

## **FOUR SQUARE AT STERLING RANCH EAST PUD DEVELOPMENT/PRELIMINARY PLAN**

**NOISE:** Chapter 8.4.2(B)(2)(b)(ii) of the Land Development Code states that noise mitigation shall be required for single-family and duplex residential subdivisions, which contain lots that will be individually owned, and are located adjacent to expressways, principal arterials or railroads. Mitigation shall reduce the existing or projected exterior noise levels to 67 dBA Leq. A noise study to determine the area of potential impact is required where a subdivision includes or borders an expressway, principal arterial or railroad.

No site-specific noise study was undertaken for FourSquare at Sterling Ranch as a Noise Impact Study was undertaken for Homestead North, which is similarly located immediately adjacent to Briargate Parkway. The Homestead North Noise Impact Study recommended a minimum 6-foot-high noise barrier along Briargate Parkway arterial road to reduce noise levels in the adjacent proposed development below 67 decibels. Based on this previous recommendation, a 6' concrete panel noise wall is proposed along the rear of the lots backing to Briargate Parkway. Sterling Ranch Road does not require noise mitigation as it is classified as a collector, but the 6' concrete panel noise wall is continued along Sterling Ranch Road screening for privacy and to provide a consistent development identify. A detail of the 6' concrete panel wall is provided in the PUDSP plan set.



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October 19, 2021

Mr. Jim Morley  
Morley-Bentley Investments, LLC  
20 Boulder Crescent, 1st Floor  
Colorado Springs, CO 80903

RE: Homestead North  
Noise Impact Study  
El Paso County, Colorado  
LSC #204381

Dear Mr. Morley:

In response to your request, LSC Transportation Consultants, Inc. has completed a detailed analysis of the noise impacts of Briargate Parkway and Vollmer Road on the currently proposed Homestead North residential development within the Sterling Ranch Master Plan area. The site is located northeast of the future intersection of Briargate Parkway and Vollmer Road in El Paso County, Colorado. LSC has completed an evaluation of the noise exposure for submittal to El Paso County in accordance with the Federal Highway Administration (FHWA) requirements.

LSC used the software program Traffic Noise Model Version 2.5, developed by FHWA, to predict the noise levels at key locations on the south side of the development adjacent to Briargate Parkway and on the west side of the development adjacent to Vollmer Road. An elevation of five feet was assumed for the height of each receiver. The receiver locations are shown in Figure 1.

The input data for the noise predictions included traffic volumes, roadway geometry, topographic elevations, and the locations of the receivers. The analysis was completed using the projected 2040 afternoon peak-hour traffic volumes taken from the *Homestead North Phase 1 Traffic Impact Analysis* by LSC dated October 19, 2021. The noise analysis inputs and outputs are attached.

The results of the noise prediction were compared to the criteria section 2.5.3 of the El Paso County *Engineering Criteria Manual* (ECM). The results of the noise prediction show that in the year 2040, receivers 5, 12, 13 and 14, located on the lots adjacent to Briargate Parkway between Vollmer Road and Wheatland Drive, would have predicted noise levels which would exceed the 67 dBA Leq threshold set by the ECM. If a six-foot high noise barrier were constructed at the

location shown in Figure 1, these noise receiver locations are predicted to be below the threshold. This noise barrier could be a wall, a berm, or a combination of the two. If a wall is constructed, it should be made of a rigid material with a density of at least 4 pounds per square foot and should have no gaps.

\* \* \* \* \*

Please contact me if you have any questions or need further assistance.

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.



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By: Kirstin D. Ferrin, P.E.  
Senior Transportation Engineer

KDF:jas

Enclosures: Figure 1  
Noise Analysis Inputs/Outputs

# Figure 1



- LEGEND:
- █ = Noise Barrier - 6' High
  - = Noise Receiver Location

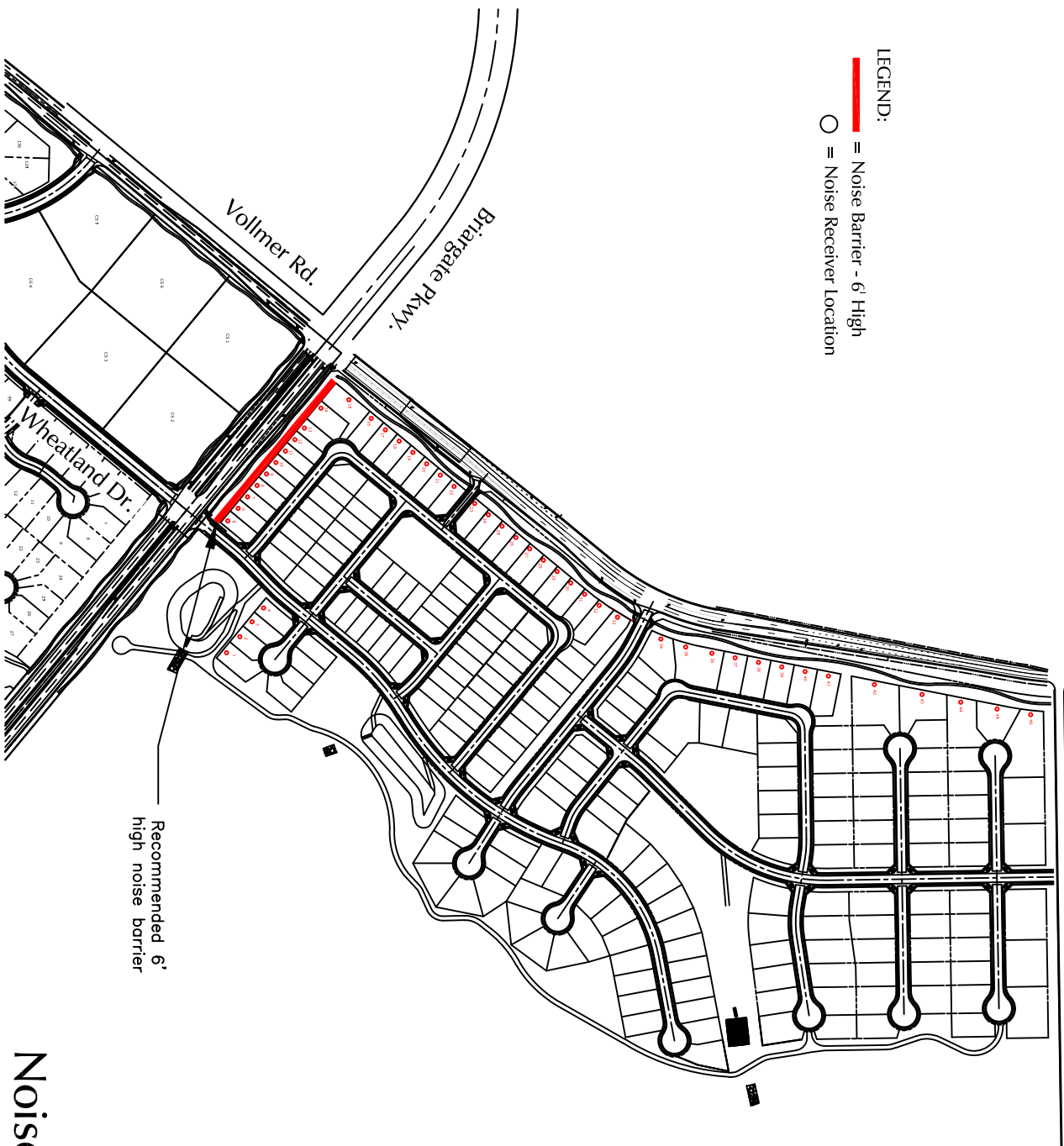
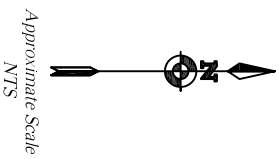


Figure 1  
**Noise Analysis Data**  
 Homestead North Phase 1 Noise Analysis (LSC #204381)

# Noise Analysis Inputs/Outputs

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**RESULTS: SOUND LEVELS**

**Homestead North Phase 1**

LSC Transportation Consultants, Inc. KDF	14 October 2021 TNM 2.5 Calculated with TNM 2.5
<b>RESULTS: SOUND LEVELS</b>	
<b>PROJECT/CONTRACT:</b>	<b>Homestead North Phase 1</b>
<b>RUN:</b>	<b>2040 PM Peak Hour</b>
<b>BARRIER DESIGN:</b>	<b>INPUT HEIGHTS</b>
<b>ATMOSPHERICS:</b>	<b>68 deg F, 50% RH</b>
	<b>Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.</b>

