	0	94	7	296	36	0	339	876	1
Grand Total	15	12	20	0	47	132	948	11	2	1093	94	7	112	0	213	17	746	84	0	847	2200	2
Apprch %	31.9%	25.5%	42.6%	0.0%		12.1%	86.7%	1.0%	0.2%		44.1%	3.3%	52.6%	0.0%		2.0%	88.1%	9.9%	0.0%			
Total %	0.7%	0.5%	0.9%	0.0%	2.1%	6.0%	43.1%	0.5%	0.1%	49.7%	4.3%	0.3%	5.1%	0.0%	9.7%	0.8%	33.9%	3.8%	0.0%	38.5%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	3	0	0	3	6	96	0	0	102	4	1	9	0	14	2	66	6	0	74	193
10:45	1	2	0	0	3	14	86	1	0	101	13	0	16	0	29	2	79	14	0	95	228
11:00	1	1	1	0	3	13	87	1	1	102	11	1	10	0	22	1	74	8	0	83	210
11:15	3	1	2	0	6	16	105	2	0	123	11	2	16	0	29	2	77	8	0	87	245
Total Volume	5	7	3	0	15	49	374	4	1	428	39	4	51	0	94	7	296	36	0	339	876
% App Total	33.3%	46.7%	20.0%	0.0%		11.4%	87.4%	0.9%	0.2%		41.5%	4.3%	54.3%	0.0%		2.1%	87.3%	10.6%	0.0%		
PHF	.417	.583	.375	.000	.625	.766	.890	.500	.250	.870	.750	.500	.797	.000	.810	.875	.937	.643	.000	.892	.894

# ALL TRAFFIC DATA

City of Clayton

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 20-080132-005

Date : 10/11/2020

## Bank 1 Count = Bikes & Peds

	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	6	0	0	6	7	0
8:45	0	0	0	2	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	2	3	3
9:00	0	0	0	1	0	1	0	0	0	1	0	0	1	2	1	0	1	1	0	2	4	3
9:15	2	1	0	3	3	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	4	5
Total	2	1	0	6	3	2	0	0	2	2	1	0	2	3	3	0	9	1	0	10	18	11
9:30	0	0	0	3	0	0	0	0	2	0	1	0	1	0	2	0	6	0	0	6	8	5
9:45	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	0	0	1	0	0	1	0	2	1	0	0	0	1	0	0	3	0	0	3	4	4
10:15	0	0	0	2	0	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	3	2
Total	0	0	0	9	0	1	1	0	4	2	1	0	3	1	4	0	9	0	0	9	15	14
10:30	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2	0
10:45	0	0	0	1	0	0	1	0	1	1	1	0	0	0	1	0	2	0	0	2	4	2
11:00	0	0	0	2	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	2	2	5
11:15	0	0	0	3	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	4
Total	0	0	0	6	0	0	3	0	2	3	1	1	0	3	2	0	4	0	0	4	9	11
Grand Total	2	1	0	21	3	3	4	0	8	7	3	1	5	7	9	0	22	1	0	23	42	36
Apprch %	66.7%	33.3%	0.0%			42.9%	57.1%	0.0%			33.3%	11.1%	55.6%			0.0%	95.7%	4.3%				
Total %	4.8%	2.4%	0.0%		7.1%	7.1%	9.5%	0.0%		16.7%	7.1%	2.4%	11.9%		21.4%	0.0%	52.4%	2.4%		54.8%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
10:45	0	0	0	1	0	0	1	0	1	1	1	0	0	0	1	0	2	0	0	2	4
11:00	0	0	0	2	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	2	2
11:15	0	0	0	3	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	6	0	0	3	0	2	3	1	1	0	3	2	0	4	0	0	4	9
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			50.0%	50.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.750	.000		.750	.250	.250	.000		.500	.000	.500	.000		.500	.563

**Appendix C – Mt. Diablo Elementary School  
Bell Schedule and Circulation Plan**

POLICIES

[Attendance](#)  
[Arrival and Departure](#)  
[Bell Schedule](#)  
[Medications](#)  
[Office Procedures](#)  
[Volunteering](#)

# Arrival and Departure

## ARRIVAL

Students should arrive at school no earlier than 7:30 a.m., 15 minutes before school starts. Whether students come to school by car, bicycle, or foot, they are expected to follow the 15-minute rule.

