

Appendix C

Traffic Study

TRAFFIC STUDY

Proposed Manning Avenue Annexation 2020-01 Project

***Southwest of the Intersection of Manning Avenue and I Street
Reedley, California***

Prepared For:

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

Date:

March 23, 2022



PETERS ENGINEERING GROUP

A CALIFORNIA CORPORATION

Job No.:
20-057.01

DRAFT



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION



Ms. Victoria R. Chung
Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

March 23, 2022

Subject: Traffic Study
Proposed Manning Avenue Annexation 2020-01 Project
Southwest of the Intersection of Manning Avenue and I Street
Reedley, California

Dear Ms. Chung:

1.0 INTRODUCTION

This report presents the results of a traffic study for the proposed Manning Avenue Annexation 2020-01 Project (hereinafter referred to as the “Project”) in Reedley, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project, including an analysis of vehicle miles traveled (VMT) for purposes of a CEQA transportation impact analysis.

2.0 PROJECT DESCRIPTION

The Project includes rezoning and annexation of 58 acres and a site plan for a commercial development on approximately 12.38 acres on the northern portion of the annexation area. The Project site is generally located east of the Kings River, south of Manning Avenue, west of the commercial corridor located on the southeast corner of Manning Avenue and I Street, and north of the existing Riverglen single-family residential subdivision. A vicinity map is presented in the attached Figure 1, Vicinity Map, and a site plan is presented in Figure 2, Site Plan.

For purposes of these analyses, Phase 1 of the Project is the shopping center on the northern 12.38 acres and Phase 2 would be development of the remaining approximately 45.6 acres in accordance with the Reedley General Plan.

Pre-Zone Application No. 2020-01 pertains to the pre-zoning of approximately 58 acres in preparation for annexation consistent with the Reedley 2030 General Plan. Approximately 32 acres (including Phase 1) is proposed to be pre-zoned to the Central and Community Commercial (CC) zone district, approximately 11 acres is proposed to be pre-zoned to the R-1-6 (One Family Residential) zone district, and approximately 15 acres, which includes a portion of the Kings River, is proposed to be pre-zoned to the Resource Conservation and Open Space (RCO) zone district.

Annexation Application No. 2020-01 pertains to the annexation of approximately 58 acres (including Phase 1) into the City of Reedley. The annexation area consists of four parcels

(APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of the Kings River (APNs 365-072-30T and 365-072-31). The proposed annexation is within the City of Reedley’s adopted Sphere of Influence, and the subject property has a Community Commercial, Low Density Residential, and Open Space Planned Land Use Designation pursuant to the City of Reedley 2030 General Plan.

Phase 1

Phase 1 is Site Plan Review Application No. 2020-01 on 12.38 acres of commercially-designated land (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) immediately south of Manning Avenue, consisting of nine commercial buildings totaling 56,573 square feet of building area plus a four-story hotel with 104 rooms. Proposed uses identified in the site plan include retail shops (including two drive throughs), three drive-through restaurants, a gas station with 16 fueling positions and a convenience market, a car wash, and the hotel. Proposed ingress/egress to the site would be available via three right-in/right-out driveways connecting to Manning Avenue and one driveway that will connect to the south leg of the intersection of Manning Avenue and I Street. Also proposed is the dedication of land directly east of the Kings River that is currently designated as Open Space in the 2030 General Plan for the future development of the Reedley Parkway. The proposed site plan is consistent with the proposed pre-zoning designations and the Reedley 2030 General Plan.

Phase 2

Phase 2 is assumed future development of the remaining southern 46.5 acres in accordance with the Reedley General Plan. There is no specific development currently proposed.

Approximately 20.5 acres will be community commercial uses. An assumed floor area ratio of 25 percent results in approximately 223,000 square feet of shopping center uses. Approximately 11 acres will be the low-density residential, which allows up to 8 single-family residences per gross acre, resulting in a total of 88 single-family residences. The remaining approximately 15 acres will be open space.

3.0 ANALYSIS SCENARIOS AND STUDY AREA

The study scenarios and locations were determined in coordination with City of Reedley staff based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of Project site. This report includes intersection operational analyses for the following time periods:

- Weekday a.m. peak hour between 7:00 and 9:00 a.m.
- Weekday p.m. peak hour between 4:00 and 6:00 p.m.

The intersection operational analyses were performed for the following scenarios:

- A. Existing Conditions
- B. Existing-Plus-Project (Phase 1) Conditions
- C. Existing-Plus-Project (Phases 1 and 2) Conditions
- D. Cumulative (Year 2042) With-Project (Phases 1 and 2) Conditions.

This report includes analysis of the following intersections:

1. Manning Avenue / Kings River Road
2. Manning Avenue / I Street
3. Manning Avenue / Reed Avenue
4. I Street / Reed Avenue
5. North Avenue / Reed Avenue
6. West Site Access / Manning Avenue
7. East Site Access / Manning Avenue
8. Kingswood Parkway / Kings Drive

4.0 SIGNIFICANCE CRITERIA

4.1 Vehicle Miles Traveled (VMT)

As of the date of this report, the City of Reedley has not adopted significance criteria for VMT analyses. The State of California Governor’s Office of Planning and Research document entitled *Technical Advisory on Evaluating Transportation Impacts in CEQA* dated December 2018 (Technical Advisory) provides guidance for determining a project’s transportation impacts. Transportation impacts are identified based on vehicle miles traveled (VMT).

With regard to significance criteria for retail projects, the Technical Advisory states: “A net increase in total VMT may indicate a significant transportation impact.

“Because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts.

“By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.”

The Technical Advisory also indicates that projects meeting the following criteria may be presumed to cause a less-than-significant transportation impact:

1. Projects that generate or attract fewer than 110 trips per day;
2. Residential and office projects that locate in areas with low VMT, and that incorporate similar features to existing development in the area (i.e., density, mix of uses, transit accessibility);

3. Projects proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor, unless the project will still generate significant levels of VMT for reasons similar to the following:
 - a. Has a Floor Area Ratio (FAR) of less than 0.75
 - b. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
 - c. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
 - d. Replaces affordable residential units with a smaller number of moderate- or high-income residential units
4. Projects consisting of a high percentage of affordable housing. A project that includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units

4.2 Level of Service

The State of California does not recognize traffic congestion and delay as an environmental impact per the California Environmental Quality Act (CEQA). However, the City of Reedley General Plan adopted February 18, 2014 sets a goal of maintaining a minimum level of service (LOS) of “C” or better (Goal CIR 3.2B).

The Transportation Research Board *Highway Capacity Manual, 6th Edition*, (HCM) defines LOS as, “A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.” Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 1 and 2.

Table 1
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Table 2
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference for Tables 1 and 2: *Highway Capacity Manual, 6th Edition*, Transportation Research Board, 2016

A traffic issue may be identified if the addition of the traffic generated by the Project results in any one of the following:

- Triggers an intersection operating at acceptable LOS (A, B, or C) to operate at unacceptable levels of service (D, E, or F);
- Increases the average delay for a study intersection that is already operating at unacceptable LOS (D, E, or F) by 5.0 seconds or more.

5.0 EXISTING TRAFFIC VOLUMES

Existing peak-hour traffic volumes at the study intersections were determined by performing manual turning-movement counts between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on Thursday, December 2, 2021. The traffic count data sheets are presented in Appendix A. The existing peak-hour turning movement volumes are presented in Figure 3, Existing Peak-Hour Traffic Volumes.

Kings Canyon Unified School District was holding in-person classes when the traffic counts were performed. However, Reedley College was not operating at full in-person attendance due to the COVID-19 pandemic. A comparison was made between the new traffic counts and available previous traffic counts obtained in 2014. It was determined that the peak-hour 2021 counts would be adjusted (increased) by 7.0 percent to account for the remaining decrease caused by the pandemic. The adjusted existing traffic volumes are presented in Figure 4, Adjusted Existing Peak-Hour Traffic Volumes.

6.0 PROJECT TRIP GENERATION

6.1 Phase 1 Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*, are typically used to estimate the number of trips anticipated to be generated by

proposed projects. Table 3 presents the vehicle trip generation estimates for each of the individual Project land uses in Phase 1 of the Project. The analyses include the assumption that 2,000 square feet of the Shops A building and 2,000 square feet of the Shops B building will be fast-food uses.

Data presented in the *ITE Trip Generation Handbook, 3rd Edition* dated September 2017 (TGH) contains information suggesting that the Project may generate internal trips (sometimes referred to as “internally-captured trips”). Estimation of the number of internal trips accounts for the interaction between the various individual land uses assumed for the trip generation calculations. A common example of an internal trip occurs in a multi-use development containing both offices and shops. A trip made from an office by an office worker to a retail shop within the site is defined as internal to (i.e., “captured within”) the multi-use site. A more complete description of internal trips is presented in the TGH. An example of an internal trip for the proposed Project is a person who eats at a fast-food restaurant and also purchases fuel at the gas station without exiting the site. An internal capture rate is generally defined as the percentage of total trips generated by a site that are made entirely within the site. A maximum internal capture rate of five percent was assumed to and from the restaurant and gas station uses, while a maximum internal capture rate of 20 percent was assumed to and from the retail and hotel uses. An assumption was made that 20 percent of the trips generated by the car wash are internally captured. The internal capture analyses are presented in Appendix B and the results are applied in Tables 4.1 and 4.2.

The *ITE Trip Generation Handbook, 3rd Edition* dated September 2017 (TGH) presents information suggesting that pass-by reductions are applicable to the Project. The TGH states: “*There are instances, however, when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. For example, retail-oriented developments such as shopping centers...are often located adjacent to busy streets in order to attract the motorists already on the street. These sites attract a portion of their trips from traffic passing the site... These retail trips may not add new traffic to the adjacent street system.*” The TGH also states: “*Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. Pass-by trips are not diverted from another roadway.*”

Data provided in Appendix E of the TGH and the proposed orientation of the Project suggest that pass-by trips will occur at the Project site. Data available from ITE indicate the following average pass-by trip percentages for uses within the proposed Project:

- Shopping Center (Land Uses 820 and 821): averages range from 19 to 40 percent of the weekday p.m. peak hour trips. For purposes of these analyses a pass-by rate of 20 percent was utilized.
- Fast Food Restaurant with Drive Through Window (Land Use 934): 50 percent of the weekday a.m. peak hour trips and 55 percent of the weekday p.m. peak hour trips. For purposes of these analyses a pass-by rate of 50 percent was utilized.
- Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (Land Use 938): 90 percent of the weekday a.m. peak hour trips and 98 percent of the weekday

p.m. peak hour trips. For purposes of these analyses a pass-by rate of 50 percent was utilized.

- Convenience Market/Gas Station (Land Use 945): 76 percent of the weekday a.m. peak hour trips and 75 percent of the weekday p.m. peak hour trips. For purposes of these analyses a pass-by rate of 50 percent was utilized.

Table 3
Phase 1 Trip Generation Estimate

Land Use	Units	Weekday		A.M. Peak Hour				P.M. Peak Hour					
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Strip Retail Plaza (822)	36,128 sq. ft.	FC1	1,754	FC2	60:40	40	27	67	FC3	50:50	97	97	194
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (938)	1 lane	179.00	180	39.81	50:50	20	20	40	15.08	50:50	7	8	15
Fast Food Restaurant with Drive Through (934)	9,114 sq. ft.	467.48	4,262	44.61	51:49	208	199	407	33.03	52:48	157	144	301
Convenience Store/Gas Station – GFA (4-5.-5K) (945)	16 VFP	257.13	4,114	27.04	50:50	216	217	433	22.76	50:50	182	182	364
Hotel (310)	104 rooms	FC4	704	FC5	56:44	25	20	45	FC6	51:49	25	24	49
Automated Car Wash (948)	1 lane	*	780	*	*	39	39	78	77.5	50:50	39	39	78
SUBTOTAL:			11,794			548	522	1,070			507	494	1,001
Internal Capture						-76	-76	-152			-79	-79	-158
TOTAL:						472	446	918			428	415	843

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers 2021*

Rates are reported in trips per 1,000 square feet of building area for Land Uses 822 and 934.

Rates are reported in trips per room for Land Use 310 and trips per lane for Land Use 938.

Rates are reported in trips per vehicle fueling position for Land Use 945.

Rate is reported in trips per car wash tunnel for Land Use 948.

FC1: Fitted curve: $T = 42.20(X) + 229.68$

FC2: Fitted curve: $\ln(T) = 0.66\ln(X) + 1.84$

FC3: Fitted curve: $\ln(T) = 0.71\ln(X) + 2.72$

FC4: Fitted curve: $T = 10.84(X) - 423.51$

FC5: Fitted curve: $T = 0.50(X) - 7.45$

FC6: Fitted curve: $T = 0.74(X) - 27.89$

VFP: vehicle fueling positions

* Data not available. Daily value estimated by multiplying p.m. peak hour value by 10. A.M. peak hour value assumed to be equal to p.m. peak hour.

The pass-by percentages are applied only to the external trips generated by each land use; the pass-by trip calculations are included in the attached spreadsheets utilized to calculate internal capture. Table 4 presents the volume of pass-by trips and new primary Project trips estimated to be generated by Phase 1 of the Project.

Table 4
Pass-By Trips and Primary Project Trips (Phase 1)

Time Period	Trips Entering Site	Trips Exiting Site
A.M. Peak Hour Primary Trips	272	253
A.M. Peak Hour Pass-By Trips	200	193
P.M. Peak Hour Primary Trips	262	256
P.M. Peak Hour Pass-By Trips	166	159

6.2 Phase 2 Trip Generation

Table 5 presents the vehicle trip generation estimates for Phase 2 of the Project.

Table 5
Phase 2 Trip Generation Estimate

Land Use	Units	Weekday		A.M. Peak Hour				P.M. Peak Hour					
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Single Family Detached Housing (210)	88 homes	9.43	830	0.70	26:74	16	46	62	0.94	63:37	52	31	83
Shopping Center (>150K) (820)	223,000 sq. ft.	FC7	11,686	FC8	62:38	164	101	265	FC9	48:52	482	523	1,005
TOTAL:			12,516			180	147	327			534	554	1,088

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers 2021*

Rates are reported in trips per dwelling unit.

FC7: Fitted curve: $T = 26.11(X) + 5,863.73$

FC8: Fitted curve: $T = 0.59(X) + 133.55$

FC9: Fitted curve: $\ln(T) = 0.72 \ln(X) + 3.02$

6.3 Vehicle Miles Traveled (VMT)

The Fresno Council of Governments (COG) maintains a travel model that is the primary tool in Fresno County available to estimate the VMT. COG has developed a list of preferred consultants that have been trained in the use of the Fresno County travel model. Kittelson & Associates was selected from the list and performed Project-specific traffic modeling, including total regional VMT with and without the Project. The results of the traffic modeling indicate that the total regional VMT without the Project is 21,703,674 and the total regional VMT with the Project is 21,611,178. Therefore, the Project will not create a significant transportation impact. The modeling results are included in Appendix C.

7.0 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The Project-specific traffic modeling included a select zone analysis of each phase of the Project to estimate the regional distribution of Project trips. The select zone analysis output is included in Appendix C. The distribution of Phase 1 Project trips to the adjacent road network is presented in Figure 5, Project Phase 1 Peak-Hour Project Traffic Distribution. The primary peak-hour Project trips presented in Table 4 are presented in Figure 6, Project Phase 1 Primary Peak-Hour Traffic Volumes. The pass-by trips presented in Table 4 are presented in Figure 7, Project Phase 1 Peak-Hour Pass-By Traffic Volumes.

The distribution of Phase 2 Project trips to the adjacent road network is presented in Figure 8, Project Phase 2 Peak-Hour Project Traffic Distribution. The peak-hour Project trips presented in Table 5 are presented in Figure 9, Project Phase 2 Peak-Hour Traffic Volumes.

7.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the study intersections are presented in Figure 10, Existing Lane Configurations and Intersection Control. The lane configurations assumed for the existing-plus-Project Phase 1 analyses are presented in Figure 11, Existing-Plus-Project (Phase 1) Lane Configurations and Intersection Control. The lane configurations assumed for the existing-plus-Project Phases 1 and 2 analyses are presented in Figure 12, Existing-Plus-Project (Phases 1 and 2) Lane Configurations and Intersection Control. The lane configurations assumed for the year 2042 analyses are presented in Figure 13, Year 2042 Lane Configurations and Intersection Control.

8.0 EXISTING-PLUS-PROJECT TRAFFIC VOLUMES

The existing-plus-Project peak-hour turning movement volumes are presented in Figure 14, Existing-Plus-Project (Phase 1) Peak-Hour Traffic Volumes and Figure 15, Existing-Plus-Project (Phases 1 and 2) Peak-Hour Traffic Volumes.

9.0 CUMULATIVE YEAR 2042 TRAFFIC VOLUMES

Cumulative traffic volumes for the year 2042 were estimated based on output from the Fresno County travel model maintained by COG. The base year and horizon year model output utilized in the analyses are presented in Appendix C. Future turning movements were estimated based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled “*Highway Traffic Data for Urbanized Area Project Planning and Design.*” The estimated cumulative year 2042 traffic volumes are presented in Figure 16, Cumulative (Year 2042) With-Project (Phases 1 and 2) Peak-Hour Traffic Volumes.

