

**APPENDIX D:**

**ENERGY CONSUMPTION WORKSHEETS**

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**Main Street Tower Project  
Construction Fuel Calculations**

PHASE	Lbs/day	Construction	Emission Factor [b]	Diesel Fuel
<b>Project Construction (On-Site)</b>	<b>Total CO2 [a]</b>	<b>(# of Days)</b>	<b>(22.4 lbs/gal.)</b>	<b>(Gallons)</b>
Demolition/Site Preparation 2023	3,728.22	22	22.40	3,661.64
Grading/Excavation 2023-2024	6,953.11	129	22.40	40,042.46
Building Construction 2024-2025	3,753.74	400	22.40	67,031.07
Paving 2025	1,103.37	22	22.40	1,083.67
Architectural Coating 2025-2026	1,717.89	96	22.40	7,362.39
<b>SubTotal</b>	<b>17,256.33</b>			<b>119,181.23 Diesel</b>

**Notes**

- [a] See Appendix A, Air Quality Worksheets, Proposed Project (On-site construction emissions for heavy duty diesel equipment).
- [b] CO emissions to fuel consumption conversion factor derived from U.S. Energy Information Administration [<http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11>]

PHASE	Lbs/day	Construction	Emission Factor [d]	Gasoline Fuel
<b>Project Construction (Off-Site)</b>	<b>Total CO2 [c]</b>	<b>(# of Days)</b>	<b>(18.9 lbs/gal.)</b>	<b>(Gallons)</b>
Demolition/Site Preparation 2023	1,409.64	22	18.90	1,640.85
Grading/Excavation 2023-2024	1,026.31	129	18.90	7,004.97
Building Construction 2024-2025	4,643.65	400	18.90	98,278.31
Paving 2025	89.30	22	18.90	103.95
Architectural Coating 2025-2026	580.45	96	18.90	2,948.32
<b>SubTotal</b>	<b>7,749.35</b>			<b>109,976.40 Gasoline</b>
<b>TOTAL</b>	<b>25,005.68</b>			<b>229,157.63 Gas and Diesel</b>

**Notes**

- [c] See Appendix A, Air Quality Worksheets, Project Conditions (Off-site construction emissions for hauling, vendor, and worker trips).
- [d] CO emissions to fuel consumption conversion factor derived from U.S. Energy Information Administration [<http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11>]

Source: Parker Environmental Consultants, 2019



**Main Street Tower Project  
Operational Fuel Calculations**

	Annual Vehicle Miles Traveled	Annual Metric Tons CO <sub>2</sub> e [c]	Conversion (1 MT = 2204.62 lbs.)	Annual lbs CO <sub>2</sub> e	Emission Factor [d] (18.9 lbs/gal.)	Gasoline Fuel (Gallons)
Mobile Source	3,364,707	<u>1,264.32</u>	2,204.60	<u>2,787,319.87</u>	18.90	<u>147,477.24</u>
<b>SubTotal</b>		<b><u>1,264.32</u></b>		<b><u>2,787,319.87</u></b>		<b><u>147,477.24</u></b>

Source: Parker Environmental Consultants, 2019