### **Supervision begins at 7:30 a.m.**

Drop off and pick-up procedures and a map can be found [here](#).

- The new system is designed to alleviate congestion and increase our children's safety; please be patient and make it work!
- If you have children in multiple grade levels, please choose one drop-off/pick-up point for your whole family.
- If you need to park at drop-off or pick-up time, remember that the bus lane is now on Mt. Zion Drive in front of the school and you will not be able to park there.

## DEPARTURE/PICKUP

We respectfully request that parents wait quietly for students away from all classroom doors and hallways until the dismissal bell rings, as teaching and learning are in progress. Parents may wait in front of the school, in the MUR, or under the covered table area starting at 2:10, M,T,TH,F and at 12:15 on Wednesday.

**Students must leave the campus when they are dismissed unless there is an activity they need to attend that starts immediately after school.** They may return to school for activities which take place later in the day. Students who are not picked up 15 minutes after dismissal are unsupervised.

**Parents should instruct their children to report to the school office in the event that they may be uncertain of anything at the dismissal time.**

POLICIES

- Attendance
- Arrival and Departure
- Bell Schedule
- Medications
- Office Procedures
- Volunteering

# Bell Schedule

School at Mt. Diablo Elementary begins at 7:40 AM!

Wednesday is early release day for TK/Kinder Late Friends (12:30 PM)  
and students in grades 1-5 (12:25 PM).

# MT. DIABLO ELEMENTARY

## School Bell Schedule

2019 - 2020

### TK & Kindergarten

Monday through Friday	Early Session	7:40am-11:15am
	Late Session	9:45am-1:15pm
Wednesday	Early Session	7:40am-10:45am
	Late Session	9:30am-12:30pm

### Grades 1<sup>st</sup> – 5<sup>th</sup>

Monday, Tuesday, Thursday, Friday	7:40am-2:15pm
Wednesday	7:40am-12:25pm

### Morning Recess

Grades 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	9:15am-9:35am
Grades 4 <sup>th</sup> , 5 <sup>th</sup>	9:40am-10:00am

### Lunch Schedule

Grade 1	10:50am-11:25am
Grade 2/3	11:25am-12:00pm
Grades 4/5	12:00pm-12:35pm

### Afternoon Recess

Grades 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	1:15pm-1:30pm
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### Wednesday Recess

Grade 1 <sup>st</sup> , 2 <sup>nd</sup>	9:00am-9:10am
Grade 3 <sup>rd</sup>	9:20am-9:30am
Grade 4 <sup>th</sup> , 5 <sup>th</sup>	9:40am-9:50am

