

# WASTE MANAGEMENT CONSOLIDATION SITE





BRINGING BUILDINGS TO LIFE

# cosgroves

AUCKLAND | WELLINGTON | CHRISTCHURCH | QUEENSTOWN





# LEADING THE CHARGE

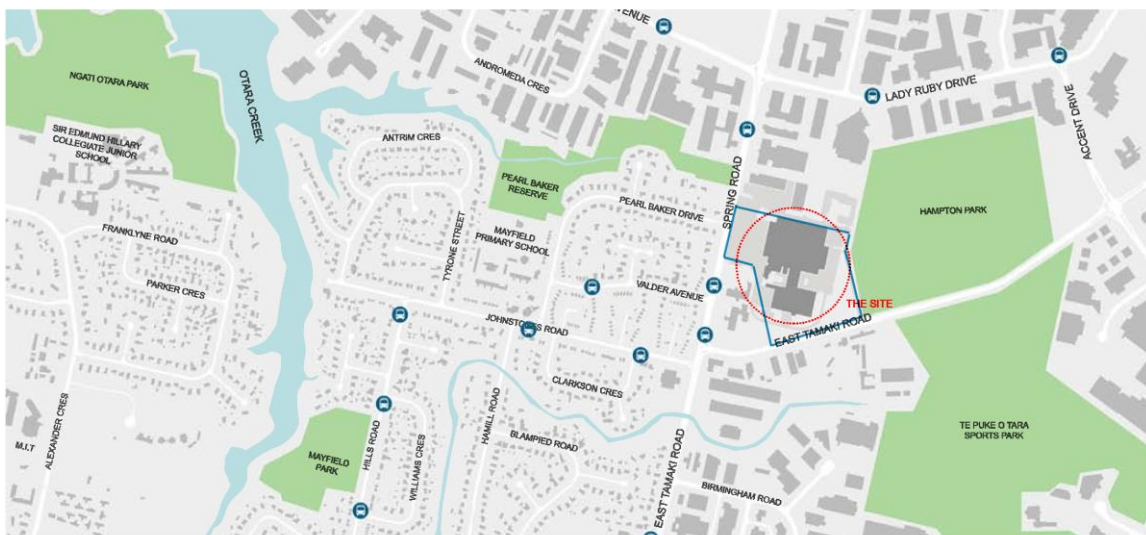
Waste Managements Key Values

- Safety Is Everything
- Challenges Energies Us
- Care and Responsibility
- Community Commitment