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier				With Barrier				
				LAeq1h Calculated	Crit'n	Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal
						Calculated	Crit'n			Calculated	Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0.0	54.5	67	54.5	10	----	54.4	0.1	8	-7.9
Receiver2	2	1	0.0	54.1	67	54.1	10	----	54.1	0.0	8	-8.0
Receiver3	3	1	0.0	54.1	67	54.1	10	----	54.0	0.1	8	-7.9
Receiver4	4	1	0.0	54.0	67	54.0	10	----	53.9	0.1	8	-7.9
Receiver5	5	1	0.0	67.0	67	67.0	10	Snd Lvl	62.2	4.8	8	-3.2
Receiver6	6	1	0.0	66.7	67	66.7	10	----	60.0	6.7	8	-1.3
Receiver7	7	1	0.0	66.7	67	66.7	10	----	59.8	6.9	8	-1.1
Receiver8	8	1	0.0	66.7	67	66.7	10	----	59.8	6.9	8	-1.1
Receiver9	9	1	0.0	66.7	67	66.7	10	----	59.8	6.9	8	-1.1
Receiver10	10	1	0.0	66.8	67	66.8	10	----	59.9	6.9	8	-1.1
Receiver11	11	1	0.0	66.8	67	66.8	10	----	60.1	6.7	8	-1.3
Receiver12	12	1	0.0	67.4	67	67.4	10	Snd Lvl	61.0	6.4	8	-1.6
Receiver13	13	1	0.0	67.6	67	67.6	10	Snd Lvl	61.6	6.0	8	-2.0
Receiver14	14	1	0.0	67.6	67	67.6	10	Snd Lvl	61.8	5.8	8	-2.2
Receiver15	15	1	0.0	65.8	67	65.8	10	----	65.1	0.7	8	-7.3
Receiver16	16	1	0.0	63.6	67	63.6	10	----	63.5	0.1	8	-7.9
Receiver17	17	1	0.0	63.1	67	63.1	10	----	63.1	0.0	8	-8.0
Receiver18	18	1	0.0	62.7	67	62.7	10	----	62.6	0.1	8	-7.9
Receiver19	19	1	0.0	62.2	67	62.2	10	----	62.2	0.0	8	-8.0
Receiver20	20	1	0.0	61.7	67	61.7	10	----	61.6	0.1	8	-7.9
Receiver21	21	1	0.0	61.6	67	61.6	10	----	61.5	0.1	8	-7.9
Receiver22	22	1	0.0	61.4	67	61.4	10	----	61.4	0.0	8	-8.0
Receiver23	23	1	0.0	61.3	67	61.3	10	----	61.3	0.0	8	-8.0
Receiver24	24	1	0.0	61.2	67	61.2	10	----	61.1	0.1	8	-7.9

**RESULTS: SOUND LEVELS**

**Homestead North Phase 1**

Receiver25	25	1	0.0	61.1	67	61.1	10	----	61.0	0.1	8	-7.9
Receiver26	26	1	0.0	61.0	67	61.0	10	----	61.0	0.0	8	-8.0
Receiver27	27	1	0.0	61.0	67	61.0	10	----	61.0	0.0	8	-8.0
Receiver28	28	1	0.0	60.9	67	60.9	10	----	60.9	0.0	8	-8.0
Receiver29	29	1	0.0	60.9	67	60.9	10	----	60.9	0.0	8	-8.0
Receiver30	30	1	0.0	60.9	67	60.9	10	----	60.9	0.0	8	-8.0
Receiver31	31	1	0.0	60.7	67	60.7	10	----	60.7	0.0	8	-8.0
Receiver32	32	1	0.0	60.4	67	60.4	10	----	60.4	0.0	8	-8.0
Receiver33	33	1	0.0	60.1	67	60.1	10	----	60.1	0.0	8	-8.0
Receiver34	34	1	0.0	60.3	67	60.3	10	----	60.3	0.0	8	-8.0
Receiver35	35	1	0.0	60.3	67	60.3	10	----	60.3	0.0	8	-8.0
Receiver36	36	1	0.0	60.3	67	60.3	10	----	60.3	0.0	8	-8.0
Receiver37	37	1	0.0	60.4	67	60.4	10	----	60.4	0.0	8	-8.0
Receiver38	38	1	0.0	60.5	67	60.5	10	----	60.5	0.0	8	-8.0
Receiver39	39	1	0.0	60.5	67	60.5	10	----	60.5	0.0	8	-8.0
Receiver40	40	1	0.0	60.3	67	60.3	10	----	60.3	0.0	8	-8.0
Receiver41	41	1	0.0	60.0	67	60.0	10	----	60.0	0.0	8	-8.0
Receiver42	42	1	0.0	60.2	67	60.2	10	----	60.2	0.0	8	-8.0
Receiver43	43	1	0.0	60.2	67	60.2	10	----	60.2	0.0	8	-8.0
Receiver44	44	1	0.0	60.2	67	60.2	10	----	60.2	0.0	8	-8.0
Receiver45	45	1	0.0	60.3	67	60.3	10	----	60.3	0.0	8	-8.0
Receiver46	46	1	0.0	59.8	67	59.8	10	----	59.8	0.0	8	-8.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		46	0.0	1.4	6.9							
All Impacted		4	4.8	5.8	6.4							
All that meet NR Goal		0	0.0	0.0	0.0							



INPUT: TRAFFIC FOR LAeq1h Volumes

Homestead North Phase 1

LSC Transportation Consultants, Inc.				14 October 2021									
KDF				TNM 2.5									
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		Homestead North Phase 1											
RUN:		2040 PM Peak Hour											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			Autos										
			V	S	V	S	V	S	V	S	V	S	
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
EB Briargate W/O Vollmer	point1	1	1711	45	35	45	18	45	0	0	0	0	
	point3	3	1711	45	35	45	18	45	0	0	0	0	
	point4	4	1711	45	35	45	18	45	0	0	0	0	
	point5	5	1711	45	35	45	18	45	0	0	0	0	
	point6	6	1711	45	35	45	18	45	0	0	0	0	
	point7	7	1711	45	35	45	18	45	0	0	0	0	
	point8	8	1711	45	35	45	18	45	0	0	0	0	
	point9	9	1711	45	35	45	18	45	0	0	0	0	
	point10	10	1711	45	35	45	18	45	0	0	0	0	
	point11	11	1711	45	35	45	18	45	0	0	0	0	
	point12	12	1711	45	35	45	18	45	0	0	0	0	
	point13	13	1711	45	35	45	18	45	0	0	0	0	
	point14	14	1711	45	35	45	18	45	0	0	0	0	
	point15	15	1711	45	35	45	18	45	0	0	0	0	
	point16	16	1711	45	35	45	18	45	0	0	0	0	
	point17	17	1711	45	35	45	18	45	0	0	0	0	
	point2	2											
EB Briargate E/O Vollmer	point18	18	1867	45	39	45	19	45	0	0	0	0	
	point20	20	1867	45	39	45	19	45	0	0	0	0	
	point21	21	1867	45	39	45	19	45	0	0	0	0	
	point22	22	1867	45	39	45	19	45	0	0	0	0	
	point23	23	1867	45	39	45	19	45	0	0	0	0	
	point24	24	1867	45	39	45	19	45	0	0	0	0	

