

## Energy Use Summary

<b>Construction Phase (gallons/construction period)</b>	<b>Gasoline</b>	<b>Diesel</b>		
Construction Vehicles	0	11,344		
Worker Trips	15,054	60		
Vendor Trips	1,511	21		
Haul Trucks	5	4,314		
<b>Total</b>	<b>16,570</b>	<b>15,739</b>		

  

<b>Operations Phase (gallons/year)</b>	<b>Gasoline</b>	<b>Diesel</b>	<b>Natural Gas (kBTU/yr)</b>	<b>Electricity (kWh/yr)</b>
City Park	0	0	0	0
Condo/Townhouse	59,372	9,809	1,580,240	463,674
Parking Lot	0	0	0	13,860
Single Family Housing	75,535	12,479	1,813,320	541,747
<b>All Land Uses</b>	<b>134,907</b>	<b>22,288</b>	<b>3,393,560</b>	<b>1,019,281</b>

# Energy Use Summary

Year **2022**

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	30.8	48.7		6,542,832	58,938	127,533	6,601,770
LDT1	26.5	22.6		736,906	387	5,339	737,293
LDT2	24.7	35.7		2,246,303	14,235	22,590	2,260,537
LHDT1	10.5	21.6		175,903	119,381		295,284
LHDT2	9.2	19.5		30,010	47,336		77,346
MCY	36.4			295,960			295,960
MDV	20.0	27.4		1,579,640	33,349	11,658	1,612,989
MH	5.2	10.6		35,098	12,759		47,857
MHDT	5.1	10.7		25,445	123,310		148,755
HHDT	4.2	6.7		78	108,362		108,440
OBUS	5.0	8.5		5,959	4,274		10,234
SBUS	9.1	7.6		2,631	6,631		9,262
UBUS	4.9	6.0		952	14	17	966

Trips/Day	Trips/day	Trips/day	Trips/day	Weekly Total
Land Use	Weekday	Saturday	Sunday	
City Park	0.00	0.00	0.00	0
Condo/Townhouse	500	488	417	3,405
Parking Lot	0	0	0	0
Single Family Housing	623	649	564	4,328
<b>Total</b>	<b>1,123</b>	<b>1,137</b>	<b>981</b>	<b>7,733</b>

Fleet Mix	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHD	HHDT	OBUS	UBUS	MCY	SBUS	MH	Total
City Park	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Condo/Townhouse	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Parking Lot	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Single Family Housing	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
														0.0%

Vehicle Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Weekday Trips															
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	321	26	58	52	10	3	14	9	1	1	3	0	1	500	4,562.68
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	400	32	72	65	13	4	18	11	1	1	4	0	1	623	5,804.71
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total</b>	<b>721</b>	<b>58</b>	<b>131</b>	<b>118</b>	<b>23</b>	<b>8</b>	<b>32</b>	<b>20</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1,123</b>	<b>-</b>

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	314	25	57	51	10	3	14	9	1	1	3	0	1	488	4,563
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	417	33	75	68	13	4	18	12	1	1	4	0	1	649	5,805
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total</b>	<b>730</b>	<b>58</b>	<b>132</b>	<b>119</b>	<b>23</b>	<b>8</b>	<b>32</b>	<b>21</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1,137</b>	<b>-</b>

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	268	21	49	44	8	3	12	8	1	1	2	0	1	417	4,563
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	362	29	66	59	11	4	16	10	1	1	3	0	1	564	5,805
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total</b>	<b>630</b>	<b>50</b>	<b>114</b>	<b>103</b>	<b>20</b>	<b>7</b>	<b>28</b>	<b>18</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>981</b>	<b>-</b>

Gallons of Fuel	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
Gasoline														
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Condo/Townhouse	34,286	3,226	7,784	8,511	1,913	474	1,591	5	365	641	256	35	286	59,372
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single Family Housing	43,619	4,104	9,902	10,828	2,433	603	2,024	7	464	815	326	45	364	75,535
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>77,904</b>	<b>7,331</b>	<b>17,686</b>	<b>19,339</b>	<b>4,346</b>	<b>1,077</b>	<b>3,615</b>	<b>12</b>	<b>829</b>	<b>1,456</b>	<b>582</b>	<b>80</b>	<b>651</b>	<b>134,907</b> Total Gallons

Diesel	LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Condo/Townhouse	196	2	34	131	634	352	3,651	4,488	156	8	0	106	51	9,809
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single Family Housing	249	3	43	167	807	448	4,645	5,710	198	10	0	135	64	12,479
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>444</b>	<b>5</b>	<b>78</b>	<b>298</b>	<b>1,441</b>	<b>799</b>	<b>8,297</b>	<b>10,199</b>	<b>354</b>	<b>18</b>	<b>0</b>	<b>241</b>	<b>115</b>	<b>22,288</b> Total Gallons

157,195 Total Gallons

24 Average MPC

# Energy Use Summary

Land Use	Natural Gas Use kBTU/yr	Electricity Use kWh/yr
City Park	0	
Condo/Townhouse	1.58E+06	463,674
Parking Lot	0	13,860
Single Family Housing	1.81E+06	541,747
<b>Total</b>	<b>3,393,560</b>	<b>1,019,281</b>

