



**Waste Management Plan for the
Torrey Pines U-STOR-IT Vault Project
San Diego, California**

PTS Number 697502

Prepared for
Chicago Capital Funds
501 W. Broadway, Suite 2020
San Diego, CA 92101
Contact: Mr. John Ly

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 10128
May 6, 2022

A handwritten signature in black ink, appearing to read "Morgan Weintraub".

Morgan Weintraub, Environmental Analyst

TABLE OF CONTENTS

Acronyms and Abbreviations..... iii

1.0 Introduction1

2.0 Existing Conditions1

3.0 Proposed Conditions 5

4.0 Regulatory Framework 5

 4.1 State Regulations 5

 4.2 Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reductions (SB 1383)..... 5

 4.3 City of San Diego Requirements 8

5.0 Demolition, Grading, and Construction Waste..... 10

 5.1 Demolition..... 10

 5.2 Grading..... 11

 5.3 Construction 12

 5.4 Waste Diversion..... 12

6.0 Occupancy – Operational Waste 15

 6.1 Waste Generation 15

 6.2 Waste Reduction Measures 16

 6.3 Exterior Storage 18

 6.4 Organic Waste Recycling..... 19

7.0 Conclusion.....20

 7.1 Demolition, Grading, and Construction Waste20

 7.2 Occupancy – Operational Waste20

8.0 Overall Compliance..... 21

9.0 References Cited..... 21

FIGURES

1: Regional Location 2

2: Project Location on USGS Map 3

3: Project Location on Aerial Photograph 4

4: Grading Plan 6

5: Architectural Plan 7

TABLE OF CONTENTS (cont.)

TABLES

1: Projected Materials Generated by Demolition Activities 11

2: Construction Waste Generation..... 12

3: Construction Waste Diversion and Disposal by Material Type..... 13

4: Total Waste Generated, Diverted, and Disposed of by Phase 15

5: Occupancy Phase Annual Waste Generation 16

6: Estimate of Project Organic Waste Generation and Diversion 17

7: Minimum Exterior Refuse and Recyclable Material Storage Areas for Non-Residential
Development 19

ATTACHMENTS

1: City of San Diego Construction & Demolition (C&D) Debris Conversion Rate Table

2: City of San Diego 2022 Construction & Demolition (C&D) Recycling Facility Directory

3: City of San Diego Waste Generation Factors – Occupancy Phase

Acronyms and Abbreviations

AB	Assembly Bill
C&D	Construction and Demolition
CalRecycle	California Department of Resources Recycling and Recovery
CEQA	California Environmental Quality Act
City	City of San Diego
ESD	Environmental Services Department
I-5	Interstate 5
project	Torrey Pines U-STOR-IT Vault Project
SB	Senate Bill
SWMC	Solid Waste Management Coordinator
U.S. EPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
WMP	Waste Management Plan

1.0 Introduction

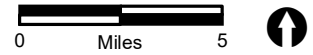
The purpose of this Waste Management Plan (WMP) is to identify the solid waste impacts that would be generated by construction and operation of the Torrey Pines U-STOR-IT Vault Project (project) and to identify measures to reduce those impacts. The direct impact threshold of significance for projects in the city of San Diego is 1,500.0 tons of waste per year, which would likely occur when developments are over one million square feet. Projects that generate more than 60.0 tons of waste per year would have the potential to result in a cumulatively significant impact on solid waste services and are required to prepare a WMP to demonstrate how the project would reduce solid waste impacts to below a level of significance.

