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ENGINEERING, SURVEYING & PLANNING NATURAL RESOURCE SERVICES, GIS



TRAFFIC IMPACT STUDY JC RANCHES AND IRISH ACRES SUBDIVISIONS

SECTION 10, TOWNSHIP 5 NORTH, RANGE 45 EAST, TETON COUNTY, ID



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INTRODUCTION AND SUMMARY

PURPOSE OF REPORT AND STUDY OBJECTIVES

The purpose of this Traffic Impact Study (TIS) is to assess the effects of generated traffic from two separate, but closely located, subdivisions in Teton County, Idaho. The objectives are to:

- Quantify existing traffic and provide reasonable traffic projections in the study area.
- Provide reasonable traffic generation rates and assignments to be generated from the proposed development.
- Assess whether the proposed development has a significant detrimental impact on the existing transportation infrastructure.
- Provide solutions if detrimental impact is predicted due to the proposed development.

EXECUTIVE SUMMARY

SITE LOCATION AND STUDY AREA

The project location includes two subdivisions that are proposed in Teton County, ID. The first subdivision is the JC Ranches Subdivision. This proposed subdivision is situated on an 80-acre parcel. The parcel identification number (PID) is RP05N45E101000. Please see Figure 1 for the aerial view of the parcel from the Teton County GIS server.

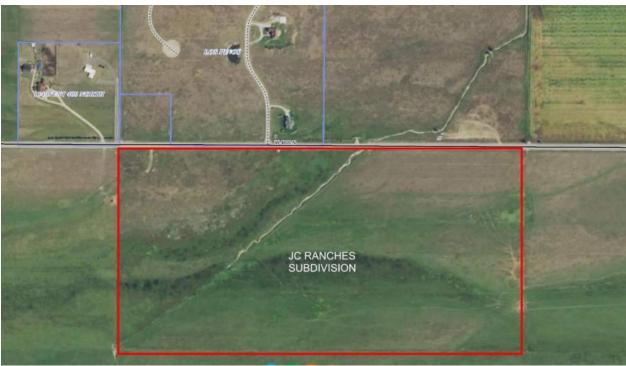


Figure 1: JC Ranches Aerial View

The Irish Acres Subdivision is proposed to be developed on the 40-acre parcel #, both in SEC 10 TWP 5N RNG 45E, Teton County, Idaho. The PID is RP05N45E103300. Please see Figure 2 for the aerial view of the parcel from the Teton County GIS server. There is a 40 acre parcel that separates JC Ranches and Irish Acres.



Figure 2: Irish Acres Aerial View

To the west, south, and east of the property lines, the land is undeveloped pasture. The north side of the properties is bordered by County Road W 4000 N. There is another subdivision across the road to the north, Los Pinos, that has already been subdivided and it appears that some of the lots have been developed. There are also single lots to the north, some of which are developed, and some are vacant.

DEVELOPMENT DESCRIPTION

Both project properties are located within the Agricultural/Rural Residential -2.5 – Acre Min. Lot Size Zoning. Both applicants are applying for singe residence subdivisions with the following details:

JC Ranches is situated on an 80-acre parcel and there are 26 proposed lots. The lots range in size from 2.51 up to 6.46 acres. One lot (Lot 17) is proposed to be dedicated to a fire pond and plantings. So, 25 of the 26 lots will be developed for single family residence. The subdivision will have two accesses to the north onto County Road W 4000 N. This subdivision has an irrigation canal that runs from northeast to southwest across the property, separating the east and west portions of the proposed development.

The Irish Acres subdivision has 10 proposed lots on the 40-acre parcel. Four of the 10 lots are approximately 2.5 acres and the remaining six are about 5 acres in size. Two accesses are proposed for the subdivision. One is on the north side and ties into W. 4000 N. The other access ties into the N 2000 W county road on the west side of the subdivision. There is also an additional internal road and there are two 100' diameter cul-de-sacs within the subdivision to allow for emergency vehicle turnarounds.

Each developed lot in these subdivisions was analyzed for generated traffic from a single-family home as well as an additional dwelling which may be used as a guest/vacation house.

PRINCIPAL FINDINGS

Based on our analyses, the potential traffic generated by the proposed subdivisions will have no significant impact at the W 4000 N intersection at Idaho State Highway 33. It was also found that the proposed accesses onto County roads does not have a significant effect on the Level of Service (LOS) on W 4000 N or N 2000 W.

CONCLUSIONS

Capacity analysis suggests that -<u>if current background traffic growth rates continue</u> - the level of service at the W 4000 N intersection will degrade from level of service "B" to "E/F" over the coming 20 years. This is not due to the addition of these subdivisions alone, but to the extensive growth and development throughout Teton County, Idaho.

RECOMMENDATIONS

It is recommended that area road agencies continue to monitor the intersection for compliance with MUTCD signal warrants.

PROPOSED DEVELOPMENT

OFF-SITE DEVELOPMENT

The project site is located in between Tetonia and Driggs, Idaho. Tetonia is located approximately 2.5 miles northwest of the proposed subdivisions. Driggs is located just under 4 miles to the southeast. This area has been seeing substantial growth over the last several years, with an average population growth rate of 2.2% from 2012 to 2022¹. Most years saw growth between 2-5% with the only exception being 2020 which saw a loss of 3%, presumably due to Covid.

1. <u>https://usafacts.org/data/topics/people-society/population-and-demographics/our-changing-population/state/idaho/county/teton-county/?endDate=2022-01-01&startDate=2012-01-01</u>

Also, many of the rural, undeveloped parcels are being subdivided in between the municipalities. Below is an excerpt of the proposed subdivisions in the area according to the Teton County GIS.

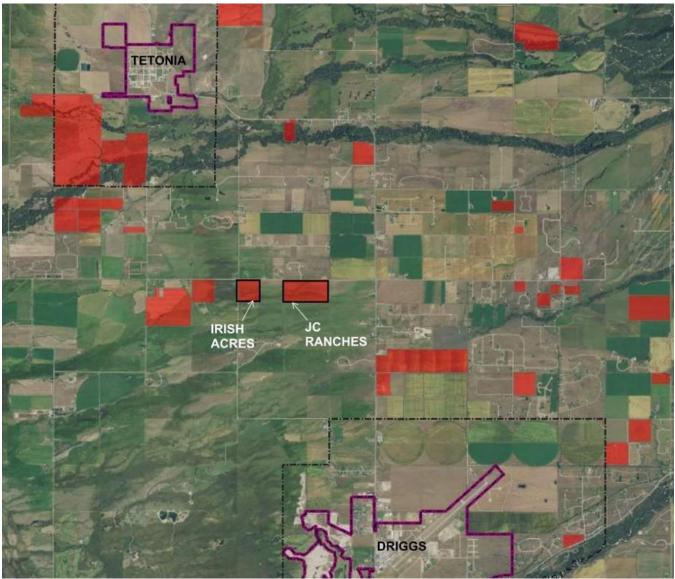


Figure 3: Area Development Between Driggs and Tetonia (Proposed Subdivisions in Red)

Traffic counts have shown growth rates from 3-5% on roads in the vicinity. Due to these trends and coming development, an annual traffic growth rate of 4% was assigned for the study horizon in this TIS.

DESCRIPTION OF ON-SITE DEVELOPMENT

Proposed development for both subdivisions is single family lots ranging in size from just over 2.5 acres up to 10 acres.

LAND USE AND DENSITY

The conceptual plan for this project was submitted and reviewed by Teton County prior to the zoning changes implemented in August of 2022. The project site zoning is Agricultural/Rural Residential with a minimum lot size of 2.5 acres. Prior to the zoning change in 2022, the land area between Driggs and Tetonia was zoned for the 2.5 minimum acre lot size or Agriculture with a minimum of 20 acre lot size.

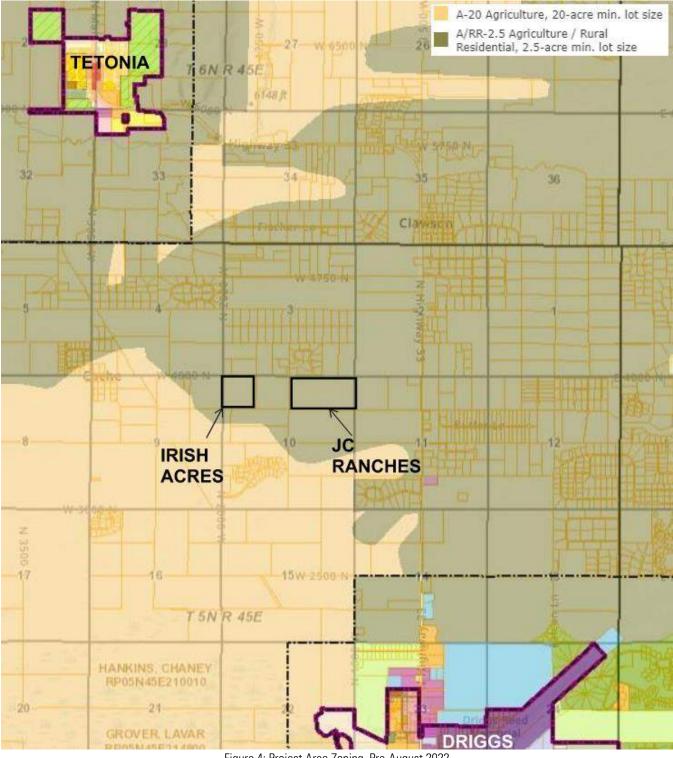


Figure 4: Project Area Zoning, Pre-August 2022

Post-August 2022, the zoning in Teton County changed in the project area. Please see Figure 5 for the updated zoning denisties. The area in between Tetonia and Driggs will allow for 5 acre lots in the Rural Neighborhood and 35 acre lots in the Lowland Agricultural zoning. With this new zoning, growth in the area will decrease as the 2.5 acre lot density will no longer be allowed.

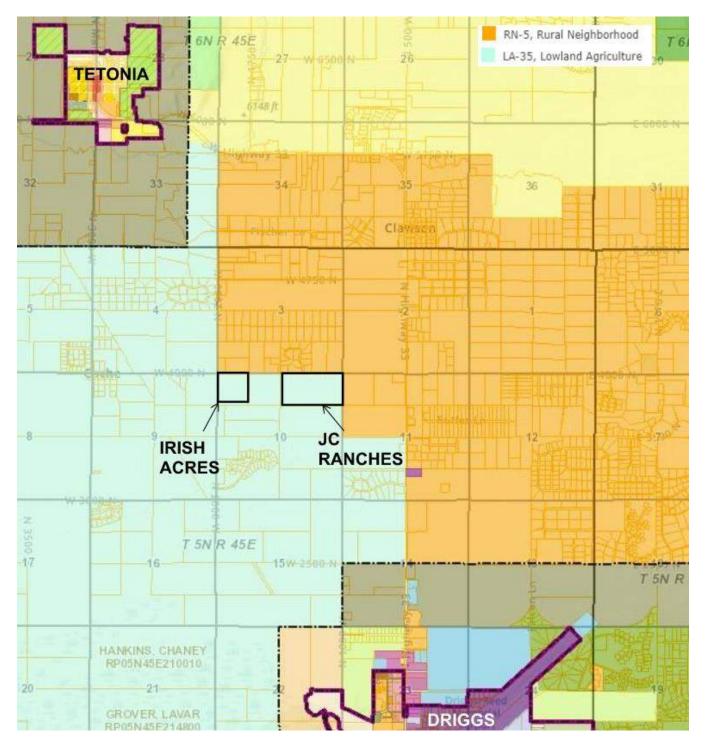


Figure 5: Project Area Zoning, Post-August 2022

LOCATION

By Road:The proposed subdivisions are located on the south side of Teton County Road W 4000 N. JC Ranches is approximately 3/4 mile west of Idaho State Highway 33, and Irish Acres is approximately 1 ¹/₄ miles west. The project location is approximately four miles north of downtown Driggs, Idaho.

By Lat-Long: JC Ranches is at Latitude: North 43° 46′ 45″, Longitude: West 111° 07′ 33″ and Irish Acres is at Latitude: North 43° 46′ 45″, Longitude: West 111° 08′ 18″.

By Township and Range: JC Ranches is in the North ½ of the NE ¼ and Irish Acres is in the NW ¼ of the NW ¼ of Section 10, Township 5 North Range 45 East, in Teton County, Idaho.

SITE PLAN

Size: JC Ranches is ½-mile east-west by ¼-mile north-south, encompassing about 80 Acres. Irish Acres is ¼ mile by ¼ mile, encompassing about 40 acres.

Physical Description: The properties are currently grass/rangeland at approximately 6100 feet in elevation. A surface drain crosses from northeast to southwest across JC Ranches, there are no distinguishing features in Irish Acres.

Please see the following figures for the subdivision site plans with proposed roads and accesses.

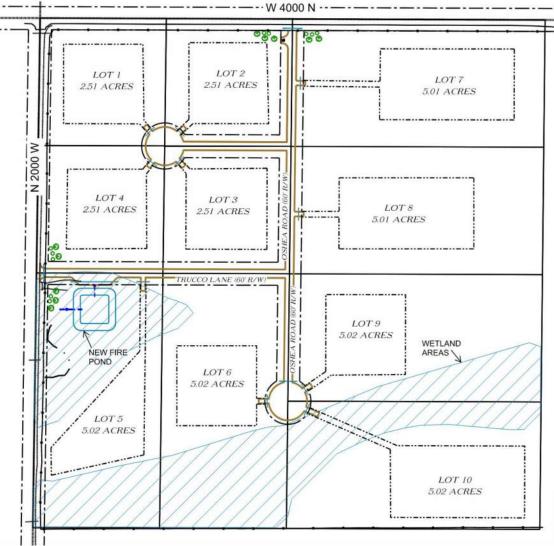


Figure 6: Irish Acres Site Plan

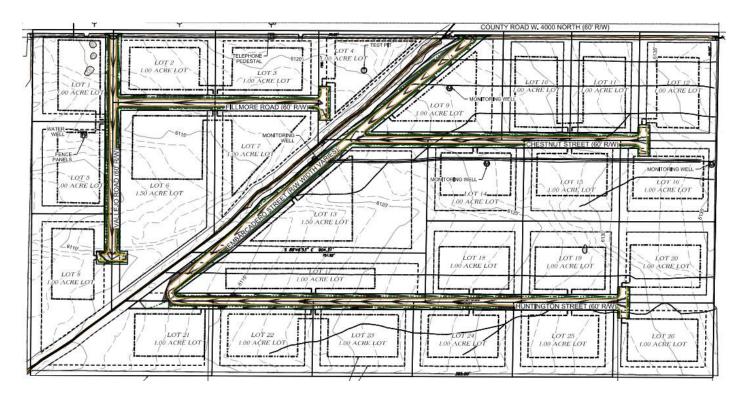


Figure 7: JC Ranches Site Plan

AREA CONDITIONS

STUDY AREA

AREA OF SIGNIFICANT TRAFFIC IMPACT

The most significant impact will be on the intersection on SH 33 and W 4000 N, since the majority of the traffic generated will pass through that intersection. The intersection of N 2000 W and W 2000 N will also be impacted, but to a lesser extent. There are no other existing intersections within a mile of the subdivisions. The effect of the new subdivisions from their respective roads on W 2000 N will be examined as well.

STUDY AREA LAND USE

EXISTING LAND USES/ZONING

The current project site use/zoning is Agricultural/Rural Residential.

ANTICIPATED FUTURE DEVELOPMENT

It is anticipated that there will be further subdivisions developed in the area.