10.0 INTERSECTION OPERATIONAL ANALYSES

The peak hour levels of service at the study intersections were determined using the computer program Synchro 11, which incorporates HCM procedures for calculating levels of service. The intersection analysis sheets are included in Appendix D. Tables 6 through 9 present the results of the intersection analyses. Levels of service and the associated delays below the target LOS are presented in bold type and are underlined.

Table 6
LOS Summary – Existing Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / Kings River	Two-way stop	<u>86.2</u>	<u>F</u>	<u>52.0</u>	<u>F</u>
Manning / I Street	Signals	<u>43.6</u>	<u>D</u>	30.0	C
Manning / Reed	Signals	<u>36.2</u>	<u>D</u>	23.5	C
I Street / Reed	Signals	26.0	C	20.7	C
North / Reed	Roundabout	14.6	B	8.9	A

Table 7
LOS Summary – Existing-Plus-Project (Phase 1) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / Kings River	Two-way stop	<u>168.9</u>	<u>F</u>	<u>80.5</u>	<u>F</u>
Manning / I Street	Signals	<u>54.6</u>	<u>D</u>	<u>35.8</u>	<u>D</u>
Manning / Reed	Signals	<u>40.9</u>	<u>D</u>	24.5	C
I Street / Reed	Signals	26.4	C	20.8	C
North / Reed	Roundabout	15.2	C	9.0	A
West Site Access / Manning	One-way stop	13.8	B	13.6	B
East Site Access / Manning	One-way stop	13.8	B	13.7	B

Table 8
LOS Summary – Existing-Plus-Project (Phases 1 and 2) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / Kings River	Two-way stop	<u>212.7</u>	<u>F</u>	<u>134.2</u>	<u>F</u>
Manning / I Street	Signals	<u>56.0</u>	<u>E</u>	<u>66.1</u>	<u>E</u>
Manning / Reed	Signals	<u>45.8</u>	<u>D</u>	29.4	C
I Street / Reed	Signals	27.1	C	21.1	C
North / Reed	Roundabout	15.8	C	9.4	A
West Site Access / Manning	One-way stop	14.6	B	16.9	C
East Site Access / Manning	One-way stop	14.5	B	15.5	C
Kingswood / Kings	One-way stop	9.7	A	11.4	B

Table 9
LOS Summary – Cumulative 2042 With-Project (Phases 1 and 2) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / Kings River	Two-way stop	<u>245.7</u>	<u>F</u>	<u>>300</u>	<u>F</u>
Manning / I Street	Signals	<u>57.3</u>	<u>E</u>	<u>88.4</u>	<u>F</u>
Manning / Reed	Signals	<u>46.4</u>	<u>D</u>	32.0	C
I Street / Reed	Signals	28.7	C	25.4	C
North / Reed	Roundabout	17.7	C	11.1	B
West Site Access / Manning	One-way stop	17.4	C	20.2	C
East Site Access / Manning	One-way stop	17.4	C	20.2	C
Kingswood / Kings	Two-way stop	12.1	B	14.8	B

The results of the intersection operational analyses include an estimate of the 95th-percentile queue lengths at the study intersections. The calculated 95th-percentile queue lengths are presented in Tables 10 through 12. Calculated 95th-percentile queues that exceed the storage capacity are indicated bold type and are underlined.

Notes for Tables 10 through 12:

- * For purposes of these analyses at the intersection of Manning Avenue and I Street, Manning Avenue to the west of the intersection is considered an east-west street, I Street is considered an east-west street, and Manning Avenue north of the intersection is considered the north-south street.
- ** For purposes of these analyses at the intersection of I Street and Reed Avenue, I Street is considered the north-south street and Reed Avenue is considered the east-west street.
- *** For purposes of these analyses at the intersection of Reed and North Avenues, North Avenue is considered the east-west street and Reed Avenue is considered the north-south street.
- + Left-turn lane connects to a two-way left-turn lane that provides additional storage capacity.
- ++ Length to be increased with construction of the Project
- L: Left-turn lane T: Through lane R: Right-turn lane
- TR: Shared through/right-turn lane DNS: Does not stop
- LTR: Shared left-turn/through/right-turn lane LT: Shared left-turn/through lane
- TR: Shared through/right-turn lane DNS: Does not stop

Values in parentheses indicate the number of lanes where more than one exists.

Table 10
Queuing Summary – Existing and Existing-Plus-Project (Phase 1) Conditions

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Existing Plus Phase 1	
		A.M.	P.M.	A.M.	P.M.
Manning / Kings River					
Eastbound L	150	0	0	0	0
Eastbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Westbound L	155	3	3	3	3
Westbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Northbound LT	>1,000	15	5	25	10
Northbound R	50	3	5	5	5
Southbound LTR	500	5	3	8	3
Manning / I Street *					
Eastbound L	370	297	289	406	407
Eastbound LT	>1,000	233	227	354	348
Eastbound T	>1,000	233	227	354	348
Eastbound R	1,040	0	0	28	28
Westbound L	145	7	15	89	89
Westbound T(2)R	>1,000	189	178	200	195
Northbound L	25++	29	45	175	182
Northbound T(2)R	65++	11	22	31	42
Southbound L	140	40	52	47	68
Southbound LT	>1,000	41	53	147	143
Southbound R(2)	110 & >1,000	20	44	20	44
Manning / Reed					
Eastbound L	200	257	213	299	238
Eastbound T(2)R	>1,000	146	207	162	222
Westbound L	165	160	162	160	164
Westbound T(2)R	165 & >1,000	219	182	259	202
Northbound L	100	60	82	65	83
Northbound T	>1,000	320	242	320	245
Northbound R	105	85	0	85	0
Southbound L	115+	173	134	185	137
Southbound T	>1,000	262	277	262	286
Southbound R	115	100	92	109	108
I Street / Reed **					
Eastbound L	50	4	10	4	10
Eastbound T(2)R	250	0	0	0	0
Westbound L(2)	50 & 125	112	108	112	108
Westbound T	125	7	4	7	4
Westbound R	55	34	51	34	52
Northbound L	140	9	5	9	5
Northbound T(2)	850	107	117	117	128
Northbound R	95	30	64	30	64
Southbound L	150	90	118	96	124
Southbound T(3)R	>1,000	92	94	100	104
North / Reed ***					
Westbound	600	200	75	225	75
Northbound LT	145	100	50	100	50
Northbound R	160	25	0	25	0
Southbound	>1,000	100	75	100	75

Table 10 (Continued)
Queuing Summary – Existing and Existing-Plus-Project (Phase 1) Conditions

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Existing Plus Phase 1	
		A.M.	P.M.	A.M.	P.M.
West Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				13	13
East Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				13	13

Table 11
Queuing Summary – Existing and Existing-Plus-Project (Phases 1 and 2)

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Existing Plus Phases 1 & 2	
		A.M.	P.M.	A.M.	P.M.
Manning / Kings River					
Eastbound L	150	0	0	0	0
Eastbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Westbound L	155	3	3	3	5
Westbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Northbound LT	>1,000	15	5	30	15
Northbound R	50	3	5	5	5
Southbound LTR	500	5	3	10	5
Manning / I Street *					
Eastbound L	370	297	289	408	567
Eastbound LT	>1,000	233	227	341	493
Eastbound T	>1,000	233	227	341	493
Eastbound R	1,040	0	0	31	48
Westbound L	145	7	15	131	211
Westbound T(2)R	>1,000	189	178	250	296
Northbound L	25++	29	45	242	474
Northbound T(2)R	65++	11	22	45	106
Southbound L	140	40	52	54	80
Southbound LT	>1,000	41	53	277	489
Southbound R(2)	110 & >1,000	20	44	57	143
Manning / Reed					
Eastbound L	200	257	213	333	328
Eastbound T(2)R	>1,000	146	207	171	254
Westbound L	165	160	162	160	164
Westbound T(2)R	165 & >1,000	219	182	280	260
Northbound L	100	60	82	65	91
Northbound T	>1,000	320	242	329	251
Northbound R	105	85	0	88	0
Southbound L	115+	173	134	185	150
Southbound T	>1,000	262	277	271	296
Southbound R	115	100	92	131	156

Table 11 (Continued)
Queuing Summary – Existing and Existing-Plus-Project (Phases 1 and 2)

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Existing Plus Phases 1 & 2	
		A.M.	P.M.	A.M.	P.M.
I Street / Reed **					
Eastbound L	50	4	10	4	11
Eastbound T(2)R	250	0	0	0	0
Westbound L(2)	50 & 125	112	108	112	125
Westbound T	125	7	4	7	5
Westbound R	55	34	51	35	60
Northbound L	140	9	5	9	5
Northbound T(2)	850	107	117	122	157
Northbound R	95	30	64	35	92
Southbound L	150	90	118	104	156
Southbound T(3)R	>1,000	92	94	104	118
North / Reed ***					
Westbound	600	200	75	225	100
Northbound LT	145	100	50	100	50
Northbound R	160	25	0	25	25
Southbound	>1,000	100	75	100	75
West Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				20	35
East Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				18	20
Kingswood / Kings					
Eastbound L				5	3
Eastbound R				0	0
Northbound L				0	0
Northbound T				DNS	DNS
Southbound TR				DNS	DNS

Table 12
Queuing Summary – Existing and Cumulative Year 2042 With-Project (Phases 1 and 2)

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Year 2042 Phases 1 & 2	
		A.M.	P.M.	A.M.	P.M.
Manning / Kings River					
Eastbound L	150	0	0	0	0
Eastbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Westbound L	155	3	3	5	5
Westbound T(2)R	>1,000	DNS	DNS	DNS	DNS
Northbound LT	>1,000	15	5	35	28
Northbound R	50	3	5	5	8
Southbound LTR	500	5	3	8	13

Table 12 (Continued)
Queuing Summary – Existing and Cumulative Year 2042 With-Project (Phases 1 and 2)

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Year 2042 Phases 1 & 2	
		A.M.	P.M.	A.M.	P.M.
Manning / I Street *					
Eastbound L	370	297	289	558	700
Eastbound LT	>1,000	233	227	458	629
Eastbound T	>1,000	233	227	458	629
Eastbound R	1,040	0	0	43	55
Westbound L	145	7	15	141	207
Westbound T(2)R	>1,000	189	178	342	493
Northbound L	25++	29	45	294	555
Northbound T(2)R	65++	11	22	58	126
Southbound L	140	40	52	74	112
Southbound LT	>1,000	41	53	312	572
Southbound R(2)	110 & >1,000	20	44	96	213
Manning / Reed					
Eastbound L	200	257	213	404	332
Eastbound T(2)R	>1,000	146	207	206	278
Westbound L	165	160	162	183	199
Westbound T(2)R	165 & >1,000	219	182	275	310
Northbound L	100	60	82	79	150
Northbound T	>1,000	320	242	420	364
Northbound R	105	85	0	88	23
Southbound L	115+	173	134	210	190
Southbound T	>1,000	262	277	354	345
Southbound R	115	100	92	197	202
I Street / Reed **					
Eastbound L	50	4	10	68	62
Eastbound T(2)R	250	0	0	43	52
Westbound L(2)	50 & 125	112	108	130	157
Westbound T	125	7	4	51	41
Westbound R	55	34	51	36	78
Northbound L	140	9	5	59	43
Northbound T(2)	850	107	117	128	200
Northbound R	95	30	64	34	189
Southbound L	150	90	118	146	264
Southbound T(3)R	>1,000	92	94	148	143
North / Reed ***					
Westbound	600	200	75	250	100
Northbound LT	145	100	50	100	75
Northbound R	160	25	0	25	25
Southbound	>1,000	100	75	125	100
West Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				25	45
East Site / Manning					
Eastbound T(2)				DNS	DNS
Eastbound R				DNS	DNS
Northbound R				25	45

Table 12 (Continued)
Queuing Summary – Existing and Cumulative Year 2042 With-Project (Phases 1 and 2)

Intersection Approach	Storage Capacity (feet)	95 th -Percentile Queue Length (feet)			
		Existing		Year 2042 Phases 1 & 2	
		A.M.	P.M.	A.M.	P.M.
Kingswood / Kings					
Eastbound L				5	5
Eastbound TR				3	8
Westbound L				0	3
Westbound TR				0	5
Northbound L				0	0
Northbound TR				DNS	DNS
Southbound L				0	3
Southbound TR				DNS	DNS

11.0 DISCUSSION OF ANALYSES

11.1 Existing Conditions

The results of the intersection analyses indicate that the following study intersections are currently operating worse than the target LOS C:

- Manning Avenue / Kings River Road: LOS F on the northbound and southbound approaches during both peak hours. It should be noted that the traffic volumes on Kings River Road during the peak hours are very low.
- Manning Avenue / I Street: LOS D during the p.m. peak hour.
- Manning Avenue / Reed Avenue: LOS D during the a.m. peak hour.

The following study intersections are currently operating at acceptable LOS:

- I Street / Reed Avenue
- North Avenue / Reed Avenue.

The calculated 95th-percentile queues exceed the existing storage capacity at the following locations:

- Manning Avenue / I Street: The calculated queue in the left-turn lane on the northbound approach exceeds the storage capacity by up to 20 feet during the peak hours. This roadway is not yet fully developed.
- Manning Avenue / Reed Avenue: The calculated queue in the left-turn lane on the eastbound approach exceeds the storage capacity by up to 57 feet during the peak hours.

11.2 Existing-Plus-Project Phase 1 Conditions

Phase 1 of the Project is expected to exacerbate delays at the following study intersections already operating below the target LOS C:

- **Manning Avenue / Kings River Road**: The Project will cause an increase in delays on the northbound and southbound approaches during both peak hours. It should be noted that the traffic volumes on Kings River Road during the peak hours are very low.
- **Manning Avenue / I Street**: The intersection is expected to operate at LOS D during both the a.m. and p.m. peak hours. The Project will increase the average delay during the a.m. peak hour by 11.0 seconds per vehicle during the a.m. peak hour and by 5.8 seconds per vehicle during the p.m. peak hour.
- **Manning Avenue / Reed Avenue**: The intersection will continue to operate at LOS D during the a.m. peak hour and the Project will cause an increase of less than 5.0 seconds per vehicle. A Project-specific traffic issue is not identified in this case.

The following study intersections are expected to operate at acceptable LOS:

- I Street / Reed Avenue
- North Avenue / Reed Avenue
- West Site Access / Manning Avenue
- East Site Access / Manning Avenue

The calculated 95th-percentile queues exceed the existing storage capacity at the following locations:

- **Manning Avenue / I Street**: The calculated queue in the dedicated left-turn lane on the eastbound approach exceeds the storage capacity by approximately 37 feet during the peak hours. However, the additional capacity in the shared left-turn/through lane will accommodate the queue.
- **Manning Avenue / Reed Avenue**: The calculated queue in the left-turn lane on the eastbound approach, which exceeds the storage capacity in the existing condition, is approximately one to two vehicles longer than the existing condition.

11.2.A Potential Improvements

Manning Avenue / Kings River Road: Warrants for improvements such as signalization would not be satisfied based on the very low volume of traffic on Kings River Road. The City may consider construction of a median worm to prevent left turns from the northbound and southbound approaches of Kings River Road to Manning Avenue. Preventing left turns from the northbound approach may necessitate a median break to the east of the intersection to allow U-turns from eastbound Manning Avenue to westbound Manning Avenue.

Manning Avenue / I Street: In order to maintain an average delay at the intersection that does not exceed the existing condition (existing LOS D with an average delay of 43.6 seconds per vehicle during the a.m. peak hour), the intersection could be modified and

widened to eliminate split phasing and implement traditional eight-phase operation with protected left turns and the following lane configurations:

Eastbound Manning Avenue: two left-turn lanes, two through lanes, and one right-turn lane (may require widening to add one lane)

Westbound I Street: one left-turn lane and two through lanes with a shared right turn (same as existing)

Northbound (future Kings Drive): one left-turn lane, one through lane, and one right-turn lane (same as existing, striping modified for dedicated right-turn lane)

Southbound Manning Avenue: one left-turn lane, one through lane, and two right-turn lanes (same as existing)

Tables 13 and 14 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix E. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 14, with consideration also given to the configurations and queue lengths calculated for the existing-plus-Project Phases 1 and 2 conditions and the year 2042 conditions.

Table 13
Improved LOS Summary – Existing-Plus-Project (Phase 1) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / I Street	Signals	35.4	D	27.7	C

Table 14
Improved Queuing Summary – Existing-Plus-Project (Phase 1) Conditions

Intersection Approach	95 th -Percentile Queue Length (feet)	
	A.M.	P.M.
Manning / I Street		
Eastbound L(2)	278	281
Eastbound T(2)	182	178
Eastbound R	29	29
Westbound L	114	115
Westbound T(2)R	242	235
Northbound L	216	219
Northbound T	56	78
Northbound R	0	0
Southbound L	65	92
Southbound T	164	158
Southbound R(2)	18	49

Improvements are not recommended at the other study intersections with construction of Phase 1 of the Project.