### Wednesday Brunch

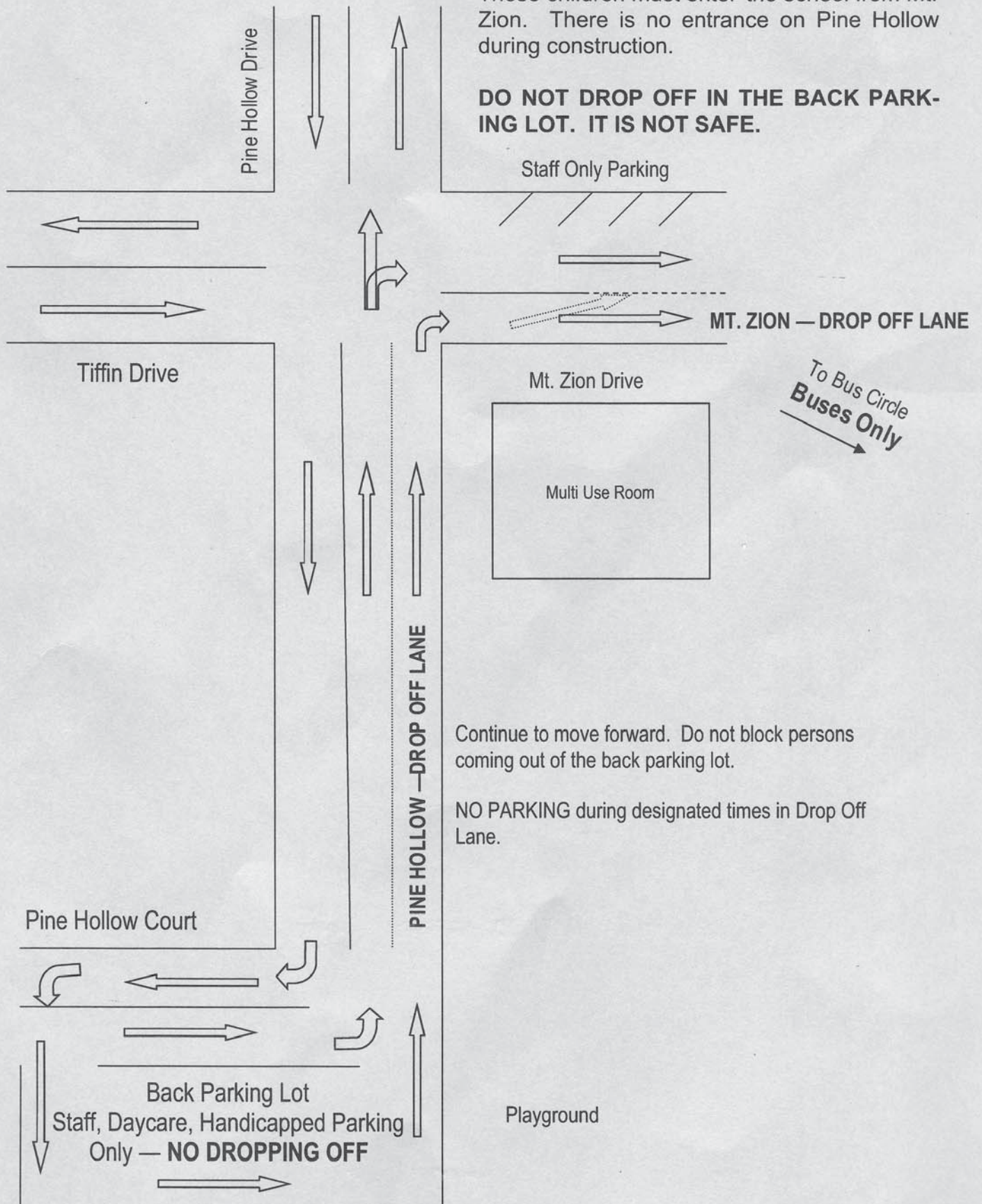
Grade 1/2	11:00am-11:20am
Grade 3 <sup>rd</sup>	11:20am-11:40am
Grades 4 <sup>th</sup> , 5 <sup>th</sup>	11:40am-12:00pm



Mt. Diablo Elementary  
**FLOW OF TRAFFIC**

**CONSTRUCTION NOTE:** Children may be dropped off on Pine Hollow or Mt. Zion. These children must enter the school from Mt. Zion. There is no entrance on Pine Hollow during construction.

**DO NOT DROP OFF IN THE BACK PARKING LOT. IT IS NOT SAFE.**



Continue to move forward. Do not block persons coming out of the back parking lot.

NO PARKING during designated times in Drop Off Lane.



**Appendix D – Existing Conditions  
Intersection Level of Service  
Worksheets**

Intersection

Intersection Delay, s/veh 7.1

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕				
Traffic Vol, veh/h	13	0	11	0	0	0	10	8	0	0	0	0
Future Vol, veh/h	13	0	11	0	0	0	10	8	0	0	0	0
Peak Hour Factor	0.63	0.63	0.63	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	17	0	0	0	11	9	0	0	0	0
Number of Lanes	0	1	0	0	1	1	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	7.1	0	7.2
HCM LOS	A	-	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2
Vol Left, %	56%	54%	0%	0%
Vol Thru, %	44%	0%	100%	100%
Vol Right, %	0%	46%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	24	0	0
LT Vol	10	13	0	0
Through Vol	8	0	0	0
RT Vol	0	11	0	0
Lane Flow Rate	19	38	0	0
Geometry Grp	2	5	7	7
Degree of Util (X)	0.022	0.041	0	0
Departure Headway (Hd)	4.112	3.901	4.586	4.586
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	921	0	0
Service Time	2.126	1.911	2.3	2.3
HCM Lane V/C Ratio	0.022	0.041	0	0
HCM Control Delay	7.2	7.1	7.3	7.3
HCM Lane LOS	A	A	N	N
HCM 95th-tile Q	0.1	0.1	0	0