Greater Auckland Context



East Tamaki Context

## SITE CONTEXT

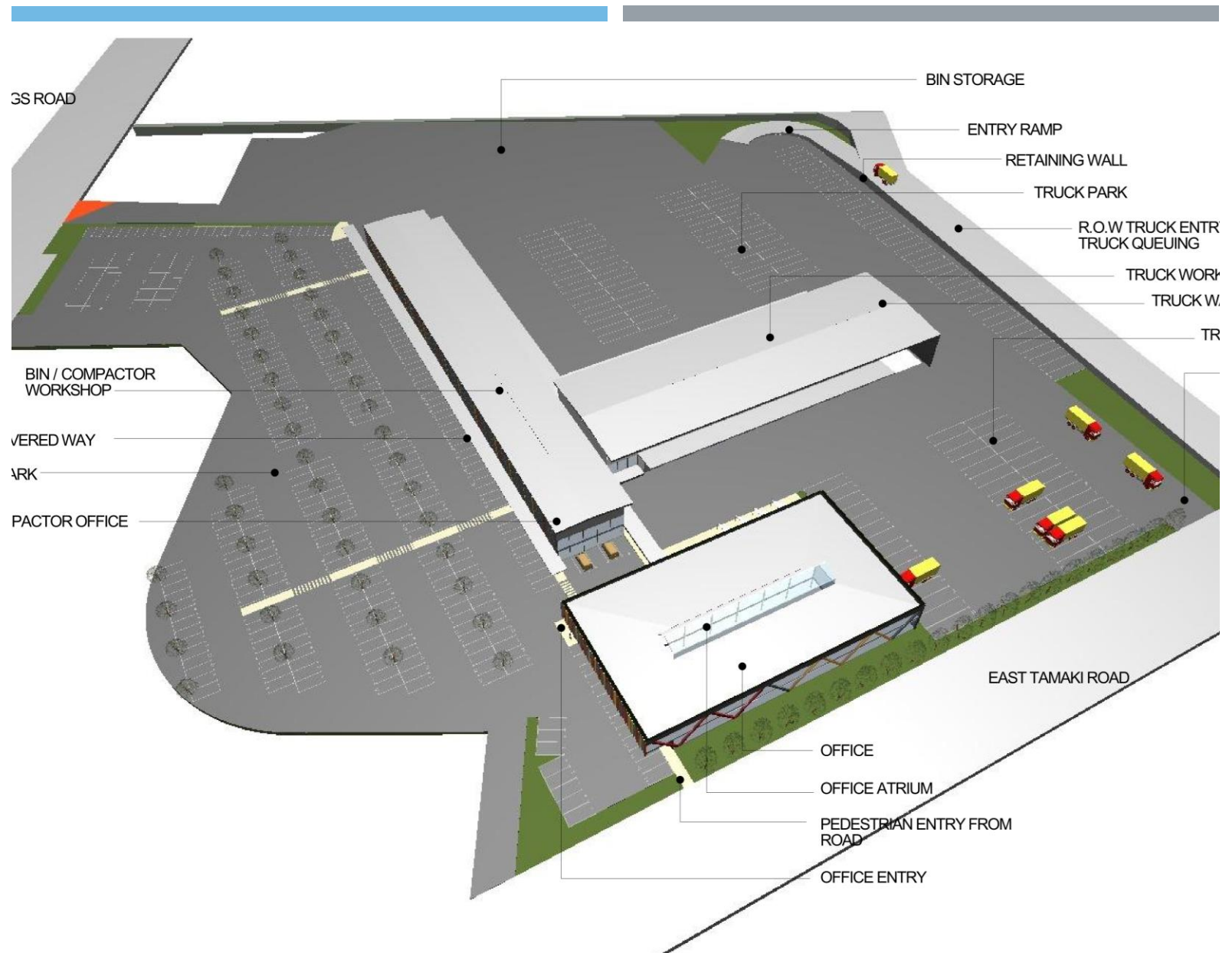
Site located in South East Auckland

Bordered by East Tamaki and Springs Road with Hampton Park to its side

Close links to streams and grassland

# LAYING OUT THE FRAMEWORK

- Integrated Design Process
- The whole design team and client engaged upfront in laying out and designing the project



# SAFETY BUILT IN

- A site layout defined by safety
- Planning for safety from the start



# FINDING THE GREEN SPACE

- Where to place the green space on an industrial site dominated by pavement
- What does Green offer a site like this?











