

Memorandum

Date: June 8, 2023

To: Jeremy Bastow, Haskell
Matthew Burke, The Church of Jesus Christ of Latter-day Saints

From: Calvin Clark, Fehr & Peers
Seishi Yamagata, PE, Fehr & Peers

Subject: Cody, Wyoming Special Use Site Response to Public Traffic Comments

This memo contains an item-by-item response to public comments contained in Section II.B. of the letter from Debra Wendtland of Wendtland & Wendtland on behalf of "Preserve Our Cody Neighborhoods" sent to the City of Cody Planning & Zoning Board dated May 18, 2023. A Transportation Impact Analysis (sometimes called a Traffic Impact Study) is a study performed by a qualified transportation professional to assess the impact of a site development on traffic at surrounding intersections. The Institute of Transportation Engineers (ITE) is an international association of transportation professionals. Among many other things, ITE develops technical resources including standards and recommended practices, and is seen as an authority in the transportation profession. ITE has published a recommended practice guide for conducting a Transportation Impact Analysis (*Transportation Impact Analyses for Site Development: An ITE Recommended Practice*, The Institute of Transportation Engineers, 2010). The performance of the original traffic study for this special use site was performed by Fehr & Peers in 2022 in the Due Diligence phase of the special use site project before the involvement of City staff. While the study was performed for due diligence purposes with the best data publicly available or obtainable, the methodology was in accordance with ITE recommended practice.

1. The traffic count is not representative

ITE recommends (Page 16) analyzing peak hours of traffic, normally the highest one-hour period from 7-9 AM and 4-6 PM on a weekday. The data for the traffic study for the site was collected in accordance with these guidelines.



2. Trip Counts

ITE publishes trip generation rates (in terms of square footage or person-capacity) for use by practitioners for typical land uses such as residential, retail, office, or industrial (*ITE Trip Generation Manual, 11th Edition*, The Institute of Transportation Engineers, 2022). For land uses where ITE does not collect data, they recommend that practitioners collect data on similar land uses to specify trip generation rates. Fehr & Peers used data collected on the highest attendance weekday (Friday) for temples in Gilbert, AZ, American Fork, UT, Payson, UT, South Jordan, UT, Draper, UT, and Bountiful, UT to estimate a trip generation rate for peak hours in terms of instruction room seating capacity. Based on these sites, the AM peak trip/seat ratio is 0.80 and the PM peak trip/seat ratio is 0.93. With a capacity of 40 seats, the trip generation estimate for the site results in 32 AM Peak Hour trips and 37 PM Peak Hour trips.

3. Multi-Modal Travel

Pedestrian and bicycle volumes were collected in the peak period intersection counts, and are attached to the end of this memo. These included all users, including any observed walkers, joggers, dog-trainers, mothers pushing strollers, and high schoolers. The effect of the observed number of non-motorized users on traffic operations at the study intersections is negligible and does not change the levels of service (the indicator for acceptable traffic operations of an intersection) at any of the intersections. There is currently a southbound bike lane and wide shoulders on Skyline Drive from the proposed project access to the north to accommodate existing non-motorized users. The City may evaluate the need for sidewalks in this area to better accommodate existing non-motorized users on Skyline Drive.

4. Pass-by/Multi-use/Internal trips

The ITE recommended practice manual gives the following definitions for these terms:

- “Pass-by Trips are made as intermediate trips *on the way* from an origin to a primary trip destination, without a route diversion” (page 41).
 - The purpose of a pass-by trip analysis is to reduce the number of expected trips added to the driveway. This analysis was not done because it is not expected that visitors to the special use site would visit on the way to another destination – this is their primary destination before making a new trip.
- Multi-use Projects are projects where multiple “uses are combined on a single site” (page 42).
 - This term refers to a type of project with potential “Internal Trips”. The site is only planned to have the special use site without additional uses.
- Internal Trips are trips “among on-site land uses” (page 42).
 - The purpose of an internal trip analysis is to reduce the number of expected external trips by reducing the number of trips expected to occur completely



within the site. Since this site only has one use, internal trip reductions were not used for this analysis.