SITE ACCESSIBILITY

AREA ROADWAY SYSTEM

EXISTING

- Teton County Road W 4000 N is an East-West asphalt road with two 11-foot travel lanes and four-foot shoulders along the northern boundary of the proposed subdivisions. W 4000 N is under STOP control at the SH 33 intersection.
- Idaho SH 33 is an asphalt road with two 12-foot travel lanes and 4-foot shoulders. Approaching W 4000 N, State Highway 33 flares to thirty-six feet wide, with left-turn, through and right-turn lanes. Right turn bays are 250 feet long, and left turn bays are five hundred feet long.
- Teton County Road N 2000 W is a North-South gravel road nominally twenty-one feet wide without shoulders along the western boundary of the Irish Acres parcel. N 2000 W is under STOP control at the W 4000 N intersection.

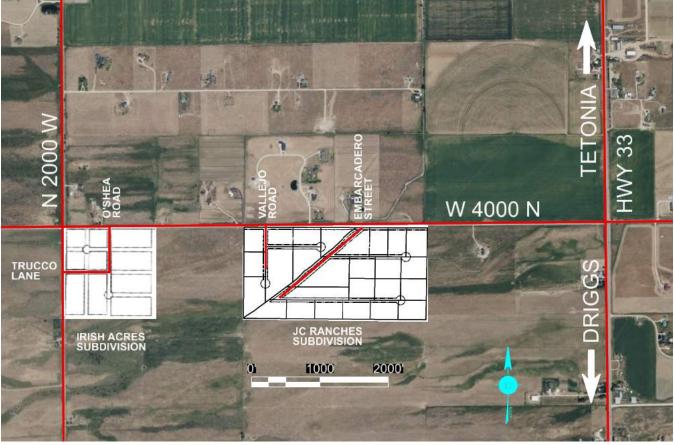
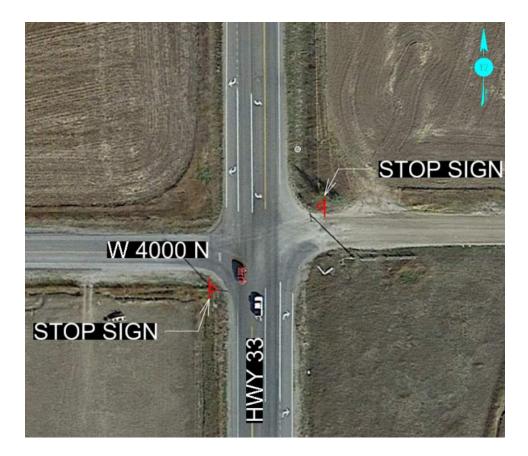


Figure 8: Area Roadway System with Proposed Subdivisions



Figure 99: Aerial Image of Intersection of N 2000 W at W 4000 N





FUTURE

In JC Ranches, *Vallejo Road* will provide access to W 4000 N for the western 8 lots while *Embarcadero Street* will provide access for the eastern 17 lots.

In Irish Acres, O'Shea Road will provide access to W 4000 N while Trucco Lane provides access to N 2000 W.

TRAFFIC VOLUMES AND CONDITIONS

- Traffic counts were obtained on 05/10/2022 05/11/2022. The results of these counts are shown in Appendix A
- Current average daily traffic (ADT) on Idaho State Highway SH 33 is about 6200 vehicles per day.
- The west leg of W 4000 N carries approximately 1100 ADT, with about 200 ADT on the opposite (east) leg.

PUBLIC TRANSPORTATION SERVICE

Because of the distance to area destinations and lack of public transit, all trips are assumed to take place by private vehicle.

PROJECTED TRAFFIC

SITE TRAFFIC (EACH HORIZON YEAR)

- Year 2022 Traffic at existing study intersections was counted May 10-11, 2022.
- Year 2030 "No-Build" traffic was estimated using growth rates of 4%.
- Year 2030 "Build" traffic at study intersections was estimated by adding site-generated traffic to 2030 assuming all of the subdivision lots are fully developed.
- Year 2045 "No-Build" traffic was estimated using annual growth rates of 4%.
- Year 2045 "Build" traffic at study intersections was estimated by adding site-generated traffic to 2045 assuming all of the subdivision lots are fully developed. Resulting traffic forecasts are depicted in diagrams in Appendix B.

TRIP GENERATION

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual* was used to generate trips for the proposed subdivisions. Each proposed lot was modeled to have a single family home as well as a secondary or guest house. The single family home trip generation utilized land use 210 (Single Family Homes), which estimates that each dwelling unit will generate 9.52 vehicle trips per day. The secondary or guess home generation was estimated using 260 (Recreational Homes) which generates 3.16 vehicle trips per day. Therefore each lot was set to have a maximum trip generation of 12.68 vehicle trips per day. The proposed 35-unit subdivisions will therefore generate approximately 444 vehicle trips per day with the following daily and hourly directional volumes:

Table 1: Generated Traffic Distribution

			Tota	l Generated	d Trips	Total Distribution					
Road	Units	Expected Units									
			Daily	AM	PM	AM in	AM out	PM in	PM out		
Trucco Lane	Dwelling	1	13	0	0	0	0	0	0		
O'Shea Road	Dwelling	9	114	9	12	2	7	7	5		
Vallejo Road	Dwelling	8	101	8	11	2	6	6	5		
Embarcadero											
Street	Dwelling	17	216	17	22	4	13	13	9		
Total		35	444	34	45	8	26	26	19		

Additional traffic flow diagrams are included with the HCS analysis of each intersection included in Appendix C.

TRIP ASSIGNMENT

Based on field-observed turn movement percentages at the SH 33 W 4000 N intersection and traffic assumptions at the W 4000 N - N 2000 W intersection, site generated traffic volumes were assigned as follows:

		Total Dis	stributio	on											
Deed						Directional Distribution									
Road					Fror	From east From west			To	east	To west				
	AM			PM	AM		AM				AM				
	in	AM out	PM in	out	in	PM in	in	PM in	AM out	PM out	out	PM out			
Trucco Lane	0	0	0	0	0	0	0	0	0	0	0	0			
O'Shea Road	2	7	7	5	2	7	0	0	6	4	1	1			
Vallejo Road	2	6	6	5	2	6	0	0	5	4	1	1			
Embarcadero															
Street	4	13	13	9	4	13	0	0	12	8	1	1			
Total	8	26	26	19	8	26	0	0	23	16	3	3			

Table 2: Generated Traffic Directional Distribution

Turn movement diagrams in Appendix B illustrate the effect of these induced volumes on W 4000 N and on the W 4000 N / SH 33 intersection.

THROUGH TRAFFIC (EACH HORIZON YEAR)

METHOD OF PROJECTION NON-SITE TRAFFIC FOR ANTICIPATED DEVELOPMENT IN STUDY AREA

According to the Idaho Transportation Department AADT Application (https://itd.idaho.gov/road-data/), traffic recorded around the intersection of State Highway 33 and W 4000 N has been growing at rates ranging from 3-5% annually. There is some variation from year to year, but for this study, it will be assumed that all traffic will grow at an annual rate of 4%. These rates are typical in a growing suburban residential area. It is projected that these rates will cause the total intersection traffic volume to double by 2040. (See Appendix A for intersection turn movements.)

TRIP GENERATION AND DISTRIBUTION

Most of the destinations to the west are additional residential lots, therefore it is assumed that a majority of traffic generated by the subdivisions will travel eastbound on W 4000 N. Traffic will be divided with 90% travelling to the east and 10% travelling to the west.

At the intersection of N 4000 W and SH 33, traffic counts showed that 95% of travel was to/from the south towards Driggs, while the remaining 5% was to/from the north towards Tetonia. Traffic generated by the new subdivisions is expected to have the same 5% north/95% south directional split at the SH 33 intersection.

For the intersection of N 4000 W and W 2000 N trip distribution was assigned based on estimates of the number of properties in the area. Traffic will be assumed to be 50% to the west, 33% to the north, and 17% to the south.

TRAFFIC ANALYSIS

SITE ACCESS

In JC Ranches, *Vallejo Road* will provide access to W 4000 N for the western 8 lots while *Embarcadero Street* will provide access for the eastern 18 lots.

In Irish Acres, O'Shea Road will provide access to W 4000 N while Trucco Lane provides access to N 2000 W.

CAPACITY AND LEVEL OF SERVICE

- The Highway Capacity Software (HCS) was used to estimate the capacity of the Stop-controlled intersections on W 4000 N at Idaho State Highway 33, and future operations at the intersections of W 4000 N at N 2000 W, O'Shea Street, Vallejo Road, and Embarcadero Street for the traffic scenarios listed.
- Intersections of W 4000 N at O'Shea Street, Vallejo Road, and Embarcadero Street operate at Level of Service A in 2045 in the build scenario.
- For the AM Peak "No-Build" and "Build" scenarios in 2030, the westbound approach to the W 4000 N / SH 33 intersection operates at LOS "C." Having both scenarios with the same level of service indicates the traffic generated by the subdivisions is not the main factor, but rather the increase in traffic from overall growth in the area.

- For the AM Peak "No-Build" and "Build" scenarios in 2045, the westbound approach to the W 4000 N / SH 33 intersection operates at LOS "F," while the eastbound approaches operate at LOS "E/F." Having both scenarios with the same level of service indicates the traffic generated by the subdivisions is not the main factor, but rather the increase in traffic from overall growth in the area.
- For the PM Peak "No-Build" and "Build" scenarios in 2045, both approaches to the W 4000 N / SH 33 intersection operates at LOS "C." Again, having both scenarios with the same level of service indicates the traffic generated by the subdivisions is not the main factor, but rather the increase in traffic from overall growth in the area.

Table 3: Future LOS for "No Build" and "Build" conditions

	20	22		• •	~~						
LOS	20	22		20	30		2045				
			No B	uild	Bu	ild	No E	Build	Build		
	AM	PM									
LOS @ minor	Peak										
road	LOS										
W 4000 N @											
N 2000 W	А	A	А	А	Α	А	А	А	А	А	
W 4000 N @											
O'Shea Rd	N/A	N/A	А	А	А	А	А	А	А	А	
W 4000 N @											
Vallejo Rd	N/A	N/A	А	А	А	А	А	А	А	А	
W 4000 N @											
Embarcadero											
St	N/A	N/A	А	А	A	А	А	А	А	А	
	В	В	В	В	В	В	Е	С	F	С	
W 4000 N @	(east)/										
SH 33	В	В	С	В	С	В	F	С	F	С	
	(west)										

• The following table describes capacity analysis data:

TRAFFIC SAFETY TRAFFIC SIGNALS SITE CIRCULATION AND PARKING PERCENTAGE INCREASE ANTICIPATED IN TRAFFIC ON EACH ROAD TO EACH SPECIFIC AREA IN THE VALLEY WHETHER THE DEVELOPMENT WILL CAUSE THE LOS TO FALL BELOW LEVEL "C" ON ANY OF THE SAME ROADS IN THE VALLEY

IMPROVEMENT ANALYSIS

IMPROVEMENTS TO ACCOMMODATE BASE TRAFFIC ADDITIONAL IMPROVEMENTS TO ACCOMMODATE ON-SITE AND OFF-SITE TRAFFIC ALTERNATIVE IMPROVEMENTS STATUS OF IMPROVEMENTS ALREADY FUNDED, PROGRAMMED OR PLANNED EVALUATION

CONCLUSIONS

Construction of the JC Ranches and Irish Acres Subdivisions will not impact mainline operations on W 4000 N. The new approach street intersections will operate at LOS "A" at all times.

The W 4000 N / SH 33 intersection will be severely impacted by the year 2045, although this is almost entirely due to population and traffic growth in the area, not from the subdivisions themselves. Without the subdivisions, the intersection will operate at LOS "E", with the addition of the subdivisions reducing it to LOS "F."

SITE ACCESSIBILITY TRAFFIC IMPACTS NEED FOR IMPROVEMENTS COMPLIANCE WITH APPLICABLE LOCAL CODES

RECOMMENDATIONS

No road improvements are necessary to specifically accommodate the JC Ranches subdivision.

Road agencies should continue to monitor performance of the W 4000 N intersection at Idaho SH 33. If delays increase significantly, right-turn bays may be an appropriate consideration.

If-and-when signal warrants are met, road agencies should evaluate constructing either a signal or roundabout at the W 4000 N intersection at Idaho SH 33.

SITE ACCESS/CIRCULATION PLAN ROADWAY IMPROVEMENTS

ON-SITE Off-Site Project Phasing (If Appropriate)

REFERENCES

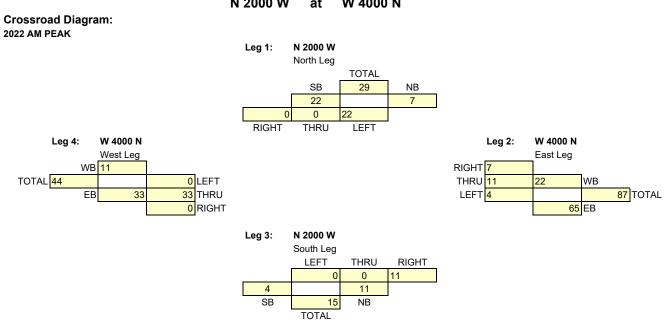
Teton County Online Geographic Information System. December 13, 2023. https://tetonidaho.maps.arcgis.com/apps/webappviewer/index.html?id=7cad88173b644a6a8e8c1147e94aa 524.

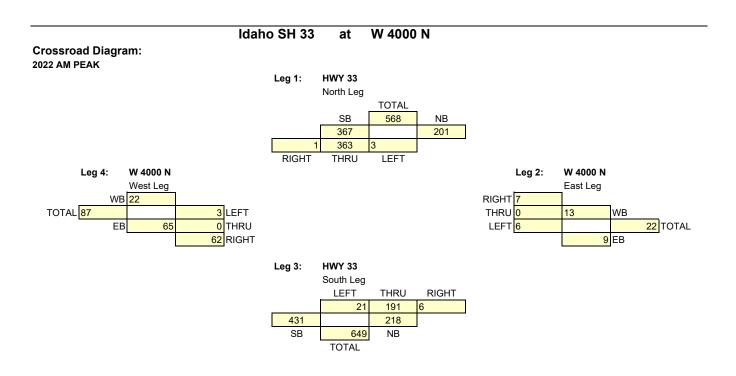
Institute of Transportation Engineers (ITE) Trip Generation Rates, 9th Edition.