# Energy Use Summary

2021

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate (gal/hour)	Fuel Type	Total Fuel Consumption (gal/construction period)
Demolition	Concrete/Industrial Saws	0	8	81	0.73	100	53	2024	4.7	Gasoline	0
Demolition	Excavators	2	8	158	0.38	175	53	2024	2.9	Diesel	930
Demolition	Rubber Tired Dozers	0	8	247	0.4	300	53	2024	4.6	Diesel	0
Demolition	Sweepers/Scrubbers	1	8	64	0.46	75	53	2024	1.7	Diesel	328
Demolition	Tractors/Loaders/Backhoes	2	8	97	0.37	100	53	2024	1.6	Diesel	500
Site Preparation	Rubber Tired Dozers	1	8	247	0.4	300	6	2024	4.6	Diesel	89
Site Preparation	Tractors/Loaders/Backhoes	0	8	97	0.37	100	6	2024	1.6	Diesel	0
Grading	Excavators	0	8	158	0.38	175	31	2024	2.9	Diesel	0
Grading	Graders	0	8	187	0.41	175	31	2024	3.2	Diesel	0
Grading	Rubber Tired Dozers	1	8	247	0.4	300	31	2024	4.6	Diesel	459
Grading	Scrapers	4	8	367	0.48	300	31	2024	5.5	Diesel	2,632
Grading	Sweepers/Scrubbers	1	8	64	0.46	75	31	2024	1.7	Diesel	192
Grading	Tractors/Loaders/Backhoes	0	8	97	0.37	100	31	2024	1.6	Diesel	0
Building Construction	Cranes	0	7	231	0.29	300	173	2024	3.3	Diesel	0
Building Construction	Excavators	2	8	158	0.38	175	173	2024	2.9	Diesel	3,036
Building Construction	Forklifts	0	8	89	0.2	100	173	2024	2.0	Diesel	0
Building Construction	Generator Sets	0	8	84	0.74	100	173	2024	5.2	Gasoline	0
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	100	173	2024	1.6	Diesel	2,142
Building Construction	Welders	0	8	46	0.45	50	173	2024	2.4	Gasoline	0
Architectural Coating	Air Compressors	1	6	78	0.48	100	173	2024	1.3	Diesel	660
Paving	Pavers	1	8	130	0.42	100	12	2024	1.7	Diesel	70
Paving	Paving Equipment	1	8	132	0.36	100	12	2024	1.6	Diesel	57
Paving	Rollers	1	8	80	0.38	100	12	2024	1.7	Diesel	62
Paving	Sweepers/Scrubbers	1	8	64	0.46	75	12	2024	1.7	Diesel	74
Paving	Tractors/Loaders/Backhoes	2	8	97	0.37	100	12	2024	1.6	Diesel	113
<b>Total</b>											<b>11,344</b>
									<b>Total</b>	<b>Gasoline</b>	<b>-</b>
									<b>Total</b>	<b>Diesel</b>	<b>11,344</b>

# Energy Use Summary

Year **2021**

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	30.0	47.5		6,444,755	55,086	107,407	6,499,841
LDT1	25.8	22.3		715,053	416	3,766	715,469
LDT2	23.8	34.7		2,207,489	12,809	17,083	2,220,298
LHDT1	10.4	21.2		176,982	113,082		290,064
LHDT2	9.1	19.2		29,883	44,616		74,500
MCY	36.4			286,161			286,161
MDV	19.4	26.6		1,569,538	30,444	7,447	1,599,981
MH	5.1	10.5		35,587	12,386		47,973
MHDT	5.0	10.4		25,313	122,609		147,922
HHDT	4.0	6.6		82	106,417		106,499
OBUS	5.0	8.2		5,971	4,250		10,222
SBUS	9.1	7.5		2,479	6,589		9,067
UBUS	4.8	6.0		944	14	17	958

## Input

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	13	0	198	14.7	6.9	20
Site Preparation	3	0	0	14.7	6.9	20
Grading	15	0	1219	14.7	6.9	20
Building Construction	112	25	0	14.7	6.9	20
Architectural Coating	22	0	0	14.7	6.9	20
Paving	15	0	0	14.7	6.9	20

## Adjusted

Demolition	689	0	198	14.7	6.9	20
Site Preparation	18	0	0	14.7	6.9	20
Grading	465	0	1219	14.7	6.9	20
Building Construction	19376	4325	0	14.7	6.9	20
Architectural Coating	3806	0	0	14.7	6.9	20
Paving	180	0	0	14.7	6.9	20
<b>Total</b>						

Gasoline Consumption			Diesel Consumption		
Worker	Vendor	Haul	Worker	Vendor	Haul
423	0	1	2	0	603
11	0	0	0	0	0
285	0	5	1	0	3,711
11,889	1,511	0	47	21	0
2,335	0	0	9	0	0
110	0	0	0	0	0
<b>15,054</b>	<b>1,511</b>	<b>5</b>	<b>60</b>	<b>21</b>	<b>4,314</b>