5. Trip Distribution

Visitors to the temple largely attend the temple that is assigned to them based on their local congregation. Temple districts can change over time and the district for this temple had not been finalized at the time of completion of this study. Therefore, trip distribution percentages were assumed based on routes to and from likely relevant population towns in Wyoming such as Burlington (via Highway 14 east of Cody), Thermopolis (via Highway 14 to Highway 120 east of Cody), and Powell (via Highway 14 Alt). Distributions were thus estimated to be 35% on Skyline Drive / South Fork Avenue north of Stampede Avenue (providing access to Sheridan Avenue / Highway 14), 35% on Stampede Avenue east of 11th Street (providing access to 17th Street / Highway 14), and 30% on Meadow Lane east of 11th Street (providing access to 17th Street / Highway 14),

6. General Growth

Fehr & Peers developed growth rates based on the historical growth of Annual Average Daily Traffic (AADT) collected by two Wyoming Department of Transportation's (WYDOT) automatic traffic recorder (ATR) stations, one east of Cody and one west of Cody. At the time of the study, the best available data on historic growth rates was the WYDOT ATR report books that include AADT for every year between 2007 and 2016. The linear annual growth rate for both stations was between 1% and 2%. See also item 15 below.

7. Key Intersections Left Out

ITE recommended practice indicates that traffic studies should include major intersections "within a specified distance of the site (for example, 0.25 mile or 0.5 mile)" (page 8). Fehr & Peers went above and beyond the suggested requirements and included all regionally significant intersections within a mile of the site access. The following intersections were not included in the study, and their distances from the site access are presented parenthetically:

- Heart Mountain Street & Stampede Avenue (1.14 miles)
- Highway 120 & Stampede Avenue (1.50 miles)
- Canyon & South Fork Road (1.03 miles)

8. Non-critical Intersections Included

The ITE recommended practice guide provides only the following warning for including non-critical intersections in a study: "an inappropriately large analysis area may unnecessarily increase costs and time for the developer, study preparer and reviewer" (page 8). In this case, the developer and study preparer agreed to err on the side of over-inclusion instead of exclusion. The



following intersections were included in the study, and their distances from the site access are presented parenthetically:

1. Skyline Dr & Stampede Avenue (0.78 miles)
2. 11th Street & Stampede Avenue (0.93 miles)
3. 11th Street & Meadow Lane (0.86 miles)
4. Skyline Drive & Meadow Lane (0.43 miles)
5. Skyline Drive & Olive Glenn Drive (0.07 miles)
6. Skyline Drive & Project Access (0.00 miles)

9. What About the Narrow Bridge

The bridge immediately south of the project access on Skyline Drive narrows to approximately 20 feet as it crosses the Cody Canal, allowing for lanes of 10 feet in width, which is a common lane width in many municipalities nationwide.

10. Impact on North Bound Traffic

The angle of the project access with Skyline Drive is beyond the scope of the initial traffic study. Fehr & Peers recommends that the applicant work with City engineering staff to address any access concerns.

11. Temple Ingress and Egress

The visibility of the project access is beyond the scope of the initial traffic study. Fehr & Peers recommends that the applicant work with City engineering staff to address any visibility concerns.

12. Recreational Users

Recreational users that used study intersections during the study periods were counted in late March, which is part of the recreational season mentioned. The number of non-motorized users did not have a measurable impact on traffic operations at study intersections.

13. Single Access Point

All feasible routes for temple trips include the stretch of Skyline Drive from Meadow Lane to the project access. North of Meadow Lane, there are redundant paths to reach major highways and Cody streets. The traffic analysis took this into account and found that the expected traffic operations at all study intersections operate at acceptable levels in the existing, existing plus project, 2042 background, and 2042 background plus project scenarios.

The trip generation was based on all visitors to the aforementioned 6 temples from all routes, regardless of how they arrived. For the purposes of the trip generation step of analysis, the route outside of the site is irrelevant. Only the total number of trips and the seating capacity of the temple is relevant.



14. Stop Sign Intersections

The traffic analysis used special trip generation rates based on existing sites of the same purpose. In the development of these special trip generation rates the seating capacity of the temple was found to be the appropriate variable with which to estimate trips rather than parking lot capacity to account for the expectation that not all users of the parking lot will leave the temple at the same time. The results of the traffic analysis indicated that all study intersections operate at acceptable levels of delay in the existing, existing plus project, 2042 background, and 2042 background plus project scenarios.