APPENDIX A: TURN COUNT RESULTS

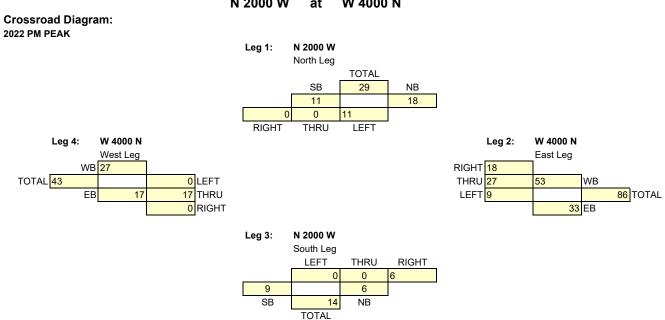
			Turn	Moveme	ent Cour	ts: Stat	e Highw	ay 33 at	W 4000	N				
Project # 22037		Seasonal Adj.						-						
5/10-11/2022		ocusonal / luji												
Estimated 2 Way ADT		874			145			6660			5842			
AM Peak Traffic	Fast	tbound W 400	00 N	We	stbound W 400	00 N	No	rthbound HWY	/ 33	Sou	uthbound HWY	(33	Total	PHF
Time	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	Total	0.862
06:30 - 06:45	LLII	micooun	13	1	micoodii	NOT	1	10	Nom	6611	65		90	0.002
06:45 - 07:00			19	1	1		1	10		1	69		104	
07:00 - 07:15	1		7				2	28		-	74		112	
07:15 - 07:30	1		13	1			2	35		1	59		112	416
07:30 -07:45	1						_		1	1			-	
	1		9	1		2	3	43	1		89		147	473
07:45 - 08:00			21	5		3	1	36	1	1	109		177	546
08:00 - 08:15	1		20			1	6	55	1	1	91		176	610
08:15 - 08:30	1		12			3	11	57	3	1	74	1	163	663
08:30 - 08:45	1		8			3	5	37	1	2	61	1	119	635
08:45 - 09:00	1	1	9	3			6	63			75		158	616
TOTAL	6	1	131	11	1	10	36	378	7	7	766	2	1162	
	4.3%	0.7%	94.9%	50.0%	4.5%	45.5%	8.6%	89.8%	1.7%	0.9%	98.8%	0.3%		
AM PEAK VOLUMES	3	-	62	6	-	7	21	191	6	3	363	1		
SEASONALLY ADJUSTED	-	-	-	-	-	-	-	-	-	-	-	-		1
†														1
5/10-11/2022														
Midday Traffic	Fast	tbound W 400	00 N	We	stbound W 400	00 N	No	rthbound HWY	/ 33	So	uthbound HWY	(33	Total	PHF
Time	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	10101	#DIV/0!
11:00 - 11:15	LLII	micooun	Nom	LLII	micoodii	NOT		millioodii	Nom	ELTT	micoodii	Mon	0	#DIV/0:
11:15 - 11;30													0	
													-	
11:30 - 11:45													0	0
11:45 - 12:00													0	0
12:00 - 12:15													0	0
12:15 - 12:30													0	0
12:30 - 12:45													0	0
12:45 - 13:00													0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
MIDDAY PEAK VOLUMES	-	-	-	-	-	-	-	-	-	-	-	-		
SEASONALLY ADJUSTED	-	-	-	-	-	-	-	-	-	-	-	-		
5/10-11/2022														1
PM Peak Traffic	East	tbound W 400	00 N	We	stbound W 400	00 N	No	rthbound HWY	′ 33	Sol	uthbound HWY	(33	Total	PHF
Time	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT	LEFT	THROUGH	RIGHT		0.929
15:30-15:45			6	2			10	74	3	3	37	1	136	5.525
15:45-16:00			8	1		2	10	91	1		43	1	150	
16:00-16:15			8 7	1			9	60	1		43	1	137	
16:15-16:30	1		5				-		1			1	122	EAC
	1			1			15	60			49	2		546
16:30-16:45			9	1			8	75			46	2	141	551
16:45-17:00			5			1	11	90			67		174	568
17:00-17:15	2		6				15	95	1		46	1	166	612
17:15-17:30			11				15	100	1		50		177	658
17:30-17:45			9				11	90	1	1	48		160	677
17:45-18:00	1		6	1			9	87			49	2	155	658
18:00-18:15			5				9	84	2		46	4	150	642
18:15-18:30			5	1			14	80	1		40		141	606
18:30-18:45			3	1			7	66	1	2	45	0	125	571
			5				10	47	2		32		96	512
18:45-19:00	4	0	90	9	0	3	153	1099	14	6	641	12	1616	1
18:45-19:00 TOTAL				-										1
18:45-19:00 TOTAL		0.0%	95.7%	75.0%	0.0%	25.0%	12.1%	86.8%	1.1%	0.9%	97.3%	1.8%		
TOTAL	4.3%	0.0% 0	95.7% 31	75.0% 0	0.0%	25.0% 1	12.1% 52	86.8% 375	1.1% 3	0.9% 1	97.3% 211	1.8% 1		
		0.0% 0	95.7% 31	75.0% 0	0.0% 0	25.0% 1	12.1% 52	86.8% 375	1.1% 3	0.9% 1 -	97.3% 211	1.8% 1		

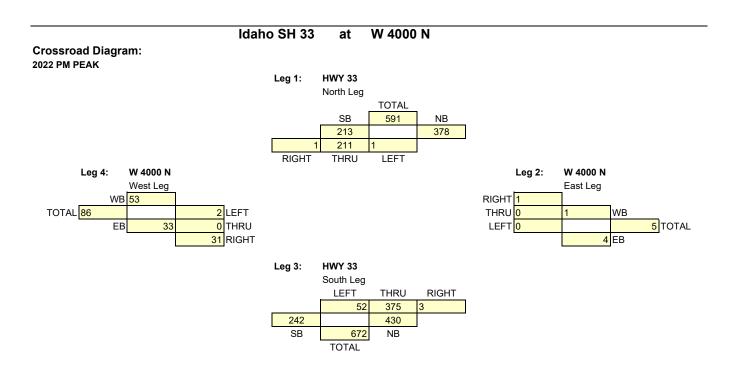
APPENDIX B: CROSSROAD DIAGRAMS



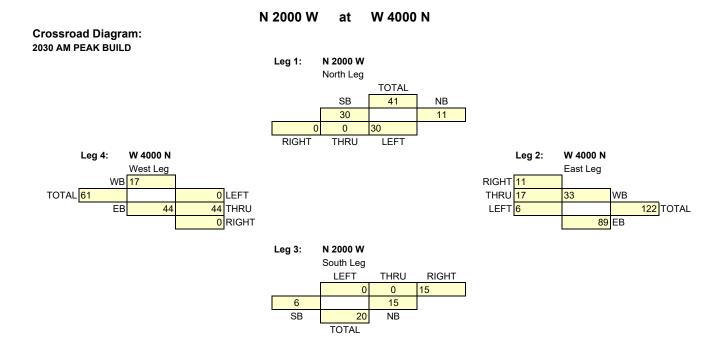


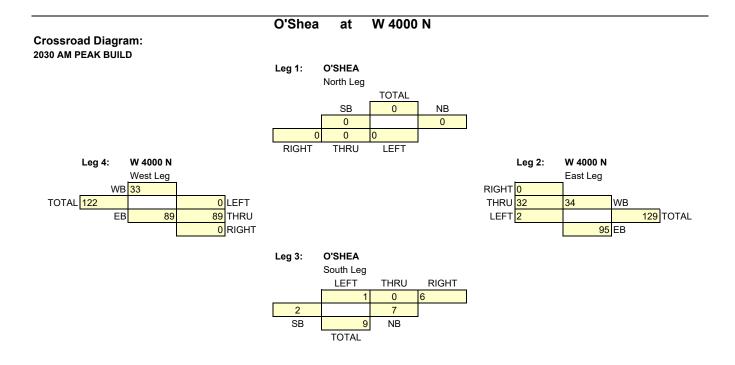
N 2000 W W 4000 N at





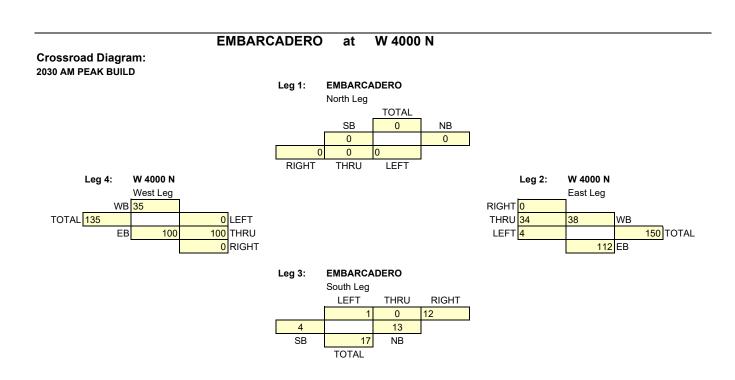
N 2000 W W 4000 N at





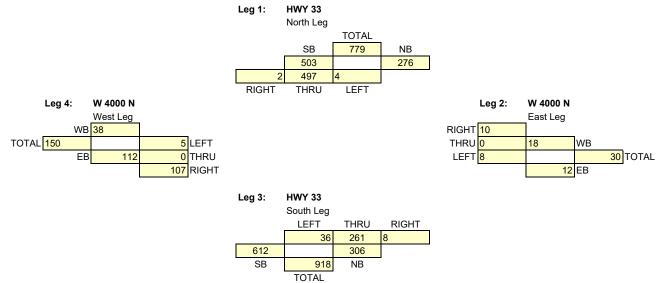
VALLEJO W 4000 N at **Crossroad Diagram:** 2030 AM PEAK BUILD Leg 1: VALLEJO North Leg TOTAL SB NB 0 0 0 0 0 RIGHT THRU LEFT W 4000 N Leg 2: W 4000 N Leg 4: West Leg East Leg WB 34 RIGHT 0 0 LEFT TOTAL 129 THRU 33 35 WB EB 95 95 THRU LEFT 2 135 TOTAL 0 RIGHT 100 EB VALLEJO Leg 3: South Leg LEFT THRU RIGHT 0 2 6 SB 8 NB

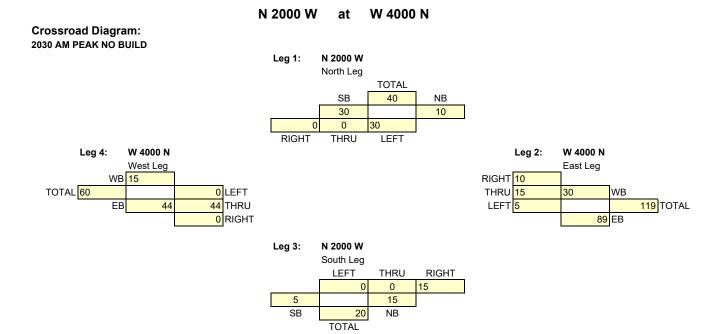
TOTAL

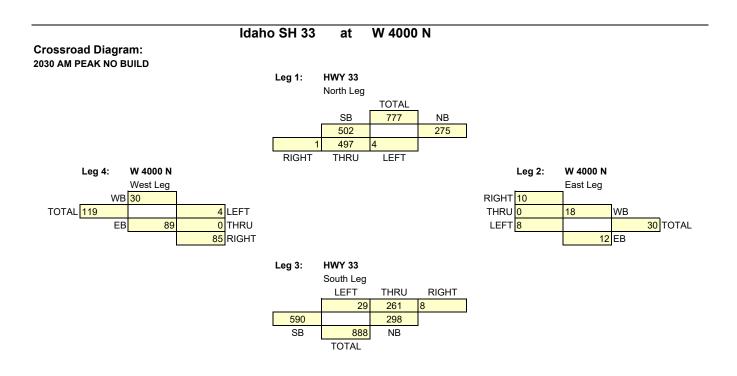


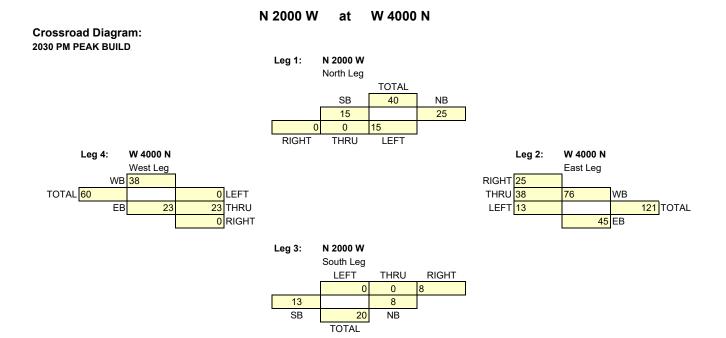
Idaho SH 33 at W 4000 N

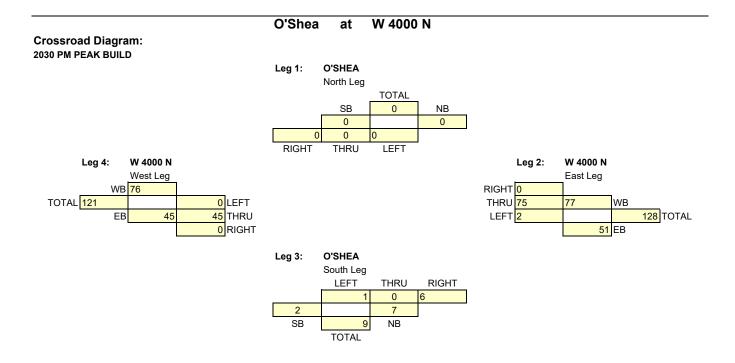
Crossroad Diagram: 2030 AM PEAK BUILD





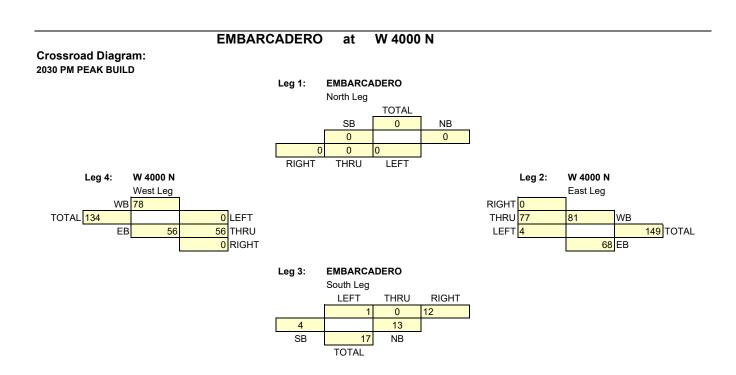






Crossroad Diagram: 2030 PM PEAK BUILD Leg 1: VALLEJO North Leg TOTAL SB NB 0 0 0 0 0 RIGHT THRU LEFT W 4000 N Leg 2: W 4000 N Leg 4: West Leg East Leg WB 77 RIGHT 0 0 LEFT TOTAL 128 THRU 76 WB 78 EB 51 51 THRU LEFT 2 134 TOTAL 0 RIGHT 56 EB VALLEJO Leg 3: South Leg LEFT THRU RIGHT 0 2 6 SB 8 NB