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point25	25	1867	45	39	45	19	45	0	0	0	0
	point26	26	1867	45	39	45	19	45	0	0	0	0
	point27	27	1867	45	39	45	19	45	0	0	0	0
	point28	28	1867	45	39	45	19	45	0	0	0	0
	point29	29	1867	45	39	45	19	45	0	0	0	0
	point30	30	1867	45	39	45	19	45	0	0	0	0
	point31	31	1867	45	39	45	19	45	0	0	0	0
	point32	32	1867	45	39	45	19	45	0	0	0	0
	point33	33	1867	45	39	45	19	45	0	0	0	0
	point19	19										
EB Briargate E/O Wheatland	point34	34	1852	45	38	45	19	45	0	0	0	0
	point36	36	1852	45	38	45	19	45	0	0	0	0
	point37	37	1852	45	38	45	19	45	0	0	0	0
	point38	38	1852	45	38	45	19	45	0	0	0	0
	point39	39	1852	45	38	45	19	45	0	0	0	0
	point40	40	1852	45	38	45	19	45	0	0	0	0
	point41	41	1852	45	38	45	19	45	0	0	0	0
	point42	42	1852	45	38	45	19	45	0	0	0	0
	point43	43	1852	45	38	45	19	45	0	0	0	0
	point44	44	1852	45	38	45	19	45	0	0	0	0
	point45	45	1852	45	38	45	19	45	0	0	0	0
	point46	46	1852	45	38	45	19	45	0	0	0	0
	point47	47	1852	45	38	45	19	45	0	0	0	0
	point48	48	1852	45	38	45	19	45	0	0	0	0
	point49	49	1852	45	38	45	19	45	0	0	0	0
	point50	50	1852	45	38	45	19	45	0	0	0	0
	point51	51	1852	45	38	45	19	45	0	0	0	0
	point52	52	1852	45	38	45	19	45	0	0	0	0
	point53	53	1852	45	38	45	19	45	0	0	0	0
	point54	54	1852	45	38	45	19	45	0	0	0	0
	point55	55	1852	45	38	45	19	45	0	0	0	0
	point56	56	1852	45	38	45	19	45	0	0	0	0
	point57	57	1852	45	38	45	19	45	0	0	0	0
	point58	58	1852	45	38	45	19	45	0	0	0	0
	point59	59	1852	45	38	45	19	45	0	0	0	0
	point60	60	1852	45	38	45	19	45	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point35	35										
WB Briargate E/O Wheatland	point61	61	1689	45	35	45	17	45	0	0	0	0
	point63	63	1689	45	35	45	17	45	0	0	0	0
	point64	64	1689	45	35	45	17	45	0	0	0	0
	point65	65	1689	45	35	45	17	45	0	0	0	0
	point66	66	1689	45	35	45	17	45	0	0	0	0
	point67	67	1689	45	35	45	17	45	0	0	0	0
	point68	68	1689	45	35	45	17	45	0	0	0	0
	point69	69	1689	45	35	45	17	45	0	0	0	0
	point70	70	1689	45	35	45	17	45	0	0	0	0
	point71	71	1689	45	35	45	17	45	0	0	0	0
	point72	72	1689	45	35	45	17	45	0	0	0	0
	point73	73	1689	45	35	45	17	45	0	0	0	0
	point74	74	1689	45	35	45	17	45	0	0	0	0
	point75	75	1689	45	35	45	17	45	0	0	0	0
	point76	76	1689	45	35	45	17	45	0	0	0	0
	point77	77	1689	45	35	45	17	45	0	0	0	0
	point78	78	1689	45	35	45	17	45	0	0	0	0
	point79	79	1689	45	35	45	17	45	0	0	0	0
	point80	80	1689	45	35	45	17	45	0	0	0	0
	point81	81	1689	45	35	45	17	45	0	0	0	0
	point82	82	1689	45	35	45	17	45	0	0	0	0
	point83	83	1689	45	35	45	17	45	0	0	0	0
	point84	84	1689	45	35	45	17	45	0	0	0	0
	point85	85	1689	45	35	45	17	45	0	0	0	0
	point86	86	1689	45	35	45	17	45	0	0	0	0
	point62	62										
WB Briargate E/O Vollmer	point87	87	1595	45	33	45	16	45	0	0	0	0
	point89	89	1595	45	33	45	16	45	0	0	0	0
	point90	90	1595	45	33	45	16	45	0	0	0	0
	point91	91	1595	45	33	45	16	45	0	0	0	0
	point92	92	1595	45	33	45	16	45	0	0	0	0
	point93	93	1595	45	33	45	16	45	0	0	0	0
	point94	94	1595	45	33	45	16	45	0	0	0	0
	point95	95	1595	45	33	45	16	45	0	0	0	0
	point96	96	1595	45	33	45	16	45	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point97	97	1595	45	33	45	16	45	0	0	0	0
	point98	98	1595	45	33	45	16	45	0	0	0	0
	point99	99	1595	45	33	45	16	45	0	0	0	0
	point100	100	1595	45	33	45	16	45	0	0	0	0
	point101	101	1595	45	33	45	16	45	0	0	0	0
	point102	102	1595	45	33	45	16	45	0	0	0	0
	point88	88										
WB Briargate W/O Vollmer	point103	103	1491	45	31	45	15	45	0	0	0	0
	point105	105	1491	45	31	45	15	45	0	0	0	0
	point106	106	1491	45	31	45	15	45	0	0	0	0
	point107	107	1491	45	31	45	15	45	0	0	0	0
	point108	108	1491	45	31	45	15	45	0	0	0	0
	point109	109	1491	45	31	45	15	45	0	0	0	0
	point110	110	1491	45	31	45	15	45	0	0	0	0
	point111	111	1491	45	31	45	15	45	0	0	0	0
	point112	112	1491	45	31	45	15	45	0	0	0	0
	point113	113	1491	45	31	45	15	45	0	0	0	0
	point114	114	1491	45	31	45	15	45	0	0	0	0
	point115	115	1491	45	31	45	15	45	0	0	0	0
	point116	116	1491	45	31	45	15	45	0	0	0	0
	point117	117	1491	45	31	45	15	45	0	0	0	0
	point118	118	1491	45	31	45	15	45	0	0	0	0
	point119	119	1491	45	31	45	15	45	0	0	0	0
	point120	120	1491	45	31	45	15	45	0	0	0	0
	point121	121	1491	45	31	45	15	45	0	0	0	0
	point122	122	1491	45	31	45	15	45	0	0	0	0
	point104	104										
NB Vollmer S/O Briargate	point123	123	951	35	20	35	10	35	0	0	0	0
	point125	125	951	35	20	35	10	35	0	0	0	0
	point126	126	951	35	20	35	10	35	0	0	0	0
	point127	127	951	35	20	35	10	35	0	0	0	0
	point128	128	951	35	20	35	10	35	0	0	0	0
	point129	129	951	35	20	35	10	35	0	0	0	0
	point130	130	951	35	20	35	10	35	0	0	0	0
	point131	131	951	35	20	35	10	35	0	0	0	0
	point132	132	951	35	20	35	10	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point133	133	951	35	20	35	10	35	0	0	0	0
	point134	134	951	35	20	35	10	35	0	0	0	0
	point135	135	951	35	20	35	10	35	0	0	0	0
	point124	124										
NB Vollmer N/O Briargate	point136	136	698	35	14	35	7	35	0	0	0	0
	point138	138	698	35	14	35	7	35	0	0	0	0
	point139	139	698	35	14	35	7	35	0	0	0	0
	point140	140	698	35	14	35	7	35	0	0	0	0
	point141	141	698	35	14	35	7	35	0	0	0	0
	point142	142	698	35	14	35	7	35	0	0	0	0
	point143	143	698	35	14	35	7	35	0	0	0	0
	point144	144	698	35	14	35	7	35	0	0	0	0
	point145	145	698	35	14	35	7	35	0	0	0	0
	point146	146	698	35	14	35	7	35	0	0	0	0
	point147	147	698	35	14	35	7	35	0	0	0	0
	point148	148	698	35	14	35	7	35	0	0	0	0
	point149	149	698	35	14	35	7	35	0	0	0	0
	point150	150	698	35	14	35	7	35	0	0	0	0
	point151	151	698	35	14	35	7	35	0	0	0	0
	point152	152	698	35	14	35	7	35	0	0	0	0
	point153	153	698	35	14	35	7	35	0	0	0	0
	point154	154	698	35	14	35	7	35	0	0	0	0
	point155	155	698	35	14	35	7	35	0	0	0	0
	point156	156	698	35	14	35	7	35	0	0	0	0
	point157	157	698	35	14	35	7	35	0	0	0	0
	point158	158	698	35	14	35	7	35	0	0	0	0
	point159	159	698	35	14	35	7	35	0	0	0	0
	point160	160	698	35	14	35	7	35	0	0	0	0
	point161	161	698	35	14	35	7	35	0	0	0	0
	point162	162	698	35	14	35	7	35	0	0	0	0
	point163	163	698	35	14	35	7	35	0	0	0	0
	point164	164	698	35	14	35	7	35	0	0	0	0
	point165	165	698	35	14	35	7	35	0	0	0	0
	point166	166	698	35	14	35	7	35	0	0	0	0
	point167	167	698	35	14	35	7	35	0	0	0	0
	point168	168	698	35	14	35	7	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point169	169	698	35	14	35	7	35	0	0	0	0
	point170	170	698	35	14	35	7	35	0	0	0	0
	point171	171	698	35	14	35	7	35	0	0	0	0
	point172	172	698	35	14	35	7	35	0	0	0	0
	point173	173	698	35	14	35	7	35	0	0	0	0
	point174	174	698	35	14	35	7	35	0	0	0	0
	point137	137										
NB Vollmer S/O Poco	point175	175	593	35	12	35	6	35	0	0	0	0
	point177	177	593	35	12	35	6	35	0	0	0	0
	point178	178	593	35	12	35	6	35	0	0	0	0
	point179	179	593	35	12	35	6	35	0	0	0	0
	point180	180	593	35	12	35	6	35	0	0	0	0
	point181	181	593	35	12	35	6	35	0	0	0	0
	point182	182	593	35	12	35	6	35	0	0	0	0
	point183	183	593	35	12	35	6	35	0	0	0	0
	point184	184	593	35	12	35	6	35	0	0	0	0
	point185	185	593	35	12	35	6	35	0	0	0	0
	point186	186	593	35	12	35	6	35	0	0	0	0
	point187	187	593	35	12	35	6	35	0	0	0	0
	point188	188	593	35	12	35	6	35	0	0	0	0
	point189	189	593	35	12	35	6	35	0	0	0	0
	point190	190	593	35	12	35	6	35	0	0	0	0
	point191	191	593	35	12	35	6	35	0	0	0	0
	point192	192	593	35	12	35	6	35	0	0	0	0
	point193	193	593	35	12	35	6	35	0	0	0	0
	point194	194	593	35	12	35	6	35	0	0	0	0
	point195	195	593	35	12	35	6	35	0	0	0	0
	point196	196	593	35	12	35	6	35	0	0	0	0
	point197	197	593	35	12	35	6	35	0	0	0	0
	point198	198	593	35	12	35	6	35	0	0	0	0
	point199	199	593	35	12	35	6	35	0	0	0	0
	point200	200	593	35	12	35	6	35	0	0	0	0
	point201	201	593	35	12	35	6	35	0	0	0	0
	point202	202	593	35	12	35	6	35	0	0	0	0
	point203	203	593	35	12	35	6	35	0	0	0	0
	point204	204	593	35	12	35	6	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point205	205	593	35	12	35	6	35	0	0	0	0
	point206	206	593	35	12	35	6	35	0	0	0	0
	point207	207	593	35	12	35	6	35	0	0	0	0
	point208	208	593	35	12	35	6	35	0	0	0	0
	point209	209	593	35	12	35	6	35	0	0	0	0
	point210	210	593	35	12	35	6	35	0	0	0	0
	point211	211	593	35	12	35	6	35	0	0	0	0
	point212	212	593	35	12	35	6	35	0	0	0	0
	point213	213	593	35	12	35	6	35	0	0	0	0
	point214	214	593	35	12	35	6	35	0	0	0	0
	point215	215	593	35	12	35	6	35	0	0	0	0
	point216	216	593	35	12	35	6	35	0	0	0	0
	point217	217	593	35	12	35	6	35	0	0	0	0
	point218	218	593	35	12	35	6	35	0	0	0	0
	point219	219	593	35	12	35	6	35	0	0	0	0
	point220	220	0	35	12	35	6	35	0	0	0	0
	point221	221	593	35	12	35	6	35	0	0	0	0
	point222	222	593	35	12	35	6	35	0	0	0	0
	point223	223	593	35	12	35	6	35	0	0	0	0
	point224	224	593	35	12	35	6	35	0	0	0	0
	point225	225	593	35	12	35	6	35	0	0	0	0
	point226	226	593	35	12	35	6	35	0	0	0	0
	point227	227	593	35	12	35	6	35	0	0	0	0
	point228	228	593	35	12	35	6	35	0	0	0	0
	point229	229	593	35	12	35	6	35	0	0	0	0
	point230	230	593	35	12	35	6	35	0	0	0	0
	point231	231	593	35	12	35	6	35	0	0	0	0
	point232	232	593	35	12	35	6	35	0	0	0	0
	point233	233	593	35	12	35	6	35	0	0	0	0
	point234	234	593	35	12	35	6	35	0	0	0	0
	point235	235	593	35	12	35	6	35	0	0	0	0
	point236	236	593	35	12	35	6	35	0	0	0	0
	point237	237	593	35	12	35	6	35	0	0	0	0
	point176	176										
SB Vollmer S/O Poco	point238	238	393	35	8	35	4	35	0	0	0	0
	point240	240	393	35	8	35	4	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point241	241	393	35	8	35	4	35	0	0	0	0
	point242	242	393	35	8	35	4	35	0	0	0	0
	point243	243	393	35	8	35	4	35	0	0	0	0
	point244	244	393	35	8	35	4	35	0	0	0	0
	point245	245	393	35	8	35	4	35	0	0	0	0
	point246	246	393	35	8	35	4	35	0	0	0	0
	point247	247	393	35	8	35	4	35	0	0	0	0
	point248	248	393	35	8	35	4	35	0	0	0	0
	point249	249	393	35	8	35	4	35	0	0	0	0
	point250	250	393	35	8	35	4	35	0	0	0	0
	point251	251	393	35	8	35	4	35	0	0	0	0
	point252	252	393	35	8	35	4	35	0	0	0	0
	point253	253	393	35	8	35	4	35	0	0	0	0
	point254	254	393	35	8	35	4	35	0	0	0	0
	point255	255	393	35	8	35	4	35	0	0	0	0
	point256	256	393	35	8	35	4	35	0	0	0	0
	point257	257	393	35	8	35	4	35	0	0	0	0
	point258	258	393	35	8	35	4	35	0	0	0	0
	point259	259	393	35	8	35	4	35	0	0	0	0
	point260	260	393	35	8	35	4	35	0	0	0	0
	point261	261	393	35	8	35	4	35	0	0	0	0
	point262	262	393	35	8	35	4	35	0	0	0	0
	point263	263	393	35	8	35	4	35	0	0	0	0
	point264	264	393	35	8	35	4	35	0	0	0	0
	point265	265	393	35	8	35	4	35	0	0	0	0
	point266	266	393	35	8	35	4	35	0	0	0	0
	point267	267	393	35	8	35	4	35	0	0	0	0
	point268	268	393	35	8	35	4	35	0	0	0	0
	point269	269	393	35	8	35	4	35	0	0	0	0
	point270	270	393	35	8	35	4	35	0	0	0	0
	point271	271	393	35	8	35	4	35	0	0	0	0
	point272	272	393	35	8	35	4	35	0	0	0	0
	point273	273	393	35	8	35	4	35	0	0	0	0
	point274	274	393	35	8	35	4	35	0	0	0	0
	point275	275	393	35	8	35	4	35	0	0	0	0
	point276	276	393	35	8	35	4	35	0	0	0	0