15. 2042 Traffic Projections

Fehr & Peers used the most complete dataset publicly available at the time of the study using the two WYDOT ATR stations in Cody according to the ATR Site Location Map published by WYDOT. Data was available up to and including 2019, though the data between 2016 and 2019 showed a decrease in traffic. Since it was not apparent why traffic to and from Cody would decrease in that time frame, and the apparent decrease may have been due to glitches or mechanical issues, we assumed a continuation of the higher growth rate prior to 2016 in the high-end estimation of the growth rate of 2% per year. Both the high estimate and the low estimate (1% per year) were used in separate analyses of future conditions, and with both assumptions all study intersections operate at acceptable levels of delay in the existing, existing plus project, 2042 background, and 2042 background plus project scenarios.

16. Special Attraction Site

The trip generation for the special use site was developed as a function of seating capacity and based on actual data on visitors. This means that the trip generation estimates account for the size of the temple and includes visitors of all types. Since the completion of this study, Fehr & Peers has added data from two additional sites with 80 total seating capacity each, and found that, on average, these two sites had lower trip generation estimates than what would be predicted based on the same methodology used for this smaller seat site. Temple trip making behavior is predicted more accurately by seating capacity than by the size of the street of the development. Land uses generate trips, parking lots do not generate trips. The trip generation for this site was applied to the existing and projected volumes of the study intersections, and the analysis indicated that all study intersections operate at acceptable levels of delay in the existing, existing plus project, 2042 background, and 2042 background plus project scenarios.