This WMP consists of four sections corresponding to the progress of site development, which are the Demolition Phase, the Grading Phase, the Construction Phase, and the Occupancy (post-construction) Phase. Each section addresses the amount of waste that would be generated by each phase of project activities, waste reduction goals, and the recommended techniques to achieve the waste reduction goals. More specifically, for each phase, the WMP includes the following:

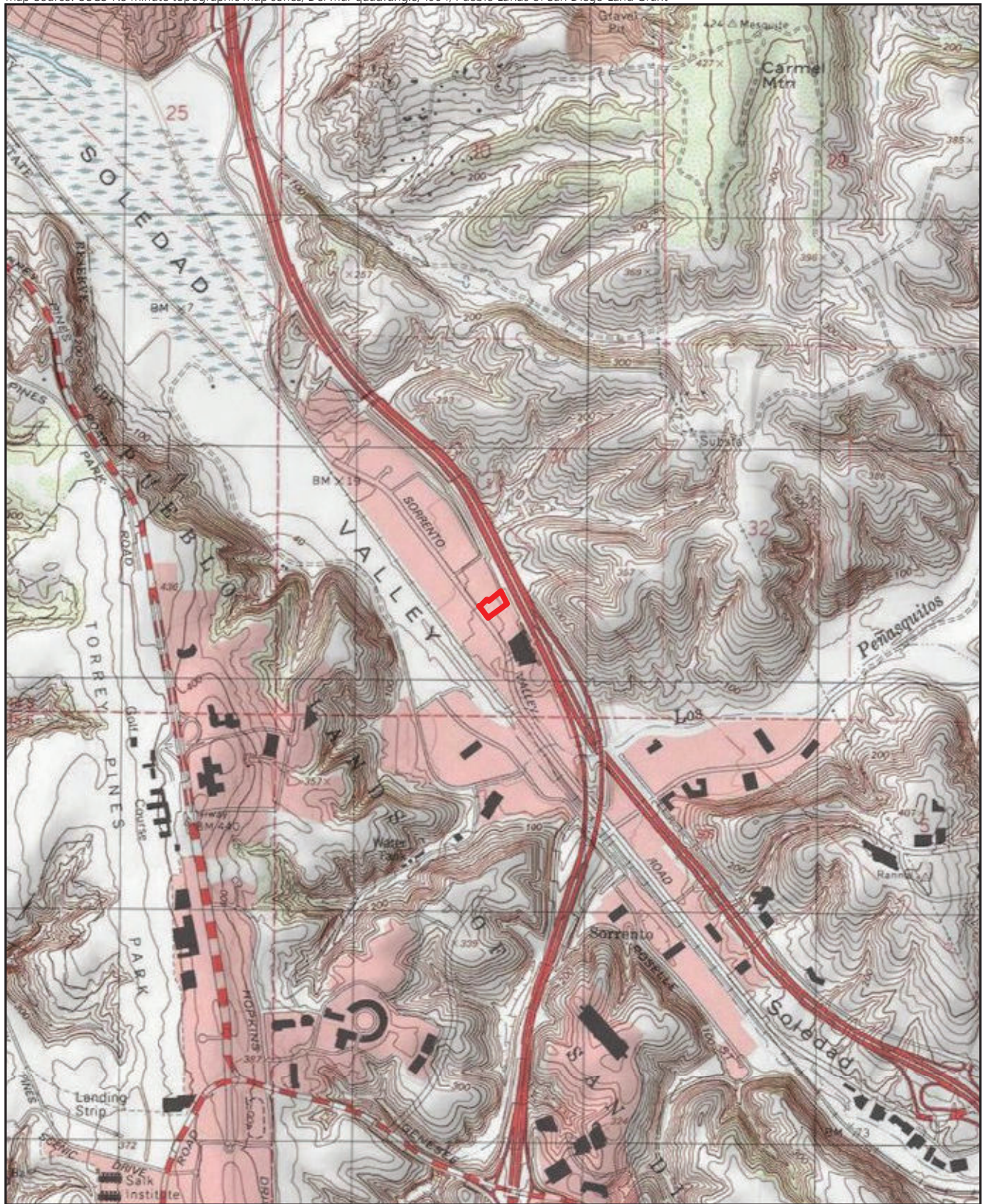
- Tons of waste anticipated to be generated.
- Material/type and amount of waste anticipated to be diverted.
- Project features that would reduce the amount of waste generated.
- Project features that would divert or limit the generation of waste.
- Source separation techniques for waste generated.
- How materials shall be reused on-site.
- Name and location of recycling, reuse, or landfill facilities where waste shall be taken.