11.3 Existing-Plus-Project Phases 1 and 2 Conditions

The combination of Phase 1 and Phase 2 of the Project is expected to exacerbate delays at the following study intersections already operating below the target LOS C:

- Manning Avenue / Kings River Road: The Project Phases 1 and 2 will cause an increase in delays on the northbound and southbound approaches during both peak hours. It should be noted that the traffic volumes on Kings River Road during the peak hours are very low.
- Manning Avenue / I Street: The intersection is expected to operate at LOS E during both the a.m. and p.m. peak hours. The Project Phases 1 and 2 will increase the average delay during the a.m. peak hour by 12.4 seconds per vehicle during the a.m. peak hour and by 36.1 seconds per vehicle during the p.m. peak hour as compared to the existing conditions.
- Manning Avenue / Reed Avenue: The intersection will continue to operate at LOS D during the a.m. peak hour and the Project Phases 1 and 2 will cause an increase of 9.6 seconds per vehicle.

The following study intersections are expected to operate at acceptable LOS:

- I Street / Reed Avenue
- North Avenue / Reed Avenue
- West Site Access / Manning Avenue
- East Site Access / Manning Avenue
- Kingswood Parkway / Kings Drive

The calculated 95th-percentile queues exceed the existing storage capacity at the following locations:

- Manning Avenue / I Street: The calculated queue in the dedicated left-turn lane on the eastbound approach exceeds the storage capacity by approximately 38 to 197 feet during the peak hours. However, the additional capacity in the shared left-turn/through lane is expected to accommodate the queue. The calculated queue in the left-turn lane on the westbound approach exceeds the storage capacity by 66 feet during the p.m. peak hour. The calculated queue in the left-turn lane on the northbound approach (the length of which has not yet been constructed) is nearly 500 feet during the p.m. peak hour.
- Manning Avenue / Reed Avenue: The calculated queue in the left-turn lane on eastbound approach, which exceeds the storage capacity in the existing condition, will increase by the length of approximately three to five vehicles. The calculated queue in the right-turn lane on the southbound approach exceeds the storage capacity by approximately one to two vehicles during both peak hours.

11.3.A Potential Improvements

Manning Avenue / Kings River Road: Warrants for improvements such as signalization would not be satisfied based on the very low volume of traffic on Kings River Road. The City may consider construction of a median worm to prevent left turns from the northbound and southbound approaches of Kings River Road to Manning Avenue. Preventing left turns from the northbound approach may necessitate a median break to the east of the intersection to allow U-turns from eastbound Manning Avenue to westbound Manning Avenue. This discussion of the intersection of Manning Avenue and Kings River Road is the same as that presented in Section 11.2.A for Phase 1 of the Project.

Manning Avenue / I Street: In order to maintain an average delay at the intersection that does not exceed the existing condition (existing LOS D with an average delay of 43.6 seconds per vehicle during the a.m. peak hour), the intersection could be modified and widened to eliminate split phasing and implement traditional eight-phase operation with protected left turns and the following lane configurations:

Eastbound Manning Avenue: two left-turn lanes, two through lanes, and one right-turn lane (may require widening to add one lane)

Westbound I Street: one left-turn lane and two through lanes with a shared right turn (same as existing)

Northbound (future Kings Drive): two left-turn lanes, one through lane, and one right-turn lane (requires widening)

Southbound Manning Avenue: one left-turn lane, one through lane, and two right-turn lanes (same as existing)

This recommendation for the intersection of Manning Avenue and I Street is similar to that presented in Section 11.2.A for Phase 1 of the Project, with the exception that a second left-turn lane on the northbound approach is recommended.

Manning Avenue / Reed Avenue: The intersection of Manning and Reed Avenues has been constructed to its ultimate width, and additional widening to increase capacity would likely require road widening. Considering the turning movement traffic volumes, the addition of a second left-turn lane on the eastbound approach would provide the most benefit, but would require widening of northbound Reed Avenue north of Manning Avenue to provide two receiving lanes. The presence of existing residences and protection of existing palm trees will likely cause widening to be infeasible. Furthermore, widening of the intersection to accommodate vehicles will have an adverse effect on pedestrian and bicycle traffic. Therefore, it does not appear that additional widening is feasible at the intersection.

Tables 15 and 16 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix E. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 16, with consideration also given to the queue lengths calculated for the year 2042 conditions.

Table 15
Improved LOS Summary – Existing-Plus-Project (Phases 1 and 2) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / I Street	Signals	32.2	C	32.5	C

Table 16
Improved Queuing Summary – Existing-Plus-Project (Phases 1 and 2) Conditions

Intersection Approach	95 th -Percentile Queue Length (feet)	
	A.M.	P.M.
Manning / I Street		
Eastbound L(2)	294	350
Eastbound T(2)	193	240
Eastbound R	30	41
Westbound L	143	201
Westbound T(2)R	242	266
Northbound L(2)	127	195
Northbound T	81	165
Northbound R	0	0
Southbound L	65	92
Southbound T	230	351
Southbound R(2)	56	116

Improvements are not recommended at the other study intersections with construction of Phases 1 and 2 of the Project.

11.4 Cumulative 2042 With-Project Conditions

The year 2042 With-Project conditions analyses are based on the assumption that regional growth has occurred and that the Project site has been developed with Phases 1 and 2. The lane configurations assumed for the 2042 conditions do not include improvements described above for the existing-plus-Project conditions. The analyses indicate that the following study intersections are expected to operate below the target LOS C:

- Manning Avenue / Kings River Road: The northbound and southbound approaches will experience LOS F during both peak hours. It should be noted that the traffic volumes on Kings River Road during the peak hours are expected to be very low.
- Manning Avenue / I Street: The intersection is expected to operate at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.
- Manning Avenue / Reed Avenue: The intersection will continue to operate at LOS D during the a.m. peak hour.

The following study intersections are expected to operate at acceptable LOS:

- I Street / Reed Avenue
- North Avenue / Reed Avenue
- West Site Access / Manning Avenue
- East Site Access / Manning Avenue
- Kingswood Parkway / Kings Drive

The calculated 95th-percentile queues exceed the existing storage capacity at the following locations:

- Manning Avenue / I Street: The calculated queue in the dedicated left-turn lane on eastbound approach exceeds the storage capacity by approximately 188 to 330 feet during the peak hours. The additional capacity in the shared left-turn/through lane may accommodate the queue. The calculated queue in the left-turn lane on the westbound approach exceeds the storage capacity by 62 feet during the p.m. peak hour. The calculated queue in the left-turn lane on the northbound approach (the length of which has not yet been constructed) is over 500 feet during the p.m. peak hour.
- Manning Avenue / Reed Avenue: The calculated queue in the left-turn lane on the eastbound approach exceeds the storage capacity by approximately 132 to 204 feet during the peak hours. The calculated queue in the left-turn lane on the westbound approach exceeds the storage capacity by approximately 23 to 34 feet during the peak hours. The calculated queue in the left-turn lane on the northbound approach exceeds the storage capacity by approximately 50 feet during the p.m. peak hour. The calculated queue in the right-turn lane on the southbound approach exceeds the storage capacity by approximately 85 feet during both peak hours.
- I Street / Reed Avenue: The calculated queue in the left-turn lane on the eastbound approach exceeds the storage capacity by approximately 12 to 18 feet during the peak hours. The calculated queue in the left-turn lanes on the westbound approach exceeds the storage capacity by approximately at least 5 to 32 feet during the peak hours. The calculated queue in the right-turn lane on the westbound approach exceeds the storage capacity by approximately 23 feet during the p.m. peak hour. The calculated queue in the right-turn lane on the northbound approach exceeds the storage capacity by approximately 94 feet during the p.m. peak hour. The calculated queue in the left-turn lane on the southbound approach exceeds the storage capacity by approximately 114 feet during the p.m. peak hour.

11.4.A Potential Improvements

Manning Avenue / Kings River Road: Warrants for improvements such as signalization are not expected to be satisfied based on the very low volume of traffic on Kings River Road. The City may consider construction of a median worm to prevent left turns from the northbound and southbound approaches of Kings River Road to Manning Avenue. Preventing left turns from the northbound approach may necessitate a median break to the

east of the intersection to allow U-turns from eastbound Manning Avenue to westbound Manning Avenue. This discussion of the intersection of Manning Avenue and Kings River Road is the same as that presented in Sections 11.2.A and 11.3.A for Phases 1 and 2 of the Project.

Manning Avenue / I Street: The improvements recommended in Section 11.3.A for the existing-plus-Project Phases 1 and 2 conditions are expected to represent an ultimate buildout of the intersection and further widening is likely to be infeasible. With the recommended lane configurations and signal phasing, it is anticipated that the intersection will operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour in the year 2042.

Manning Avenue / Reed Avenue: The intersection of Manning and Reed Avenues has been constructed to its ultimate width, and additional widening to increase capacity would likely require road widening. Considering the turning movement traffic volumes, the addition of a second left-turn lane on the eastbound approach would provide the most benefit, but would require widening of northbound Reed Avenue north of Manning Avenue to provide two receiving lanes. The presence of existing residences and protection of existing palm trees will likely cause widening to be infeasible. Furthermore, widening of the intersection to accommodate vehicles will have an adverse effect on pedestrian and bicycle traffic. Therefore, it does not appear that additional widening is feasible at the intersection. This discussion of the intersection of Manning Avenue and Reed Avenue is the same as that presented in Section 11.3.A for Phases 1 and 2 of the Project.

I Street / Reed Avenue: The intersection of I Street and Reed Avenues is expected to operate at LOS C but may have some queuing issues. It is important that the westbound approach across the railroad tracks be provided with enough green time to minimize queuing across the railroad tracks and into the roundabout at North Avenue, which would be based on field observations over time. Other queuing issues identified in the analyses would be addressed by lengthening the left-turn lane on the southbound approach and the right-turn lane on the northbound approach. Lengthening of the left-turn lane on the eastbound approach is also recommended and can occur when Kingswood Drive (the west leg) is connected and constructed to its ultimate width.

Tables 17 and 18 present the results of intersection analyses for the improved conditions. The analysis sheets for the improved conditions are presented in Appendix E. It is recommended that turn lanes be designed long enough to accommodate the queues presented in Table 18 to the extent possible.

Table 17
Improved LOS Summary – Cumulative 2042 With-Project (Phases 1 and 2) Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / I Street	Signals	33.1	C	45.7	D

Table 18
Improved Queuing Summary – Cumulative Year 2042 With-Project (Phases 1 and 2)

Intersection Approach	95 th -Percentile Queue Length (feet)	
	A.M.	P.M.
Manning / I Street		
Eastbound L(2)	377	424
Eastbound T(2)	256	253
Eastbound R	40	49
Westbound L	144	193
Westbound T(2)R	298	404
Northbound L(2)	129	198
Northbound T	96	188
Northbound R	0	0
Southbound L	81	115
Southbound T	238	420
Southbound R(2)	72	157

15.0 CONCLUSIONS

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future.

The Project-specific traffic modeling performed by the COG-approved modeling consultant indicates the Project will cause a less-than-significant transportation impact.

The results of the traffic analyses are summarized below for each study scenario.

Existing Conditions

The traffic analyses indicate that the following study intersections are currently operating worse than the target LOS C, with queues longer than the storage capacity on some movements:

- Manning Avenue / Kings River Road
- Manning Avenue / I Street
- Manning Avenue / Reed Avenue

The following study intersections are currently operating at acceptable LOS:

- I Street / Reed Avenue
- North Avenue / Reed Avenue.

Existing-Plus-Project Phase 1 Conditions

Phase 1 of the Project is expected to cause Project-specific traffic issues at the following study intersections already operating below the target LOS C by exacerbating the average delay by more than 5.0 seconds per vehicle:

- Manning Avenue / Kings River Road
- Manning Avenue / I Street

At the intersection of Manning Avenue and Kings River Road, warrants for improvements such as signalization would not be satisfied based on the very low volume of traffic on Kings River Road. The City may consider construction of a median worm to prevent left turns from the northbound and southbound approaches of Kings River Road to Manning Avenue. Preventing left turns from the northbound approach may necessitate a median break to the east of the intersection to allow U-turns from eastbound Manning Avenue to westbound Manning Avenue.

At the intersection of Manning Avenue and I Street, in order to maintain an average delay at the intersection that does not exceed the existing condition (existing LOS D with an average delay of 43.6 seconds per vehicle during the a.m. peak hour), the intersection could be modified and widened to eliminate split phasing and implement traditional eight-phase operation with protected left turns and the following lane configurations:

Eastbound Manning Avenue: two left-turn lanes, two through lanes, and one right-turn lane (may require widening to add one lane)

Westbound I Street: one left-turn lane and two through lanes with a shared right turn (same as existing)

Northbound (future Kings Drive): one left-turn lane, one through lane, and one right-turn lane (same as existing, striping modified for dedicated right-turn lane)

Southbound Manning Avenue: one left-turn lane, one through lane, and two right-turn lanes (same as existing)

Existing-Plus-Project Phases 1 and 2 Conditions

Phases 1 and 2 of the Project are expected to cause Project-specific traffic issues at the following study intersections already operating below the target LOS C by exacerbating the average delay by more than 5.0 seconds per vehicle:

- Manning Avenue / Kings River Road
- Manning Avenue / I Street
- Manning Avenue / Reed Avenue

At the intersection of Manning Avenue and Kings River Road, the recommendation is the same as that presented above for the Phase 1 conditions.

At the intersection of Manning Avenue and I Street, the recommendation is the same as that presented above for the Phase 1 conditions, with the exception that a second left-turn lane on the northbound approach is recommended.

The intersection of Manning and Reed Avenues has been constructed to its ultimate width, and additional widening to increase capacity would likely require road widening. Considering the turning movement traffic volumes, the addition of a second left-turn lane on the eastbound approach would provide the most benefit, but would require widening of northbound Reed Avenue north of Manning Avenue to provide two receiving lanes. The presence of existing residences and protection of existing palm trees will likely cause widening to be infeasible. Furthermore, widening of the intersection to accommodate vehicles will have an adverse effect on pedestrian and bicycle traffic. Therefore, it does not appear that additional widening is feasible at the intersection.

Cumulative Year 2042 Conditions

The analyses indicate that the following study intersections are expected to operate below the target LOS C:

- Manning Avenue / Kings River Road
- Manning Avenue / I Street
- Manning Avenue / Reed Avenue

The analyses also suggest that some queuing issues may occur at the intersection of I Street and Reed Avenue.

At the intersection of Manning Avenue and Kings River Road, the recommendation is the same as that presented above for the existing-plus-Project Phase 1 conditions.

At the intersection of Manning Avenue and I Street, the improvements recommended above for the existing-plus-Project Phases 1 and 2 conditions are expected to represent an ultimate buildout of the intersection and further widening is likely to be infeasible. With the recommended lane configurations and signal phasing, it is anticipated that the intersection will operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour in the year 2042.

For the intersection of Manning and Reed Avenues, the discussion provided above for the existing-plus-Project Phases 1 and 2 conditions is considered applicable to the year 2042 conditions as well. The intersection is expected to operate at LOS D during the a.m. peak hour and LOS C during the p.m. peak hour in the year 2042.

The intersection of I Street and Reed Avenues is expected to operate at LOS C in the year 2042 but may have some queuing issues. It is important that the westbound approach across the railroad tracks be provided with enough green time to minimize queuing across the railroad tracks and into the roundabout at North Avenue, which would be based on field observations over time. Other queuing issues identified in the analyses would be addressed by lengthening the left-turn lane on the southbound approach and the right-turn lane on the northbound approach. Lengthening of the left-turn lane on the eastbound approach is also recommended and can occur when Kingswood Drive (the west leg) is connected and constructed to its ultimate width.

Thank you for the opportunity to perform this traffic study. Please feel free to contact our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE

Attachments: Figures

Appendix A – Traffic Count Data Sheets

Appendix B – Internal Capture Analyses

Appendix C – Fresno County Travel Model

Appendix D – Intersection Analysis Sheets

Appendix E – Intersection Analysis Sheets – Improved Conditions

Appendix D

Cultural Resources Technological Study Memorandum



Rincon Consultants, Inc.

7080 North Whitney Avenue
Suite 101
Fresno, California 93720

510 834 4455 OFFICE

info@rinconconsultants.com
www.rinconconsultants.com

January 25, 2021
Project Number 18-06295

Rob Terry, AICP, Community Development Director
City of Reedley
1733 9th Street
Reedley, CA 93654
Via Email: rob.terry@reedley.ca.gov

Subject: Cultural Resources Technical Memorandum for Annexation Application No. 2020-01, Pre-Zone Application No. 2020-01, and Site Plan Review Application No. 2020-01 (Reedley Annexation) Project, Reedley, Fresno County, California

Dear Mr. Terry:

This report presents the findings of a cultural resources study which was prepared in support of the Initial Study – Mitigated Negative Declaration for the Reedley Annexation Project (project), which includes Annexation Application No. 2020-01, Pre-Zone Application No. 2020-01, and Site Plan Review Application No. 2020-01 in Reedley, Fresno County, California. The project site encompasses approximately 58 acres of land consisting of four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of the all parcels to the current city limits into the City of Reedley and detachment from the Fresno County Fire Protection District and the Kings River Conservation District. The project would also pre-zone the approximately 58 acres as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. The project will also dedicate land directly east of the Kings River that is currently designated as Open Space for the future development of Reedley Parkway. The portion of Kings River to be annexed will not be zoned for any development. The current cultural resource study was conducted to assess whether the project would impact cultural resources. This study included a records search, Native American outreach, a pedestrian field survey, and the preparation of this technical letter report. All work was completed in compliance with the California Environmental Quality Act (CEQA) and other applicable state and local guidelines and regulations.