**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point277	277	393	35	8	35	4	35	0	0	0	0
	point278	278	393	35	8	35	4	35	0	0	0	0
	point279	279	393	35	8	35	4	35	0	0	0	0
	point280	280	393	35	8	35	4	35	0	0	0	0
	point281	281	393	35	8	35	4	35	0	0	0	0
	point282	282	393	35	8	35	4	35	0	0	0	0
	point283	283	393	35	8	35	4	35	0	0	0	0
	point284	284	393	35	8	35	4	35	0	0	0	0
	point285	285	393	35	8	35	4	35	0	0	0	0
	point286	286	393	35	8	35	4	35	0	0	0	0
	point287	287	393	35	8	35	4	35	0	0	0	0
	point288	288	393	35	8	35	4	35	0	0	0	0
	point289	289	393	35	8	35	4	35	0	0	0	0
	point290	290	393	35	8	35	4	35	0	0	0	0
	point291	291	393	35	8	35	4	35	0	0	0	0
	point292	292	393	35	8	35	4	35	0	0	0	0
	point239	239										
SB Vollmer N/O Briargate	point293	293	419	35	9	35	4	35	0	0	0	0
	point295	295	419	35	9	35	4	35	0	0	0	0
	point296	296	419	35	9	35	4	35	0	0	0	0
	point297	297	419	35	9	35	4	35	0	0	0	0
	point298	298	419	35	9	35	4	35	0	0	0	0
	point299	299	419	35	9	35	4	35	0	0	0	0
	point300	300	419	35	9	35	4	35	0	0	0	0
	point301	301	419	35	9	35	4	35	0	0	0	0
	point302	302	419	35	9	35	4	35	0	0	0	0
	point303	303	419	35	9	35	4	35	0	0	0	0
	point304	304	419	35	9	35	4	35	0	0	0	0
	point305	305	419	35	9	35	4	35	0	0	0	0
	point306	306	419	35	9	35	4	35	0	0	0	0
	point307	307	419	35	9	35	4	35	0	0	0	0
	point308	308	419	35	9	35	4	35	0	0	0	0
	point309	309	419	35	9	35	4	35	0	0	0	0
	point310	310	419	35	9	35	4	35	0	0	0	0
	point311	311	419	35	9	35	4	35	0	0	0	0
	point312	312	419	35	9	35	4	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Homestead North Phase 1**