2.0 Existing Conditions

The project site is located at 11391 Sorrento Valley Road, in the city of San Diego, California. Figure 1 presents the regional location, Figure 2 presents a United States Geological Survey (USGS) map of the project site and vicinity and Figure 3 presents an aerial photograph of the project site and vicinity. The 1.46-acre project site is currently developed with a vacant 2-story building and is surrounded by I-5 to the east, industrial development to the south, Sorrento Valley Road and associated industrial development to the southwest and west, and industrial development to the north.

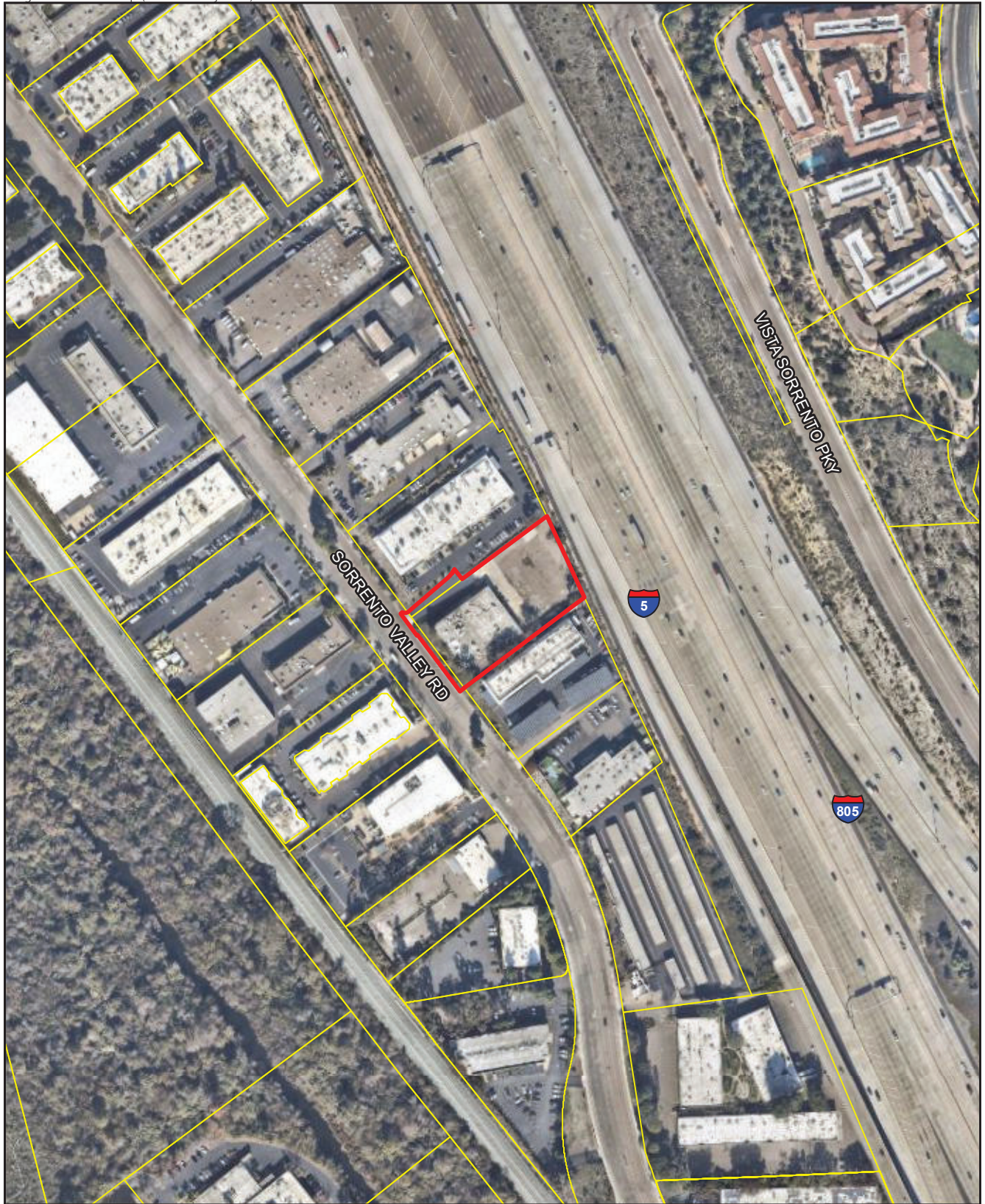


 Project Location



 Project Boundary

FIGURE 2
Project Location on USGS Map





-  Project Boundary
-  Parcels



FIGURE 3
Project Location on Aerial Photograph

3.0 Proposed Conditions

The project would demolish an existing 17,040-square-foot vacant two-story building and construct a 168,655-square-foot, self-storage building consisting of three above ground levels and two basement levels. The three above ground levels would be used for self-storage, the first below ground level would serve as a parking garage, and the lowest below ground level would serve as a basement. The project would also construct 19,010 square feet of hardscape that would include exterior on-grade parking spaces. Project grading would require export of 32,140 cubic yards of soil. Access to the site from Sorrento Valley Road would remain unchanged. Figure 4 presents the proposed grading plan and figure 5 presents the proposed architectural plan.

4.0 Regulatory Framework

4.1 State Regulations

