

Energy Use Summary - McDonald Parcels

Construction Phase (gallons/construction period)	Gasoline	Diesel		
Construction Vehicles	0	5,501		
Worker Trips	12,671	51		
Vendor Trips	2,670	38		
Haul Trucks	1	953		
Total	15,343	6,542		

Operations Phase (gallons/year)	Gasoline	Diesel	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Industrial	14,398	2,802	0	56,258
0	0	0	57,596	2,507,120
All Land Uses	14,398	2,802	57,596	2,563,378

Operations Phase - Onroad Energy Use

Year 2023

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
	LDA	31.7	50.0		6,635,002	62,493	150,700
LDT1	27.2	22.9		758,468	361	7,123	758,828
LDT2	25.5	36.7		2,285,150	15,595	28,810	2,300,745
LHDT1	10.7	21.9		174,910	125,545		300,455
LHDT2	9.3	19.8		30,103	50,003		80,106
MCY	36.4			305,045			305,045
MDV	20.7	28.1		1,589,863	36,128	16,377	1,625,991
MH	5.2	10.7		34,680	13,123		47,802
MHDT	5.1	11.2		25,624	122,124		147,749
HHDT	4.3	7.1		75	109,819		109,894
OBUS	5.1	8.7		5,955	4,287		10,242
SBUS	9.2	7.7		2,784	6,672		9,455
UBUS	5.1	5.9		958	13	16	971

Trips/Day Land Use	Trips/day Weekday	Trips/day Saturday	Trips/day Sunday	Weekly Total
Industrial	134.00	134.00	134.00	402

Total	134	134	134	402
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Fleet Mix Land Use	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
Industrial	0.545842	0.044768	0.205288	0.119317	0.01535	0.006227	0.02046	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862	100.0%

Vehicle Trips

Weekday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Industrial	73	6	28	16	2	1	3	4	0	0	1	0	0	134	1,126.77
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	73	6	28	16	2	1	3	4	0	0	1	0	0	134	

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Industrial	73	6	28	16	2	1	3	4	0	0	1	0	0	134	1,127
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	73	6	28	16	2	1	3	4	0	0	1	0	0	134	

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Industrial	73	6	28	16	2	1	3	4	0	0	1	0	0	134	1,127
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	73	6	28	16	2	1	3	4	0	0	1	0	0	134	

Gallons of Fuel

Gasoline	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total
Industrial	6,996	676	3,274	2,315	344	104	283	2	119	169	58	9	49	14,398
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,996	676	3,274	2,315	344	104	283	2	119	169	58	9	49	14,398

Diesel	LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total
Industrial	42	0	16	39	120	81	619	1,799	50	2	0	26	9	2,802
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	0	16	39	120	81	619	1,799	50	2	0	26	9	2,802

17,200 Total Gallons

24 Average MPC

Utilities - Energy

	NaturalGas Use	Electricity Use
	kBTU/yr	kWh/yr
Land Use		
Parking Lot		56,258
Warehouse	57596	2,507,120

Total	57,596	2,563,378
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11863

0

94400

Construction Offroad Equipment Fuel Use

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)
Site Preparation	Excavators	1	8	158	0.38	175	10	2021	2.9	Diesel	88
Site Preparation	Rubber Tired Dozers	2	8	247	0.4	300	10	2021	4.5	Diesel	286
Site Preparation	Scrapers	2	8	367	0.48	300	10	2021	5.6	Diesel	427
Site Preparation	Tractors/Loaders/Backhoes	0	8	97	0.37	100	10	2021	1.6	Diesel	0
Grading	Excavators	1	8	158	0.38	175	21	2021	2.9	Diesel	184
Grading	Graders	0	8	187	0.41	175	21	2021	3.1	Diesel	0
Grading	Rubber Tired Dozers	2	8	247	0.4	300	21	2021	4.5	Diesel	600
Grading	Scrapers	2	8	367	0.48	300	21	2021	5.6	Diesel	896
Grading	Tractors/Loaders/Backhoes	0	8	97	0.37	100	21	2021	1.6	Diesel	0
Building Construction	Aerial Lifts	1	8	63	0.31	75	196	2021	1.2	Diesel	560
Building Construction	Cranes	1	7	231	0.29	300	196	2021	3.3	Diesel	1,309
Building Construction	Forklifts	0	8	89	0.2	100	196	2021	2.0	Diesel	0
Building Construction	Generator Sets	0	8	84	0.74	100	196	2021	5.2	Gasoline	0
Building Construction	Rough Terrain Forklifts	1	8	100	0.4	100	196	2021	0.9	Diesel	537
Building Construction	Tractors/Loaders/Backhoes	0	7	97	0.37	100	196	2021	1.6	Diesel	0
Building Construction	Welders	0	8	46	0.45	50	196	2021	2.4	Gasoline	0
Paving	Pavers	1	8	130	0.42	100	26	2021	1.7	Diesel	152
Paving	Paving Equipment	1	8	132	0.36	100	26	2021	1.6	Diesel	123
Paving	Rollers	1	8	80	0.38	100	26	2021	1.7	Diesel	134
Architectural Coating	Aerial Lifts	1	8	63	0.31	75	22	2021	1.2	Diesel	63
Architectural Coating	Air Compressors	1	6	78	0.48	100	22	2021	1.3	Diesel	84
Architectural Coating	Rough Terrain Forklifts	1	8	100	0.4	100	22	2021	0.9	Diesel	60
									Total		5,501
									Total	Gasoline	-
									Total	Diesel	5,501

Construction Phase - Onroad Energy Use

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	
Site Preparation	13	0	0	14.7	6.9		20
Grading	13	0	313	14.7	6.9		20
Building Construction	100	39	0	14.7	6.9		20
Paving	8	0	0	14.7	6.9		20
Architectural Coating	20	0	0	14.7	6.9		20

Adjusted

Site Preparation	130	0	0	14.7	6.9	20
Grading	273	0	313	14.7	6.9	20
Building Construction	19600	7644	0	14.7	6.9	20
Paving	208	0	0	14.7	6.9	20
Architectural Coating	440	0	0	14.7	6.9	20

Total

Gasoline Consumption			Diesel Consumption		
Worker	Vendor	Haul	Worker	Vendor	Haul
80	0	0	0	0	0
168	0	1	1	0	953
12,026	2,670	0	48	38	0
128	0	0	1	0	0
270	0	0	1	0	0
0	0	0	0	0	0
0	0	0	0	0	0
12,671	2,670	1	51	38	953