EXIT

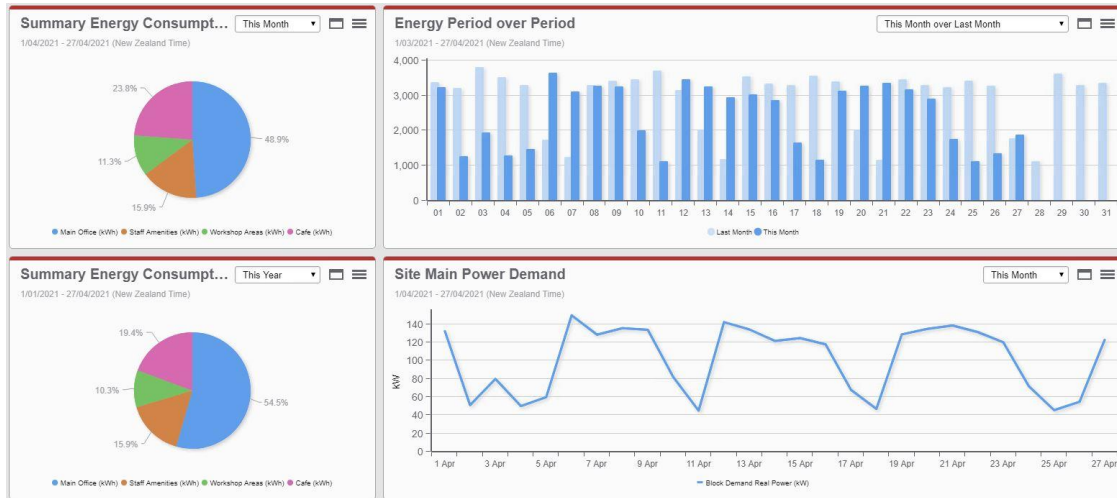




2.3

2.2

→



Waste Management - Normalised Metrics

Whole Site

	Current Power Demand	Current Consumption (kWh)				Average Consumption (kWh)				Current Normalised Energy Density (kWh/m <sup>2</sup> )				Average Normalised Energy Density (kWh/m <sup>2</sup> )			
		Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year
Total	18.94 W/m <sup>2</sup>	1,825.70	3,033.32	54,876.45	266,589.72	2,199.42	15,009.41	70,571.09	7,057.11	0.23	0.38	6.95	33.76	0.28	1.90	8.94	Per Year
Lighting	3.17 W/m <sup>2</sup>	431.67	865.91	15,899.52	74,225.54	645.82	4,259.65	19,442.01	1,944.20	0.05	0.11	2.01	9.40	0.08	0.54	2.46	Per Year
Power	9.72 W/m <sup>2</sup>	943.03	1,674.41	29,406.94	132,710.18	1,140.88	7,600.01	34,767.75	3,476.77	0.12	0.21	3.60	16.81	0.14	0.97	4.40	Per Year
HVAC/Mechanical	6.04 W/m <sup>2</sup>	451.00	493.00	10,570.00	69,654.00	412.71	3,061.75	16,361.33	1,636.13	0.06	0.06	1.34	7.55	0.05	0.39	2.07	Per Year

Office Space

	Current Power Demand	Current Consumption (kWh)				Average Consumption (kWh)				Current Normalised Energy Density (kWh/m <sup>2</sup> )				Average Normalised Energy Density (kWh/m <sup>2</sup> )			
		Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year
Total	20.86 W/m <sup>2</sup>	918.93	1,498.99	27,848.09	134,683.56	1,081.27	7,697.38	35,605.16	3,560.52	0.23	0.39	7.10	34.32	0.28	1.96	9.07	Per Year
Lighting	3.80 W/m <sup>2</sup>	234.19	477.33	8,937.39	37,837.87	348.10	2,416.67	9,633.49	963.35	0.06	0.12	2.28	9.64	0.09	0.62	2.46	Per Year
Power	6.34 W/m <sup>2</sup>	285.74	580.66	9,866.70	44,597.69	387.03	2,648.46	11,577.00	0.07	0.15	2.51	11.37	0.10	0.67	2.95	Per Year	
HVAC/Mechanical	10.72 W/m <sup>2</sup>	399.00	441.00	9,044.00	52,228.00	346.14	2,632.25	14,394.67	1,439.47	0.10	0.11	2.30	13.31	0.09	0.67	3.67	Per Year