The California state legislature has enacted several bills intended to promote waste diversion. In 1989, Assembly Bill (AB) 939, the Integrated Waste Management Act—as modified in 2010 by Senate Bill (SB) 1016—mandated that all local governments reduce disposal waste in landfills from generators within their borders by 50 percent by the year 2000 (State of California 1989 and 2010).

AB 341, approved October 2011, set a policy goal of 75 percent waste diversion by the year 2020 (State of California 2011). This bill also created a mandatory commercial recycling requirement that holds local jurisdictions responsible for implementing and for being in compliance with the 75 percent diversion rate through outreach and monitoring programs. SB 1383, approved in September 2016, established targets to reduce the amount of organic waste that is landfilled from the 2014 level by 50 percent by 2020, and by 75 percent by 2025 (State of California 2016). The law grants the California Department of Resources Recycling and Recovery (CalRecycle) the regulatory authority required to achieve the organic waste disposal reduction targets, and it has been working to develop regulations necessary to implement the new law (CalRecycle 2020a).

4.2 Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reductions (SB 1383)

In September 2016, Governor Brown signed into law SB 1383 (Lara, Chapter 395, Statutes of 2016), establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. The new law codified the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), to achieve reductions in the statewide emissions of short-lived climate pollutants. The law states that actions to reduce short-lived climate pollutants are essential to address the many impacts of climate change on human health, especially in California's most at-risk communities, and on the environment.