Sincerely,
FEHR & PEERS

Calvin Clark, PhD, EIT
Transportation Engineer

Seishi Yamagata, PE
Transportation Engineer



Appendix: Peak Period Traffic Counts

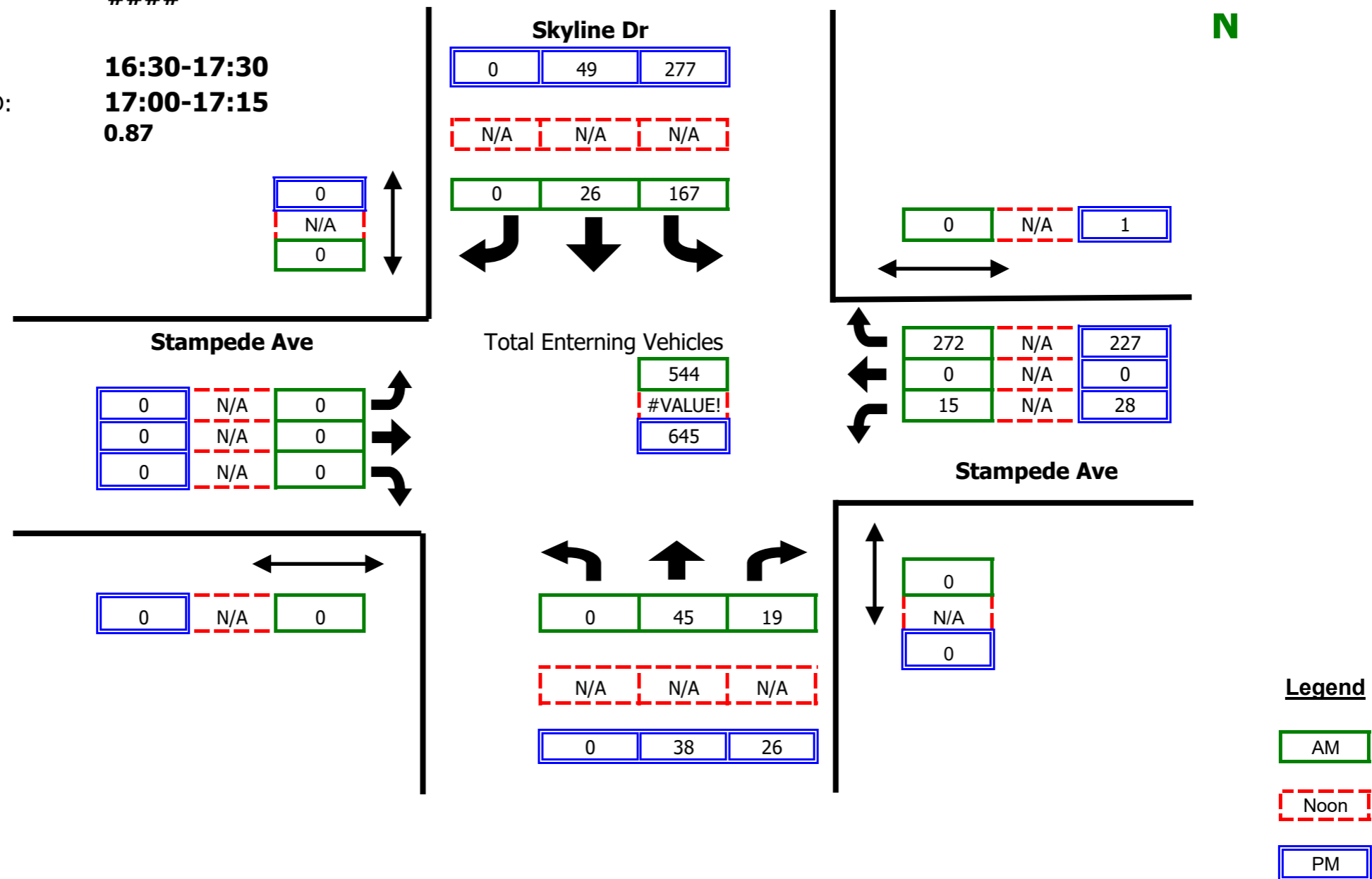
Intersection Turning Movement Summary

Intersection:	Skyline Dr/Stampede Ave	Date:	3/30/2022
North/South:	Skyline Dr	Day of Week Adjustment:	100.0%
East/West:	Stampede Ave	Month of Year Adjustment:	100.0%
Jurisdiction:		Adjustment Station #:	
Project Title:	LDS Cody	Growth Rate:	0.0%
Project No:	UT22-2343	Number of Years:	0
Weather:	Clear		

AM PEAK HOUR PERIOD: **7:30-8:30**
 AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
 AM PHF: **0.73**

NOON PEAK HOUR PERIOD:
 NOON PEAK 15 MINUTE PERIOD:
 NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
 PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
 PM PHF: **0.87**



RAW COUNT SUMMARIES	Skyline Dr Northbound				Skyline Dr Southbound				Stampede Ave Eastbound				Stampede Ave Westbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	1	4	0	14	3	0	0	0	0	0	0	1	0	18	0	41
7:15-7:30	0	11	3	0	36	2	0	0	0	0	0	0	3	0	39	0	94
7:30-7:45	0	8	2	0	39	8	0	0	0	0	0	0	1	0	64	0	122
7:45-8:00	0	17	7	0	55	6	0	0	0	0	0	0	6	0	95	0	186
8:00-8:15	0	14	5	0	47	5	0	0	0	0	0	0	5	0	64	0	140
8:15-8:30	0	6	5	0	26	7	0	0	0	0	0	0	3	0	49	0	96
8:30-8:45	0	4	1	0	36	5	0	0	0	0	0	0	2	0	37	0	85
8:45-9:00	0	8	7	0	38	5	0	0	0	0	0	0	4	0	49	0	111

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	5	6	0	75	20	0	0	0	0	0	0	5	0	56	0	167
16:15-16:30	0	4	8	0	61	9	0	0	0	0	0	0	5	0	48	0	135
16:30-16:45	0	5	6	0	75	7	0	0	0	0	0	0	4	0	54	1	151
16:45-17:00	0	7	5	0	55	11	0	0	0	0	0	0	5	0	51	0	134
17:00-17:15	0	13	10	0	74	16	0	0	0	0	0	0	12	0	60	0	185
17:15-17:30	0	13	5	0	73	15	0	0	0	0	0	0	7	0	62	0	175
17:30-17:45	0	12	8	0	46	18	0	0	0	0	0	0	6	0	54	0	144
17:45-18:00	0	7	4	0	50	9	0	0	0	0	0	0	4	0	40	0	114