	point313	313	419	35	9	35	4	35	0	0	0	0
	point314	314	419	35	9	35	4	35	0	0	0	0
	point315	315	419	35	9	35	4	35	0	0	0	0
	point316	316	419	35	9	35	4	35	0	0	0	0
	point317	317	419	35	9	35	4	35	0	0	0	0
	point318	318	419	35	9	35	4	35	0	0	0	0
	point319	319	419	35	9	35	4	35	0	0	0	0
	point320	320	419	35	9	35	4	35	0	0	0	0
	point321	321	419	35	9	35	4	35	0	0	0	0
	point322	322	419	35	9	35	4	35	0	0	0	0
	point323	323	419	35	9	35	4	35	0	0	0	0
	point324	324	419	35	9	35	4	35	0	0	0	0
	point325	325	419	35	9	35	4	35	0	0	0	0
	point326	326	419	35	9	35	4	35	0	0	0	0
	point327	327	419	35	9	35	4	35	0	0	0	0
	point328	328	419	35	9	35	4	35	0	0	0	0
	point329	329	419	35	9	35	4	35	0	0	0	0
	point330	330	419	35	9	35	4	35	0	0	0	0
	point331	331	419	35	9	35	4	35	0	0	0	0
	point294	294										
SB Vollmer S/O Briargate	point332	332	654	35	13	35	7	35	0	0	0	0
	point334	334	654	35	13	35	7	35	0	0	0	0
	point335	335	654	35	13	35	7	35	0	0	0	0
	point336	336	654	35	13	35	7	35	0	0	0	0
	point337	337	654	35	13	35	7	35	0	0	0	0
	point338	338	654	35	13	35	7	35	0	0	0	0
	point339	339	654	35	13	35	7	35	0	0	0	0
	point340	340	654	35	13	35	7	35	0	0	0	0
	point341	341	654	35	13	35	7	35	0	0	0	0
	point342	342	0	35	13	35	7	35	0	0	0	0
	point343	343	654	35	13	35	7	35	0	0	0	0
	point344	344	654	35	13	35	7	35	0	0	0	0
	point333	333										
Vollmer Right-in Only	point345	345	51	35	1	35	0	0	0	0	0	0
	point347	347	51	35	1	35	0	0	0	0	0	0
	point348	348	51	35	1	35	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes****Homestead North Phase 1**

	point349	349	51	35	1	35	0	0	0	0	0	0
	point346	346										

INPUT: ROADWAYS

Homestead North Phase 1

LSC Transportation Consultants, Inc.										14 October 2021
KDF										TNM 2.5
INPUT: ROADWAYS					Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA					
PROJECT/CONTRACT: Homestead North Phase 1										
RUN: 2040 PM Peak Hour										

Roadway		Points				Flow Control			Segment		
Name	Width	Name	No.	Coordinates (pavement)			Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			X	Y	Z		mph	%		
EB Briargate W/O Vollmer	24.0	point1	1	236,266.6	415,856.1	7,144.00				Average	
		point3	3	236,285.6	415,840.5	7,143.00				Average	
		point4	4	236,305.0	415,824.4	7,142.00				Average	
		point5	5	236,324.3	415,808.5	7,143.00				Average	
		point6	6	236,360.0	415,779.0	7,143.00				Average	
		point7	7	236,376.1	415,765.7	7,142.00				Average	
		point8	8	236,390.5	415,753.7	7,141.00				Average	
		point9	9	236,420.2	415,729.2	7,140.00				Average	
		point10	10	236,436.6	415,715.7	7,139.00				Average	
		point11	11	236,449.9	415,704.7	7,138.00				Average	
		point12	12	236,463.9	415,693.2	7,137.00				Average	
		point13	13	236,478.6	415,681.0	7,136.00				Average	
		point14	14	236,500.1	415,663.2	7,135.00				Average	
		point15	15	236,537.3	415,632.5	7,134.00				Average	
		point16	16	236,574.3	415,601.9	7,133.00				Average	
		point17	17	236,580.3	415,596.9	7,133.00				Average	
		EB Briargate E/O Vollmer	24.0	point2	2	236,587.5	415,591.0	7,134.00	Signal	0.00	50
point18	18			236,589.8	415,589.1	7,134.00				Average	
point20	20			236,607.7	415,574.3	7,134.00				Average	
point21	21			236,612.0	415,570.8	7,133.00				Average	
point22	22			236,617.2	415,566.4	7,132.00				Average	
point23	23			236,624.7	415,560.3	7,133.00				Average	
point24	24			236,665.6	415,528.6	7,133.00				Average	
point25	25			236,710.8	415,489.9	7,132.00				Average	
point26	26			236,755.3	415,452.4	7,131.00				Average	

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point27	27	236,800.5	415,415.0	7,130.00				Average
		point28	28	236,845.7	415,377.7	7,129.00				Average
		point29	29	236,890.8	415,340.4	7,128.00				Average
		point30	30	236,936.5	415,302.6	7,127.00				Average
		point31	31	236,984.9	415,262.7	7,126.00				Average
		point32	32	237,034.2	415,222.7	7,125.00				Average
		point33	33	237,081.6	415,182.7	7,124.00				Average
		point19	19	237,127.2	415,144.7	7,123.00				
EB Briargate E/O Wheatland	24.0	point34	34	237,131.9	415,140.9	7,123.00				Average
		point36	36	237,165.9	415,113.1	7,122.00				Average
		point37	37	237,223.3	415,065.7	7,123.00				Average
		point38	38	237,230.6	415,059.7	7,124.00				Average
		point39	39	237,248.6	415,044.9	7,124.00				Average
		point40	40	237,277.8	415,020.7	7,123.00				Average
		point41	41	237,310.4	414,993.7	7,122.00				Average
		point42	42	237,345.9	414,964.4	7,121.00				Average
		point43	43	237,383.9	414,933.0	7,120.00				Average
		point44	44	237,418.5	414,904.3	7,119.00				Average
		point45	45	237,450.5	414,878.0	7,118.00				Average
		point46	46	237,476.6	414,856.5	7,117.00				Average
		point47	47	237,500.9	414,836.4	7,116.00				Average
		point48	48	237,522.6	414,818.5	7,115.00				Average
		point49	49	237,544.4	414,800.4	7,114.00				Average
		point50	50	237,563.8	414,784.4	7,113.00				Average
		point51	51	237,583.5	414,768.1	7,112.00				Average
		point52	52	237,598.3	414,755.9	7,111.00				Average
		point53	53	237,614.2	414,742.7	7,110.00				Average
		point54	54	237,621.8	414,736.4	7,109.00				Average
		point55	55	237,629.6	414,730.0	7,108.00				Average
		point56	56	237,637.8	414,723.3	7,107.00				Average
		point57	57	237,646.9	414,715.8	7,106.00				Average
		point58	58	237,662.5	414,702.8	7,105.00				Average
		point59	59	237,684.5	414,684.7	7,104.00				Average
		point60	60	237,691.5	414,678.9	7,103.00				Average
		point35	35	237,697.8	414,673.7	7,102.00				
WB Briargate E/O Wheatland	24.0	point61	61	237,687.1	414,748.7	7,102.00				Average
		point63	63	237,682.2	414,752.7	7,103.00				Average
		point64	64	237,677.4	414,756.7	7,104.00				Average
		point65	65	237,670.6	414,762.3	7,105.00				Average

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point66	66	237,663.8	414,767.9	7,106.00				Average
		point67	67	237,657.3	414,773.3	7,107.00				Average
		point68	68	237,650.7	414,778.7	7,108.00				Average
		point69	69	237,641.3	414,786.5	7,109.00				Average
		point70	70	237,631.1	414,794.9	7,110.00				Average
		point71	71	237,617.1	414,806.5	7,111.00				Average
		point72	72	237,603.3	414,817.9	7,112.00				Average
		point73	73	237,593.5	414,826.0	7,113.00				Average
		point74	74	237,582.7	414,835.0	7,114.00				Average
		point75	75	237,564.2	414,850.2	7,115.00				Average
		point76	76	237,546.3	414,865.0	7,116.00				Average
		point77	77	237,527.5	414,880.5	7,117.00				Average
		point78	78	237,507.7	414,896.9	7,118.00				Average
		point79	79	237,479.4	414,920.3	7,119.00				Average
		point80	80	237,451.6	414,943.2	7,120.00				Average
		point81	81	237,414.5	414,973.3	7,121.00				Average
		point82	82	237,380.9	415,001.6	7,122.00				Average
		point83	83	237,327.3	415,046.0	7,123.00				Average
		point84	84	237,282.3	415,083.1	7,124.00				Average
		point85	85	237,267.3	415,095.5	7,124.00				Average
		point86	86	237,263.9	415,097.8	7,123.00				Average
		point62	62	237,255.2	415,105.6	7,122.00				
WB Briargate E/O Vollmer	24.0	point87	87	237,250.5	415,109.4	7,122.00				Average
		point89	89	237,204.9	415,147.0	7,122.00				Average
		point90	90	237,155.0	415,188.3	7,123.00				Average
		point91	91	237,110.5	415,225.1	7,124.00				Average
		point92	92	237,058.2	415,268.3	7,125.00				Average
		point93	93	237,006.2	415,311.2	7,126.00				Average
		point94	94	236,955.8	415,352.8	7,127.00				Average
		point95	95	236,905.4	415,394.5	7,128.00				Average
		point96	96	236,855.0	415,436.1	7,129.00				Average
		point97	97	236,805.8	415,476.8	7,130.00				Average
		point98	98	236,778.8	415,499.1	7,131.00				Average
		point99	99	236,752.0	415,521.3	7,132.00				Average
		point100	100	236,725.2	415,543.4	7,133.00				Average
		point101	101	236,698.4	415,565.5	7,134.00				Average
		point102	102	236,671.6	415,587.6	7,135.00				Average
		point88	88	236,652.3	415,603.6	7,135.00				
WB Briargate W/O Vollmer	24.0	point103	103	236,650.0	415,605.5	7,135.00	Signal	0.00	50	Average