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑↑			↑
Traffic Vol, veh/h	425	0	0	510	0	16
Future Vol, veh/h	425	0	0	510	0	16
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	-	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	86	86	54	54
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	472	0	0	593	0	30

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	-	-	236
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	0	766
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	766
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	9.9
HCM LOS		A

Minor Lane/Major Mvmt	NBLn1	EBT
Capacity (veh/h)	766	-
HCM Lane V/C Ratio	0.039	-
HCM Control Delay (s)	9.9	-
HCM Lane LOS	A	-
HCM 95th %tile Q(veh)	0.1	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	17	37	1	6	6	28	42	1	7	49	36
Future Vol, veh/h	49	17	37	1	6	6	28	42	1	7	49	36
Peak Hour Factor	0.80	0.80	0.80	0.55	0.55	0.55	0.78	0.78	0.78	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	21	46	2	11	11	36	54	1	10	71	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.5	8.1	7.9
HCM LOS	A	A	A	A








Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	39%	48%	8%	8%
Vol Thru, %	59%	17%	46%	53%
Vol Right, %	1%	36%	46%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	103	13	92
LT Vol	28	49	1	7
Through Vol	42	17	6	49
RT Vol	1	37	6	36
Lane Flow Rate	91	129	24	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.113	0.155	0.028	0.154
Departure Headway (Hd)	4.488	4.339	4.316	4.161
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	829	831	865
Service Time	2.502	2.352	2.332	2.173
HCM Lane V/C Ratio	0.114	0.156	0.029	0.154
HCM Control Delay	8.1	8.1	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.1	0.5

# HCM 2010 Signalized Intersection Summary

## 5: Mitchell Canyon Rd & Clayton Rd

Timing Plan: Sunday AM

10/29/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	355	43	60	449	5	47	5	61	6	8	4
Future Volume (veh/h)	8	355	43	60	449	5	47	5	61	6	8	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.97	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	399	48	69	516	6	58	6	75	10	13	6
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.81	0.81	0.81	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	686	82	115	965	11	333	72	337	288	351	138
Arrive On Green	0.01	0.22	0.22	0.06	0.27	0.27	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1774	3169	378	1774	3582	42	527	174	822	431	855	335
Grp Volume(v), veh/h	9	222	225	69	255	267	139	0	0	29	0	0
Grp Sat Flow(s), veh/h/ln	1774	1770	1777	1774	1770	1854	1523	0	0	1621	0	0
Q Serve(g_s), s	0.2	4.9	5.0	1.7	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	4.9	5.0	1.7	5.4	5.4	2.3	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.02	0.42		0.54	0.34		0.21
Lane Grp Cap(c), veh/h	21	383	385	115	477	499	742	0	0	776	0	0
V/C Ratio(X)	0.43	0.58	0.59	0.60	0.53	0.54	0.19	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	202	727	730	223	747	782	742	0	0	776	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.5	15.4	15.4	19.9	13.7	13.7	8.3	0.0	0.0	7.7	0.0	0.0
Incr Delay (d2), s/veh	13.2	1.4	1.4	4.9	0.9	0.9	0.6	0.0	0.0	0.1	0.0	0.0
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	0.2	2.5	2.6	1.0	2.7	2.9	1.2	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d), s/veh	34.7	16.8	16.8	24.9	14.6	14.6	8.9	0.0	0.0	7.8	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h	456			591			139			29		
Approach Delay, s/veh	17.2			15.8			8.9			7.8		
Approach LOS	B			B			A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	7.3	14.0		22.5	5.0	16.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		4.3	3.7	7.0		2.4	2.2	7.4				
Green Ext Time (p_c), s		0.6	0.0	1.8		0.1	0.0	2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay	15.3											
HCM 2010 LOS	B											