Cultural Resources Records Search

Rincon requested a search of the California Historical Resources Information System (CHRIS) at the Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield on November 11, 2020. On November 20, 2020 SSJVIC staff conducted the records search to



identify previous cultural resources work and previously recorded cultural resources within a 0.25-mile radius of the project site. The CHRIS records search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. A summary of the results of the CHRIS records search is included in Attachment A.

Previously Conducted Studies

The SSJVIC records search identified five previous studies within a 0.25-mile radius of the project site (Table 1). Of these, one, FR-01680, is located within the project site and is detailed below.

Table 1 Previously Conducted Cultural Resources Studies within 0.25 mile of Project Site

SCCIC Report No.	Author	Year	Study	Relationship to Project Site
FR-00400	Jane Granskog	1983	<i>Archaeological Survey for the Construction of Storm water Runoff Discharge Structures in Reedley, California</i>	Outside
FR-01629	M. Theresa Acosta-Mena	1999	<i>Re-Evaluation for CDBG Project EA 4403-22; CD No. 98907 (Reedley Rail/Trail Community Parkway) Your Reference #T-21</i>	Outside
FR-01680	Robert E. Parr	2000	<i>A Cultural Resources Assessment of the Reedley Wal-Mart/Otani Property Development, Reedley, Fresno County, California</i>	Within
FR-01756	Russell Fey	1984	<i>Reedley Historic Resources Inventory – Final Report</i>	Outside
FR-02273	Suzanne Baker and Laurence Shoup	2006	<i>Archaeological Survey Report, Manning/Frankwood Avenues Project, City of Reedley, Fresno County, California</i>	Outside

Source: SSJVIC, November 2020

FR-01680

This report written by Robert E. Parr in 2000 includes a cultural resources assessment for the Reedley Wal-Mart/Otani Property development project. The assessment included a records search and pedestrian survey. Approximately 67 acres of land, which includes a large portion of the project site, was surveyed for cultural resources. No previously unrecorded cultural resources were discovered, and no cultural resources are listed as being within the current project site. Parr also notes that the current project site has signs of previous agricultural activity such as plow lines and irrigation ditches.

Previously Recorded Resources

The SSJVIC records search identified 41 previously recorded cultural resources within 0.25 mile of the project site (Table 2). One previously recorded resource exists adjacent to the project site, P-10-003999, which is described below.



Table 2 Previously Recorded Cultural Resources within 0.25-mile of Project Site

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to Project Site
P-10-000066	Site	Prehistoric occupation site consisting of manos	1939 (GWH & WCM)	Unknown	Outside
P-10-003553	District	Historic District D	1984 (Noel Kehoe, Russ Fey, Sonja Wilson, Reedley Historical Society)	Unknown	Outside
P-10-003746	Building	T.J. Bauder House	1984 (Noel Kehoe, Reedley Historical Society)	Unknown	Outside
P-10-003748	Building	145 N. Reed Ave.	Unknown	Unknown	Outside
P-10-003751	Building	163 N. Reed Ave.	Unknown	Unknown	Outside
P-10-003800	Building	947 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003801	Building	972 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003802	Building	214 E Curtis Ave.	Unknown	Unknown	Outside
P-10-003803	Building	997 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003804	Building	960 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003805	Building	965 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003806	Building	968 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003807	Building	992 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003808	Building	940 W. Friesen Ave.	1984 (Georgia Davidson, Reedley Historical Society)	Unknown	Outside
P-10-003809	Building	1008 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003810	Building	1011 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003811	Building	1024 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003812	Building	1035 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003813	Building	1040 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003814	Building	1056 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003815	Building	1061 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003816	Building	1070 W. Friesen Ave.	Nd. (Georgia Davidson, Reedley Historical Society)	Unknown	Outside
P-10-003817	Building	1080 W. Friesen Ave.	Unknown	Unknown	Outside



Primary Number	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to Project Site
P-10-003818	Building	1083 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003819	Building	1086 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003820	Building	1098 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003821	Building	1117 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003822	Building	1118 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003823	Building	1128 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003824	Building	1131 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003825	Building	1134 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003826	Building	1141 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003827	Building	1144 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003828	Building	1157 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003829	Building	1160 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003830	Building	1175 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003831	Building	1184 W. Friesen Ave.	Unknown	Unknown	Outside
P-10-003832	District	Historic H Street and Railroad Tracks	1984 (Sonja Wilson, Reedley Historical Society)	Unknown	Outside
P-10-003863	Building	392 N. Reed Ave.	Unknown	Unknown	Outside
P-10-003930	Structure	Historic Southern Pacific Railroad	1998 (W.L> Norton, Jones & Stokes); 1999 (S. Hooper, S. Flint, Applied EarthWorks Inc.); 2002 (Peggy B. Murphy, Three Girls and a Shovel); 2004 (Bryan Larson, Cindy Toffelmier, JRP Historical Consulting); 2009 (Joseph Freeman, Rebecca Flores, JRP Historical Consulting); 2010 (Michael Hibma, LSA Associates); 2013, 2015 (Randy Baloian, Applied EarthWorks, Inc.); 2016 (J. Tibbet, Applied EarthWorks Inc.); 2018 (Annie McCausland, Applied EarthWorks, Inc.)	Recommended not eligible for NRHP, CRHR or local listing	Adjacent



Primary Number	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to Project Site
P-10-003999	Structure	Historic Manning Avenue Bridge	1984 (Noel Kehoe, Sonja Wilson, Reedley Historical Society)	Ineligible for NRHP	Adjacent

Sources: SSVIC, November 2020

P-10-003999

P-10-03999 is the Manning Avenue Bridge which consisted of a standard steel and concrete bridge with low open rails on each side and a two-way asphalt road on top. The bridge was originally constructed in 1885, then reconstructed in 1928. Former alterations to the bridge included widening of the south side in 1942 and straightening of the east side at an unspecified date. In 2009, the City of Reedley conducted an Initial Study – Mitigated Negative Declaration (IS-MND) for the Manning Avenue Bridge Replacement project, which proposed to construct a new bridge moving traffic south of the original bridge. The former Manning Avenue Bridge was not listed as a historical resource for the purposes of CEQA (City of Reedley 2009). In 2012, the California Department of Fish and Game conducted a project to remove the existing bridge, piers, and abutments, and remove the existing piers from the abandoned railroad bridge adjacent to the existing Manning Avenue Bridge, realign Manning Avenue, and construct a new bridge over the Kings River (California Department of Fish and Game 2012). The former location of the bridge was in the northwest corner of the project site. Construction on the new bridge was completed in 2014, and the current location is adjacent to the project site.

Native American Heritage Commission and Outreach

Rincon contacted the Native American Heritage Commission (NAHC) on November 11, 2020 to request a Sacred Lands File (SLF) search of the project site. The NAHC emailed a response on December 2, 2020, stating that the SLF search was returned with negative results (Appendix B). The response from the NAHC also included a contact list of 16 local Native American groups and individuals that may have knowledge of cultural resources within the project site. On December 18, 2020, Rincon prepared and emailed letters to the Native American contacts provided by the NAHC to request information regarding their knowledge of cultural resources within the vicinity that may be impacted by the project. The following are summary responses:

Stan Alec of the Kings River Choinumni Farm Tribe did not have an email listed for contact. Mr. Alec was contacted by phone on December 18, 2020. The phone was not receiving calls, and no message was left.

Leo Sisco of the Santa Rosa Rancheria Tachi Yokut Tribe did not have an email listed for contact. Mr. Sisco was contacted by phone on December 18, 2020. A message was left describing the project and requesting an email contact.

Dirk Charley of the Dunlap Band of Mono Indians responded with a call on December 21, 2020 asking for more information regarding the prehistoric resources within a 0.25-mile radius and stating that Dave Alvarez would have more information of that particular area. A follow up email was requested and sent



on December 21, 2020 reiterating the request, noting that the Dunlap Band of Mono Indians would not be commenting or requesting consultation on the project, and recommending contacting, for consultation purposes, Dave Alvarez of the Traditional Choinumni Tribe, the Tule River Indian Reservation, and the Santa Rosa Rancheria Tachi-Yokuts. A response email was sent on the same day providing Mr. Charley with information regarding the prehistoric resource.

David Alvarez of the Traditional Choinumni Tribe had an immediate email response noting that the email was undeliverable. A follow up email was sent on December 22, 2020, which also had an immediate response that the email was undeliverable. As Mr. Charley recommended contacting Mr. Alvarez specifically regarding knowledge of the project site, a phone call was made on December 22, 2020. A message was left describing the project and requesting information regarding the project site. Mr. Alvarez responded with a call the same day providing a new email address, and a new email was sent with project information. Mr. Alvarez then called on December 23, 2020 to indicate that he did not perceive there would be any issues with the current project as the area is cultivated farmland, but would like to recommend monitoring on future developments and construction as they may go deeper and encounter artifacts.

As of the date of this report, Rincon has not received any further responses from Native American contacts. Rincon assumes the lead agency will conduct AB 52 consultation separately.

Pedestrian Field Survey

Rincon Archaeologist Courtney Montgomery conducted a field visit to the project site on December 30, 2020. The archaeologist surveyed the project site where possible using transects spaced no more than 15 meters apart. The survey transects were oriented generally in an east-west direction on the eastern and northern portions of the project site and in a north-south direction on the western portion of the project site. The archaeologist examined exposed ground surface for the following: artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were inspected visually. The far eastern portion of the project site adjacent to Kings River and within Kings River could not be surveyed due to unsafe river conditions. Two areas within the agricultural land could not be surveyed due to dense vegetation and swamp-like conditions with bushes and weeds (Figure 3). Additionally, the presence of a homeless encampment in the northwest corner of the project site prevented safe survey in that area. These areas were observed from a safe distance of 30 meters in the northwest to 90 meters in the southwest. Field notes of survey conditions and observations were recorded using Rincon field forms and a digital camera. Copies of the original field notes and photographs are maintained at Rincon's Fresno office.

Results of the field survey identified no evidence of archaeological remains within the project site. Ground visibility ranged from poor (0%) in strawberry or melon fields (Figure 4) and areas with dense vegetation to excellent (100%) in tilled areas (Figure 5), within the orchard, and along roads (Figure 6). Vegetation consisted of weeds, strawberry plants, mandarin orange trees, melons, oak trees, and grasses. Soils consisted of a sandy, silty clay. Modern disturbances on the project site modern infrastructure, irrigation systems, fences, compact dirt roads, dilapidated buildings, and a homeless

encampment located in the northwest corner of the project site beneath the current Manning Avenue Bridge, which includes scattered refuse, shopping carts, and articles of clothing (Figure 7). Additionally, modern trash was observed throughout the project site (Figure 8). Three metal pillars were observed near Kings River (Figure 9). Due to dense vegetation and safety concerns, close inspection of the pillars was not possible, therefore, they could not be positively identified as belonging to the 1928 Manning Avenue bridges. However, based on their location it is likely the pillars represent the remains of one of the former bridges.

Findings

Results of the pedestrian survey identified one potential cultural resource within the project site, metal pillars that are likely remnants of the former Manning Avenue Bridge. The former Manning Avenue Bridge (P-10-003999) had been determined ineligible for listing in the NRHP by the California Department of Transportation and has been demolished and replaced (Haley 2008). Given that the bridge was determined ineligible for the NRHP and demolished, remnants of the bridge would not qualify for listing in the CRHR or local listing as the structure retains no integrity. The IS-MND for the Manning Avenue Bridge Replacement Project by the City of Reedley from 2009, also indicates that the bridge was ineligible for the CRHR (City of Reedley 2009). Therefore, the remnants of the former Manning Avenue Bridge is not a historical resource under CEQA and requires no further management consideration.

The CHRIS records search, Sacred Lands File search, and Native American consultation did not indicate that the project site had a high sensitivity to containing archaeological resources. The Sacred Lands File search had a negative finding. As of the date of this report, no Native American contacts have indicated knowledge of any cultural resources within the project site. One previously conducted cultural resources study that includes a large portion of the current project site did not discover any previously unrecorded archaeological resources. The records search results and pedestrian survey indicate that the area is largely disturbed by agricultural activity. Although the project site is located adjacent to a fresh water source, Kings River, it has a low sensitivity for containing intact archaeological resources due to these disturbances. However, the possibility of encountering unanticipated archaeological resources or human remains is always a possibility during ground disturbing activities. Therefore, Rincon recommends a finding of ***no impact to historical resources and less than significant impact with mitigation for archaeological resources*** under CEQA. The following measures are recommended in the case of unanticipated discoveries of archaeological resources or human remains.

Unanticipated Discovery of Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be eligible for the CRHR and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources. Treatment of the resource(s) shall be determined on a case by case basis based on the nature of the find and in consultation between the tribes, qualified archaeologist, and lead agency.



Unanticipated Discovery of Human Remains

If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

Please do not hesitate to contact Rincon with any questions regarding this archaeological study.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in cursive script that reads "Hannah Haas".

Hannah Haas, MA, RPA
Senior Archaeologist

A handwritten signature in cursive script that reads "Elaine Foster".

Elaine Foster, MA, RPA
Archaeologist

Attachments

- Attachment A Figures
- Attachment B CHRIS Records Search Summary
- Attachment C SLF Search Summary and Native American Outreach



References

California Department of Fish and Game

- 2012 Filing of Notice of Determination in Compliance with Section 21108 or 21152 of the Public Resources Code – Stream Alteration Agreement No. 1600-2011-0106-R4 for the Manning Avenue Bridge Replacement Project. On file with the City of Reedley Planning Department.

City of Reedley

- 2009 Initial Study/Mitigated Declaration: Manning Avenue Bridge Replacement Project. On file with the City of Reedley Planning Department.

Haley, Kathryn

- 2008 Historic Property Survey Report for the Manning Avenue Bridge Replacement Project. On file with the City of Reedley Planning Department.

National Park Service (NPS)

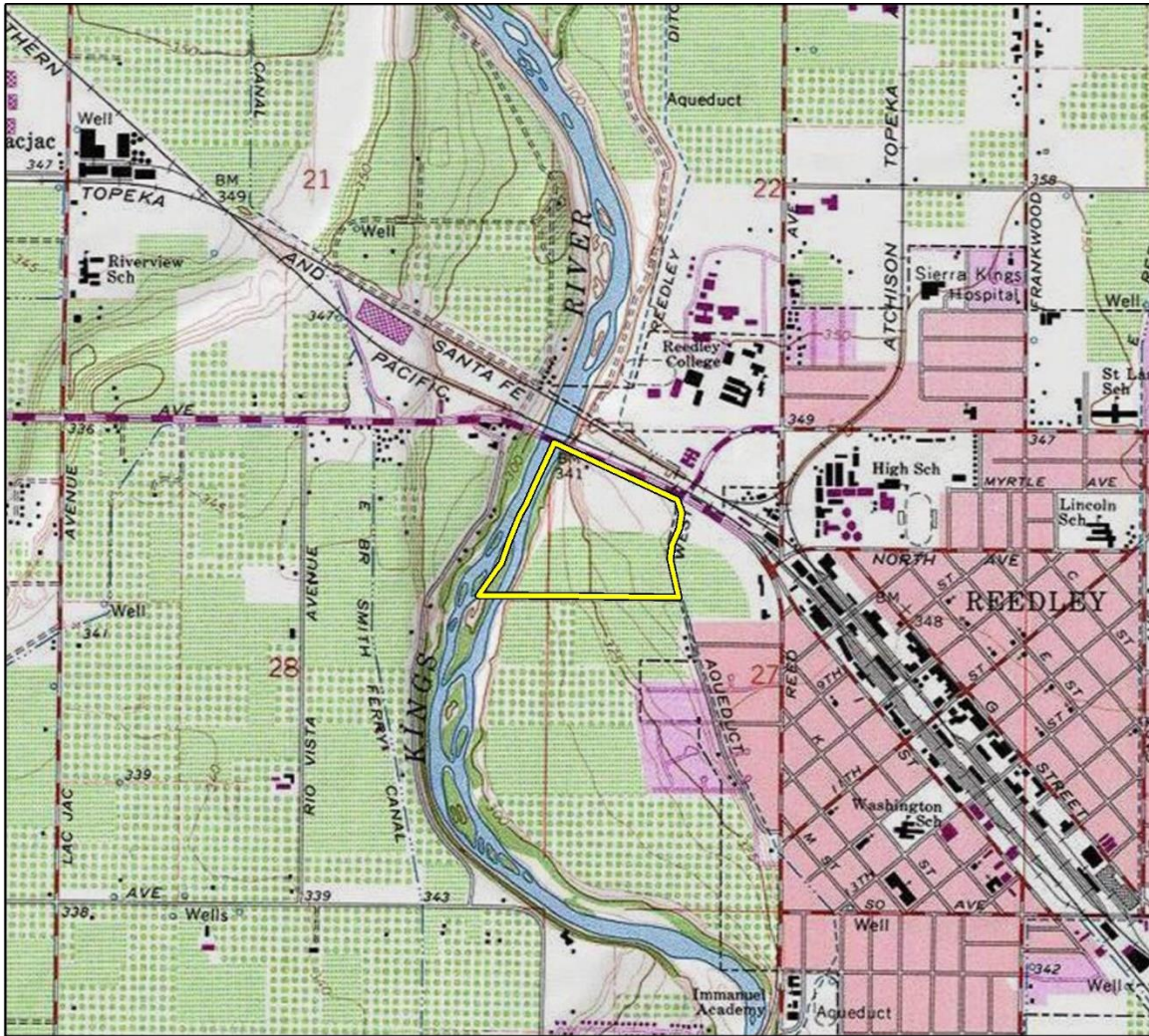
- 1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document. Accessed February 12, 2020 at: https://www.nps.gov/history/local-law/arch_stnds_0.htm



Attachment A

Figures

Figure 1 Regional Location



Basemap provided by National Geographic Society, Esri and its licensors © 2021. Reedley Quadrangle. T15S R23E S27,28. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Location

0 1,000 2,000 Feet

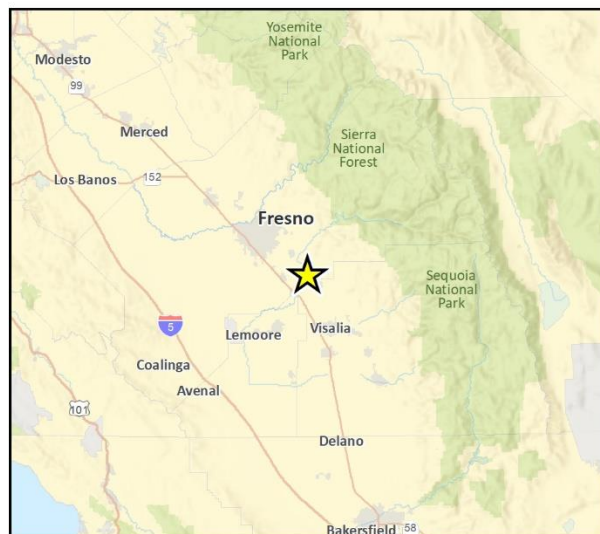


Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2020.