Main Office

	Current Power Demand	Current Consumption (kWh)				Average Consumption (kWh)				Current Normalised Energy Density (kWh/m <sup>2</sup> )				Average Normalised Energy Density (kWh/m <sup>2</sup> )			
		Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year	Per Day	Per Week	Per Month	Per Year
Total	26.30 W/m <sup>2</sup>	553.75	759.69	14,698.36	75,505.93	593.03	4,142.12	20,269.19	2,026.92	0.19	0.26	5.05	25.93	0.20	1.42	6.96	Per Year
Lighting	3.38 W/m <sup>2</sup>	105.04	151.17	3,210.69	14,544.31	132.66	893.17	3,777.88	377.79	0.04	0.05	1.10	4.99	0.05	0.31	1.30	Per Year
Power	4.45 W/m <sup>2</sup>	143.71	269.52	4,663.67	20,521.62	194.79	1,255.95	5,285.98	528.60	0.05	0.09	1.60	7.05	0.06	0.43	1.82	Per Year
HVAC/Mechanical	18.46 W/m <sup>2</sup>	305.00	339.00	6,824.00	40,440.00	265.57	1,993.00	11,205.33	1,120.53	0.10	0.12	2.34	13.89	0.09	0.68	3.85	Per Year

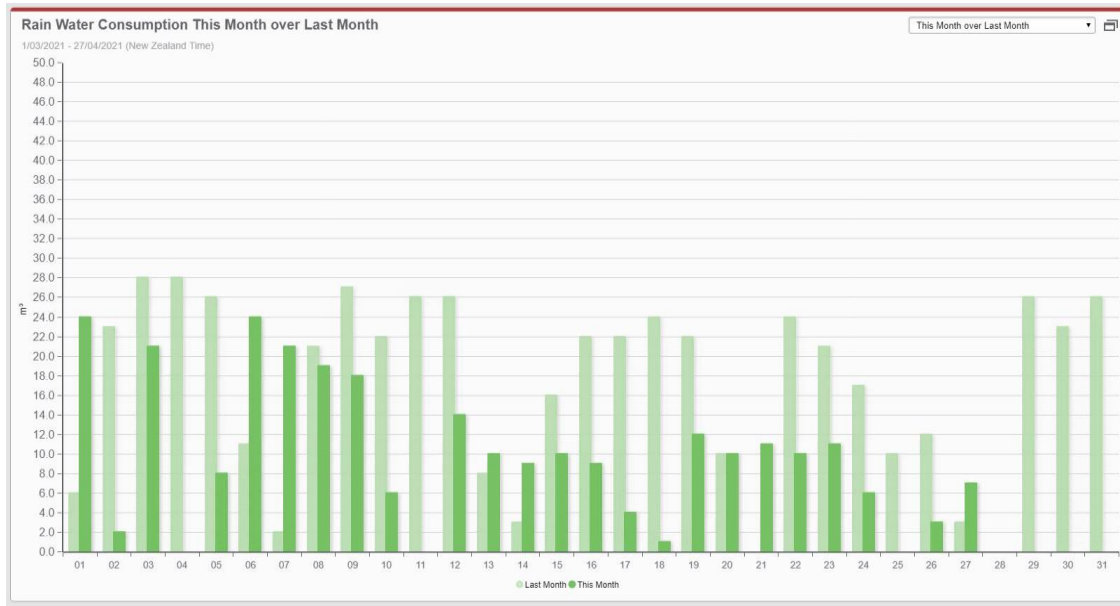
# ENERGY

Goal of 75 kWh/m<sup>2</sup> electricity use for the office

Metering and monitoring to optimise the system over time



# EV CHARGES AND A WORKSHOP TO FIT OUT EV TRUCKS



# WATER





### ON SITE STORM WATER TREATMENT

Storm water is treated on site using swales stormwater "jellyfish" filtration systems.



### 70% OF WATER IS RECYCLED

The automatic truck wash uses 1,000 ltr per wash. 700 ltr is recycled and 300 ltr is a new water for chemical dilution and rinsing.



# **GREENSTAR AND COMPLIANCE**



# QUESTIONS

**STRIDE**®

**RDT**  
pacific

**WM** Waste Management®

**eclipse** architecture

**JASMAX**

**BRINGING BUILDINGS TO LIFE**  
**cosgroves**