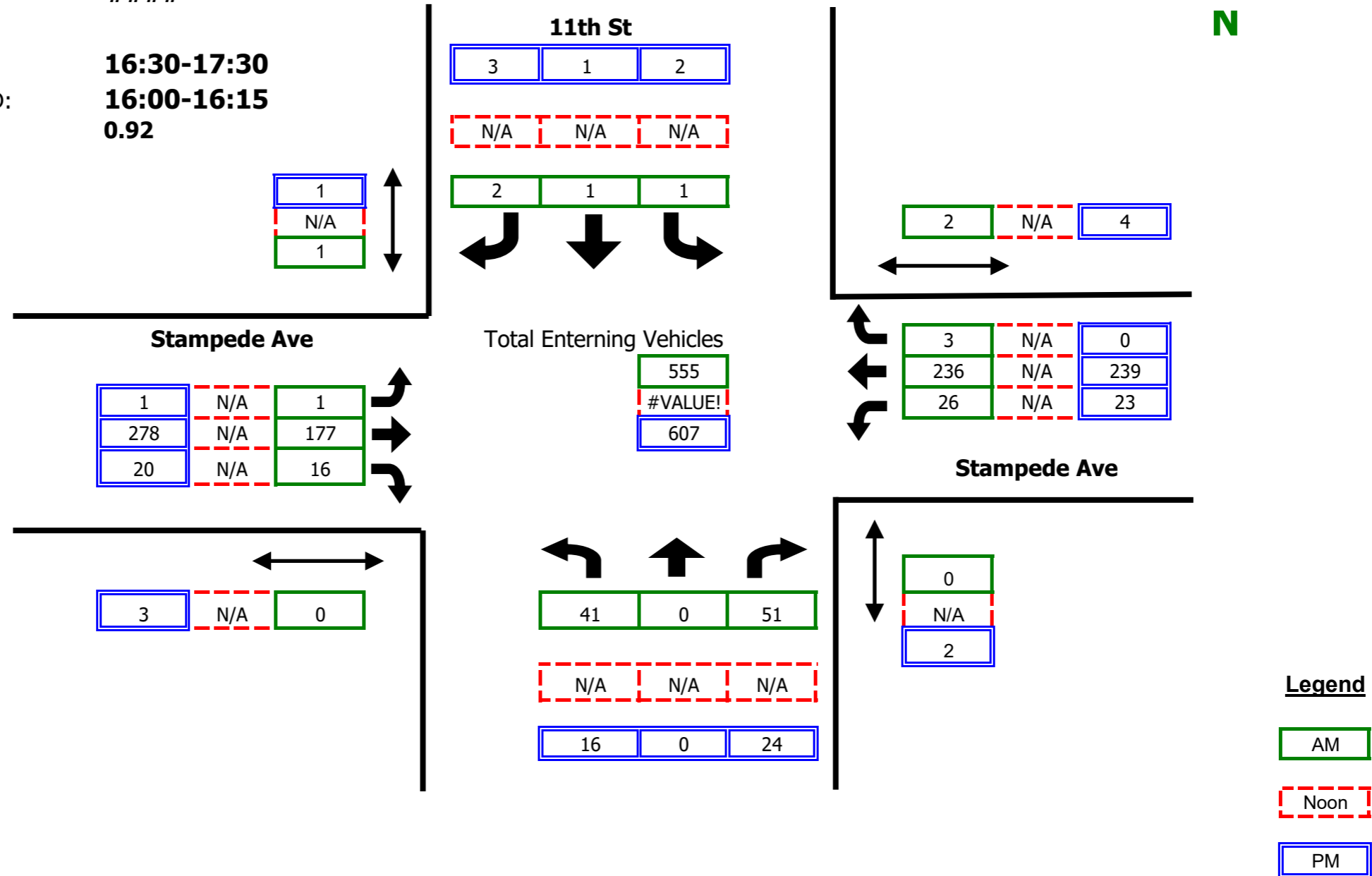
Intersection Turning Movement Summary

Intersection:	11th St/Stampede Ave	Date:	3/30/2022
North/South:	11th St	Day of Week Adjustment:	100.0%
East/West:	Stampede Ave	Month of Year Adjustment:	100.0%
Jurisdiction:		Adjustment Station #:	
Project Title:	LDS Cody	Growth Rate:	0.0%
Project No:	UT22-2343	Number of Years:	0
Weather:	Clear		

AM PEAK HOUR PERIOD: **7:15-8:15**
 AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
 AM PHF: **0.77**