FigX Project Location

Figure 3 Survey Areas, Including Inaccessible Areas



Figure 4 Strawberry Fields



Figure 5 Tilled Areas



Figure 6 Orchard Field and Dirt Road



Figure 7 Encampment Refuse beneath Manning Avenue Bridge



Figure 8 Refuse Scattered throughout the Project Site and One Dilapidated Structure



Figure 9 Metal Pillars adjacent to Kings River





Attachment B

CHRIS Records Search Summary

Report List

SSJVIC Record Searc 20-409

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
FR-00400		1983	Granskog, Jane	Archaeological Survey for the Construction of Stormwater Runoff Discharge Structures in Reedley, California	California State University, Bakersfield	
FR-01629		1999	Acosta-Mena, M. Theresa	Re-Evaluation for CDBG Project EA 4403-22; CD No. 98907 (Reedley Rail/Trail Community Parkway) Your Reference #T-21	Department of Parks and Recreation	
FR-01680	Submitter - CAR-00-25	2000	Parr, Robert E.	A Cultural Resources Assessment of the Reedley Wal-Mart/Otani Property Development, Reedley, Fresno County, California	Center for Archaeological Research, California State University, Bakersfield	
FR-01756		1984	Fey, Russell	Reedley Historic Resources Inventory - Final Report	Fresno County Community Development Department	
FR-02273		2006	Baker, Suzanne and Shoup, Laurence H.	Archaeological Survey Report, Manning/Frankwood Avenues Project, City of Reedley, Fresno County, California	Archaeological/Historical Consultants	

Resource List

SSJVIC Record Search 20-409

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-000066	CA-FRE-000066	Resource Name - J81, 123 (Hewes); #6 (Noren)	Site	Prehistoric	AP16	1939 (GWH & WCM)	
P-10-003553		OHP PRN - 3654-0024-9999; Resource Name - 700-800 blks of I St.; 800-1100 blks of J St.; 900-1200 blks of K St.; 1900-2200 blks of 11th St.	District	Historic	HP39	1984 (Noel Kehoe, Russ Fey, Sonja Wilson, Reedley Historical Society)	
P-10-003746		OHP PRN - 3654-0024-0198; Resource Name - T.J. Bauder House	Building	Historic	HP02	1984 (Noel Kehoe, Reedley Historical Society)	
P-10-003748		OHP PRN - 3654-0024-0200	Building	Historic	HP02	(Unknown)	
P-10-003751		OHP PRN - 3654-0024-0203	Building	Historic	HP02	(Unknown)	
P-10-003800		OHP PRN - 3654-0024-0252	Building	Historic	HP02	(Unknown)	
P-10-003801		OHP PRN - 3654-0024-0253	Building	Historic	HP02	(Unknown)	
P-10-003802		OHP PRN - 3654-0024-0254	Building	Historic	HP02	(Unknown)	
P-10-003803		OHP PRN - 3654-0024-0255	Building	Historic	HP02	(Unknown)	
P-10-003804		OHP PRN - 3654-0024-0256	Building	Historic	HP02	(Unknown)	
P-10-003805		OHP PRN - 3654-0024-0257	Building	Historic	HP02	(Unknown)	
P-10-003806		OHP PRN - 3654-0024-0258	Building	Historic	HP02	(Unknown)	
P-10-003807		OHP PRN - 3654-0024-0259	Building	Historic	HP02	(Unknown)	
P-10-003808		OHP PRN - 3654-0024-0260	Building	Historic	HP02	1984 (Georgia Davidson, Reedley Historical Society)	
P-10-003809		OHP PRN - 3654-0024-0261	Building	Historic	HP02	(Unknown)	
P-10-003810		OHP PRN - 3654-0024-0262	Building	Historic	HP02	(Unknown)	
P-10-003811		OHP PRN - 3654-0024-0263	Building	Historic	HP02	(Unknown)	
P-10-003812		OHP PRN - 3654-0024-0264	Building	Historic	HP02	(Unknown)	
P-10-003813		OHP PRN - 3654-0024-0265	Building	Historic	HP02	(Unknown)	
P-10-003814		OHP PRN - 3654-0024-0266	Building	Historic	HP02	(Unknown)	
P-10-003815		OHP PRN - 3654-0024-0267	Building	Historic	HP02	(Unknown)	
P-10-003816		OHP PRN - 3654-0024-0268	Building	Historic	HP02	(Georgia Davidson, Reedley Historical Society)	
P-10-003817		OHP PRN - 3654-0024-0269	Building	Historic	HP02	(Unknown)	

Resource List

SSJVIC Record Search 20-409

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-003818		OHP PRN - 3654-0024-0270	Building	Historic	HP02	(Unknown)	
P-10-003819		OHP PRN - 3654-0024-0271	Building	Historic	HP02	(Unknown)	
P-10-003820		OHP PRN - 3654-0024-0272	Building	Historic	HP02	(Unknown)	
P-10-003821		OHP PRN - 3654-0024-0273	Building	Historic	HP02	(Unknown)	
P-10-003822		OHP PRN - 3654-0024-0274	Building	Historic	HP02	(Unknown)	
P-10-003823		OHP PRN - 3654-0024-0275	Building	Historic	HP02	(Unknown)	
P-10-003824		OHP PRN - 3654-0024-0276	Building	Historic	HP02	(Unknown)	
P-10-003825		OHP PRN - 3654-0024-0277	Building	Historic	HP02	(Unknown)	
P-10-003826		OHP PRN - 3654-0024-0278	Building	Historic	HP02	(Unknown)	
P-10-003827		OHP PRN - 3654-0024-0279	Building	Historic	HP02	(Unknown)	
P-10-003828		OHP PRN - 3654-0024-0280	Building	Historic	HP02	(Unknown)	
P-10-003829		OHP PRN - 3654-0024-0281	Building	Historic	HP02	(Unknown)	
P-10-003830		OHP PRN - 3654-0024-0282	Building	Historic	HP02	(Unknown)	
P-10-003831		OHP PRN - 3654-0024-0283	Building	Historic	HP02	(Unknown)	
P-10-003832		OHP PRN - 3654-0026-9999; Resource Name - H Street / Railroad Tracks / I Street	District	Historic	HP39	1984 (Sonja Wilson, Reedley Historical Society)	
P-10-003863		OHP PRN - 3654-0026-0031	Building	Historic	HP06	(Unknown)	

Resource List

SSJVIC Record Search 20-409

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-003930	CA-FRE-003109H	Resource Name - Southern Pacific Railroad	Structure	Historic	AH07; AH11	1998 (W.L. Norton, Jones & Stokes); 1999 (S. Hooper, S. Flint, Applied EarthWorks, Inc.); 2002 (Peggy B. Murphy, Three Girls and a Shovel); 2004 (Bryan Larson, Cindy Toffelmier, JRP Historical Consulting); 2009 (Joseph Freeman, Rebecca Flores, JRP Historical Consulting); 2009 (Joseph Freeman, Rebecca Flores, JRP Historical Consulting); 2009 (Joseph Freeman, Rebecca Flores, JRP Historical Consulting); 2010 (Michael Hibma, LSA Associates); 2013 (Randy Baloian, Applied Earthworks, Inc.); 2015 (Randy Baloian, Applied EarthWorks, Inc.); 2015 (Randy Baloian, Applied Earthworks, Inc.); 2016 (J. Tibbet, Applied EarthWorks, Inc.); 2018 (Annie McCausland, Applied EarthWorks, Inc.)	FR-00238, FR-01770, FR-01771, FR-01772, FR-02642, FR-02726, FR-02769, FR-02847, FR-02942
P-10-003999		OHP PRN - 3654-0043-0000; Resource Name - Manning Avenue Bridge	Structure	Historic	HP19	1984 (Noel Kehoe, Sonja Wilson, Reedley Historical Society)	



Attachment C

SLF Search Summary and Native American Outreach

NATIVE AMERICAN HERITAGE COMMISSION

December 2, 2020

Elaine Foster, Archaeologist

Rincon Consultants

Via Email to: efoster@rinconconsultants.com

Re: Reedley Annexation (18-06295) Project, Fresno County

Dear Ms. Foster:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Kings River Choinumni Farm Tribe
Stan Alec
3515 East Fedora Avenue
Fresno, CA 93726

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Mr. Alec,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", with a long horizontal flourish extending to the right.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno, CA 93720
Via Email: davealvarez@sbcglobal.net

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Alvarez,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Cold Springs Rancheria
Carol Bill, Chairperson
PO Box 209
Tollhouse, CA 93667
Via Email: coldsprgstriben@netptc.net

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Bill,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Dunlap Band of Mono Indians
Benjamin Charley Jr., Tribal Chair
PO Box 14
Dunlap, CA 93621
Via Email: ben.charley@yahoo.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Tribal Chair Charley,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written over a white background.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Dunlap Band of Mono Indians
Dirk Charley, Tribal Secretary
5509 E. McKenzie Avenue
Fresno, CA 93727
Via Email: dcharley2016@gmail.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Tribal Secretary Charley,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Picayune Rancheria of Chukchansi Indians
Claudia Gonzales, Chairwoman
PO Box 2226
Oakhurst, CA 93644
Via Email: cgonzales@chukchansitribe.net

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairwoman Gonzales,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

North Fork Mono Tribe
Ron Goode, Chairperson
13396 Tollhouse Road
Clovis, CA 93619
Rwgoode911@hotmail.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Goode,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Big Sandy Rancheria of Western Mono Indians

Elizabeth D. Kipp, Chairperson

PO Box 337

Auberry, CA 93602

Via Email: lkipp@bsrnation.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Kipp,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA

Archaeologist

Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Table Mountain Rancheria
Brenda D. Lavell, Chairperson
PO Box 410
Friant, CA 93626
Via Email: rpennel@tmr.org

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Lavell,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Dumna Wo-Wah Tribal Government
Robert Ledger Sr., Chairperson
2191 West Pico Ave.
Fresno, CA 93705
Via Email: ledgerrobert@ymail.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Ledger,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
PO Box 1159
Jamestown, CA 95327
Via Email: lmathiesen@crtribal.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Mathiesen,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Traditional Choinumni Tribe
Rick Osborne, Cultural Resources
2415 E. Houston Avenue
Fresno, CA 93720
Via Email: lemek@att.net

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Mr. Osborne,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
PO Box 410
Friant, CA 93626
Via Email: rpennell@tmr.org

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Director Pennell,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
PO Box 8
Lemoore, CA 93245
Via Email:

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Sisco,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Nashville Enterprise Miwok-Maidu-Nishinam Tribe

Cosme A. Valdez, Chairperson

PO Box 580986

Elk Grove, CA 95758-001

Via Email: valdezcome@comcast.net

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Valdez,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA

Archaeologist

Attached: Project Location Map



Rincon Consultants, Inc.

7080 N Whitney Ave, Suite 101
Fresno, California 93720

559 228 9925 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 18, 2020

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906
Via Email: kwood8934@aol.com

**Subject: Cultural Resources Study for the City of Reedley Annexation Project, City of Reedley,
Fresno County, California**

Dear Chairperson Woodrow,

Rincon Consultants, Inc. (Rincon) has been retained by the city of Reedley to conduct a cultural resources study for the City of Reedley Annexation Project, which includes four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) and a portion of Kings River (APNs 365-072-30T and 365-072-31). The project involves the annexation of these areas into the City of Reedley and would pre-zone them as Central Community Commercial (32 acres), One Family Residential (11 acres), and Resource Conservation and Open Space (15 acres). Additionally, the project involves the master planning of approximately 11 acres of commercially designated land consisting of commercial buildings and 487 parking spaces, where proposed uses of the buildings include retail stores, drive-through restaurants, dine-in restaurants, a gas station, and a hotel. This project is subject to the California Environmental Quality Act (CEQA) and the city of Reedley is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the city of Reedley.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with negative results. A search at the Southern San Joaquin Valley Information Center conducted on November 11, 2020 shows one prehistoric archaeological site within a 0.25-mile radius of the project site. No prehistoric resources have been recorded within the project site. One study from 2000 was conducted using a large portion of the project site. Survey during this study did not result in identification of any previously recorded prehistoric resources. If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Elaine Foster", written in a cursive style.

Elaine Foster, MA, RPA
Archaeologist
Attached: Project Location Map

Appendix E

Noise Calculations

NM1

Freq weight : A
 Time weight : SLOW
 Level Range : 40-100
 Max dB : 81.7 - 2020/12/08 13:45:38
 Level Range : 40-100
 SEL : 91.7
 Leq : 62.2

No.s	Date Time	(dB)					
1	2020/12/08 13:43:13	55.2	54.7	56.7	57.7	56.5	
6	2020/12/08 13:43:28	57.0	57.6	55.1	52.3	50.9	
11	2020/12/08 13:43:43	51.1	51.4	54.1	56.8	57.5	
16	2020/12/08 13:43:58	55.4	53.5	53.9	54.5	56.5	
21	2020/12/08 13:44:13	56.5	54.1	52.6	52.6	54.4	
26	2020/12/08 13:44:28	55.2	57.2	57.3	56.3	56.0	
31	2020/12/08 13:44:43	58.5	60.7	60.8	59.3	59.7	
36	2020/12/08 13:44:58	58.4	55.3	58.7	63.1	62.6	
41	2020/12/08 13:45:13	61.1	57.8	53.0	51.3	52.5	
46	2020/12/08 13:45:28	54.7	57.2	80.9	76.2	66.4	
51	2020/12/08 13:45:43	62.0	61.7	60.1	59.0	58.8	
56	2020/12/08 13:45:58	60.5	61.2	59.4	57.5	57.3	
61	2020/12/08 13:46:13	57.0	57.3	56.9	58.3	58.1	
66	2020/12/08 13:46:28	64.3	62.2	58.7	56.2	59.1	
71	2020/12/08 13:46:43	57.3	56.9	55.3	53.3	54.0	
76	2020/12/08 13:46:58	58.2	57.8	58.0	58.9	58.4	
81	2020/12/08 13:47:13	67.1	67.3	59.5	58.2	57.8	
86	2020/12/08 13:47:28	58.3	60.6	62.5	63.0	63.2	
91	2020/12/08 13:47:43	62.4	63.5	60.2	59.0	63.9	
96	2020/12/08 13:47:58	61.1	62.3	60.3	59.1	57.8	
101	2020/12/08 13:48:13	56.3	54.3	55.3	53.1	52.4	
106	2020/12/08 13:48:28	52.2	51.3	50.8	55.8	57.2	
111	2020/12/08 13:48:43	55.5	52.8	51.0	56.2	66.1	
116	2020/12/08 13:48:58	70.7	66.9	58.5	54.5	52.9	
121	2020/12/08 13:49:13	52.2	53.8	57.4	53.2	52.6	
126	2020/12/08 13:49:28	53.5	52.9	51.8	51.1	51.9	
131	2020/12/08 13:49:43	53.8	54.3	55.8	55.9	53.4	
136	2020/12/08 13:49:58	50.6	49.6	48.3	48.4	49.4	
141	2020/12/08 13:50:13	56.4	59.0	59.2	55.5	56.8	
146	2020/12/08 13:50:28	58.9	59.2	56.9	55.2	54.7	
151	2020/12/08 13:50:43	53.7	54.1	53.9	52.1	53.4	
156	2020/12/08 13:50:58	54.2	54.1	53.8	53.9	54.1	
161	2020/12/08 13:51:13	54.9	53.5	52.5	55.4	60.8	
166	2020/12/08 13:51:28	62.3	64.3	63.8	61.9	59.5	
171	2020/12/08 13:51:43	58.3	59.5	56.8	57.4	57.3	
176	2020/12/08 13:51:58	58.0	57.6	57.4	57.4	57.8	
181	2020/12/08 13:52:13	57.8	58.3	58.9	57.5	58.1	
186	2020/12/08 13:52:28	57.3	61.2	69.2	75.1	71.7	
191	2020/12/08 13:52:43	67.9	66.2	65.4	65.9	64.4	
196	2020/12/08 13:52:58	64.6	59.2	56.4	53.1	52.6	
201	2020/12/08 13:53:13	55.7	58.5	57.1	58.7	57.7	
206	2020/12/08 13:53:28	55.2	60.7	64.7	62.9	60.9	
211	2020/12/08 13:53:43	60.0	58.3	61.2	64.8	57.6	
216	2020/12/08 13:53:58	55.3	54.7	54.6	53.4	52.9	
221	2020/12/08 13:54:13	53.9	54.4	55.0	57.8	59.2	
226	2020/12/08 13:54:28	59.5	58.3	57.3	55.6	54.7	
231	2020/12/08 13:54:43	57.6	60.6	61.6	59.0	58.7	
236	2020/12/08 13:54:58	59.7	59.1	57.5	56.3	55.3	
241	2020/12/08 13:55:13	71.8	74.1	68.2	66.1	66.7	
246	2020/12/08 13:55:28	61.3	57.1	54.9	53.7	55.7	
251	2020/12/08 13:55:43	58.0	58.6	59.4	62.3	62.4	
256	2020/12/08 13:55:58	63.4	66.0	66.0	63.9	62.4	
261	2020/12/08 13:56:13	61.6	58.1	54.3	51.7	51.0	
266	2020/12/08 13:56:28	51.0	49.5	49.5	50.9	53.0	
271	2020/12/08 13:56:43	53.4	50.5	50.7	51.8	53.6	
276	2020/12/08 13:56:58	55.8	54.8	53.8	56.4	56.7	
281	2020/12/08 13:57:13	52.4	50.3	50.4	49.5	50.1	
286	2020/12/08 13:57:28	54.0	53.9	55.4	57.1	54.4	
291	2020/12/08 13:57:43	57.5	63.4	62.6	63.0	62.7	
296	2020/12/08 13:57:58	64.7	65.8	64.4	61.8	59.0	