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point105	105	236,642.8	415,611.5	7,134.00				Average
		point106	106	236,639.4	415,614.3	7,133.00				Average
		point107	107	236,628.2	415,623.5	7,133.00				Average
		point108	108	236,613.3	415,635.8	7,134.00				Average
		point109	109	236,605.6	415,642.2	7,134.00				Average
		point110	110	236,589.1	415,655.8	7,135.00				Average
		point111	111	236,542.3	415,694.5	7,136.00				Average
		point112	112	236,522.9	415,710.6	7,137.00				Average
		point113	113	236,513.6	415,718.2	7,138.00				Average
		point114	114	236,503.9	415,726.2	7,139.00				Average
		point115	115	236,494.3	415,734.1	7,140.00				Average
		point116	116	236,484.6	415,742.2	7,141.00				Average
		point117	117	236,474.9	415,750.2	7,142.00				Average
		point118	118	236,462.3	415,760.7	7,143.00				Average
		point119	119	236,439.0	415,779.8	7,144.00				Average
		point120	120	236,404.3	415,808.7	7,145.00				Average
		point121	121	236,394.8	415,816.4	7,145.00				Average
		point122	122	236,377.4	415,830.8	7,144.00				Average
		point104	104	236,303.4	415,891.9	7,145.00				
NB Vollmer S/O Briargate	24.0	point123	123	236,298.8	415,192.3	7,121.00				Average
		point125	125	236,318.7	415,216.5	7,122.00				Average
		point126	126	236,340.2	415,242.5	7,123.00				Average
		point127	127	236,362.0	415,268.9	7,124.00				Average
		point128	128	236,383.9	415,295.3	7,125.00				Average
		point129	129	236,402.8	415,318.2	7,126.00				Average
		point130	130	236,423.1	415,342.5	7,127.00				Average
		point131	131	236,444.8	415,369.1	7,128.00				Average
		point132	132	236,473.8	415,404.1	7,129.00				Average
		point133	133	236,505.6	415,442.6	7,130.00				Average
		point134	134	236,540.8	415,485.3	7,131.00				Average
		point135	135	236,567.8	415,517.9	7,132.00				Average
		point124	124	236,605.6	415,563.9	7,133.00				
NB Vollmer N/O Briargate	24.0	point136	136	236,645.2	415,611.6	7,134.00	Signal	0.00	50	Average
		point138	138	236,657.5	415,626.5	7,134.00				Average
		point139	139	236,685.1	415,659.9	7,135.00				Average
		point140	140	236,715.7	415,697.0	7,136.00				Average
		point141	141	236,742.2	415,729.0	7,137.00				Average
		point142	142	236,778.3	415,772.7	7,138.00				Average
		point143	143	236,795.9	415,794.2	7,139.00				Average

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point144	144	236,869.2	415,882.8	7,140.00				Average
		point145	145	236,892.0	415,910.3	7,141.00				Average
		point146	146	236,914.0	415,937.0	7,142.00				Average
		point147	147	236,938.4	415,967.0	7,143.00				Average
		point148	148	236,963.7	415,997.1	7,144.00				Average
		point149	149	236,991.8	416,031.2	7,145.00				Average
		point150	150	237,049.8	416,101.4	7,146.00				Average
		point151	151	237,059.1	416,112.6	7,146.00				Average
		point152	152	237,083.8	416,142.5	7,146.00				Average
		point153	153	237,094.4	416,155.4	7,147.00				Average
		point154	154	237,118.9	416,185.0	7,148.00				Average
		point155	155	237,131.4	416,200.0	7,149.00				Average
		point156	156	237,154.5	416,228.0	7,150.00				Average
		point157	157	237,165.8	416,241.7	7,151.00				Average
		point158	158	237,184.2	416,264.1	7,152.00				Average
		point159	159	237,189.0	416,269.8	7,153.00				Average
		point160	160	237,223.9	416,312.0	7,154.00				Average
		point161	161	237,234.2	416,324.6	7,155.00				Average
		point162	162	237,248.7	416,342.0	7,156.00				Average
		point163	163	237,256.5	416,351.5	7,157.00				Average
		point164	164	237,267.5	416,364.8	7,158.00				Average
		point165	165	237,298.1	416,401.9	7,159.00				Average
		point166	166	237,314.1	416,421.2	7,160.00				Average
		point167	167	237,332.1	416,443.0	7,161.00				Average
		point168	168	237,344.2	416,457.7	7,162.00				Average
		point169	169	237,355.0	416,470.8	7,163.00				Average
		point170	170	237,369.1	416,487.8	7,164.00				Average
		point171	171	237,384.5	416,506.5	7,165.00				Average
		point172	172	237,399.7	416,524.8	7,166.00				Average
		point173	173	237,451.7	416,594.6	7,167.00				Average
		point174	174	237,477.0	416,634.9	7,168.00				Average
		point137	137	237,482.7	416,644.7	7,169.00				
NB Vollmer S/O Poco	24.0	point175	175	237,485.7	416,650.0	7,169.00				Average
		point177	177	237,519.5	416,717.1	7,170.00				Average
		point178	178	237,528.3	416,737.2	7,171.00				Average
		point179	179	237,534.1	416,751.3	7,172.00				Average
		point180	180	237,542.2	416,772.4	7,173.00				Average
		point181	181	237,557.4	416,817.7	7,174.00				Average
		point182	182	237,569.7	416,863.9	7,175.00				Average



**INPUT: ROADWAYS**

**Homestead North Phase 1**

	point183	183	237,575.3	416,889.4	7,176.00				Average	
	point184	184	237,593.9	416,984.3	7,176.00				Average	
	point185	185	237,600.9	417,020.1	7,175.00				Average	
	point186	186	237,607.0	417,050.9	7,175.00				Average	
	point187	187	237,614.5	417,089.1	7,176.00				Average	
	point188	188	237,616.8	417,101.2	7,177.00				Average	
	point189	189	237,621.0	417,122.5	7,178.00				Average	
	point190	190	237,624.0	417,137.5	7,179.00				Average	
	point191	191	237,627.7	417,156.4	7,180.00				Average	
	point192	192	237,631.8	417,177.2	7,181.00				Average	
	point193	193	237,635.5	417,196.5	7,182.00				Average	
	point194	194	237,639.1	417,214.8	7,183.00				Average	
	point195	195	237,642.1	417,229.6	7,184.00				Average	
	point196	196	237,644.4	417,241.6	7,185.00				Average	
	point197	197	237,646.5	417,252.4	7,186.00				Average	
	point198	198	237,647.7	417,258.4	7,187.00				Average	
	point199	199	237,649.9	417,269.3	7,188.00				Average	
	point200	200	237,656.2	417,301.7	7,189.00				Average	
	point201	201	237,664.7	417,344.9	7,190.00				Average	
	point202	202	237,669.2	417,367.7	7,191.00				Average	
	point203	203	237,672.5	417,384.5	7,192.00				Average	
	point204	204	237,675.8	417,401.5	7,193.00				Average	
	point205	205	237,678.4	417,414.6	7,194.00				Average	
	point206	206	237,681.1	417,428.6	7,195.00				Average	
	point207	207	237,683.7	417,441.4	7,196.00				Average	
	point208	208	237,686.2	417,454.3	7,197.00				Average	
	point209	209	237,690.5	417,476.0	7,198.00				Average	
	point210	210	237,708.4	417,567.3	7,198.00				Average	
	point211	211	237,715.4	417,603.0	7,199.00				Average	
	point212	212	237,722.4	417,638.6	7,200.00				Average	
	point213	213	237,730.1	417,677.8	7,201.00				Average	
	point214	214	237,737.3	417,714.5	7,202.00				Average	
	point215	215	237,743.4	417,745.9	7,203.00				Average	
	point216	216	237,748.7	417,772.8	7,204.00				Average	
	point217	217	237,755.4	417,806.8	7,205.00				Average	
	point218	218	237,761.8	417,839.2	7,206.00				Average	
	point219	219	237,768.6	417,874.1	7,207.00				Average	
	point220	220	237,775.4	417,908.5	7,208.00				Average	
	point221	221	237,780.7	417,939.8	7,209.00				Average	