NOON PEAK HOUR PERIOD:
 NOON PEAK 15 MINUTE PERIOD:
 NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
 PM PEAK 15 MINUTE PERIOD: **16:00-16:15**
 PM PHF: **0.92**



RAW COUNT SUMMARIES	11th St Northbound				11th St Southbound				Stampede Ave Eastbound				Stampede Ave Westbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	2	0	3	0	0	0	0	0	0	17	2	0	0	17	0	1	41
7:15-7:30	9	0	7	0	0	0	0	0	0	36	1	0	2	33	0	1	88
7:30-7:45	6	0	9	0	0	0	1	0	0	38	3	0	2	58	3	0	120
7:45-8:00	14	0	11	0	0	0	0	1	0	56	5	0	11	84	0	0	181
8:00-8:15	12	0	24	0	1	1	1	0	1	47	7	0	11	61	0	1	166
8:15-8:30	4	0	3	1	1	0	3	0	0	31	3	0	1	42	0	1	88
8:30-8:45	4	0	7	0	0	0	3	0	1	33	2	0	4	32	0	1	86
8:45-9:00	2	0	8	0	0	0	0	0	0	43	0	0	5	46	0	0	104

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	5	0	9	0	0	0	1	0	1	74	6	1	10	59	0	1	165
16:15-16:30	4	0	3	0	0	0	1	0	0	67	4	0	8	49	0	1	136
16:30-16:45	5	0	7	0	0	0	2	0	1	73	4	0	9	50	0	0	151
16:45-17:00	3	0	5	1	2	1	1	1	0	56	4	2	5	53	0	3	130
17:00-17:15	2	0	5	0	0	0	0	0	0	81	2	1	5	69	0	0	164
17:15-17:30	6	0	7	1	0	0	0	0	0	68	10	0	4	67	0	1	162
17:30-17:45	3	0	9	1	0	0	0	0	0	49	7	0	3	61	0	0	132
17:45-18:00	3	0	1	0	0	0	0	0	0	52	4	0	6	44	0	2	110