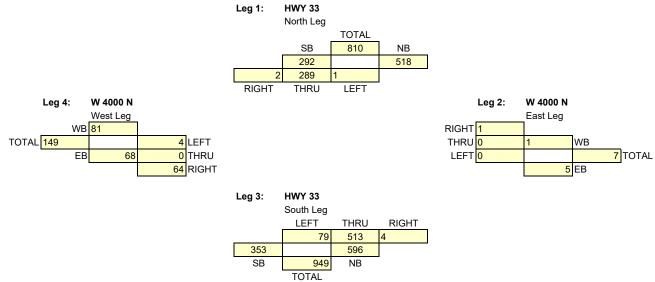
TOTAL

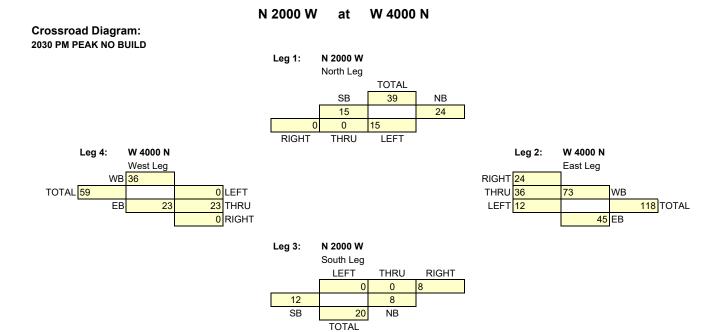


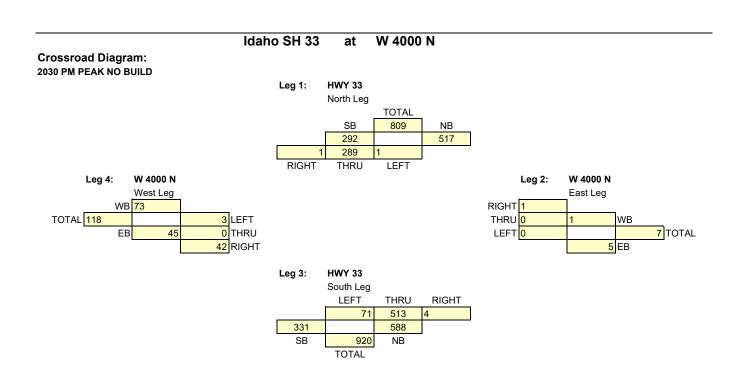
VALLEJO at W 4000 N

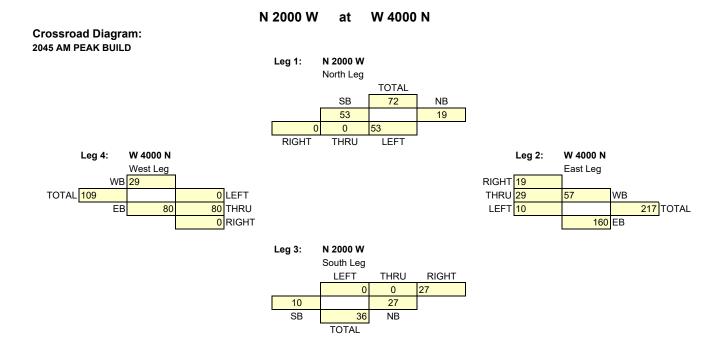
Idaho SH 33 at W 4000 N

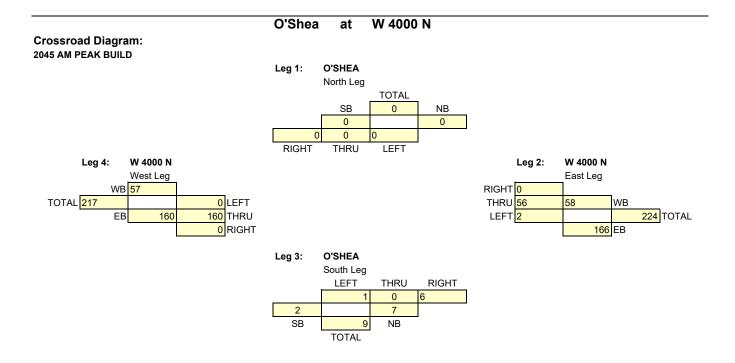
Crossroad Diagram: 2030 PM PEAK BUILD





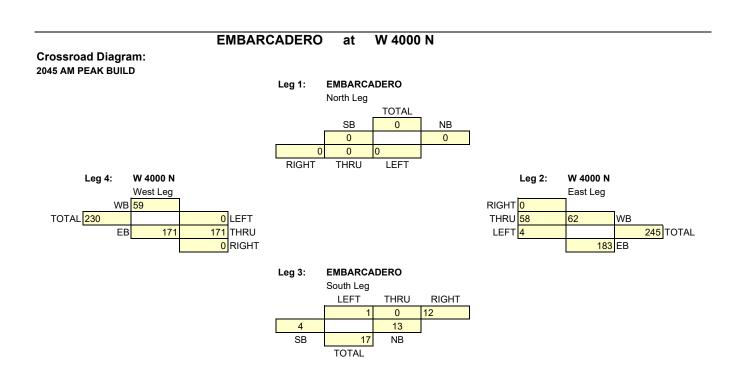






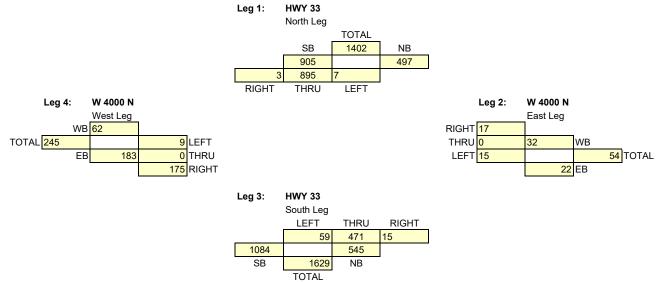
VALLEJO W 4000 N at **Crossroad Diagram:** 2045 AM PEAK BUILD Leg 1: VALLEJO North Leg TOTAL SB NB 0 0 0 0 0 RIGHT THRU LEFT W 4000 N Leg 2: W 4000 N Leg 4: West Leg East Leg WB 58 RIGHT 0 0 LEFT TOTAL 224 THRU 57 WB 59 EB 166 166 THRU LEFT 2 230 TOTAL 0 RIGHT 171 EB VALLEJO Leg 3: South Leg LEFT THRU RIGHT 0 2 6 SB 8 NB

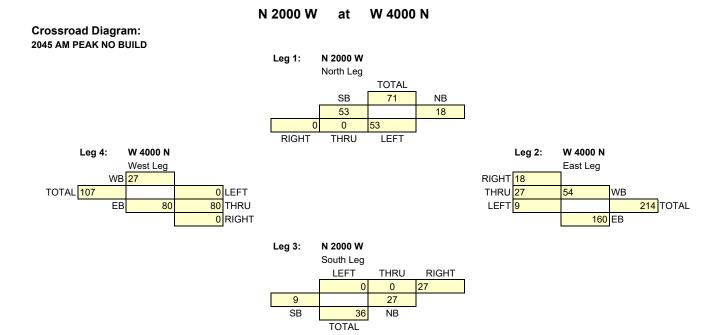
TOTAL

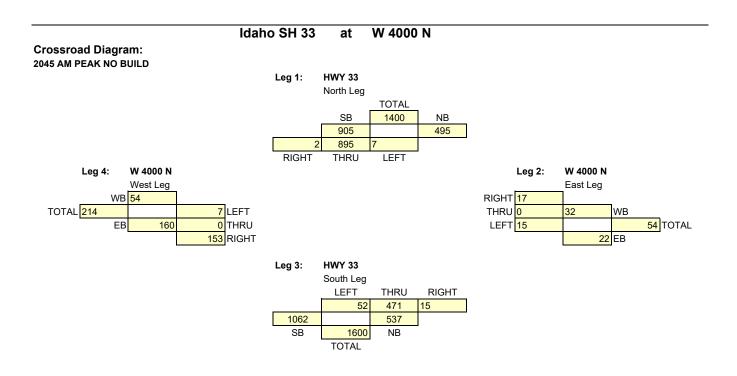


Idaho SH 33 at W 4000 N

Crossroad Diagram: 2045 AM PEAK BUILD

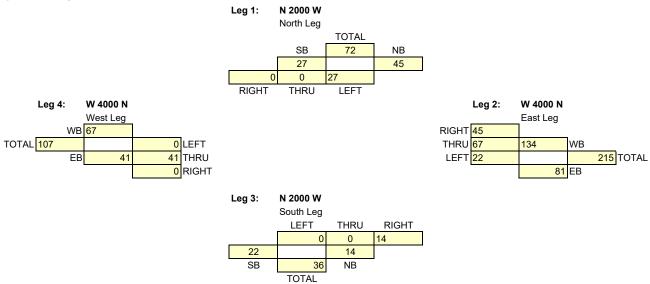


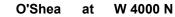




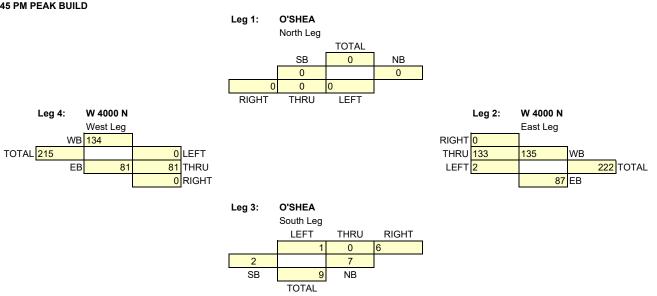
N 2000 W at W 4000 N

Crossroad Diagram: 2045 PM PEAK BUILD



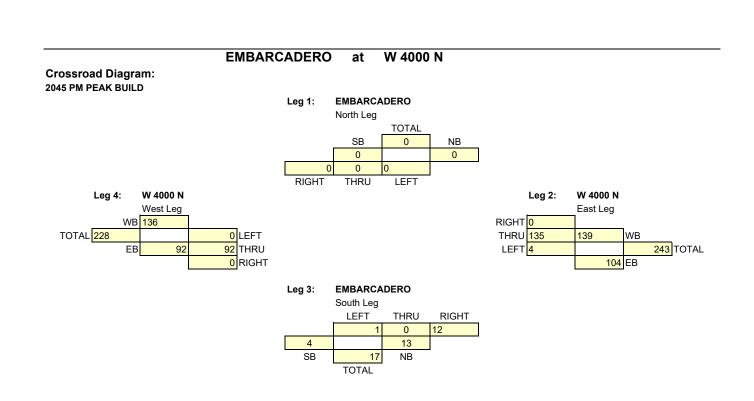






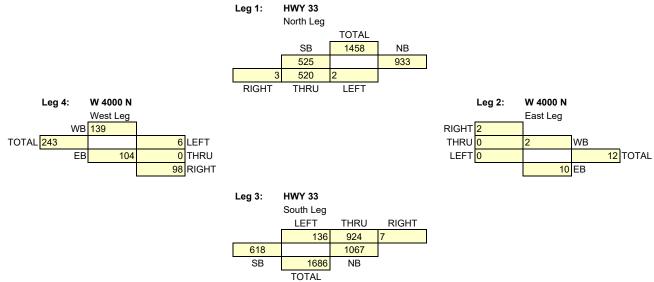
VALLEJO W 4000 N at **Crossroad Diagram:** 2045 PM PEAK BUILD Leg 1: VALLEJO North Leg TOTAL SB NB 0 0 0 0 0 RIGHT THRU LEFT Leg 2: W 4000 N W 4000 N Leg 4: West Leg East Leg WB 135 RIGHT 0 0 LEFT TOTAL 222 THRU 134 136 WB EB 87 87 THRU LEFT 2 228 TOTAL 0 RIGHT 92 EB VALLEJO Leg 3: South Leg LEFT THRU RIGHT 0 2 6 SB 8 NB

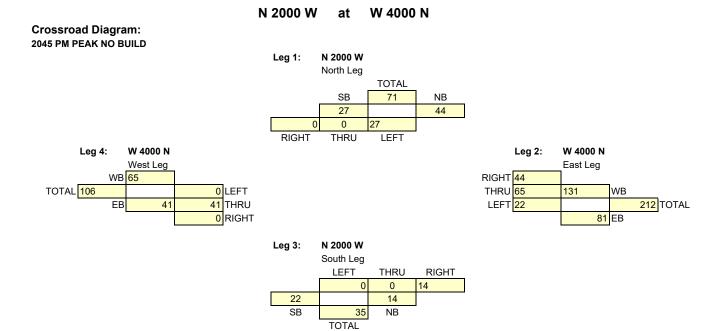
TOTAL

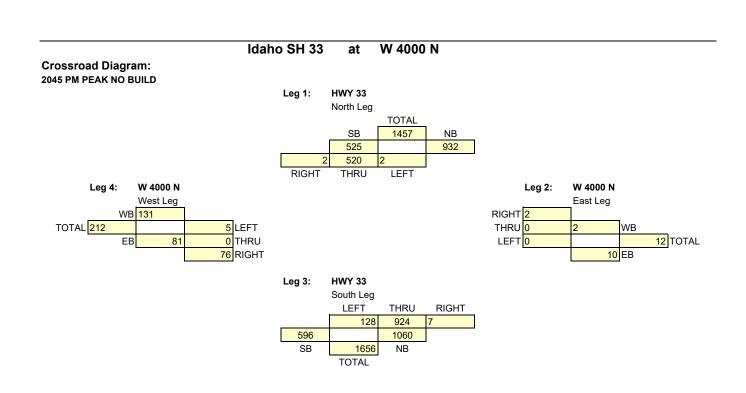


Idaho SH 33 at W 4000 N

Crossroad Diagram: 2045 PM PEAK BUILD







APPENDIX C: HCS RESULTS

		ŀ	ICS 1	Two-'	Way	Stop	-Cor	ntrol	Repc	ort						
General Information					_		Site	Inforr	natior	ı			_	_	_	_
Analyst	Elizab	oeth Gall	egos				Inters	ection			N 200)0 W and	d W 4000) N		
Agency/Co.	Y2 Co	onsultant	ts				Jurisd	iction								
Date Performed	12/8/	2023					East/V	Nest Stre	eet		W 40	00 N				
Analysis Year	2022						North	/South S	Street		N 200	00 W				
Time Analyzed	2022	AM Peal	k				Peak I	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				74 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				4 4 7 4 4 7 1 4								
Vehicle Volumes and A	diustma	nts	_	↑ ¥ 7		م م ۲ 1 or Street: Ea	st-West	4 L U	_	_	_	_	_	_	_	
Vehicle Volumes and A	djustme		ound			or Street: Ea		1 L U		North	bound			South	bound	
Approach		Eastb	pound		Maji	or Street: Ea	oound				bound	P			bound	P
Approach Movement	U	Eastb L	Т	R	U	Westl	oound T	R	U	L	Т	R	U	L	Т	R
Approach Movement Priority	U 1U	Eastb L 1	T 2	R 3	U 4U	Westl L 4	oound T 5	R 6	U	L 7	Т 8	9	U	L 10	T 11	12
Approach Movement Priority Number of Lanes	U	Eastb L	T 2 1	R	U	Westl	Dound T 5 1	R	U	L	T 8 1		U	L	T 11 1	
Approach Movement Priority Number of Lanes Configuration	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	U 4U	Westle	T 5 1 LTR	R 6 0	U	L 7 0	T 8 1 LTR	9	U	L 10 0	T 11 1 LTR	12
Approach Movement Priority Number of Lanes Configuration Volume (veh/h)	U 1U	Eastb L 1	T 2 1	R 3	U 4U	Westl L 4	oound T 5 1	R 6	U	L 7	T 8 1	9	U 0	L 10	T 11 1	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	U 4U	Westh	T 5 1 LTR	R 6 0	U	L 7 0	T 8 1 LTR 0	9 0 11	U	L 10 0 22	T 11 1 LTR 0	12
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	U 4U	Westh	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0	9 0 11		L 10 0 22 3	T 11 1 LTR 0	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	U 4U	Westh	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 11		L 10 0 22 3	T 11 LTR 0 3	12 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	U 4U	Westh	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 11		L 10 0 22 3	T 11 LTR 0 3	12 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	U U 1U 0	Eastb 1 0 0 3 	T 2 1 LTR	R 3 0	Waji U 4U 0	Westh	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 11		L 10 0 22 3	T 11 LTR 0 3	12 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	U U 1U 0	Eastb 1 0 0 3 	T 2 1 LTR	R 3 0	Waji U 4U 0	Westh	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 11		L 10 0 22 3	T 11 LTR 0 3	1: 0

				4	()				4 1	()				_
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23	7.13	
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3	3.5	
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33	3.53	
Delay, Queue Length, and	l Leve	l of Se	ervice											
Flow Rate, v (veh/h)		0				4					12			
Capacity, c (veh/h)		1590				1570					1035			
v/c Ratio		0.00				0.00					0.01			
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0			
Control Delay (s/veh)		7.3	0.0	0.0		7.3	0.0	0.0			8.5			
Level of Service (LOS)		А	А	А		А	А	А			А			
Approach Delay (s/veh)		0	.0			1	.3			8.	.5		9.	1
Approach LOS		/	4			ļ	4			ļ	Ą		A	