NM2

Freq weight : A
 Time weight : SLOW
 Level Range : 40-100
 Max dB : 74.1 - 2020/12/08 15:07:07
 Level Range : 40-100
 SEL : 80.7
 Leq : 51.2

No.s	Date Time	(dB)					
1	2020/12/08 15:06:58	51.9	52.5	49.1	65.6	54.5	
6	2020/12/08 15:07:13	48.2	45.2	47.0	50.6	43.4	
11	2020/12/08 15:07:28	43.0	42.9	43.8	44.7	43.8	
16	2020/12/08 15:07:43	46.7	47.0	47.7	50.7	48.5	
21	2020/12/08 15:07:58	48.2	45.4	45.4	45.8	44.9	
26	2020/12/08 15:08:13	44.9	45.1	49.7	48.7	51.2	
31	2020/12/08 15:08:28	48.9	47.3	47.5	48.2	49.4	
36	2020/12/08 15:08:43	50.4	50.9	47.5	44.8	46.4	
41	2020/12/08 15:08:58	45.0	45.0	45.3	45.1	48.3	
46	2020/12/08 15:09:13	49.9	48.1	46.6	49.2	50.3	
51	2020/12/08 15:09:28	50.6	49.2	47.6	49.5	49.5	
56	2020/12/08 15:09:43	47.2	48.2	47.5	45.1	45.9	
61	2020/12/08 15:09:58	46.4	45.4	46.2	42.9	41.3	
66	2020/12/08 15:10:13	42.1	44.2	45.5	45.9	50.9	
71	2020/12/08 15:10:28	51.2	50.9	49.5	46.6	46.6	
76	2020/12/08 15:10:43	46.4	47.5	45.2	46.1	48.1	
81	2020/12/08 15:10:58	47.0	49.1	51.0	49.8	45.0	
86	2020/12/08 15:11:13	46.6	45.8	46.0	46.4	49.5	
91	2020/12/08 15:11:28	49.7	50.1	49.4	49.0	50.3	
96	2020/12/08 15:11:43	50.6	51.0	50.6	51.4	50.9	
101	2020/12/08 15:11:58	53.5	56.0	56.3	51.8	49.3	
106	2020/12/08 15:12:13	48.8	51.9	50.7	52.6	47.3	
111	2020/12/08 15:12:28	46.4	47.7	47.3	47.9	51.4	
116	2020/12/08 15:12:43	50.2	50.7	49.1	49.4	51.3	
121	2020/12/08 15:12:58	50.4	51.0	49.4	49.1	48.2	
126	2020/12/08 15:13:13	48.7	49.9	51.1	54.2	57.6	
131	2020/12/08 15:13:28	54.4	51.4	50.8	50.1	50.4	
136	2020/12/08 15:13:43	51.2	57.4	56.6	55.4	55.4	
141	2020/12/08 15:13:58	51.4	49.2	49.8	49.0	47.8	
146	2020/12/08 15:14:13	47.6	47.2	47.8	48.6	48.5	
151	2020/12/08 15:14:28	47.8	47.7	46.3	44.5	44.3	
156	2020/12/08 15:14:43	47.0	46.1	49.8	49.7	50.2	
161	2020/12/08 15:14:58	51.0	49.8	49.3	50.6	51.8	
166	2020/12/08 15:15:13	49.5	51.0	54.5	55.7	53.7	
171	2020/12/08 15:15:28	52.0	49.8	48.4	48.8	46.9	
176	2020/12/08 15:15:43	45.8	46.9	49.0	50.1	49.7	
181	2020/12/08 15:15:58	50.8	50.0	49.4	51.1	51.3	
186	2020/12/08 15:16:13	50.0	49.3	50.9	50.9	52.9	
191	2020/12/08 15:16:28	54.0	52.4	52.1	49.2	50.3	
196	2020/12/08 15:16:43	48.0	49.1	50.4	49.9	47.6	
201	2020/12/08 15:16:58	50.0	50.3	50.5	49.3	48.4	
206	2020/12/08 15:17:13	46.7	45.7	44.8	46.5	46.2	
211	2020/12/08 15:17:28	47.9	47.4	48.5	51.9	51.7	
216	2020/12/08 15:17:43	50.9	49.3	47.5	48.4	51.0	
221	2020/12/08 15:17:58	50.9	47.4	47.4	46.3	49.2	
226	2020/12/08 15:18:13	49.7	46.7	48.3	48.0	47.5	
231	2020/12/08 15:18:28	49.5	51.0	47.9	46.8	48.7	
236	2020/12/08 15:18:43	49.2	47.3	49.4	49.4	52.0	
241	2020/12/08 15:18:58	50.5	48.0	48.5	49.9	50.0	
246	2020/12/08 15:19:13	48.8	50.0	53.8	52.0	51.2	
251	2020/12/08 15:19:28	51.7	51.2	49.7	48.4	48.5	
256	2020/12/08 15:19:43	48.6	50.6	52.2	51.2	53.5	
261	2020/12/08 15:19:58	52.9	51.5	48.5	48.6	49.8	
266	2020/12/08 15:20:13	49.4	49.7	51.7	52.0	52.6	
271	2020/12/08 15:20:28	52.6	52.4	50.7	48.7	49.5	
276	2020/12/08 15:20:43	51.6	48.8	48.2	46.5	45.3	
281	2020/12/08 15:20:58	45.4	45.0	45.6	47.5	49.0	
286	2020/12/08 15:21:13	50.4	52.7	52.5	49.4	49.7	
291	2020/12/08 15:21:28	52.6	51.3	54.4	54.5	51.5	
296	2020/12/08 15:21:43	53.5	56.1	56.8	52.2	53.7	

NM3

Freq weight : A
 Time weight : SLOW
 Level Range : 40-100
 Max dB : 59.3 - 2020/12/08 14:39:20
 Level Range : 40-100
 SEL : 76.0
 Leq : 46.5

No.s	Date	Time	(dB)					
1	2020/12/08	14:39:20	49.4	40.8	37.9	36.4	37.6	
6	2020/12/08	14:39:35	36.0	43.6	36.7	35.7	36.6	
11	2020/12/08	14:39:50	38.8	40.0	37.1	36.7	36.9	
16	2020/12/08	14:40:05	37.2	37.0	36.5	36.3	37.5	
21	2020/12/08	14:40:20	38.2	37.5	38.9	39.2	38.4	
26	2020/12/08	14:40:35	43.0	38.7	38.5	38.8	37.7	
31	2020/12/08	14:40:50	37.6	36.9	36.9	37.7	38.9	
36	2020/12/08	14:41:05	37.4	37.0	36.9	37.7	36.8	
41	2020/12/08	14:41:20	37.4	37.7	37.6	38.2	37.4	
46	2020/12/08	14:41:35	37.2	36.2	37.6	36.5	37.2	
51	2020/12/08	14:41:50	37.0	37.5	37.8	38.1	37.2	
56	2020/12/08	14:42:05	37.1	39.3	38.1	38.4	39.8	
61	2020/12/08	14:42:20	38.9	37.5	37.2	36.8	35.9	
66	2020/12/08	14:42:35	36.2	36.4	36.5	37.0	37.0	
71	2020/12/08	14:42:50	37.4	36.8	38.3	36.9	37.1	
76	2020/12/08	14:43:05	36.9	36.4	36.9	37.0	36.2	
81	2020/12/08	14:43:20	36.3	36.4	36.1	36.9	36.6	
86	2020/12/08	14:43:35	35.8	35.6	36.0	36.3	40.1	
91	2020/12/08	14:43:50	37.9	39.0	39.5	37.4	36.7	
96	2020/12/08	14:44:05	36.9	37.0	39.2	37.4	37.8	
101	2020/12/08	14:44:20	39.2	38.6	39.0	37.8	39.6	
106	2020/12/08	14:44:35	38.4	38.7	38.9	38.9	38.4	
111	2020/12/08	14:44:50	38.1	38.2	38.3	37.8	38.6	
116	2020/12/08	14:45:05	37.6	37.8	38.7	38.8	37.6	
121	2020/12/08	14:45:20	38.0	36.9	37.1	36.8	36.2	
126	2020/12/08	14:45:35	36.7	37.1	37.8	38.5	37.9	
131	2020/12/08	14:45:50	38.6	38.5	38.6	37.8	45.7	
136	2020/12/08	14:46:05	54.5	47.4	42.2	41.3	41.3	
141	2020/12/08	14:46:20	40.7	41.0	40.5	38.4	37.6	
146	2020/12/08	14:46:35	37.6	37.4	37.4	37.8	37.4	
151	2020/12/08	14:46:50	37.7	38.1	38.3	40.7	42.9	
156	2020/12/08	14:47:05	39.9	38.4	40.1	41.8	41.6	
161	2020/12/08	14:47:20	39.6	37.6	37.4	37.3	37.3	
166	2020/12/08	14:47:35	38.3	37.9	37.4	36.6	37.2	
171	2020/12/08	14:47:50	36.4	36.0	36.3	36.1	36.2	
176	2020/12/08	14:48:05	36.3	35.2	34.8	35.2	35.9	
181	2020/12/08	14:48:20	35.7	35.9	35.8	36.1	36.2	
186	2020/12/08	14:48:35	36.0	35.6	36.2	35.9	36.4	
191	2020/12/08	14:48:50	41.6	37.4	36.3	36.8	36.0	
196	2020/12/08	14:49:05	36.3	36.6	36.0	35.9	36.0	
201	2020/12/08	14:49:20	36.2	37.7	37.5	36.9	36.3	
206	2020/12/08	14:49:35	35.8	36.3	36.6	36.6	36.1	
211	2020/12/08	14:49:50	35.7	36.5	36.5	37.2	37.5	
216	2020/12/08	14:50:05	37.8	37.1	36.3	36.8	36.3	
221	2020/12/08	14:50:20	36.6	38.4	38.9	39.9	46.9	
226	2020/12/08	14:50:35	50.2	52.6	52.3	50.0	47.9	
231	2020/12/08	14:50:50	44.2	49.1	50.6	50.4	47.4	
236	2020/12/08	14:51:05	50.6	51.1	51.9	48.4	50.3	
241	2020/12/08	14:51:20	51.5	52.3	45.7	48.8	49.7	
246	2020/12/08	14:51:35	50.8	51.2	51.3	50.1	49.2	
251	2020/12/08	14:51:50	49.8	50.4	49.7	50.1	50.2	
256	2020/12/08	14:52:05	52.7	49.4	51.5	52.9	52.6	
261	2020/12/08	14:52:20	53.2	55.2	53.4	52.7	55.6	
266	2020/12/08	14:52:35	55.5	55.6	54.6	56.2	57.5	
271	2020/12/08	14:52:50	57.5	57.5	56.9	57.0	57.1	
276	2020/12/08	14:53:05	58.9	54.3	47.4	45.8	44.7	
281	2020/12/08	14:53:20	46.3	48.3	47.3	45.7	45.1	
286	2020/12/08	14:53:35	45.1	44.4	44.5	43.9	42.8	
291	2020/12/08	14:53:50	42.6	43.0	42.7	42.0	41.3	
296	2020/12/08	14:54:05	41.8	41.6	41.7	41.3	41.6	

NM4

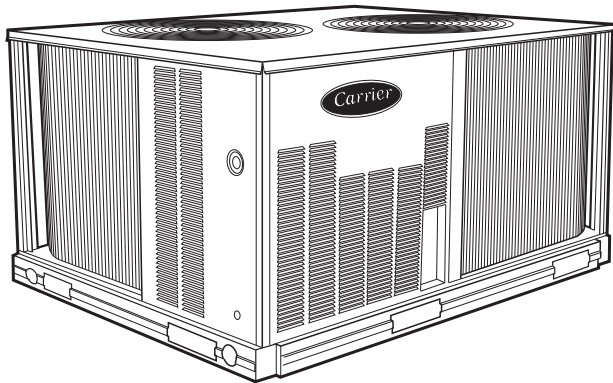
Freq weight : A
 Time weight : SLOW
 Level Range : 40-100
 Max dB : 78.6 - 2020/12/08 14:20:11
 Level Range : 40-100
 SEL : 88.8
 Leq : 59.3

No.s	Date	Time	(dB)					
1	2020/12/08	14:06:39	55.5	54.4	55.0	53.7	55.6	
6	2020/12/08	14:06:54	55.7	55.3	57.1	57.3	60.4	
11	2020/12/08	14:07:09	66.8	64.2	62.0	60.6	60.1	
16	2020/12/08	14:07:24	63.7	60.9	61.3	57.6	56.3	
21	2020/12/08	14:07:39	56.1	58.4	60.6	60.7	63.6	
26	2020/12/08	14:07:54	66.9	63.1	60.5	58.0	55.4	
31	2020/12/08	14:08:09	56.1	56.0	56.1	57.2	57.4	
36	2020/12/08	14:08:24	57.5	59.7	62.3	61.1	58.7	
41	2020/12/08	14:08:39	60.1	58.5	57.1	56.6	57.6	
46	2020/12/08	14:08:54	57.9	58.3	57.9	56.1	53.1	
51	2020/12/08	14:09:09	52.2	51.6	52.2	53.1	52.5	
56	2020/12/08	14:09:24	52.3	53.3	56.0	57.9	57.7	
61	2020/12/08	14:09:39	56.8	56.3	59.2	57.9	56.6	
66	2020/12/08	14:09:54	56.1	55.6	56.2	56.6	57.5	
71	2020/12/08	14:10:09	57.2	58.7	57.2	55.2	56.0	
76	2020/12/08	14:10:24	59.0	57.4	54.2	53.8	55.9	
81	2020/12/08	14:10:39	57.9	57.5	56.1	56.8	58.8	
86	2020/12/08	14:10:54	59.8	58.9	57.8	57.4	56.3	
91	2020/12/08	14:11:09	57.0	55.8	54.7	58.3	59.7	
96	2020/12/08	14:11:24	61.0	58.8	58.3	61.9	61.8	
101	2020/12/08	14:11:39	60.7	58.9	55.1	53.9	56.5	
106	2020/12/08	14:11:54	57.1	56.8	54.2	51.8	52.3	
111	2020/12/08	14:12:09	52.4	54.2	55.9	57.2	58.7	
116	2020/12/08	14:12:24	57.9	59.3	57.7	55.8	54.5	
121	2020/12/08	14:12:39	53.6	53.7	54.2	54.4	58.4	
126	2020/12/08	14:12:54	57.9	60.3	62.0	60.6	58.3	
131	2020/12/08	14:13:09	55.5	56.9	58.2	58.5	57.8	
136	2020/12/08	14:13:24	56.2	56.5	58.0	57.1	57.2	
141	2020/12/08	14:13:39	58.2	57.4	56.0	56.4	56.4	
146	2020/12/08	14:13:54	56.7	57.3	57.3	60.2	61.1	
151	2020/12/08	14:14:09	60.4	60.0	58.2	55.6	55.2	
156	2020/12/08	14:14:24	55.8	57.4	58.0	58.5	57.9	
161	2020/12/08	14:14:39	60.9	61.3	56.3	54.6	54.6	
166	2020/12/08	14:14:54	55.5	56.3	56.5	57.9	56.5	
171	2020/12/08	14:15:09	55.7	55.8	54.6	54.0	54.7	
176	2020/12/08	14:15:24	54.9	56.3	57.3	60.0	60.8	
181	2020/12/08	14:15:39	63.1	61.5	57.7	55.3	57.0	
186	2020/12/08	14:15:54	56.8	54.3	53.7	54.9	56.4	
191	2020/12/08	14:16:09	56.0	54.7	53.5	52.7	52.2	
196	2020/12/08	14:16:24	52.9	56.3	55.5	55.5	58.1	
201	2020/12/08	14:16:39	59.8	58.2	56.3	54.6	54.5	
206	2020/12/08	14:16:54	54.4	53.7	55.1	57.3	58.8	
211	2020/12/08	14:17:09	60.4	58.3	57.3	56.6	57.2	
216	2020/12/08	14:17:24	56.3	56.5	55.7	54.7	53.7	
221	2020/12/08	14:17:39	52.6	52.2	53.2	54.1	54.1	
226	2020/12/08	14:17:54	56.0	54.9	55.7	57.2	57.6	
231	2020/12/08	14:18:09	60.3	57.0	53.7	54.7	58.0	
236	2020/12/08	14:18:24	58.6	60.5	60.7	58.8	59.1	
241	2020/12/08	14:18:39	59.6	56.7	54.0	53.7	54.9	
246	2020/12/08	14:18:54	57.3	58.9	57.6	55.9	55.4	
251	2020/12/08	14:19:09	56.9	55.3	55.3	56.9	57.3	
256	2020/12/08	14:19:24	55.8	54.6	54.0	53.4	54.6	
261	2020/12/08	14:19:39	56.6	57.1	58.0	57.5	56.2	
266	2020/12/08	14:19:54	56.4	57.3	57.4	60.7	70.6	
271	2020/12/08	14:20:09	77.0	66.9	58.2	54.4	54.4	
276	2020/12/08	14:20:24	53.3	52.1	52.0	54.3	59.7	
281	2020/12/08	14:20:39	59.8	56.1	54.2	55.5	53.2	
286	2020/12/08	14:20:54	52.2	53.2	55.8	56.9	56.7	
291	2020/12/08	14:21:09	59.2	60.1	58.1	56.3	54.2	
296	2020/12/08	14:21:24	55.2	56.3	60.6	66.9	66.9	