**Appendix E – Existing plus Project Conditions  
Intersection Level of Service Worksheets**

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	70	11	0	49	26	10	8	0	0	0	0
Future Vol, veh/h	13	70	11	0	49	26	10	8	0	0	0	0
Peak Hour Factor	0.63	0.63	0.63	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	111	17	0	53	28	11	9	0	0	0	0
Number of Lanes	0	1	0	0	1	1	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8	7.4	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2
Vol Left, %	56%	14%	0%	0%
Vol Thru, %	44%	74%	100%	0%
Vol Right, %	0%	12%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	94	49	26
LT Vol	10	13	0	0
Through Vol	8	70	49	0
RT Vol	0	11	0	26
Lane Flow Rate	19	149	53	28
Geometry Grp	2	5	7	7
Degree of Util (X)	0.024	0.169	0.069	0.031
Departure Headway (Hd)	4.55	4.084	4.641	3.94
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	876	771	906
Service Time	2.55	2.12	2.376	1.674
HCM Lane V/C Ratio	0.024	0.17	0.069	0.031
HCM Control Delay	7.7	8	7.7	6.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2	0.1



Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑↑			↑
Traffic Vol, veh/h	425	0	0	535	0	42
Future Vol, veh/h	425	0	0	535	0	42
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	-	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	86	86	54	54
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	472	0	0	622	0	78

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	-	-	236
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	0	766
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	766
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	10.2
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT
Capacity (veh/h)	766	-
HCM Lane V/C Ratio	0.102	-
HCM Control Delay (s)	10.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.3	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	21	37	5	10	47	28	42	4	70	49	36
Future Vol, veh/h	49	21	37	5	10	47	28	42	4	70	49	36
Peak Hour Factor	0.80	0.80	0.80	0.55	0.55	0.55	0.78	0.78	0.78	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	26	46	9	18	85	36	54	5	101	71	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.2	8.6	9.4
HCM LOS	A	A	A	A








Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	46%	8%	45%
Vol Thru, %	57%	20%	16%	32%
Vol Right, %	5%	35%	76%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	107	62	155
LT Vol	28	49	5	70
Through Vol	42	21	10	49
RT Vol	4	37	47	36
Lane Flow Rate	95	134	113	225
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.175	0.138	0.285
Departure Headway (Hd)	4.812	4.704	4.415	4.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	743	761	809	784
Service Time	2.858	2.744	2.457	2.608
HCM Lane V/C Ratio	0.128	0.176	0.14	0.287
HCM Control Delay	8.6	8.7	8.2	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.5	1.2

# HCM 2010 Signalized Intersection Summary

## 5: Mitchell Canyon Rd & Clayton Rd

Timing Plan: Sunday AM

10/29/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	355	78	85	449	5	84	9	61	6	11	4
Future Volume (veh/h)	8	355	78	85	449	5	84	9	61	6	11	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.97	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	399	88	98	516	6	104	11	75	10	17	6
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.81	0.81	0.81	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	653	142	139	1053	12	413	69	234	249	391	119
Arrive On Green	0.01	0.23	0.23	0.08	0.29	0.29	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1774	2867	625	1774	3582	42	731	173	590	366	986	300
Grp Volume(v), veh/h	9	244	243	98	255	267	190	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1722	1774	1770	1854	1494	0	0	1652	0	0
Q Serve(g_s), s	0.2	5.6	5.7	2.4	5.4	5.4	2.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	5.6	5.7	2.4	5.4	5.4	3.7	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.02	0.55		0.39	0.30		0.18
Lane Grp Cap(c), veh/h	21	403	392	139	520	545	715	0	0	759	0	0
V/C Ratio(X)	0.43	0.61	0.62	0.71	0.49	0.49	0.27	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	195	702	683	215	721	756	715	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	15.7	15.8	20.4	13.2	13.2	9.3	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	13.3	1.5	1.6	6.4	0.7	0.7	0.9	0.0	0.0	0.1	0.0	0.0
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	0.2	2.9	2.9	1.4	2.7	2.8	1.8	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	35.5	17.2	17.3	26.9	13.9	13.9	10.2	0.0	0.0	8.5	0.0	0.0
LnGrp LOS	D	B	B	C	B	B	B			A		
Approach Vol, veh/h	496			620			190			33		
Approach Delay, s/veh	17.6			16.0			10.2			8.5		
Approach LOS	B			B			B			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	8.0	14.8		22.5	5.0	17.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		5.7	4.4	7.7		2.5	2.2	7.4				
Green Ext Time (p_c), s		0.8	0.0	2.0		0.1	0.0	2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay	15.6											
HCM 2010 LOS	B											