HCS T TWSC Version 2023 2022 AM N 2000 W and W 4000 N.xtw

3.3

3.33

4.0

4.03

24 913 0.03 0.1 9.1 А

		ŀ			Wav	Stop	-Cor	ntrol	Renc	ort						
General Information	-				vvay	5100		Inform	_	_	-	-	-	-	-	-
	1								natio	1						
Analyst	-	eth Gall	-					ection			N 200	00 W and	d W 4000) N		
Agency/Co.	_	onsultant	ts				Jurisd									
Date Performed	12/8/	2023						Nest Stre			W 40					
Analysis Year	2022							/South S			N 200	00 W				
Time Analyzed		PM Peal	<					Hour Fac			0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				J 4 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				4 7 7 7 7 7								
Vehicle Volumes and Adi	iustme	nts	_			or Street: Ea	st-West	9	_				_	_		_
Vehicle Volumes and Adj	justme		oound			or Street: Ea		G		North	bound			South	bound	
Approach		Eastb	pound		Maj	or Street: Ea	bound		U		bound	R			bound	R
Approach Movement	U	Eastb L	Т	R	Maj	West	oound T	R	U	L	Т	R	U	L	Т	R 12
Approach Movement Priority	U 1U	Eastb L 1	Т 2	R 3	Maj U 4U	Westl	oound T 5	R 6	U	L 7	Т 8	9	U	L 10	T 11	12
Approach Movement Priority Number of Lanes	U	Eastb L	T 2 1	R	Maj	West	Dound T 5 1	R	U	L	T 8 1		U	L	T 11 1	
Approach Movement Priority Number of Lanes Configuration	U 1U	Eastb L 1	Т 2	R 3	Maj U 4U	Westl	T 5 1 LTR	R 6 0	U	L 7 0	Т 8	9	U	L 10 0	T 11	12 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	Maj U 4U	Westl	Dound T 5 1	R 6		L 7	T 8 1 LTR 0	9 0 5		L 10 0 11	T 11 1 LTR 0	12
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	Maj U 4U	Westl L 4 0 9	T 5 1 LTR	R 6 0	U	L 7 0	T 8 1 LTR	9	U	L 10 0	T 11 1 LTR	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	Maj U 4U	Westl L 4 0 9	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 5		L 10 0 11 3	T 11 LTR 0 3	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	Maj U 4U	Westl L 4 0 9	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0	9 0 5		L 10 0 11 3	T 11 1 LTR 0	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	U 1U	Eastb L 1 0	T 2 1 LTR	R 3 0	Maj U 4U	Westl L 4 0 9	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 5		L 10 0 11 3	T 11 LTR 0 3	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	U 1U 0 	Eastb 1 0 0 3	T 2 1 LTR	R 3 0	Maj U 4U 0	Westl L 4 0 9	T 5 1 LTR	R 6 0		L 7 0 0 3	T 8 1 LTR 0 3	9 0 5		L 10 0 11 3	T 11 LTR 0 3	12 0 0
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	U 1U 0 	Eastb 1 0 0 3 ys	T 2 1 LTR	R 3 0	Maj U 4U 0	West U 4 0 9 3	T 5 1 LTR	R 6 0		L 7 0 3	T 8 1 LTR 0 3	9 0 5 3		L 10 0 11 3	T 11 LTR 0 3	12 0 0 3
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec)	U 1U 0 	Eastb 1 0 0 3 VS 4.1	T 2 1 LTR	R 3 0	Maj U 4U 0	Image: Weight of Street: Ea Weight of Street: Ea Weight of Street: Ea Image: Weight of Street: Ea	T 5 1 LTR	R 6 0		L 7 0 3 7.1	T 8 1 LTR 0 3 3 0	9 0 5 3		L 10 0 11 3 7.1	T 11 LTR 0 3 0 6.5	12 0 3 6.2
Approach Movement Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	U 1U 0 	Eastb 1 0 0 3 ys	T 2 1 LTR	R 3 0	Maj U 4U 0	West U 4 0 9 3	T 5 1 LTR	R 6 0		L 7 0 3	T 8 1 LTR 0 3	9 0 5 3		L 10 0 11 3	T 11 LTR 0 3	12 0 0 3

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	0			10				5			12	
Capacity, c (veh/h)	1553			1593				1058			898	
v/c Ratio	0.00			0.01				0.01			0.01	
95% Queue Length, Q ₉₅ (veh)	0.0			0.0				0.0			0.0	
Control Delay (s/veh)	7.3	0.0	0.0	7.3	0.0	0.0		8.4			9.1	
Level of Service (LOS)	А	А	А	A	А	А		А			А	
Approach Delay (s/veh)	0	.0		1	.3		8	.4		9.	.1	
Approach LOS	I	4		1	4		ŀ	4		A	4	

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HCS 1000 TWSC Version 2023 2022 PM N 2000 W and W 4000 N.xtw

		ŀ	ICS 1	ſwo-	Way	Stop	-Cor	ntrol	Repc	ort						
General Information	_	_	_	_	_	_	Site	Inform	natio	n	_	_	_	_	_	_
Analyst	Elizak	oeth Galle	egos				Inters	ection			N 200	0 W and	d W 400	0 N		
Agency/Co.	Y2 Co	onsultant	S				Jurisd	liction								
Date Performed	12/14	4/2023					East/\	Nest Stre	eet		W 400	00 N				
Analysis Year	2030						North	/South S	Street		N 200	0 W 0				
Time Analyzed	2030	AM Peak	c Build				Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				J 4 1 1 4 4 6 0		or Street: Ea		2 4 1 X 4 X L U								
Vehicle Volumes and Adj	ustme															
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	44	0		6	17	11		0	0	15		30	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)					1										0	
					<u> </u>					()				-	
Right Turn Channelized										()				-	
Median Type Storage				Undi	vided					()					
Median Type Storage	eadwa	ys		Undi	vided					()					
Median Type Storage	eadwa	ys 4.1		Undi	vided	4.1				7.1	6.5	6.2		7.1	6.5	6.2
Median Type Storage Critical and Follow-up He	eadwa	-		Undi	vided	4.1 4.13						6.2 6.23				
Median Type Storage Critical and Follow-up He Base Critical Headway (sec)	eadwa	4.1		Undi	vided					7.1	6.5			7.1	6.5	6.2 6.2 3.3
Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec)	eadwa	4.1 4.13		Undi	vided	4.13				7.1 7.13	6.5 6.53	6.23		7.1 7.13	6.5 6.53	6.2
Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		4.1 4.13 2.2 2.23	ervice		vided	4.13 2.2				7.1 7.13 3.5	6.5 6.53 4.0	6.23 3.3		7.1 7.13 3.5	6.5 6.53 4.0	6.2 3.3
Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		4.1 4.13 2.2 2.23	ervice		vided	4.13 2.2				7.1 7.13 3.5	6.5 6.53 4.0	6.23 3.3		7.1 7.13 3.5	6.5 6.53 4.0	6.2 3.3
Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and		4.1 4.13 2.2 2.23	ervice		vided	4.13 2.2 2.23				7.1 7.13 3.5	6.5 6.53 4.0 4.03	6.23 3.3		7.1 7.13 3.5	6.5 6.53 4.0 4.03	6.2 3.3
Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and Flow Rate, v (veh/h)		4.1 4.13 2.2 2.23 I of Se 0	ervice		vided	4.13 2.2 2.23 7				7.1 7.13 3.5	6.5 6.53 4.0 4.03	6.23 3.3		7.1 7.13 3.5	6.5 6.53 4.0 4.03	6.2 3.3

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Control Delay (s/veh)

Level of Service (LOS)

Approach Delay (s/veh)

Approach LOS

HCSTM TWSC Version 2023 2030 AM N 2000 W and W 4000 N Build.xtw

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Movement U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U I<				H	ICS 1	ſwo-'	Way	Stop	-Cor	ntrol	Repc	ort												
Agency/Co. Y2 Consultants Jurisdiction W W W W W M Dare Performed 12/14/2023 Ear/Wet Street W North/South Street North/South Street North/South Street 0.02 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Intersection Orientation Intersection Orientation East-West Intersection Orientation East-West Intersection Orientation Intersection Orienation Intersection Orientation Inte	eral Informatio	n	_	_	_	_	_		Site	Inforn	natio	ı	_	_	_	_								
Agency/Co. Y2 Consultants Jurisdiction W W W W W More Dare Performed 12/14/2023 Ear/Wet Street W North/South Street North/South Street North/South Street 0.02 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Analysis Time Period (rrs) 1.0 Intersection Orientation East-West Free Verice Ve	vst		Elizab	eth Galle	egos				Inters	ection			N 200)0 W and	d W 4000	D N								
Data Performed12/14/2023East/West StreetW 4000 NAnalysis Yaar2030VTime Analysis Yaar2030VTime Analysis YaarPeak Hoor Factor0.9Time Analysis Time Period (Irs)10Time Analysis Time Period (Irs)VProject DescriptionDeak Hoor Factor0.9USA Colspan="2">USA Colspan="2">USA Colspan="2">USA Colspan="2">USA Colspan="2">USA Colspan="2">USA Colspan="2"Verial Colspan="2">USA Colspan="2"USA Colspan="2"USA Colspan="2">USA Colspan="2"USA Colspan="2"Morth South StreetNorth South StreetUSA Colspan="2"Verial Colspan="2"VERIAL COLSPAN="2"USA Colspan="2"Morth South StreetVERIAL COLSPAN="2"South StreetNorth South StreetSouth StreetMorth South StreetNorth South StreetSouth StreetNorth South StreetMorent Colspan="2"VERIAL COLSPAN="2"South South StreetNorth South StreetMorent Colspan="2"North South StreetNorth South StreetNorth South StreetMorent Colspan="2" <th colsp<="" td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>Jurisd</td><td>iction</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th>	<td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>Jurisd</td> <td>iction</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					-				Jurisd	iction													
Time Analyzed Intersection Orientation Project Description2030 AM Peak No BuildPeak Hour Factor0.92Project DescriptionProject DescriptionProject DescriptionUNICAL Section Orientation Project DescriptionDescriptionUNICAL Section Orientation Project DescriptionUNICAL Section Orientation DescriptionUNICAL Section Orientation MovementUNICAL Section Orientation DescriptionUNICAL Section Orientation DescriptionOPENDESUNICAL Section Orientation DescriptionUNICAL Section Orientation DescriptionUNICAL Section Orientation MovementUNICAL Section Orientation DescriptionUNICAL Section Orientation DescriptionUNICAL Section Orientation DescriptionUNICAL Section Orientation OrientationUNICAL Section Orientation DescriptionUNICAL Section Orientation DescriptionUNICAL Section Orientation Orientation OrientationUNICAL Section Orientation Orientation <th <="" colspan="6" td=""><td>-</td><td></td><td>12/14</td><td>/2023</td><td></td><td></td><td></td><td></td><td>East/\</td><td>Nest Stre</td><td>eet</td><td></td><td>W 40</td><td>00 N</td><td></td><td></td><td></td><td></td></th>	<td>-</td> <td></td> <td>12/14</td> <td>/2023</td> <td></td> <td></td> <td></td> <td></td> <td>East/\</td> <td>Nest Stre</td> <td>eet</td> <td></td> <td>W 40</td> <td>00 N</td> <td></td> <td></td> <td></td> <td></td>						-		12/14	/2023					East/\	Nest Stre	eet		W 40	00 N				
Intersection Orientation East-West Analysis Time Period (hr.s) 1.0 Project Description Intersection origination Intersection origination Intersection origination Lanes Intersection origination	vsis Year		2030						North	/South S	Street		N 200	00 W										
Project Description Image: Content of the second of th	Analyzed		2030	AM Peak	k No Bui	ld			Peak	Hour Fac	tor		0.92											
Interest of the test weight of the test weight of test weight	section Orientation		East-V	Vest					Analy	sis Time	Period (hrs)	1.00											
Normalize structure str	ct Description												1											
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ApproachUEastUSIUUUIRUIII<								*Y1		ት ት 1114 ት														
Movement U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U L T R U I<	cle Volumes an	d Adjus	stme	nts																				
Priority1U1234U456M789M10Number of Lanes001001010101010010010010010010010010010010010010010010001000100	oach			Eastb	ound			West	bound			North	bound			South	bound							
Number of Lanes00100101010101010101010101001000100100100100100	ement		U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R						
ConfigurationImage: Normal ActionImage:	ty		1U	1	2	3	4U	4	5	6		7	8	9		10	11	12						
Volume (veh/h) Image: Constraint of the cons	ber of Lanes		0	0	1	0	0	0	1	0		0	1	0		0	1	0						
Percent Heavy Vehicles (%) 3 </td <td>-</td> <td></td> <td>LTR</td> <td></td>	-																LTR							
Proportion Time Blocked I				-	44	0			15	10						30	0	0						
Percent Grade (%) Image: Control of the c				3				3				3	3	3		3	3	3						
Right Turn Channelized Image: Storage Image: Storage <tt< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tt<>																								
Median Type Storage Undivided Undivided <td></td> <td><u> </u></td> <td></td> <td>)</td> <td></td> <td></td> <td></td> <td>0</td> <td></td>											<u> </u>)				0							
Critical and Follow-up Headway (sec) 4.1 4.1 7.1 6.5 6.2 7.1 Base Critical Headway (sec) 4.13 4.13 7.13 6.53 6.23 7.1 Base Follow-Up Headway (sec) 4.13 4.13 6.53 6.23 7.1 Base Follow-Up Headway (sec) 2.2 4.13 6.53 6.23 7.1 Base Follow-Up Headway (sec) 2.2 2.23 3.53 4.03 3.33 3.55 Follow-Up Headway (sec) 2.23 2.23 3.53 4.03 3.33 3.55 Delay, Queue Length, and Lew Eventure 5						Lindi	uidad																	
Base Critical Headway (sec) 4.1 4.1 7.1 6.5 6.2 7.1 Critical Headway (sec) 4.13 4.13 4.13 7.1 6.53 6.23 7.1 Base Follow-Up Headway (sec) 2.2 2.2 2.2 3.5 4.03 3.33 3.5 Follow-Up Headway (sec) 2.23 2.23 2.23 2.23 3.53 4.03 3.33 3.55 Delay, Queue Length, and Level of Service 5 6 16<			dwa			Unur	videu																	
Critical Headway (sec) 4.13 4.13 4.13 7.13 6.53 6.23 7.1 Base Follow-Up Headway (sec) 2.2 2.2 2.2 1 3.5 4.0 3.3 3.5 Follow-Up Headway (sec) 2.23 2.23 2.23 1 3.53 4.03 3.33 3.53 Delay, Queue Length, and Level of Service 2.23 1 5 1 16 1 1 Flow Rate, v (veh/h) 0 0 5 1 1018 1 1 v/c Ratio 0.00 0 0.00		-	uwa		_	_	_	4.1	_	_		7.1	6.5	6.2		7.1	6.5	6.2						
Base Follow-Up Headway (sec) 2.2 2.2 2.2 3.5 4.0 3.3 3.5 Follow-Up Headway (sec) 2.23 2.23 2.23 2.23 3.5 4.03 3.33 3.5 Delay, Queue Length, and Level of Service 5 6 6 6 6 6 6 6 7 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6.5 6.53</td><td>6.2 6.23</td></th<>																	6.5 6.53	6.2 6.23						
Follow-Up Headway (sec)2.232.23Image: Constraint of the sector of the s	-	50C)															4.0	3.3						
Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 0 5 16																3.53	4.0	3.33						
Flow Rate, v (veh/h) 0 5 16 6 Capacity, c (veh/h) 1580 1553 0 1018 0 v/c Ratio 0.00 <t< td=""><td></td><td>th and l</td><td></td><td></td><td>prvice</td><td></td><td></td><td>2.25</td><td></td><td></td><td></td><td>5.55</td><td>4.05</td><td>5.55</td><td></td><td>5.55</td><td>4.05</td><td>5.55</td></t<>		th and l			prvice			2.25				5.55	4.05	5.55		5.55	4.05	5.55						
Capacity, c (veh/h) 1580 1580 1553 1600 1018			Level		i vice			5					16				33							
v/c Ratio 0.00 0.00 0.00 0.00 0.00 0.02 0.02																	877							
																	0.04							
	Queue Length, Q ₉₅ (ve	eh)		0.0				0.0					0.0				0.1							
Control Delay (s/veh) 7.3 0.0 0.0 7.3 0.0 0.0 8.6 Image: Control Delay (s/veh)					0.0	0.0			0.0	0.0							9.3							
Level of Service (LOS) A A A A A A A A A A	-			A	А	А		А	A	А							A							