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point222	222	237,785.4	417,974.0	7,210.00				Average
		point223	223	237,788.9	418,007.8	7,211.00				Average
		point224	224	237,790.7	418,044.6	7,212.00				Average
		point225	225	237,790.5	418,075.4	7,213.00				Average
		point226	226	237,790.2	418,103.8	7,214.00				Average
		point227	227	237,790.0	418,131.4	7,215.00				Average
		point228	228	237,789.7	418,162.4	7,216.00				Average
		point229	229	237,789.4	418,196.2	7,217.00				Average
		point230	230	237,789.1	418,233.2	7,218.00				Average
		point231	231	237,788.7	418,270.5	7,219.00				Average
		point232	232	237,788.4	418,305.5	7,220.00				Average
		point233	233	237,788.0	418,350.3	7,221.00				Average
		point234	234	237,787.8	418,376.5	7,222.00				Average
		point235	235	237,787.5	418,410.8	7,223.00				Average
		point236	236	237,787.2	418,438.2	7,224.00				Average
		point237	237	237,786.9	418,470.0	7,225.00				Average
		point176	176	237,786.6	418,508.5	7,226.00				
SB Vollmer S/O Poco	24.0	point238	238	237,748.7	418,499.3	7,226.00				Average
		point240	240	237,749.0	418,456.8	7,225.00				Average
		point241	241	237,749.4	418,416.8	7,224.00				Average
		point242	242	237,749.7	418,388.7	7,223.00				Average
		point243	243	237,749.9	418,359.5	7,222.00				Average
		point244	244	237,750.1	418,339.5	7,221.00				Average
		point245	245	237,750.4	418,305.8	7,220.00				Average
		point246	246	237,750.7	418,274.4	7,219.00				Average
		point247	247	237,751.0	418,236.5	7,218.00				Average
		point248	248	237,751.3	418,201.2	7,217.00				Average
		point249	249	237,751.8	418,154.6	7,216.00				Average
		point250	250	237,752.0	418,132.2	7,215.00				Average
		point251	251	237,752.4	418,077.5	7,214.00				Average
		point252	252	237,752.7	418,043.5	7,213.00				Average
		point253	253	237,751.1	418,012.0	7,212.00				Average
		point254	254	237,748.4	417,984.8	7,211.00				Average
		point255	255	237,745.3	417,959.9	7,210.00				Average
		point256	256	237,741.0	417,932.2	7,209.00				Average
		point257	257	237,736.4	417,906.9	7,208.00				Average
		point258	258	237,728.8	417,868.5	7,207.00				Average
		point259	259	237,719.8	417,822.9	7,206.00				Average
		point260	260	237,714.1	417,793.8	7,205.00				Average

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point261	261	237,709.0	417,767.7	7,204.00				Average	
		point262	262	237,701.6	417,729.8	7,203.00				Average	
		point263	263	237,694.4	417,693.1	7,202.00				Average	
		point264	264	237,685.6	417,648.3	7,201.00				Average	
		point265	265	237,677.2	417,605.9	7,200.00				Average	
		point266	266	237,669.5	417,566.4	7,199.00				Average	
		point267	267	237,662.3	417,530.2	7,198.00				Average	
		point268	268	237,660.0	417,518.0	7,197.00				Average	
		point269	269	237,649.4	417,464.4	7,196.00				Average	
		point270	270	237,644.9	417,441.3	7,195.00				Average	
		point271	271	237,640.5	417,418.8	7,194.00				Average	
		point272	272	237,636.1	417,396.3	7,193.00				Average	
		point273	273	237,631.5	417,372.9	7,192.00				Average	
		point274	274	237,627.1	417,350.8	7,191.00				Average	
		point275	275	237,623.1	417,330.3	7,190.00				Average	
		point276	276	237,618.2	417,305.2	7,189.00				Average	
		point277	277	237,613.7	417,282.4	7,188.00				Average	
		point278	278	237,610.5	417,266.2	7,187.00				Average	
		point279	279	237,607.3	417,249.6	7,186.00				Average	
		point280	280	237,603.3	417,229.7	7,185.00				Average	
		point281	281	237,598.8	417,206.4	7,184.00				Average	
		point282	282	237,593.4	417,178.9	7,183.00				Average	
		point283	283	237,587.5	417,149.1	7,182.00				Average	
		point284	284	237,581.7	417,119.3	7,181.00				Average	
		point285	285	237,574.1	417,080.8	7,180.00				Average	
		point286	286	237,565.3	417,036.1	7,179.00				Average	
		point287	287	237,550.0	416,958.0	7,178.00				Average	
		point288	288	237,541.2	416,913.3	7,177.00				Average	
		point289	289	237,532.9	416,873.5	7,176.00				Average	
		point290	290	237,527.8	416,852.8	7,175.00				Average	
		point291	291	237,510.4	416,796.3	7,174.00				Average	
		point292	292	237,505.5	416,782.5	7,173.00				Average	
		point239	239	237,481.0	416,724.6	7,172.00					
SB Vollmer N/O Briargate	24.0	point293	293	237,478.5	416,719.1	7,172.00				Average	
		point295	295	237,471.5	416,704.5	7,171.00				Average	
		point296	296	237,436.9	416,641.9	7,170.00				Average	
		point297	297	237,420.3	416,615.9	7,169.00				Average	
		point298	298	237,402.3	416,590.1	7,168.00				Average	
		point299	299	237,381.5	416,562.5	7,167.00				Average	

**INPUT: ROADWAYS**

**Homestead North Phase 1**

		point300	300	237,359.5	416,535.8	7,166.00				Average
		point301	301	237,342.0	416,514.6	7,165.00				Average
		point302	302	237,324.6	416,493.6	7,164.00				Average
		point303	303	237,308.4	416,474.0	7,163.00				Average
		point304	304	237,291.9	416,454.0	7,162.00				Average
		point305	305	237,274.9	416,433.5	7,161.00				Average
		point306	306	237,257.8	416,412.8	7,160.00				Average
		point307	307	237,243.8	416,395.8	7,159.00				Average
		point308	308	237,220.5	416,367.6	7,158.00				Average
		point309	309	237,201.1	416,344.3	7,157.00				Average
		point310	310	237,182.0	416,321.0	7,156.00				Average
		point311	311	237,161.2	416,296.2	7,155.00				Average
		point312	312	237,141.0	416,271.3	7,154.00				Average
		point313	313	237,113.9	416,238.6	7,153.00				Average
		point314	314	237,087.2	416,206.3	7,152.00				Average
		point315	315	237,058.9	416,172.0	7,151.00				Average
		point316	316	237,031.0	416,138.3	7,150.00				Average
		point317	317	237,006.9	416,108.6	7,149.00				Average
		point318	318	236,982.7	416,079.8	7,148.00				Average
		point319	319	236,963.9	416,057.1	7,147.00				Average
		point320	320	236,932.2	416,018.7	7,146.00				Average
		point321	321	236,909.5	415,991.9	7,145.00				Average
		point322	322	236,884.0	415,960.2	7,144.00				Average
		point323	323	236,863.1	415,935.3	7,143.00				Average
		point324	324	236,840.7	415,907.9	7,142.00				Average
		point325	325	236,806.1	415,866.0	7,141.00				Average
		point326	326	236,774.0	415,826.3	7,140.00				Average
		point327	327	236,752.4	415,801.0	7,139.00				Average
		point328	328	236,719.8	415,761.5	7,138.00				Average
		point329	329	236,694.6	415,731.1	7,137.00				Average
		point330	330	236,662.3	415,692.0	7,136.00				Average
		point331	331	236,640.2	415,665.3	7,135.00				Average
		point294	294	236,615.3	415,635.1	7,134.00				
SB Vollmer S/O Briargate	24.0	point332	332	236,571.8	415,582.5	7,133.00	Signal	0.00	50	Average
		point334	334	236,539.3	415,543.1	7,132.00				Average
		point335	335	236,507.4	415,504.5	7,131.00				Average
		point336	336	236,477.7	415,468.5	7,130.00				Average
		point337	337	236,419.2	415,397.8	7,129.00				Average
		point338	338	236,415.5	415,393.3	7,128.00				Average