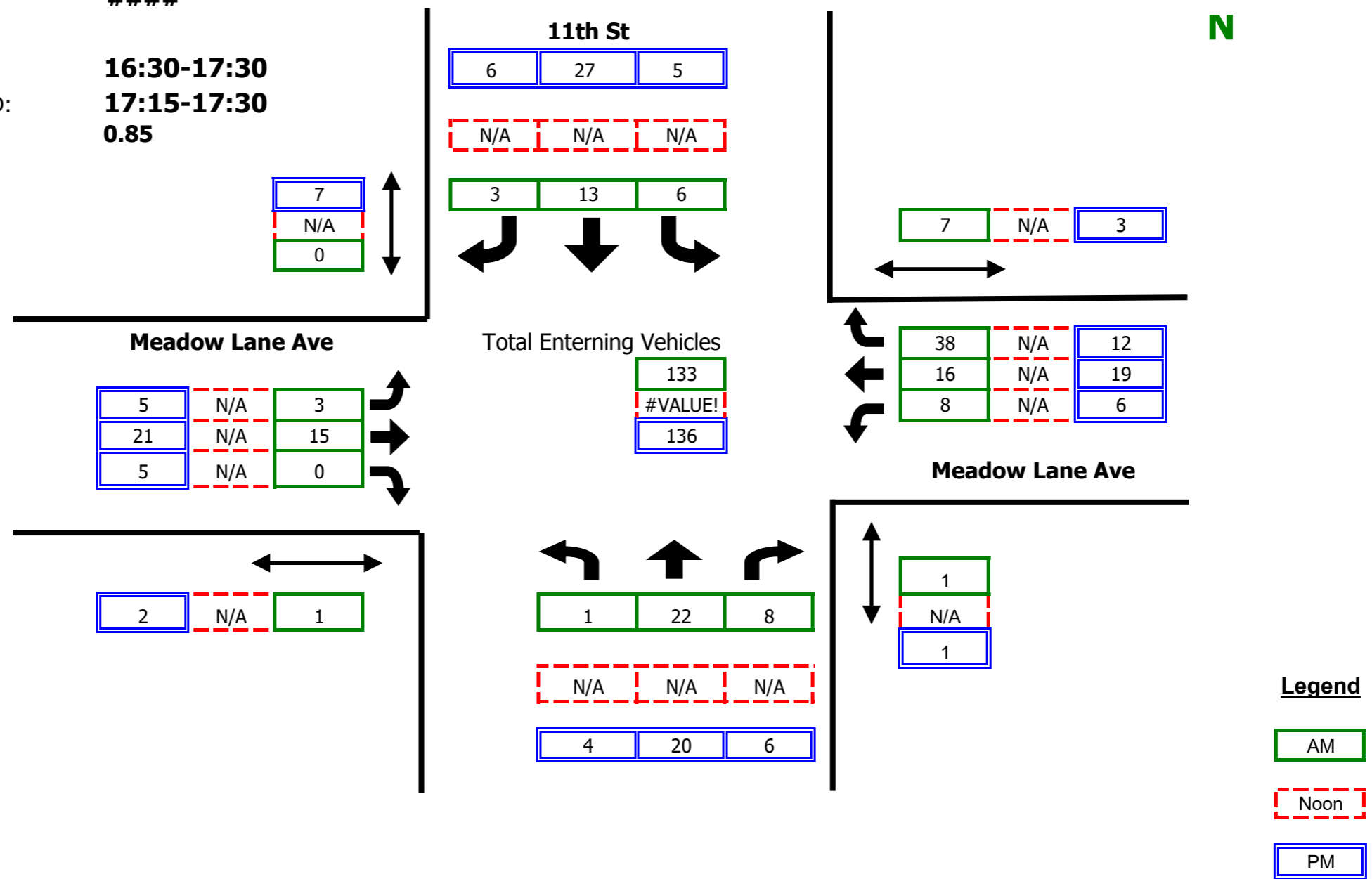
Intersection Turning Movement Summary

Intersection:	11th St/Meadow Lane Ave	Date:	3/30/2022
North/South:	11th St	Day of Week Adjustment:	100.0%
East/West:	Meadow Lane Ave	Month of Year Adjustment:	100.0%
Jurisdiction:		Adjustment Station #:	
Project Title:	LDS Cody	Growth Rate:	0.0%
Project No:	UT22-2343	Number of Years:	0
Weather:	Clear		

AM PEAK HOUR PERIOD: **7:30-8:30**
 AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
 AM PHF: **0.76**

NOON PEAK HOUR PERIOD:
 NOON PEAK 15 MINUTE PERIOD:
 NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
 PM PEAK 15 MINUTE PERIOD: **17:15-17:30**
 PM PHF: **0.85**



RAW COUNT SUMMARIES	11th St Northbound				11th St Southbound				Meadow Lane Ave Eastbound				Meadow Lane Ave Westbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	2	4	0	1	2	0	1	1	2	0	0	1	0	0	0	13
7:15-7:30	0	9	1	2	1	1	0	0	5	5	0	0	1	1	3	7	27
7:30-7:45	0	7	1	0	1	3	0	0	2	2	0	0	1	1	5	0	23
7:45-8:00	1	9	2	1	1	2	1	0	0	4	0	1	3	9	12	1	44
8:00-8:15	0	2	1	0	2	6	2	0	0	4	0	0	2	5	20	4	44
8:15-8:30	0	4	4	0	2	2	0	0	1	5	0	0	2	1	1	2	22
8:30-8:45	1	10	0	0	0	7	0	1	2	4	0	1	1	4	2	0	31
8:45-9:00	0	6	4	1	1	3	0	2	0	1	0	0	1	1	0	1	17

NOON PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	3	1	0	3	9	2	4	2	4	2	4	3	5	5	1	39
16:15-16:30	1	4	1	0	0	4	4	1	0	4	0	3	1	6	3	0	28
16:30-16:45	1	7	0	0	2	7	2	4	1	9	2	0	0	2	3	0	36
16:45-17:00	1	2	2	0	1	4	2	0	2	2	1	0	1	4	6	2	28
17:00-17:15	0	7	3	0	1	4	1	1	0	5	2	0	4	3	2	1	32
17:15-17:30	2	4	1	1	1	12	1	2	2	5	0	2	1	10	1	0	40
17:30-17:45	1	7	2	0	1	6	2	0	2	7	0	0	6	4	2	2	40
17:45-18:00	1	3	1	0	2	7	0	0	1	2	0	0	2	4	0	2	23