**38AUZ/D 50 Hz
Commercial Split Systems
Air Conditioning Condensing Units
18.3 kW to 59.2 kW**



Product Data



C09227

38AUZ07-08 shown



Certified to ISO 9001

Carrier's air-cooled air conditioning split systems:

- provide a logical solution for commercial needs
- have a rugged, dependable construction
- are available in single and circuit scroll compressor capacity control
- have cooling capability up to 52°C (125°F) ambient and down to 2°C (35°F) ambient standard

FEATURES/BENEFITS

These dependable outdoor air cooled condensing units match Carrier's indoor-air handlers to meet a wide selection of cooling solutions.

Constructed for long life

The 38AUZ single circuit and 38AUD dual circuit, scroll compressor models are designed and built to last. The high efficient designed outdoor coil construction allows for a more efficient design in a smaller cabinet size that utilizes an overall reduction in refrigerant charge. Where conditions require, special coil coating coil protection option is available. Cabinets are constructed of prepainted galvanized steel, delivering unparalleled protection from the environment. Inside and outside surfaces are protected to ensure long life, good looks, and reliable operation. Safety controls are used for enhanced system protection and reliability.

Each unit utilizes the Comfort Alert diagnostic and troubleshoot control system. This protects the units operation and provides valuable diagnostic information when required.

Factory-installed options (FIOPs)

Certified and pre-engineered factory-installed options (FIOPs) allow units to be installed in less time, thereby reducing installed cost. FIOPs include:

- low ambient controls which provide cooling operation down to -29°C (-20°F) ambient temperatures
- non-fused disconnect
- special coil coating coil protection
- louvered hail guard

FEATURES AND BENEFITS (cont.)

Efficient operation

These air cooled condensing units will provide EER's up to 12.6 (tested in accordance with ASHRAE 90.1 standards).

This high efficiency will help reduce overall operating cost and energy consumption.

Controls for performance dependability

The 38AU condensing units offer operating controls and components designed for performance dependability. The high efficiency hermetic scroll compressor is engineered for long life and durability. The compressors include vibration isolation for quiet operation. The high-pressure switch protects the entire refrigeration system from abnormally high operating pressures. A low-pressure switch protects the system from loss of charge. These units also include anti-short-cycling protection, which helps to protect the units against compressor failure.

All units include a crankcase heater to eliminate liquid slugging at start-up. Each unit comes standard with the Comfort Alert™ control system. This provides:

- System Go LED indicator
- Fault LED indicator
- Compressor fault LED indicator
- Phase loss protection
- Phase reversal protection
- Safety pressure indicator
- Anti-short cycle protection

Innovative Carrier 40RU packaged air handlers are custom matched to 38AUZ/D condensing units

Information on matching 40RU DX packaged air handler follows for convenience. See separate product data for more details. The 40RU Series has excellent fan performance, efficient direct-expansion (DX) coils, a unique combination of indoor-air quality features, and is easy to install. Its versatility and state-of-the-art features help to ensure economical performance of the split system both now and in the future.

Indoor-air quality (IAQ) features

The unique combination of IAQ features in the 40RU Series air handlers help to ensure that only clean, fresh, conditioned air is delivered to the occupied space.

Direct-expansion (DX) 4 row cooling coils prevent the build-up of humidity in the room, even during part-load conditions.

Standard 2-in. (51mm) disposable filters remove dust and airborne particles from the occupied space for cleaner air.

The pitched, non-corroding drain pan can be adjusted for a right-hand or left-hand connection to suit many applications and provide positive drainage and prevent standing condensate.

The accessory economizer can provide ventilation air to improve indoor-air quality by using demand control ventilation. When used in conjunction with Carrier Comfort System and CO₂ sensors, the economizer admits fresh outdoor air to replace stale, recirculated indoor air.

Economy

The 40RU Series packaged air handlers provide reduced installation expense and energy-efficient performance.

Quick installation is ensured by the multipoise design. Units can be installed in either the horizontal or vertical configuration without modifications. Fan motors and contactors are pre-wired and thermostatic expansion valves (TXVs) are factory-installed on all 40RU models.

High efficiency, precision-balanced fans minimize air turbulence, surging, and unbalanced operation, cutting operation expenses.

The economizer accessory precisely controls the blend of outdoor air and room air to achieve comfort levels. When the outside air enthalpy is suitable, outside air dampers can fully open to provide “free” cooling without energizing mechanical cooling.

Rugged dependability

The 40RU series units are made to last. The die-formed galvanized steel panels ensure structural integrity under all operating conditions. Galvanized steel fan housings are securely mounted to a die-formed galvanized steel fan deck.

Rugged pillow-block bearings (40RU14) are securely fastened to the solid steel fan shaft with split collets and clamp locking devices. Smaller unit sizes have spider-type bearings.

Coil flexibility

Model 40RU direct-expansion coils have galvanized steel casings; inlet and outlet connections are on the same end. The coils are designed for use with Puron (R-410A) refrigerant and have 3/8-in. diameter copper tubes mechanically bonded to aluminum sine-wave fins. The coils include matched, factory-installed thermostatic expansion valves (TXVs) with matching distributor nozzles and offers a removable power element and extended connections.

Easier installation and service

The multipoise design and component layout ensures quick unit installation and operation. Units can be converted from horizontal to vertical operation by simply repositioning the unit. Drain pan connections are duplicated on both sides of the unit. The filters, motor, drive, TXVs, and coil connections are all easily accessed by removing a single side panel.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3	8	A	U	Z	A	0	7	A	0	A	9	-	0	A	0	A	0

Model Type

Commercial Air Cooled Cond. Unit
Puron® R-410A Refrigerant

Type of Coil

D = Dual Circuit
Z = Single Circuit

Refrigerant Options

A = Standard
B = Low Ambient Controls

Nominal Tonnage

07 = 18.3 kW (5.2 Tons)
08 = 23.2 kW (6.6 Tons)
12 = 29.1 kW (8.3 Tons)
14 = 35.2 kW (10.0 Tons)
16 = 45.8 kW (13.0 Tons)
25 = 59.2 kW (16.8 Tons)

Factory Assigned

A = Default

Factory Assigned

0 = Default

Brand / Packaging

0 = Standard
1 = LTL

Electrical Options

A = None
C = Non-Fused Disconnect

Service Options

0 = None

Factory Assigned

A = Default

Base Unit Controls

0 = Standard Electro-Mechanical Controls

Design Rev

- = Factory Assigned

Voltage

9 = 400-3-50

38AU

Coil Options (Condenser)

With Round Tube/Plate Fin Design

All models except 14 size (12.5 Ton)

- A = Al/Cu Standard
- B = Pre Coat Al/Cu
- C = E-Coat Al/Cu
- E = Cu/Cu
- M = Al/Cu Standard with louvered hail guard
- N = Pre Coat Al/Cu with louvered hail guard
- P = E-Coat Al/Cu with louvered hail guard
- R = Cu/Cu - Louvered hail guard

Coil Options (Condenser)

With All Aluminum - NOVATION Design (07-16 sizes)

- G = Al/Al Standard
- K = E-Coat Al/Al
- T = Al/Al with louvered hail guard
- W = E-Coat Al/Al with louvered hail guard

AHRI CAPACITY RATINGS

UNIT	COOLING STAGES	NOM. CAPACITY (TONS)	NET COOLING CAPACITY (MBH)	TOTAL POWER (kW)	EER
38AUZ07/40RU07	1	5	62.7	5.1	12.2
38AUZ08/40RU08	1	6.3	79.3	6.9	11.5
38AUD12/40RU12	2	8.3	103.0	8.2	12.6
38AUD14/40RU14	2	10.4	125.0	10.9	11.5
38AUD16/40RU16	2	12.5	162.0	13.5	12.0
38AUD25/40RU25	2	16.7	202.2	16.6	12.2

LEGEND

- AHRI – Air Conditioning, Heating and Refrigeration Institute
 ASHRAE – American Society of Heating, Refrigerating and Air Conditioning, Inc.
 EER – Energy Efficiency Ratio
 IEER – Integrated Energy Efficiency Ratio

NOTES

- Rated in accordance with AHRI Standard 340/360, as appropriate.
- Ratings are based on:
Cooling Standard: 27°C (80°F) db, 19°C (67°F) wb indoor air temp and 35°C (95°F) db outdoor air temp.
- All units comply with ASHRAE 90.1 Energy Standard for minimum EER and IEER requirements.

38AU

SOUND POWER LEVELS, dB

UNIT	COOLING STAGES	OUTDOOR SOUND (dB)								
		A-WEIGHTED	63	125	250	500	1000	2000	4000	8000
NOVATION – All Aluminum Coil Design										
38AUZ07	1	82	78.7	91.2	84.4	79.7	76.9	73.5	71.9	67.5
38AUZ08	1	81	81.7	89.7	82.6	77.6	74.4	70.3	68.0	64.2
38AUD12	2	78	79.2	81.1	78.4	75.0	72.9	68.2	66.4	68.2
38AUD14	2	79	76.2	78.6	78.1	75.1	75.2	71.4	67.9	65.1
38AUD16	2	80	90.3	81.8	78.0	76.7	75.2	70.5	66.4	61.9
RTPF – Round Tube/Plate Fin Coil Design										
38AUZ07	1	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUZ08	1	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUD12	2	80	76.0	79.9	79.8	77.4	75.6	69.8	67.8	66.4
38AUD16	2	83	86.7	81.2	78.9	80.4	78.0	74.2	70.2	65.0
38AUD25	2	85	91.0	85.0	80.0	86.0	79.0	73.0	68.0	63.0

NOTE: Outdoor sound data is measure in accordance with AHRI standard 270–2008.

LEGEND:

dB = Decibel

3M™ Wireless Communication System Model XT-1

Technical Data

3M Wireless Communications System Model XT-1's Night Volume feature to comply with City Decibel Level output ordinance.

With the concern over environmental noise today, many communities restrict the audio level of drive-thru intercom systems during normal day-time business hours and for business operations during night time. Usually, this audio level is specified to be below some number at the property line.

Audio levels are measured in terms of "Sound Pressure Level" with the unit of change being the "Decibel". For example, the city of South Plainfield, NJ requires that sound levels not exceed 65 decibels SPL (sound pressure level) in an industrial area. Taking this into consideration, 3M intercom systems provide an adjustable menu speaker volume to assure compliance with city sound ordinances.

The 3M XT-1 Intercom System can be adjusted at installation to produce an audio sound pressure level of 65 decibels (*) at a distance of 4 feet on axis to the center of the speaker. It is VERY easy for the installation company to verify this reading using an Audio dB meter (set to A weighing, slow response). Please note that sound diminishes at the rate of 6 decibels every time the distance from the sound source is doubled. So, at a distance of 8 feet, the level is 59 decibels, at 16 feet it is 53 decibels and so on.

The 3M XT-1 Intercom System also provides an AUTOMATIC reduction of sound volume for night time operation to maintain compliance with cities that require lower operating sound levels after normal business hours. This feature assures compliance 24 hours a day.

To give you a reference of comparative audio levels, please peruse the attached list of typical sound levels. Be aware that acoustic barriers (shrubby, trees, fences, walls, etc) will reduce the distance faster than shown in the chart.

(* These level measurements assume the use of recommended 3M components.)



Building and Commercial Services Division

St. Paul, MN 55144-1000

1-800-328-0033

www.3M.com/XT1

3M is a trademark of 3M.

© 3M 2011. All rights reserved.
1209 DMR

Table of Sound Levels and Corresponding Sound Pressure and Sound Intensity

To get a feel for decibels, look at the table below which gives values for the sound pressure levels of common sounds in our environment. Also shown are the corresponding sound pressures and sound intensities.

From these, you can see that the decibel scale gives numbers in a much more manageable range.

Chart of sound levels L and corresponding sound pressure and sound intensity			
Examples	Sound Pressure Level dB SPL	Sound Pressure p N/m² = Pa	Sound Intensity I watts/m²
Jet aircraft, 50 m away	140	200	100
Threshold of pain	130	63.2	10
Threshold of discomfort	120	20	1
Chainsaw 1m distance	110	6.3	0.1
Disco, 1 m from speaker	100	2	0.01
Diesel truck, 10 m away	90	0.63	0.001
Curbside of busy road, 5 m	80	0.2	0.0001
Vacuum cleaner, distance 1 m	70	0.063	0.00001
Conversational speech, 1m	60	0.02	0.000001
Average home	50	0.0063	1E-07
Quiet library	40	0.002	1E-08
Quiet bedroom at night	30	0.00063	1E-09
Background in TV studio	20	0.0002	1E-10
Rustling leaf	10	0.000063	1E-11
Threshold of hearing	0	0.00002	1E-12



Building and Commercial Services Division

St. Paul, MN 55144-1000

1-800-328-0033

www.3M.com/XT1

3M is a trademark of 3M.

© 3M 2011. All rights reserved.

1209 DMR

A given sound pressure level L_p in dBSPL without the distance of the measurement to the specific sound source is useless.

The reference for 0 dBSPL sound pressure level is $p = 20 \mu\text{Pa} = 2 * 10^{-5}$ pascal, the threshold of hearing.

The sound pressure level decreases in the free field with 6dB per distance doubling.

That is the 1/r law.

Often it is argued the sound pressure would decrease after the $1/r^2$ law (inverse square law).

That is wrong.

The sound pressure in a free field is inversely proportional to the distance from the mic to the source.

$p \sim 1/r$

Distance From Menu Post	3M Intercom SPL (dB)
4'	65
8'	59
16'	53
32'	47
64'	41
128'	35
256'	29
512'	23
1024'	17
2048'	11
4096'	5

Note: 20 dB is approximately the threshold of hearing. This occurs at approximately 700 feet from the speaker post in a very QUIET environment. In an environment of average traffic noise, a 35 dB limit is virtually inaudible and should be considered the practical limit. This occurs at approximately 125 feet from the speaker post.



Building and Commercial Services Division

St. Paul, MN 55144-1000

1-800-328-0033

www.3M.com/XT1

3M is a trademark of 3M.

© 3M 2011. All rights reserved.

1209 DMR

P D Q L A S E R W A S H S E R I E S

LASERWASH[®] 360

LASERWASH

SMART 360[™]
TECHNOLOGY

Touch-Free In-Bay Automatic Vehicle Wash System

 **PDQ[®]**

VEHICLE WASH SYSTEMS

PART OF OPW A DOVER COMPANY



PERFORMANCE, DEPENDABILITY AND QUALITY

With more than 10,000 LaserWashes shipped worldwide, PDQ Manufacturing, Inc., takes great pride in being the leader in the in-bay automatic vehicle wash industry. We are dedicated to providing wash operators with the most innovative equipment that exemplifies our tradition of **Performance, Dependability and Quality**. The new LaserWash® 360 raises the standard again with new revenue-enhancement features and total cost-of-ownership improvements that offers wash operators the opportunity to realize the industry's highest return on investment.