**INPUT: ROADWAYS****Homestead North Phase 1**

		point339	339	236,394.0	415,368.5	7,127.00				Average	
		point340	340	236,370.4	415,338.7	7,126.00				Average	
		point341	341	236,350.9	415,315.1	7,125.00				Average	
		point342	342	236,330.8	415,291.0	7,124.00				Average	
		point343	343	236,308.3	415,263.5	7,123.00				Average	
		point344	344	236,282.9	415,232.3	7,122.00				Average	
		point333	333	236,255.8	415,200.0	7,121.00					
Vollmer Right-in Only	12.0	point345	345	236,973.9	415,964.7	7,145.00				Average	
		point347	347	237,025.3	416,029.9	7,145.00				Average	
		point348	348	237,039.7	416,047.8	7,144.00				Average	
		point349	349	237,053.7	416,065.6	7,143.00				Average	
		point346	346	237,069.7	416,085.9	7,143.00					

**INPUT: RECEIVERS**

**Homestead North Phase 1**

<b>LSC Transportation Consultants, Inc.</b>						<b>14 October 2021</b>					
<b>KDF</b>						<b>TNM 2.5</b>					

<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>			<b>Homestead North Phase 1</b>								
<b>RUN:</b>			<b>2040 PM Peak Hour</b>								

<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height above Ground</b>	<b>Input Sound Levels and Criteria</b>				<b>Active in Calc.</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>		<b>Existing LAeq1h</b>	<b>Impact Criteria LAeq1h</b>	<b>Sub'l</b>	<b>NR Goal</b>	
			<b>ft</b>	<b>ft</b>	<b>ft</b>	<b>ft</b>	<b>dBA</b>	<b>dBA</b>	<b>dB</b>	<b>dB</b>	
Receiver1	1	1	237,672.3	415,259.7	7,122.25	4.92	0.00	67	10.0	8.0	Y
Receiver2	2	1	237,618.3	415,304.2	7,123.25	4.92	0.00	67	10.0	8.0	Y
Receiver3	3	1	237,568.2	415,345.6	7,123.50	4.92	0.00	67	10.0	8.0	Y
Receiver4	4	1	237,521.5	415,384.2	7,124.00	4.92	0.00	67	10.0	8.0	Y
Receiver5	5	1	237,227.9	415,263.6	7,128.00	4.92	0.00	67	10.0	8.0	Y
Receiver6	6	1	237,185.6	415,298.6	7,129.25	4.92	0.00	67	10.0	8.0	Y
Receiver7	7	1	237,147.0	415,330.4	7,130.25	4.92	0.00	67	10.0	8.0	Y
Receiver8	8	1	237,108.5	415,362.2	7,131.25	4.92	0.00	67	10.0	8.0	Y
Receiver9	9	1	237,070.0	415,394.1	7,132.25	4.92	0.00	67	10.0	8.0	Y
Receiver10	10	1	237,031.4	415,425.9	7,133.25	4.92	0.00	67	10.0	8.0	Y
Receiver11	11	1	236,992.9	415,457.8	7,134.25	4.92	0.00	67	10.0	8.0	Y
Receiver12	12	1	236,954.1	415,489.8	7,135.25	4.92	0.00	67	10.0	8.0	Y
Receiver13	13	1	236,915.3	415,521.9	7,135.50	4.92	0.00	67	10.0	8.0	Y
Receiver14	14	1	236,848.1	415,577.4	7,135.00	4.92	0.00	67	10.0	8.0	Y
Receiver15	15	1	236,819.6	415,671.9	7,135.75	4.92	0.00	67	10.0	8.0	Y
Receiver16	16	1	236,882.5	415,747.1	7,137.25	4.92	0.00	67	10.0	8.0	Y
Receiver17	17	1	236,921.0	415,794.8	7,138.25	4.92	0.00	67	10.0	8.0	Y
Receiver18	18	1	236,959.2	415,841.0	7,139.50	4.92	0.00	67	10.0	8.0	Y
Receiver19	19	1	236,997.5	415,887.2	7,140.75	4.92	0.00	67	10.0	8.0	Y
Receiver20	20	1	237,035.7	415,933.5	7,142.00	4.92	0.00	67	10.0	8.0	Y
Receiver21	21	1	237,073.9	415,979.8	7,143.25	4.92	0.00	67	10.0	8.0	Y
Receiver22	22	1	237,112.1	416,026.0	7,144.50	4.92	0.00	67	10.0	8.0	Y

**INPUT: RECEIVERS****Homestead North Phase 1**

Receiver23	23	1	237,169.4	416,095.4	7,146.25	4.92	0.00	67	10.0	8.0	Y
Receiver24	24	1	237,207.6	416,141.7	7,147.50	4.92	0.00	67	10.0	8.0	Y
Receiver25	25	1	237,245.9	416,187.9	7,149.25	4.92	0.00	67	10.0	8.0	Y
Receiver26	26	1	237,284.1	416,234.2	7,151.50	4.92	0.00	67	10.0	8.0	Y
Receiver27	27	1	237,322.3	416,280.4	7,153.50	4.92	0.00	67	10.0	8.0	Y
Receiver28	28	1	237,360.5	416,326.7	7,155.75	4.92	0.00	67	10.0	8.0	Y
Receiver29	29	1	237,398.7	416,372.9	7,158.00	4.92	0.00	67	10.0	8.0	Y
Receiver30	30	1	237,436.9	416,419.2	7,160.00	4.92	0.00	67	10.0	8.0	Y
Receiver31	31	1	237,475.3	416,465.7	7,161.25	4.92	0.00	67	10.0	8.0	Y
Receiver32	32	1	237,512.7	416,514.7	7,161.75	4.92	0.00	67	10.0	8.0	Y
Receiver33	33	1	237,552.8	416,576.5	7,162.50	4.92	0.00	67	10.0	8.0	Y
Receiver34	34	1	237,626.0	416,722.7	7,171.50	4.92	0.00	67	10.0	8.0	Y
Receiver35	35	1	237,653.3	416,806.7	7,172.00	4.92	0.00	67	10.0	8.0	Y
Receiver36	36	1	237,674.0	416,894.2	7,174.50	4.92	0.00	67	10.0	8.0	Y
Receiver37	37	1	237,689.5	416,973.0	7,177.75	4.92	0.00	67	10.0	8.0	Y
Receiver38	38	1	237,704.9	417,051.4	7,181.00	4.92	0.00	67	10.0	8.0	Y
Receiver39	39	1	237,720.3	417,129.9	7,184.00	4.92	0.00	67	10.0	8.0	Y
Receiver40	40	1	237,735.7	417,208.4	7,185.50	4.92	0.00	67	10.0	8.0	Y
Receiver41	41	1	237,751.1	417,286.9	7,186.50	4.92	0.00	67	10.0	8.0	Y
Receiver42	42	1	237,779.5	417,442.1	7,193.25	4.92	0.00	67	10.0	8.0	Y
Receiver43	43	1	237,813.1	417,602.4	7,199.00	4.92	0.00	67	10.0	8.0	Y
Receiver44	44	1	237,838.7	417,732.9	7,202.00	4.92	0.00	67	10.0	8.0	Y
Receiver45	45	1	237,862.3	417,855.2	7,206.50	4.92	0.00	67	10.0	8.0	Y
Receiver46	46	1	237,881.2	417,968.5	7,206.75	4.92	0.00	67	10.0	8.0	Y

INPUT: BARRIERS

Homestead North Phase 1

LSC Transportation Consultants, Inc.	14 October 2021
KDF	TNM 2.5
INPUT: BARRIERS	
PROJECT/CONTRACT:	Homestead North Phase 1
RUN:	2040 PM Peak Hour

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per Unit	\$ per Unit	Top Width	Run:Rise	\$ per Unit			X	Y	Z	at Point	Seg	Ht	Perturbs	On	Important
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft			ft	ft	ft	ft	ft				
				Area	Vol.			Length							Incre-	#Up	#Dn	Struct?	Reflec-tions?
Barrier1	W	0.00	6.00	0.00				0.00	point1	1	237,233.9	415,239.2	7,126.00	6.00	6.00	0	1		
									point3	3	237,226.3	415,246.0	7,127.00	6.00	6.00	0	1		
									point4	4	237,219.6	415,251.0	7,128.00	6.00	6.00	0	1		
									point5	5	237,194.2	415,272.0	7,129.00	6.00	6.00	0	1		
									point6	6	237,156.1	415,303.4	7,130.00	6.00	6.00	0	1		
									point7	7	237,118.2	415,334.8	7,131.00	6.00	6.00	0	1		
									point8	8	237,080.0	415,366.3	7,132.00	6.00	6.00	0	1		
									point9	9	237,042.0	415,397.8	7,133.00	6.00	6.00	0	1		
									point10	10	237,003.9	415,429.2	7,134.00	6.00	6.00	0	1		
									point11	11	236,965.9	415,460.7	7,135.00	6.00	6.00	0	1		
									point12	12	236,895.2	415,519.1	7,135.00	6.00	6.00	0	1		
									point2	2	236,763.6	415,627.8	7,135.00	6.00					