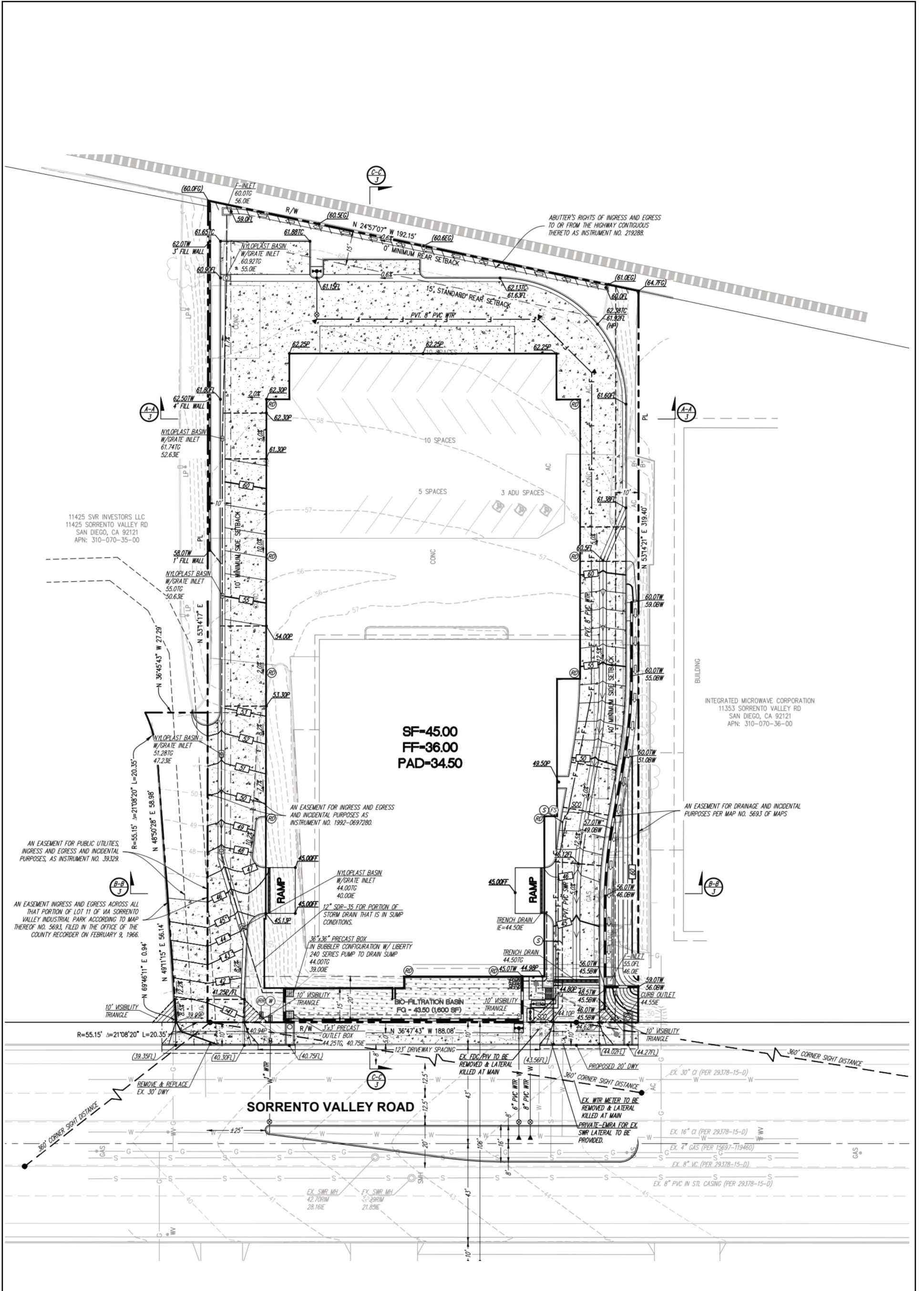


FIGURE 4
Grading Plan

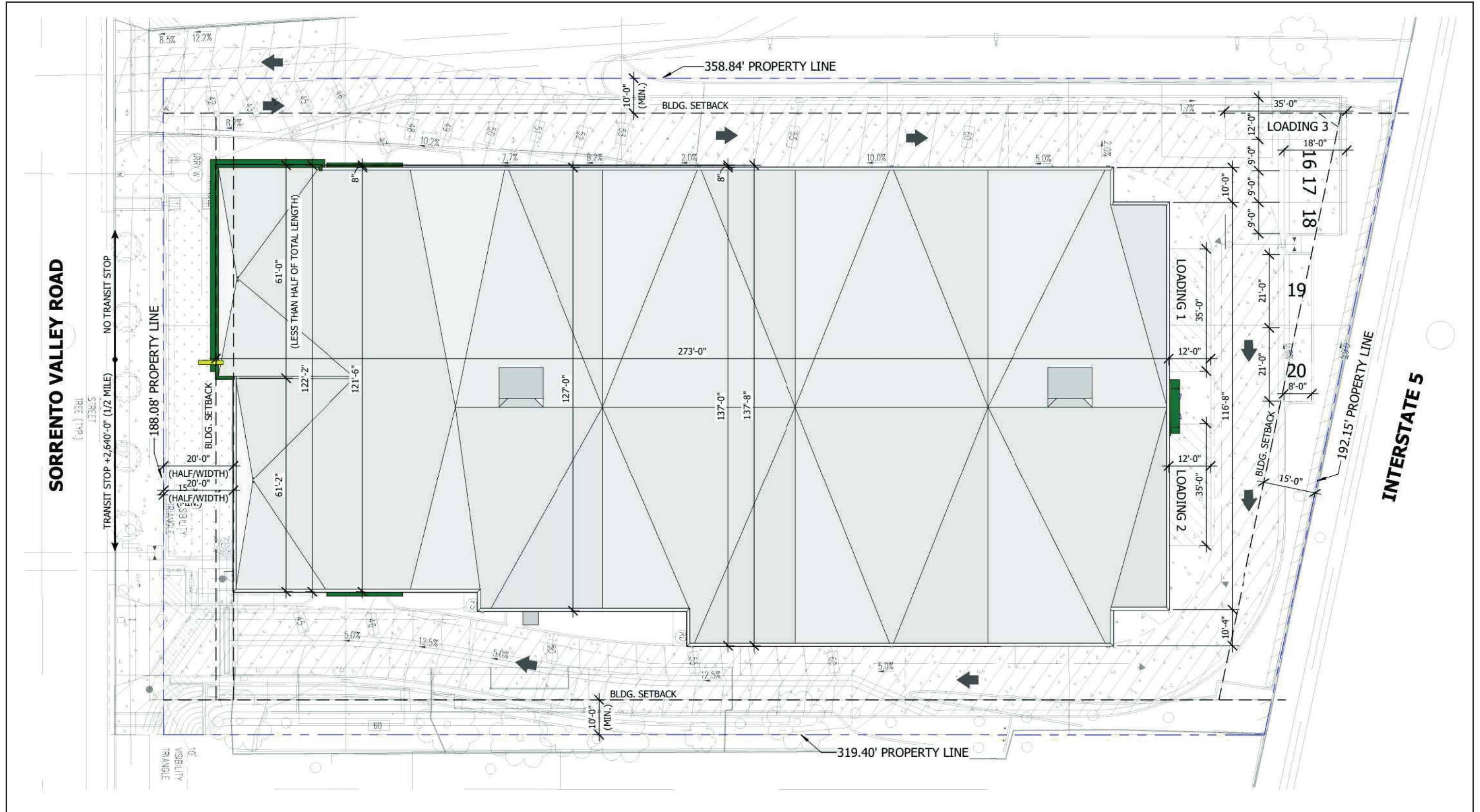


FIGURE 5
Architectural Site Plan



As it pertains to CalRecycle, SB 1383 established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

4.3 City of San Diego Requirements

All landfills within the San Diego region are approaching capacity and are due to close within the next 3 to 20 years. In compliance with the state requirements, the City of San Diego (City) Environmental Services Department (ESD) developed the Source Reduction and Recycling Element, which describes local waste management policies and programs. The City's Recycling Ordinance, adopted November 2007, requires on-site recyclable collection for residential and commercial uses (City of San Diego 2007a). The ordinance requires recycling of plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard. The focus of the ordinance is on education, with responsibility shared between the ESD, waste haulers, and building owners and managers. On-site technical assistance, educational materials, templates, and service provider lists are provided by the ESD. Property owners and managers provide on-site recycling services and educational materials annually and to new tenants. Strategies for compliance are discussed in Section 6.2, Waste Reduction Measures.