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Approach Delay (s/veh)

Approach LOS

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		ŀ	ICS -	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_	_	_	_	_	Site	Inforr	natio	n	_	_	_	_	_	_
Analyst	Elizak	oeth Gall	egos				Inters	ection			N 200	00 W and	d W 400	0 N		_
Agency/Co.	Y2 Co	onsultant	ts				Jurisc	liction								
Date Performed	12/14	4/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2030						North	n/South S	Street		N 200	00 W				
Time Analyzed	2030	PM Peal	c Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				J 4 1 1 4 4 6 0		or Street: Ea	t t T	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4								
Vehicle Volumes and Ad	justme															
Approach		1	ound			1	bound				bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR		<u> </u>	12	LTR		<u> </u>		LTR			45	LTR	
Volume (veh/h)		0	23	0		13	38	25		0	0	8		15	0	0
Percent Heavy Vehicles (%) Proportion Time Blocked	-	3				3	<u> </u>		<u> </u>	3	3	3		3	3	3
Percent Grade (%)	-										0				0	
Right Turn Channelized	-										5				0	
Median Type Storage	-			Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.2
Base Follow-Up Headway (sec)	-	2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, an	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)	T	0				14					9				16	
Capacity, c (veh/h)		1526				1583					1048				848	
v/c Ratio		0.00				0.01					0.01				0.02	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
	1													1		

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Control Delay (s/veh)

Level of Service (LOS)

Approach Delay (s/veh)

Approach LOS

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									Repo							
General Information							Site	Inforr	natio	ı						
Analyst	Elizak	oeth Gall	egos				Inters	ection			N 200)0 W and	W 4000	0 N		
Agency/Co.		onsultant	-				Jurisd	liction								
Date Performed	12/14	4/2023					East/\	Nest Stre	eet		W 40	00 N				
Analysis Year	2030						North	/South S	Street		N 200	W 00				
Time Analyzed	2030	PM Peak	k No Bui	ld			Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				2415450		÷ ۲۰۰۰ ۲۰۰۰ ۲ or Street: Ea		114 + 74 + 7								
Vehicle Volumes and Adj	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
					1				1							
Volume (veh/h)		0	23	0		12	36	24		0	0	8		15	0	0
Percent Heavy Vehicles (%)		0 3	23	0		12 3	36	24		0	0 3	8 3		15 3	0 3	0
Percent Heavy Vehicles (%) Proportion Time Blocked			23	0			36	24		3	3			3	3	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)			23	0			36	24		3				3		
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized			23		vided		36	24		3	3			3	3	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage		3	23		vided		36	24		3	3			3	3	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	eadwa	3 ys	23		vided	3	36	24		3	3	3		3	3	3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec)	eadwa	3 ys 4.1	23		vided	3	36	24		7.1	3 0 6.5	6.2		7.1	3 0 6.5	3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec)	eadwa	3 ys 4.1 4.13	23		vided	3 4.1 4.13	36	24		3 7.1 7.13	3 0 6.5 6.53	3 6.2 6.23		3 7.1 7.13	6.5 6.53	3 6.2 6.23
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	eadwa	3 ys 4.1 4.13 2.2	23		vided	3 4.1 4.13 2.2	36	24		3 7.1 7.13 3.5	3 0 6.5 6.53 4.0	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0	3 6.2 6.23 3.3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		3 ys 4.1 4.13 2.2 2.23		Undi	vided	3 4.1 4.13	36	24		3 7.1 7.13	3 0 6.5 6.53	3 6.2 6.23		3 7.1 7.13	6.5 6.53	3 6.2 6.23 3.3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an		3 ys 4.1 4.13 2.2 2.23 I of Se		Undi	vided	3 4.1 4.13 2.2 2.23	36	24		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h)		3 ys 4.1 4.13 2.2 2.23 I of Se 0		Undi	vided	3 4.1 4.13 2.2 2.23 13	36	24		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h)		3 4.1 4.13 2.2 2.23 I of Se 0 1530		Undi	vided	3 4.1 4.13 2.2 2.23 13 1583	36	24		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03 9 1048	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03 16 854	3 6.2 6.23
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		3 ys 4.1 4.13 2.2 2.23 I of Se 0		Undi	vided	3 4.1 4.13 2.2 2.23 13	36	24		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03	3 6.2 6.23 3.3
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h)		3 ys 4.1 4.13 2.2 2.23 I of Se 0 1530 0.00		Undi	vided	3 4.1 4.13 2.2 2.23 13 1583 0.01	36	24		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03 9 1048 0.01	3 6.2 6.23 3.3		3 7.1 7.13 3.5	3 6.5 6.53 4.0 4.03 16 854 0.02	3 6.2 6.23 3.3

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Approach Delay (s/veh)

Approach LOS

HCS TW TWSC Version 2023 2030 PM N 2000 W and W 4000 N No Build.xtw

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		H	ICS 1	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information	_	_	_	_			Site	Inforr	natio	n	_	_	_	_	_	_
Analyst	Elizat	oeth Gall	egos				Inters	ection			N 200	00 W and	d W 400	0 N		_
Agency/Co.	Y2 Co	onsultant	:S				Jurisc	liction								
Date Performed	12/14	4/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2045						North	n/South S	Street		N 200	00 W				
Time Analyzed	2045	AM Peal	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				J 4 1 1 4 4 6 0		or Street: Ea	t t T	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4								
Vehicle Volumes and Ad	justme															
Approach	<u> </u>	1	ound			1	bound				bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	80	0		10	29	19		0	0	27		53	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked															0	
Percent Grade (%) Right Turn Channelized											0				0	
Median Type Storage	+			Undi	vided											
Critical and Follow-up H	aadwa	VE			vided				I							
-	eauwa	-			1			1		74	6.5	6.0	1	74	6.5	6.0
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)	-	4.13				4.13				7.13 3.5	6.53 4.0	6.23		7.13	6.53 4.0	6.23 3.3
Base Follow-Up Headway (sec) Follow-Up Headway (sec)		2.2 2.23				2.2 2.23				3.5	4.0	3.3 3.33		3.5 3.53	4.0	3.3
Delay, Queue Length, an	d Lovo		arvice			2.23				5.55	4.05	5.55		5.55	4.05	5.55
		1				14	-	1	-		20	-	1	1	50	
Flow Rate, v (veh/h)		0				11					29				58	
Capacity, c (veh/h)		1547				1503					969				767	
v/c Ratio		0.00				0.01					0.03				0.08	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.1				0.2	

7.3

А

0.0

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0.0

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0.0

А

Control Delay (s/veh)

Level of Service (LOS)

Approach Delay (s/veh)

Approach LOS

HCSTM TWSC Version 2023 2045 AM N 2000 W and W 4000 N Build.xtw

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В

		ŀ	ICS 1	Гwo-'	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_	_	_	_	_	Site	Inforr	natio	n	_	_	_	_	_	
Analyst	Elizab	eth Gall	egos				Inters	ection			N 200)0 W and	d W 400	0 N		
Agency/Co.	_	onsultant	-				Jurisd	liction								
Date Performed	12/14	/2023					East/\	West Stre	eet		W 40	00 N				
Analysis Year	2045						North	/South S	Street		N 200	00 W				
Time Analyzed	2045	AM Peal	k No Bui	ld			Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	1.00					
Project Description							1									
Lanes																
				244444U		منبع or Street: Ea		114 + 14 + 1 114 + 14 + 1								
Vehicle Volumes and Ad	justme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration	<u> </u>		LTR				LTR				LTR				LTR	
Volume (veh/h)		0	80	0		9	27	18		0	0	27		53	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)											0				0	
Right Turn Channelized					<u> </u>											
Median Type Storage				Unar	vided											
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, an	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)		0				10					29				58	
Capacity, c (veh/h)		1552				1503					969				773	
v/c Ratio		0.00				0.01					0.03				0.07	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.1				0.2	
Control Delay (s/veh)		7.3	0.0	0.0		7.4	0.0	0.0			8.8				10.0	
Level of Service (LOS)		A	Α	Α		A	А	A			A				В	

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Approach Delay (s/veh)

Approach LOS

HCS TW TWSC Version 2023 2045 AM N 2000 W and W 4000 N No Build.xtw

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		ŀ	ICS T	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_	_	_	_	_	Site	Inforr	natio	n	_	_	_	_	_	_
Analyst	Elizat	oeth Gall	egos				Inters	ection			N 200	00 W an	d W 400	0 N		_
Agency/Co.	Y2 Co	onsultant	ts				Jurisc	liction								
Date Performed	12/14	4/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2045						North	n/South S	Street		N 200	00 W				
Time Analyzed	2045	PM Peal	c Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
				J 4 4 1 4 4 6 0		or Street: Ea	t t i i i i i i i i i i i i i i i i i i	4 1 7 4 4 7 1 4								
Vehicle Volumes and Ad	justme															
Approach		1	ound			1	bound			1	bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	41	0		22	67	45		0	0	14		27	0	0
Percent Heavy Vehicles (%)		3			<u> </u>	3	<u> </u>	<u> </u>	<u> </u>	3	3	3		3	3	3
Proportion Time Blocked	+										D				0	
Percent Grade (%) Right Turn Channelized											J				0	
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	vs		ondi	iacu				<u> </u>							
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)	-	4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.2
Base Follow-Up Headway (sec)	1	2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.3
Delay, Queue Length, an	d Leve		ervice													
Flow Rate, v (veh/h)		0				24					15				29	
Capacity, c (veh/h)		1459				1557					1023				736	
v/c Ratio		0.00				0.02					0.01				0.04	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
									1				1			<u> </u>

7.5

А

0.0

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Control Delay (s/veh)

Level of Service (LOS)

Approach Delay (s/veh)

Approach LOS

HCSTM TWSC Version 2023 2045 PM N 2000 W and W 4000 N Build.xtw

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В

		ŀ	ICS 1	ſwo-'	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_	_	_	_		Site	Inforr	natio	ı		_	_	_		
Analyst	Elizab	eth Gall	egos				Inters	ection			N 200)0 W and	d W 400	0 N		
Agency/Co.		onsultant					Jurisc	liction								
Date Performed	12/14	/2023					East/	West Str	eet		W 40	00 N				
Analysis Year	2045						North	/South	Street		N 200	00 W				
Time Analyzed	2045	PM Peak	No Bui	d			Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	1.00					
Project Description							1									
Lanes																
				J 4 4 7 4 4 7 A		منبع م Street: Ea		0 7 4 4 4 4 7 4 7								
Vehicle Volumes and Ad	justme	nts														
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration	<u> </u>		LTR				LTR				LTR				LTR	
Volume (veh/h)		0	41	0		22	65	44		0	0	14		27	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)											0				0	
Right Turn Channelized Median Type Storage				Lindi	vided											
				Unu	videu											
Critical and Follow-up H	eauwa	-														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23	•			2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, an	d Leve		ervice													
Flow Rate, v (veh/h)		0				24					15				29	
Capacity, c (veh/h)		1463				1557					1023				739	
v/c Ratio		0.00				0.02					0.01				0.04	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
Control Delay (s/veh)		7.5	0.0	0.0		7.3	0.1	0.1			8.6				10.1	
Level of Service (LOS)		A	A	A		A	A	A			A				В	

Approach Delay (s/veh)

Approach LOS

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		ŀ	HCS -	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						
Analyst	Elizab	eth Gall	egos				Inters	ection			O'She	ea Road	and W 4	000 N		
Agency/Co.	_	onsultan	-				Jurisd	liction								
Date Performed	12/14	/2023					East/\	Nest Stre	eet		W 40	00 N				
Analysis Year	2030						North	/South S	Street		O'She	ea Road				
Time Analyzed	2030	AM Pea	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	1.00					
Project Description							1									
Lanes																
					<u>1</u> 4	Y ∳Y or Street: Ea	st-West	4 1 X 4 F C U								
Vehicle Volumes and Adj	ustme															
Approach			bound			West					bound				bound	
Movement	U	L	T	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration			00	TR	<u> </u>	LT	20			1	LR	6			-	
Volume (veh/h)			89	0		2	30			1		6				-
Percent Heavy Vehicles (%)						3				3		3				-
Proportion Time Blocked Percent Grade (%)											0					
Right Turn Channelized											0					
Median Type Storage				Undi	vided											
Critical and Follow-up He	aadway	VE			viaca											
•	eauwa	ys 	1		1	4.1			1	71	1	6.2	1	1	1	
Base Critical Headway (sec) Critical Headway (sec)						4.1				7.1 6.43		6.2 6.23				-
Base Follow-Up Headway (sec)						4.13 2.2				6.43 3.5		6.23 3.3			-	-
Follow-Up Headway (sec)	-					2.2				3.5		3.3				
· · ·	dlare					2.25				5.55		5.55				
Delay, Queue Length, and	u Leve	1 01 50	ervice		1								1			_
Flow Rate, v (veh/h)						2					8					
Capacity, c (veh/h)						1490					941					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0	0.0				0.0					
	1	1	1		1	7.4	0.0	I I	I	I	8.9	I	1	1	1	
Control Delay (s/veh)						Δ	•				Δ					
Control Delay (s/veh) Level of Service (LOS) Approach Delay (s/veh)						A	A .5				A					

HCS TM TWSC Version 2023 2030 AM OShea and W 4000 N Build.xtw

		ŀ	ICS ⁻	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n			_			
Analyst	Elizab	eth Gall	egos				Inters	ection			O'She	a Road	and W 4	000 N		
Agency/Co.	Y2 Cc	onsultan	ts				Jurisc	liction								
Date Performed	12/14	/2023					East/	Nest Stre	eet		W 40	00 N				
Analysis Year	2030						North	/South S	Street		O'She	a Road				
Time Analyzed	2030	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u>1</u> 4	Y ↔ Y or Street: Ea	t 🏄 🏹 st-West	4 1 X 4 F L U								
Vehicle Volumes and Ad	justme															
Approach Movement	U	Eastb	ound T	R	U	West!	oound T	R	U	North L	bound T	R	U	South	bound T	R
Priority	10	L 1	2	к 3	4U	4	5	к 6	0	L 7	8	я 9	0	L 10	11	R 12
Number of Lanes	0	0	1	0	40	4	1	0		0	0	0		0	0	0
Configuration		0		TR		LT		0		0	LR	0			Ŭ	
Volume (veh/h)	-		45	0		2	73			1		6			-	-
Percent Heavy Vehicles (%)						3				3		3				-
Proportion Time Blocked	-														-	
Percent Grade (%)	-										0					
Right Turn Channelized																
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)	T					4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)	T					2					8					
Capacity, c (veh/h)						1552					991					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.3	0.0				8.7					
Level of Service (LOS)						A	А				A					
Approach Delay (s/veh)						0	.2			8	.7					
Approach LOS						/	4			,	Ą					