Simplified engineering and high-quality materials provide the optimal balance between initial investment and long-term profitability. Substantially faster wash speeds increase vehicle throughput, resulting in shorter wash lines that will delight your customers and keep them coming back again and again. Smart 360™ Technology enables the LaserWash® 360 to be highly responsive to dynamic conditions in the wash bay, minimizing downtime and optimizing the wash process, resulting in higher customer satisfaction and repeat business.

E-Chain

Left or right mounted energy chain for easy and low-cost installation



Slip-Free Belt Drive

Bridge and trolley movements are controlled using slip-free drive belts for improved performance and wash accuracy. Less moving parts provide a much simpler drive system.



Rollers Inside

Bridge and trolley movements are smooth and effortless using internally mounted dual-axis rollers. The hanging design enhances self-centering and improved roller life by protecting the rollers from the harsh wash environment.



The LaserWash® 360's simple but sophisticated feature set provides exceptional chemical application and coverage with rounded corner profiling, Smart Dwell® chemical deployment and articulating arch functions that allow the system to cover the backs of side mirrors. The new arch-oscillation feature aggressively attacks bugs on the front of vehicles from multiple angles for superior bug removal and cleaning in areas with even the most difficult deposits. With more than 1,000 PSI (70 BAR) water pressure, the LaserWash® 360 supplies the necessary impingement to remove stubborn dirt and debris in even the most hard-to-reach areas of the vehicle. The LaserWash® 360 allows you to store and readily access your preferred or seasonal wash packages, customize wash services and adjust wash speeds in an infinite set of combinations. This functionality provides site operators with the ultimate programmable wash system for fast, consistent cleaning and exceptional performance.



Revenue Enhancing Services

The LaserWash® 360 offers significantly faster wash speeds that minimizes your customer's valuable time at the site. Unlimited wash-package configurations and multiple service offerings allows you to provide customers a full array of choices that satisfy even their most discriminating needs. New up-sellable features include front bug prep for superior bug removal, dedicated super sealants and FlashDry® rinse options that offer a choice of multiple drying configurations. These innovative services delight your customers with the ultimate washing experience, and they will leave your site with the cleanest, shiniest and driest vehicle possible, one that they will be proud to drive.



Turn Your Wash into a Glowing Success

Put the Shine back into your profits with the OverGlow Hi-Gloss Application System. Not only will your customers love their shiny vehicle, you will love the extra revenue this product is capable of generating. Your customers will enjoy the look of a colorful, thick sheet of solution draping their vehicle. The OverGlow system includes strategically located bright LED lights that will further enhance the customer experience, ensuring excitement as well as performance.



Increased service offerings include undercarriage, OverGlow, triple foam, bug prep, super sealant and more.



Lower Cost of Ownership

As car wash operating costs continue to rise, operators are taking a much closer look at reducing electrical, water, chemical and maintenance costs to better compete and improve their profitability. The LaserWash® 360 was designed with this in mind: minimizing water requirements, reducing electrical consumption through the incorporation of variable-frequency drives and lowering chemical usage that allows the savings to drop down to the bottom line. Smart 360™ Technology dramatically reduces the need for site attendants to intervene with the wash process allowing them to focus on more important tasks.

A “keep-it-simple” design goal minimizes the need for sensors, grease fittings, swivels and valves, while the use of common electrical components throughout the system allows easier troubleshooting, minimizes regular maintenance costs and delivers consistent high-quality cleaning. Additionally, the LaserWash® 360 is built using only the best in non-corrosive materials, providing operators a rugged machine that will deliver a long, reliable life of revenue generation.

Vehicle Positioning

One of PDQ's most recognizable innovations is the unparalleled Virtual Treadle®. This electronic vehicle-sensing technology eliminates drive-on floor-mounted mechanisms, creating a wide open and inviting bay for your customers. The Virtual Treadle process begins as the vehicle enters the wash bay. Ultrasonic sensors accurately measure the vehicle's width, and bridge sensors signal the driver to stop or back up, by activating easy to understand audible LED signs. The wash system is then activated with an electronic safety envelope surrounding the entire vehicle, allowing the LaserWash® 360 to maintain an optimum cleaning distance whether the vehicle is parked to one side or angled in the wash bay.

Virtual Treadle Loading

The totally integrated loading system provides consumers with simple entry into the wash without the hassles of treadles, guide rails or hanging tee-bars.



LASERGLLOW

ILLUMINATION EFFECT SYSTEM



Get Your Wash Noticed... Not only will the LaserGlow System help improve your customer flow, it can also be configured to work for you 24/7/365 by illuminating your wash bay day and night whether there is a vehicle in your bay or not. The system can be programmed to display multiple color combinations of flashing patterns, or constant colored illumination that matches your brand image. A glow from your wash bay can be a highly effective marketing tool to draw more attention to your wash site encouraging consumers to take notice and keep your existing customers coming back again and again.

Available on new equipment or as a retrofit kit for installed LaserWash 360's



The ultra-sophisticated LaserWash® 360 Arch Control System drives quicker throughput and amazes customers with its precise movements throughout the entire wash process. The arch is able to rotate 360 degrees while simultaneously navigating around the vehicle. The Automatic Obstacle Guidance System uses advanced technology to locate obstacles such as trailer hitches, side mirrors and other obstacles that may restrict the wash arch from properly traveling around the perimeter of the vehicle. The arch will move away from the obstacle, record the position of the obstacle to avoid it on subsequent passes and continue washing the vehicle. If the wash arch cannot avoid an obstacle it will attempt to fully retract, rinse off any solution using the overhead rain arch and prompt the customer to exit the bay. After the vehicle has exited and the bay is clear the machine will automatically reset in preparation for the next vehicle.



STEP 1
Move away from the obstacle.

STEP 2
Automatically back off to safely pass around the obstacle.

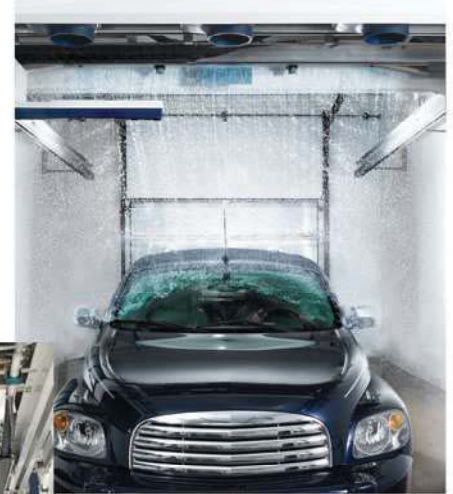
STEP 3
Continue wash process and record position to avoid obstacle on the next pass.



This ensures the safest and most effective wash for all vehicle configurations. The three-axis arch movement provides rounded corner profiling that produces consistent and effective coverage by keeping the nozzles directed at the vehicle no matter which position the arch is in, a capability that sets a new, unmatched standard in the industry. No more chemicals or water sprayed on the floor! The Smart 360™ arch control makes every second productive – corner profiling eliminates wasted movement and the wash time at each corner is reduced by 60%.



PDQ's LaserWash® 360 integrated dryer option can be coupled with the unique FlashDry® High-Volume Spot-Free Rinse service. FlashDry® requires no additional time for a basic dry by completing the rinse and dry cycles in a single, simultaneous operation. Developed on the principal that it is easier to remove water that is already in motion, FlashDry® technology simultaneously rinses and removes more than 80% of the water in a single 10-second pass. Additional dryer options include a MaxAir® Stand-Alone Dryer, or the ability to use the integrated dryer as a drive-through dryer unit as the customer exits the wash bay. These options allow greater package differentiation, giving operators the ability to up-sell customers for increased revenue and profitability.



Integrated SwingAir Producers



SwingAir Synchronized Motion Drying System

Your customers will enjoy drier vehicles with PDQ's new SwingAir Synchronized Motion Drying System. The enhanced SwingAir oscillating feature improves dryer performance while still using less energy than most conventional dryers. This new system incorporates motion in the center two producers to help sweep water off of the vehicle's top surface, allowing the two outside producers to focus on pushing water down and off the sides of the vehicle. The SwingAir feature is available on both stand-alone and integrated MaxAir® drying systems.



The LaserWash® 360 wash control system uses a web browser interface, which allows you to access all key operating functions of the wash equipment through your web browser without any special software. Additionally, you can configure wash packages, program machine functions and monitor sales activity remotely over the Internet, getting real-time information and eliminating unnecessary visits to your wash sites. The LaserWash® 360 can also be programmed to automatically send alerts to your PC, Tablet or Smartphone to let you know if your wash is down or to provide status updates on critical issues that may be occurring at your wash locations. This capability keeps you in touch with all of your sites from anywhere at anytime.



LaserWash® 360 Features:

Standard Machine Features:

Standard Machine Includes: LaserWash® 360, Corrosion-Resistant Bridge & Trolley, Smart 360™ Technology (with: Smart Networking, Smart Dwell®, Smart Arch Control, Smart Drying System and Smart Cleaning System), Automatic Obstacle Guidance, SST Wall Mounts, Aluminum Rails, Virtual Treadle, Electrical Control Panels, Basic LED In-Bay Sign, General Pump



Scan this QR code with your Smartphone and view the LaserWash® 360 video

Options:

- CAT 3535 Pump
- Water Heater
- Second/Third Pressure Fed Inlet
- Water Saver Package
- In-Bay Pump Station Covers
- 2 or 4 Nozzle Integrated Dryer
- MaxAir® Stand Alone Dryer
- SwingAir Synchronized Motion Drying System
- LED Service Confirmation Sign
- LED Entrance Sign
- LaserGlow Illumination Effect System
- High Pressure Undercarriage
- Extended Solution Package
- 3X Color Foam
- Booster Pump for Low Pressure Sites
- Dedicated Super Sealant Manifold
- Dedicated Front Bug Prep Manifold
- Rust Inhibitor
- Wheel Cleaner
- High Volume Rinse Arch
- Electric High Pressure Gatling Guns
- Free Standing Frame
- Spot Free Rinse Application
- Water Reclaim Systems
- Storage Tanks
- Wash Activation Entry Terminals
- Cortex Site Management Software
- WALs Loyalty Program

LaserWash® 360 Specifications

Building Requirements

Height	Wall Mount	10'-6" Minimum (3.20 m)
	Frame Mount	10'-8" (3.28 m)
Width	Wall Mount	13'-6" Minimum to 18'-0" Maximum (4.11 to 5.49 m)
	Frame Mount	13'-6" Minimum (w/o integrated dryer) (4.11 m)
Length	Wall Mount	14'-1" Minimum (w/integrated dryer) (4.28 m)
	Frame Mount	28'-4" (full length rails)** (8.64 m)
		29'-7" (full length rails)** (9.02 m)

Note: Equipment dimension specifications do not take into consideration any obstructions, unusual wash bay configurations, etc. **Rails can be cut to length for shorter bays.

Utility Requirements

Air	1.5 SCFM @ 90 psi (6.21 Bar)
Water	38 GPM (143.8 LPM) @ 30 psi (2.07 Bar) - Direct Feed
	19 GPM (71.9 LPM) @ 10 psi (0.69 Bar) - Low Flow Tank Feed
Electrical	3-Phase, 50/60 Hz

Electrical Requirements

Voltage	Pump Station	Water Heater	Bridge	Dryer Power Feed #1	Dryer Power Feed #2
208/230	90/85 Amps	28/25 Amps	20 Amps	44/41 Amps	44/41 Amps
380	60 Amps	25 Amps	20 Amps	15 Amps	15 Amps
460	40 Amps	208/230V - 28/25 Amps	208/230V - 20 Amps	21 Amps	21 Amps
575	30 Amps	208/230V - 33/30 Amps	208/230V - 20 Amps	17 Amps	17 Amps

Drying Options

30 HP Integrated 4 – Producer MaxAir® Dryer (FlashDry Ready)	(208/230/380/460/575V 60 Hz)	(220/380V 50Hz)
15 HP Integrated 2 – Producer MaxAir® Dryer (FlashDry Ready)	(208/230/380/460/575V 60 Hz)	(220/380V 50 Hz)
30 HP Stand Alone 4 – Producer MaxAir® Dryer	(208/230/380/460/575V 60 Hz)	(220/380V 50Hz)
45 HP Stand Alone 6 – Producer MaxAir® Dryer	(208/230/380/460/575V 60 Hz)	(220/380V 50 Hz)

PDQ reserves the right to revise designs, add or delete features and change specifications at any time without notice or obligation.

Feel comfortable in your decision to purchase PDQ Equipment. We are proud to be part of **DOVER CORPORATION** A Fortune 500 Company.



PDQ Manufacturing, Inc. 1698 Scheuring Rd. De Pere, WI 54115 USA (920) 983-8333 1-800-227-3373 www.pdqinc.com

MADE IN THE USA

Copyright © 2010 PDQ Manufacturing, Inc.

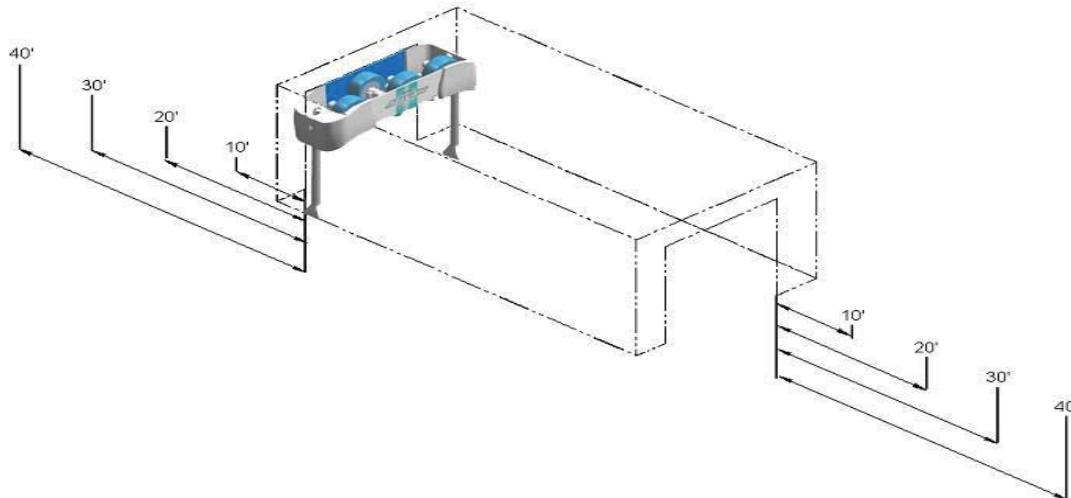
PDQ LaserWash 360 Integrated Dryer Decibel Reading

Below is the test data and associated decibel readings of the PDQ LaserWash 360 with 4 On-Board dryers, with and without doors, on the carwash bay.

DOOR OPEN/CLOSED	ENTRANCE/EXIT	dBA AT DISTANCE FROM DOOR OPENING			
		0' (3.04M)	05' (6.09M)	10' (9.14M)	20' (12.19M)
DOOR OPEN	ENTRANCE	90	87	82	76
	EXIT	92	88	84	78
DOOR CLOSED	ENTRANCE	77	73	70	67
	EXIT	79	75	72	69

Bay Dimensions: 12' (3.65M) H x 15' (4.57M) W x 50' (15.24M) L

Building Materials: Modular steel building with fiberglass lined inner walls; Glass windows on right side



Note: The actual sound level will vary depending on factors including but not limited to the location of the carwash site, type of building, materials used for the site, and size of the building.



EQUIPMENT DECIBEL CERTIFICATION

This is to certify that the following AutoVAC equipment was measured with the following decibel levels of noise emission (+/- 2dB) in accordance with ISO 2151:2004. These ratings are taken at 15 feet from the machine with no background noise or outside interference in a 50 x 50ft interior room.

VACUUM PRODUCER					
HORESPOWER	STAGE	START/RUN dB WITH VFD	START dB NO VFD	SERIAL NO	PASS/FAIL
10	3	64	84		
15	4	66	88		
20	5	66	88		
25	6	72	92		
30	7	74	92		
40	8	76	95		

BLOWER				
HORESPOWER	START/RUN dB WITH VFD	START dB NO VFD	SERIAL NO	PASS/FAIL
15	72	85		

Equipment Used to measure decibel levels

EQUIPMENT	MANUFACTURER	MODEL NO	SERIAL NO
Sound Level Meter	Extech Instruments	407730	9848853

Certified By: _____ Date: _____

This certificate does not claim product approval or endorsement by NVLAP, NIST or any agency of the Federal Government. If you have any further questions, please contact AutoVAC at our toll free number 888-628-8682.



**** Receptor #3 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Kelly's Beach	Residential	65.0	60.0	55.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	800.0	0.0
Excavator	No	40		80.7	800.0	0.0
Grader	No	40	85.0		800.0	0.0

Results

Equipment	Calculated (dBA)	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
		Day		Evening		Night		Day		Evening		Night	
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	57.6 53.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	56.6 52.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	60.9 56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.9 59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #4 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Residents to the south	Residential	65.0	60.0	55.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1000.0	0.0
Excavator	No	40		80.7	1000.0	0.0
Grader	No	40	85.0		1000.0	0.0

Results															
Equipment	Calculated (dBA)	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Day		Evening		Night		Day		Evening		Night			
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Dozer	55.6	51.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.7	50.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.0	55.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.0	57.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #5 ****

Baselines (dBA)