HCS TM TWSC Version 2023 2030 PM OShea and W 4000 N Build.xtw

		ł	ICS 1	wo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_		_			Site	Inforr	natio	n			_	_		_
Analyst	Elizab	eth Gall	egos				Inters	ection			O'She	ea Road	and W 4	000 N		
Agency/Co.	Y2 Co	onsultan	ts				Jurisd	liction								
Date Performed	12/14	/2023					East/\	West Str	eet		W 40	00 N				
Analysis Year	2045						North	n/South :	Street		O'She	ea Road				
Time Analyzed	2045	AM Pea	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u>1</u> 4	Y or Street: Ea	st-West	4 4 X 4 K L U								
Vehicle Volumes and Adj	justme															
Approach	-		bound				bound			1	bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration	-		1.60	TR	<u> </u>	LT			<u> </u>		LR				<u> </u>	_
Volume (veh/h)			160	0		2	54			1		6				
Percent Heavy Vehicles (%)	-					3			<u> </u>	3		3				-
Proportion Time Blocked Percent Grade (%)											0					
Right Turn Channelized					<u> </u>						0					
Median Type Storage	-			Undi	vided											
Critical and Follow-up H	oodwa	ve			viaca											
•	eauwa	ys 	-		1	4.1	_	1		7.1	-	6.2	1			
Base Critical Headway (sec) Critical Headway (sec)						4.1				7.1 6.43		6.2 6.23			-	
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.2				3.53		3.33				
· · ·	dlave		orviec			L.L.5				5.55		5.55				
Delay, Queue Length, an		1 01 5	ervice		1					1			1			_
Flow Rate, v (veh/h)	-					2					8					
Capacity, c (veh/h)	-					1397					848					
v/c Ratio	-					0.00					0.01					
95% Queue Length, Q ₉₅ (veh)				_		0.0	0.0				0.0					
Control Delay (s/veh)						7.6	0.0				9.3					-
Loval of Sontice (LOS)						A .	^				•					
Level of Service (LOS) Approach Delay (s/veh)						A	A .3				A 0.3					

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		H	HCS -	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information			_	_	_	_	Site	Inforr	natio	n	_	_	_			
Analyst	Elizab	eth Gall	egos				Inters	ection			O'She	ea Road	and W 4	000 N		
Agency/Co.	_	nsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2045	-					North	n/South :	Street		O'She	ea Road				
Time Analyzed	2045	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-V	Vest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u> 1</u> 4	Y → Y or Street: Ea	t t T st-West	4 1 7 4 P C G								
Vehicle Volumes and Ad	justme															
Approach			ound				bound				bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR				<u> </u>	<u> </u>
Volume (veh/h)			81	0		2	131			1		6				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)											0					
Right Turn Channelized																
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	of S	ervice													
Flow Rate, v (veh/h)						2					8					
Capacity, c (veh/h)						1501					929					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				8.9					
Level of Service (LOS)						A	А				A					
Approach Delay (s/veh)						0	.1			8	.9					
Approach LOS							Ą				A					

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		ł	ICS ⁻	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						
Analyst	Elizab	eth Gall	egos				Inters	ection			Vallej	o Road a	nd W 4	000 N		
Agency/Co.	Y2 Cc	onsultan	ts				Jurisc	liction								
Date Performed	12/14	/2023					East/	Nest Stre	eet		W 40	00 N				
Analysis Year	2030						North	/South S	Street		Vallej	o Road				
Time Analyzed	2030	AM Pea	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u>1</u> 4	Ŷ ŶŶŶ or Street: Ea	t 🅂 Č st-West	4 1 X 4 F L U								
Vehicle Volumes and Ad	justme															
Approach			bound			West					bound			1	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	T	R
Priority Number of Lanes	1U 0	1 0	2	3 0	4U 0	4	5	6 0	<u> </u>	7	8	9 0		10 0	11 0	12 0
Configuration	0	0	'	TR	0	LT		0		0	LR	0		0	0	
Volume (veh/h)	-		95	0		2	32			1		5				
Percent Heavy Vehicles (%)	-			0		3	JE			3		3				-
Proportion Time Blocked	-									5					-	-
Percent Grade (%)	+										0					
Right Turn Channelized	-										-					
Median Type Storage	-			Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)						4.1				7.1		6.2				T
Critical Headway (sec)	-					4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice												<u> </u>	
Flow Rate, v (veh/h)	T					2					7					T
Capacity, c (veh/h)						1482					930					-
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				8.9					<u> </u>
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						0	.4			8	.9					
Approach LOS							4				Ą					

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		ŀ	ICS ⁻	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n			_			
Analyst	Elizab	eth Gall	egos				Inters	ection			Vallej	o Road a	nd W 4	000 N		
Agency/Co.	Y2 Cc	onsultan	ts				Jurisd	liction								
Date Performed	12/14	/2023					East/\	Nest Stre	eet		W 40	00 N				
Analysis Year	2030						North	/South S	Street		Vallej	o Road				
Time Analyzed	2030	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u>1</u> 4	Ŷ ŶŶŶ	st-West	4 1 X 4 F L U								
Vehicle Volumes and Adj	justme															
Approach			ound			1	bound	-			bound	-		1	bound	-
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	T	R
Priority Number of Lanes	1U 0	1 0	2	3 0	4U 0	4	5	6 0		7	8	9 0		10 0	11 0	12 0
Configuration	0	0	'	TR	0	LT		0		0	LR	0		0	0	
Volume (veh/h)			51	0		2	75			1		5				<u> </u>
Percent Heavy Vehicles (%)				0		3	15			3		3				
Proportion Time Blocked						5									-	
Percent Grade (%)											0					
Right Turn Channelized											-					
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)			<u> </u>			4.1				7.1		6.2			<u> </u>	<u> </u>
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)						2					7					
Capacity, c (veh/h)						1543					, 978					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.3	0.0				8.7					<u> </u>
Level of Service (LOS)						A	А				A					
Approach Delay (s/veh)						0	.2			8	.7					
Approach LOS	-						4				Ą					

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		ł	HCS 1	ſwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inform	natio	n						
Analyst	Elizab	eth Gall	egos				Inters	ection			Vallej	o Road a	and W 4	000 N		
Agency/Co.	_	nsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	West Str	eet		W 40	00 N				
Analysis Year	2045						North	n/South	Street		Vallej	o Road				
Time Analyzed	2045	AM Pea	k Build				Peak	Hour Fa	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u></u> 14	Ŷ Ŷ Ŷ	t t T st-West	4 4 X 4 X 4 V U								
Vehicle Volumes and Ad	justme															
Approach			bound				bound			1	bound				bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	40	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration	-		100	TR		LT		<u> </u>	<u> </u>		LR		<u> </u>		<u> </u>	<u> </u>
Volume (veh/h)	_		166	0		2	56			1		5				
Percent Heavy Vehicles (%)						3			<u> </u>	3		3			<u> </u>	
Proportion Time Blocked	+															
Percent Grade (%)									<u> </u>		0		<u> </u>			
Right Turn Channelized Median Type Storage				أممال	vided											
				Unai	vided											
Critical and Follow-up H	eadwa	ys		_												
Base Critical Headway (sec)	-					4.1				7.1		6.2			<u> </u>	-
Critical Headway (sec)						4.13				6.43		6.23				-
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)						2					7					
Capacity, c (veh/h)						1389					837					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.6	0.0				9.3					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)							.3				9.3					
Approach LOS							A				A					

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		ŀ	ICS ⁻	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						
Analyst	Elizab	eth Gall	egos				Inters	ection			Vallej	o Road a	and W 4	000 N		_
Agency/Co.	Y2 Cc	onsultan	ts				Jurisd	iction								
Date Performed	12/14	/2023					East/\	Nest Stre	eet		W 40	00 N				
Analysis Year	2045						North	/South S	Street		Vallej	o Road				
Time Analyzed	2045	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
					<u></u> 1 4	Ŷ Ŷ or Street: Ea	t 🕂 Č st-West	4 X + F C U								
Vehicle Volumes and Ad	Justme												1			
Approach Movement	U	L	ound T	R	U	West!	ound T	R	U	North L	bound T	R	U	South L	bound T	R
Priority	10	1	2	3	4U	4	5	6		7	8	9	0	10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration	Ť	Ű		TR	Ű	LT	· ·	Ŭ		Ű	LR	Ů			Ŭ	Ů
Volume (veh/h)	-		87	0		2	133			1		5				
Percent Heavy Vehicles (%)	-					3				3		3				
Proportion Time Blocked	-														-	
Percent Grade (%)	-										0					
Right Turn Channelized																
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)	T					4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)	T					2					7					<u> </u>
Capacity, c (veh/h)						1493					915					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				9.0					
Level of Service (LOS)						А	Α				А					
Approach Delay (s/veh)						0	.1			9	.0					
Approach LOS						/	Ą				Ą					

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		ł	HCS ⁻	Гwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_					Site	Inforr	natio	n						_
Analyst	Elizab	eth Gall	egos				Inters	ection			Emba	ircadero	St and V	V 4000 I	N	
Agency/Co.		onsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2030						North	n/South S	Street		Emba	ircadero	St			
Time Analyzed	2030	AM Pea	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
Vohielo Volumes and Ad		-			<u>, 1</u>	Y or Street: Ea	t t i	4 1 X 4 F L U								
Vehicle Volumes and Ad	Justme															
Approach		1	bound			1	oound			1	bound			1	ibound	
Movement	U	L	T	R	U	L	Т	R	U	L	Т	R	U	L	T	R
Priority Number of Lanes	1U 0	1	2	3	4U 0	4	5	6 0		7	8	9		10 0	11 0	12 0
Configuration	0	0		TR	0	LT	'	0		0	LR	0				0
Volume (veh/h)			100	0		4	34			1		12				-
Percent Heavy Vehicles (%)	+		100			3				3		3				-
Proportion Time Blocked	+					5						5				
Percent Grade (%)	-										0					
Right Turn Channelized	-										-					
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)						4.1				7.1		6.2				<u> </u>
Critical Headway (sec)	+					4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)						4					14					
Capacity, c (veh/h)						1476					933					
v/c Ratio						0.00					0.02					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				8.9					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						. 0	.8			. 8	.9					
Approach LOS						,	4				Ą					

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		ł	ICS -	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_					Site	Inforr	natio	n					_	_
Analyst	Elizab	eth Gall	egos				Inters	ection			Emba	ircadero	St and V	V 4000 I	۷	
Agency/Co.		onsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	West Stre	eet		W 40	00 N				
Analysis Year	2030						North	n/South S	Street		Emba	ircadero	St			
Time Analyzed	2030	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
Vohislo Volumes and Ad		~			<u>ר</u> ק	Y or Street: Ea	t t i	4 1 X 4 F L U								
Vehicle Volumes and Ad	Justme															
Approach			ound			West		D		1	bound	D		1	bound	
Movement	U	L	T	R	U	L	Т	R	U	L	T	R	U	L	T	R
Priority Number of Lanes	1U 0	1	2	3	4U 0	4	5	6 0		7	8	9		10 0	11 0	12 0
Configuration	0	0		TR	0	LT	'	0		0	LR	0		0	0	0
Volume (veh/h)			56	0		4	77			1		12				
Percent Heavy Vehicles (%)	+		50			3				3		3				-
Proportion Time Blocked	+					5						5			-	
Percent Grade (%)	-										0					
Right Turn Channelized	-										-					
Median Type Storage				Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)						4.1				7.1		6.2				<u> </u>
Critical Headway (sec)	+					4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)						4					14					
Capacity, c (veh/h)						1536					986					
v/c Ratio						0.00					0.01					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				8.7					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						. 0	.4			. 8	.7					
Approach LOS						,	4				A					

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		ł	HCS ⁻	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_					Site	Inforr	natio	n						_
Analyst	Elizab	eth Gall	egos				Inters	ection			Emba	ircadero	St and V	V 4000 ľ	N	
Agency/Co.	_	onsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	Nest Stre	eet		W 40	00 N				
Analysis Year	2045						North	/South S	Street		Emba	ircadero	St			
Time Analyzed	2045	AM Pea	k Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
						Y or Street: Ea	t t i i i i i i i i i i i i i i i i i i	4 4 7 4 4 C D								
Vehicle Volumes and Ad	justme															
Approach		1	bound			1	bound	_		1	bound			1	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority Number of Lanes	10	1	2	3	40	4	5	6	<u> </u>	7	8	9	<u> </u>	10	11	12
Configuration	0	0	1	0 TR	0	0 LT	1	0		0	LR	0		0	0	0
Volume (veh/h)			171	0		4	58			1	LK	12			-	
Percent Heavy Vehicles (%)			171			3	50			3		3				
Proportion Time Blocked						5				5		5				
Percent Grade (%)	+										0					
Right Turn Channelized	-										-					
Median Type Storage	+			Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)	<u> </u>	, -				4.1				7.1		6.2			<u> </u>	1
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)	1					4					14					-
Capacity, c (veh/h)						1383					842					
v/c Ratio	-					0.00					0.02					
95% Queue Length, Q ₉₅ (veh)						0.00					0.02					
Control Delay (s/veh)	-					7.6	0.0				9.3					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)							.5			9	0.3					1
Approach LOS							4				A					

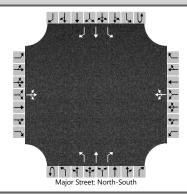
HCSTM TWSC Version 2023 2045 AM Embarcadero and W 4000 N Build.xtw

		ŀ	ICS -	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information		_					Site	Inforr	natio	n						_
Analyst	Elizab	eth Gall	egos				Inters	ection			Emba	ircadero	St and V	V 4000 I	N	
Agency/Co.	_	onsultan	-				Jurisc	liction								
Date Performed	12/14	/2023					East/	Nest Stre	eet		W 40	00 N				
Analysis Year	2045						North	/South S	Street		Emba	ircadero	St			
Time Analyzed	2045	PM Peal	< Build				Peak	Hour Fac	ctor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	1.00					
Project Description																
Lanes																
Vohislo Volumes and Ad	1	-			<u>, 1</u>	Y •••Y or Street: Ea	t t i	4 1 7 4 4 7 0 A 1 7 4 4 7 0								
Vehicle Volumes and Ad	Justme															
Approach			ound	D		1	oound	D		1	bound	D		1	bound	
Movement	U 1U	L 1	T 2	R 3	U 4U	L 4	Т 5	R 6	U	L 7	Т 8	R 9	U	L 10	т 11	R 12
Priority Number of Lanes	0	0	1	0	40	4	1	0		0	0	0		0	0	0
Configuration		0		TR		LT	'	0			LR	0			0	
Volume (veh/h)	+		92	0		4	135			1		12				
Percent Heavy Vehicles (%)	+					3				3		3				-
Proportion Time Blocked	-					-				-		-				
Percent Grade (%)	-			<u> </u>							0				<u> </u>	
Right Turn Channelized	-															
Median Type Storage	1			Undi	vided											
Critical and Follow-up H	eadwa	vs														
Base Critical Headway (sec)						4.1				7.1		6.2				<u> </u>
Critical Headway (sec)	-					4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)						4					14					
Capacity, c (veh/h)						1486					931					
v/c Ratio						0.00					0.02					
95% Queue Length, Q ₉₅ (veh)						0.0					0.0					
Control Delay (s/veh)						7.4	0.0				8.9					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						0	.2			8	.9					
Approach LOS							4				Ą					

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	11C3 100-00		
General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/8/2023	East/West Street	W 4000 N
Analysis Year	2022	North/South Street	Idaho SH 33
Time Analyzed	2022 AM Peak	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes

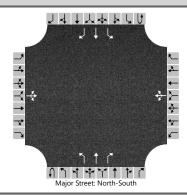


Vehicle Volumes and Adj	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	Т	R		L	Т	R
Volume (veh/h)		3	0	62		6	0	7		21	191	6		3	363	1
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)			0				0									
Right Turn Channelized										Ν	lo			Ν	lo	
Median Type Storage				Undi	vided											
Critical and Follow-up He	adways															
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		
Delay, Queue Length, and	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)			69				14			22				3		
Capacity, c (veh/h)			637				482			1166				1355		
v/c Ratio			0.11				0.03			0.02				0.00		
95% Queue Length, Q ₉₅ (veh)			0.4				0.1			0.1				0.0		
Control Delay (s/veh)			11.3				12.7			8.1				7.7		
Level of Service (LOS)			В				В			A				A		
Approach Delay (s/veh)		1'	1.3			12	2.7			0	.8			0	.1	
Approach LOS			В				В				4			1	4	

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11C3 1WO-Way 3		
	Site Information	
Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Y2 Consultants	Jurisdiction	
12/8/2023	East/West Street	W 4000 N
2022	North/South Street	Idaho SH 33
2022 PM Peak	Peak Hour Factor	0.96
North-South	Analysis Time Period (hrs)	1.00
	Elizabeth Gallegos Y2 Consultants 12/8/2023 2022 2022 PM Peak	Elizabeth Gallegos Intersection Y2 Consultants Jurisdiction 12/8/2023 East/West Street 2022 North/South Street 2022 PM Peak Peak Hour Factor

Lanes

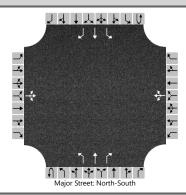


Vehicle Volumes and Adj	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	Т	R		L	Т	R
Volume (veh/h)		2	0	31		0	0	1		52	375	3		1	211	1
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)			0				0									
Right Turn Channelized										Ν	lo			Ν	lo	
Median Type Storage				Undi	vided											
Critical and Follow-up He	adways															
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		
Delay, Queue Length, and	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)			34				1			54				1		
Capacity, c (veh/h)			749				656			1342				1159		
v/c Ratio			0.05				0.00			0.04				0.00		
95% Queue Length, Q ₉₅ (veh)			0.1				0.0			0.1				0.0		
Control Delay (s/veh)			10.0				10.5			7.8				8.1		
Level of Service (LOS)			В				В			A				A		
Approach Delay (s/veh)		10.0 10.5							0	.9			0	.0		
Approach LOS			В				В				4			1	4	

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	1103 100 008	by Stop Control Report	
General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2030	North/South Street	Idaho SH 33
Time Analyzed	2030 AM Peak Build	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			
		Analysis filme Period (fils)	1.00

Lanes



Vehicle Volumes and Adju	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	Т	R		L	Т	R
Volume (veh/h)		5	0	107		8	0	10		36	261	8		4	497	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)			0				0									
Right Turn Channelized										Ν	lo			Ν	lo	
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	adways														
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		
Delay, Queue Length, and	d Leve	l of Se	ervice													
Flow Rate, v (veh/h)			119				19			38				4		
Capacity, c (veh/h)			519				315			1031				1270		
v/c Ratio			0.23				0.06			0.04				0.00		
95% Queue Length, Q ₉₅ (veh)			0.9				0.2			0.1				0.0		
Control Delay (s/veh)			14.0				17.2			8.6				7.8		
Level of Service (LOS)			В				С			A				A		
Approach Delay (s/veh)		14	4.0	-		1	7.2			. 1	.0			0	.1	
Approach LOS			В				С			1	4				4	

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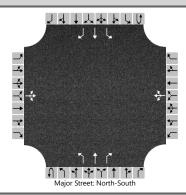
HCS TM TWSC Version 2023 2030 AM SH 33 and W 4000 N Build.xtw

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	HCS Two-Way Stop	-Control Report	
General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N

Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2030	North/South Street	Idaho SH 33
Time Analyzed	2030 AM Peak No Build	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes

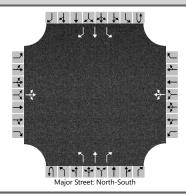


Vehicle Volumes and Adjustments Approach Eastbound Westbound Northbound Southbound U U U L т R L т R U L Т R L R Movement Т 7 Priority 10 11 12 8 9 1U 1 2 3 4U 4 5 6 Number of Lanes 0 1 0 0 1 0 0 1 1 1 0 1 1 1 LTR Configuration LTR Т R Т R L L 10 29 497 Volume (veh/h) 4 0 85 8 0 261 8 4 1 Percent Heavy Vehicles (%) 3 3 3 3 3 3 3 3 **Proportion Time Blocked** 0 0 Percent Grade (%) **Right Turn Channelized** No No Median Type | Storage Undivided **Critical and Follow-up Headways** Base Critical Headway (sec) 7.1 6.5 6.2 7.1 6.5 6.2 4.1 4.1 Critical Headway (sec) 7.13 6.53 6.23 7.13 6.53 6.23 4.13 4.13 3.5 4.0 3.3 3.5 3.3 2.2 2.2 Base Follow-Up Headway (sec) 4.0 Follow-Up Headway (sec) 3.53 4.03 3.33 3.53 4.03 3.33 2.23 2.23 Delay, Queue Length, and Level of Service 95 Flow Rate, v (veh/h) 19 31 4 Capacity, c (veh/h) 520 340 1032 1270 v/c Ratio 0.18 0.06 0.03 0.00 0.7 0.1 95% Queue Length, Q₉₅ (veh) 0.2 0.0 13.5 16.2 8.6 Control Delay (s/veh) 7.8 Level of Service (LOS) В С А А 13.5 0.8 Approach Delay (s/veh) 16.2 0.1 В С Approach LOS А А

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		ay stop control report	
General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2030	North/South Street	Idaho SH 33
Time Analyzed	2030 PM Peak Build	Peak Hour Factor	0.96
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes



Vehicle Volumes and Adju	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	Т	R		L	Т	R
Volume (veh/h)		4	0	64		0	0	1		79	513	4		1	289	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)			0				0									
Right Turn Channelized										Ν	lo			Ν	lo	
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	adways														
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		
Delay, Queue Length, and	l Leve	l of Se	ervice													
Flow Rate, v (veh/h)			71				1			82				1		
Capacity, c (veh/h)			638				544			1252				1025		
v/c Ratio			0.11				0.00			0.07				0.00		
95% Queue Length, Q ₉₅ (veh)			0.4				0.0			0.2				0.0		
Control Delay (s/veh)			11.3				11.6			8.1				8.5		
Level of Service (LOS)			В				В			A				A		
Approach Delay (s/veh)		1	1.3	-		1	1.6			1	.1			0	.0	-
Approach LOS			В				В			1	4				4	

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	HCS Two-Way Stop	o-Control Report	
General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	ldaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N

North/South Street

Analysis Time Period (hrs)

Peak Hour Factor

Idaho SH 33

0.96

1.00

Analysis Year Time Analyzed Intersection Orientation

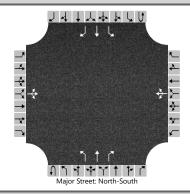
Project Description

2030

North-South

2030 PM Peak No Build

Lanes



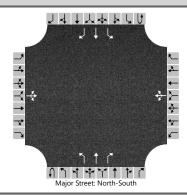
Vehicle Volumes and Adjustments Approach Eastbound Westbound Northbound Southbound U U Т R U L R U Т R R Т Т Т L Т Movement Priority 10 11 12 7 8 9 1U 1 2 3 4U 4 5 6 Number of Lanes 0 1 0 0 1 0 0 1 1 1 0 1 1 1 LTR LTR Т R Configuration L L Т R Volume (veh/h) 3 0 42 0 0 1 71 513 4 1 289 1 Percent Heavy Vehicles (%) 3 3 3 3 3 3 3 3 **Proportion Time Blocked** 0 Percent Grade (%) 0 **Right Turn Channelized** No No Median Type | Storage Undivided Critical and Follow-up Headways Base Critical Headway (sec) 7.1 6.5 6.2 7.1 6.5 6.2 4.1 4.1 Critical Headway (sec) 7.13 6.53 6.23 7.13 6.53 6.23 4.13 4.13 3.5 4.0 3.3 3.5 3.3 2.2 2.2 Base Follow-Up Headway (sec) 4.0 Follow-Up Headway (sec) 3.53 4.03 3.33 3.53 4.03 3.33 2.23 2.23 Delay, Queue Length, and Level of Service 47 74 Flow Rate, v (veh/h) 1 1 Capacity, c (veh/h) 632 544 1253 1025 v/c Ratio 0.07 0.00 0.06 0.00 95% Queue Length, Q95 (veh) 0.2 0.2 0.0 0.0 Control Delay (s/veh) 11.2 11.6 8.1 8.5 Level of Service (LOS) В В А А 11.2 Approach Delay (s/veh) 11.6 1.0 0.0 Approach LOS В В А А

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HCSTM TWSC Version 2023 2030 PM SH 33 and W 4000 N No Build.xtw

General Information Site Information						
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N			
Agency/Co.	Y2 Consultants	Jurisdiction				
Date Performed	12/14/2023	East/West Street	W 4000 N			
Analysis Year	2045	North/South Street	Idaho SH 33			
Time Analyzed	2045 AM Peak Build	Peak Hour Factor	0.94			
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00			
Project Description						

Lanes



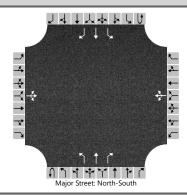
Vehicle Volumes and Adj	ustme	nts																
Approach		Eastb	ound			West	bound		Northbound					Southbound				
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R		
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6		
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1		
Configuration			LTR				LTR			L	Т	R		L	Т	R		
Volume (veh/h)		9	0	175		15	0	17		59	471	15		7	895	3		
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3				
Proportion Time Blocked																		
Percent Grade (%)			0				0											
Right Turn Channelized										Ν	lo		No					
Median Type Storage		Undivided																
Critical and Follow-up He	eadwa	ys																
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1				
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13				
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2				
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23				
Delay, Queue Length, and	d Leve	l of Se	ervice															
Flow Rate, v (veh/h)			196				34			63				7				
Capacity, c (veh/h)			270				55			716				1044				
v/c Ratio			0.73				0.62			0.09				0.01				
95% Queue Length, Q ₉₅ (veh)			6.7				3.6			0.3				0.0				
Control Delay (s/veh)			51.3				165.3			10.5				8.5				
Level of Service (LOS)			F				F			В				A				
Approach Delay (s/veh)		5	1.3			165.3				1.1				0.1				
Approach LOS			F				F				4				4			

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HCS TM TWSC Version 2023 2045 AM SH 33 and W 4000 N Build.xtw

General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2045	North/South Street	Idaho SH 33
Time Analyzed	2045 AM Peak No Build	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes



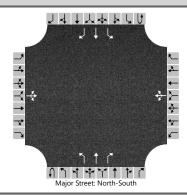
Vehicle Volumes and Adjustments Approach Eastbound Westbound Northbound Southbound U U U т R L т R U L Т R L R Movement Т Т 7 2 Priority 10 11 12 8 9 1U 1 3 4U 4 5 6 Number of Lanes 0 1 0 0 1 0 0 1 1 1 0 1 1 1 LTR Configuration LTR L Т R L Т R 7 17 471 15 895 2 Volume (veh/h) 0 153 15 0 52 7 Percent Heavy Vehicles (%) 3 3 3 3 3 3 3 3 **Proportion Time Blocked** 0 0 Percent Grade (%) **Right Turn Channelized** No No Median Type | Storage Undivided **Critical and Follow-up Headways** Base Critical Headway (sec) 7.1 6.5 6.2 7.1 6.5 6.2 4.1 4.1 Critical Headway (sec) 7.13 6.53 6.23 7.13 6.53 6.23 4.13 4.13 3.3 3.5 4.0 3.3 3.5 2.2 2.2 Base Follow-Up Headway (sec) 4.0 Follow-Up Headway (sec) 3.53 4.03 3.33 3.53 4.03 3.33 2.23 2.23 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 170 34 55 7 Capacity, c (veh/h) 276 68 716 1044 v/c Ratio 0.62 0.50 0.08 0.01 4.5 0.3 95% Queue Length, Q₉₅ (veh) 2.6 0.0 38.6 109.0 10.4 Control Delay (s/veh) 8.5 Level of Service (LOS) Е F В А 38.6 109.0 0.1 Approach Delay (s/veh) 1.0 Е F Approach LOS А А

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General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2045	North/South Street	Idaho SH 33
Time Analyzed	2045 PM Peak Build	Peak Hour Factor	0.96
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes



Vehicle Volumes and Adju	ustme	nts																
Approach		Eastb	ound			Westbound			Northbound				Southbound					
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R		
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6		
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1		
Configuration			LTR				LTR			L	Т	R		L	Т	R		
Volume (veh/h)		6	0	98		0	0	2		136	924	7		2	520	3		
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3				
Proportion Time Blocked																		
Percent Grade (%)			0				0											
Right Turn Channelized									No				No					
Median Type Storage		Undivided																
Critical and Follow-up He	adwa	ys																
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1				
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13				
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2				
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23				
Delay, Queue Length, and	d Leve	l of Se	ervice															
Flow Rate, v (veh/h)			108				2			142				2				
Capacity, c (veh/h)			352				309			1019				707				
v/c Ratio			0.31				0.01			0.14				0.00				
95% Queue Length, Q ₉₅ (veh)			1.3				0.0			0.5				0.0				
Control Delay (s/veh)			19.8				16.7			9.1				10.1				
Level of Service (LOS)			С				С			A				В				
Approach Delay (s/veh)		19	9.8	-		16.7			1.2				0.0					
Approach LOS		(С				С			1	4				Ą			

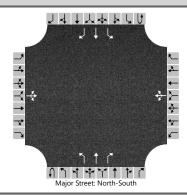
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General Information		Site Information	
Analyst	Elizabeth Gallegos	Intersection	Idaho SH 33 and W 4000 N
Agency/Co.	Y2 Consultants	Jurisdiction	
Date Performed	12/14/2023	East/West Street	W 4000 N
Analysis Year	2045	North/South Street	Idaho SH 33
Time Analyzed	2045 PM Peak No Build	Peak Hour Factor	0.96
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes



Vehicle Volumes and Adj	ustme	nts																
Approach		Eastb	ound			West	bound			Northbound				Southbound				
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R		
Priority		10	11	12		7	8	9	10	1	2	3	4U	4	5	6		
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1		
Configuration			LTR				LTR			L	Т	R		L	Т	R		
Volume (veh/h)		5	0	76		0	0	2		128	924	7		2	520	2		
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3				
Proportion Time Blocked																		
Percent Grade (%)			0				0		· · · · · · · · · · · · · · · · · · ·									
Right Turn Channelized		1								Ν	lo		No					
Median Type Storage		Undivid																
Critical and Follow-up H	eadwa	ys																
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1				
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13				
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2				
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23				
Delay, Queue Length, an	d Leve	l of S	ervice											<u> </u>				
Flow Rate, v (veh/h)			84				2			133				2				
Capacity, c (veh/h)			348				309			1020				707				
v/c Ratio			0.24				0.01			0.13				0.00				
95% Queue Length, Q ₉₅ (veh)			1.0				0.0			0.5				0.0				
Control Delay (s/veh)			18.6				16.7			9.1				10.1				
Level of Service (LOS)			С				С			A				В				
Approach Delay (s/veh)		18	8.6	-	16.7			1.1				0.0						
Approach LOS			С				С			1	4				Ą			

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