The City's Refuse and Recyclable Materials Storage Regulations, adopted December 2007, indicate the minimum exterior refuse and recyclable material storage areas required at residential and commercial properties (City of San Diego 2007b). These are intended to provide permanent, adequate, and convenient space for the storage and collection of refuse and recyclable materials; encourage recycling of solid waste to reduce the amount of waste material entering landfills; and meet the recycling goals established by the City Council and mandated by the state of California. These regulations are discussed further in Section 6.3, Exterior Storage.

In July 2008, the Construction and Demolition (C&D) Debris Deposit Ordinance was adopted by the City (City of San Diego 2008). The ordinance requires that the majority of construction, demolition, and remodeling projects requiring building, combination, or demolition permits pay a refundable C&D Debris Recycling Deposit and divert at least 50 percent of their waste by recycling, reusing, or donating reusable materials. The required diversion rate is currently proposed for an increase to 65 percent. The ordinance is designed to keep C&D materials out of local landfills. Requirements are discussed further in Section 5.4.1, Contractor Education and Responsibilities.

In December 2013, the City Council adopted the Zero Waste Plan, implementing the 75 percent diversion of waste target goal from landfills by the year 2020 and zero waste by 2040. An additional City target of 90 percent diversion by 2035 is proposed in the City's Zero Waste Plan, which is a component of the City's Climate Action Plan.

In order to implement SB 1383, which requires the reduction of organic waste disposed of in landfills, starting in 2022, the City and City-certified private waste haulers are in the planning process to expand organic waste collection services for residents and businesses. Food and yard waste collected will be recycled using the following:

- Composting facilities that make soil amendments, materials that are added to soil to change and improve it.
- Anaerobic digestion facilities, technology and microorganisms break down organic waste in closed spaces where there is no oxygen and create renewable natural gas.

Implementation of these changes will require extensive City procedural changes and coordination amongst different stakeholders. The City is in the process of developing collection operations, adopting purchasing policies, amending the City's Municipal Recycling Code, enacting building requirements, preparing enforcement responsibilities and strategizing public education and outreach efforts. As a result of this enormous planning effort, changes to yard waste collection for City-serviced residences will not begin until the summer of 2022 (City of San Diego 2021a).

Additional local regulation pertaining to solid waste management includes the City of San Diego's Municipal Code Ch.14 Art. 2 Div. 8: §142.0810, §142.0820, Ch. 6 Art. 6 Div. 7; §66.0706, §66.0709, §66.0710; and Ch. 6 Art. 6 Div. 6; §66.0711, §66.0604, §66.0606. These statutes designate refuse and recycling space allocation requirements for the following:

- On-site refuse and recyclable material storage requirements;
- Diversion of construction and demolition debris regulations; and
- Diversion of recyclable materials generated from residential facilities, businesses, commercial/institutional facilities, apartments, condominiums, and special events requiring a City permit.

The City has established a threshold of 40,000 square feet of development as generating sufficient waste (60 tons) to have a potentially cumulatively significant impact on solid waste services.

The City created the Whitebook (City of San Diego 2021b) as a supplement that takes precedence over the specification language contained in the 2021 Greenbook: Standard Specifications for Public Works Construction (2021 Greenbook; Public Works Standards, Inc.), and addresses the unique conditions in the City that are not addressed in the 2021 Greenbook. Specifically, Part 1 – General Provisions (A), Section 5-14 of the Whitebook addresses construction and demolition waste management.

5.0 Demolition, Grading, and Construction Waste

This section discusses the waste generation and diversion rates from the demolition, grading, and construction phases of the project.

5.1 Demolition

The project site is currently developed with a 17,040-square-foot vacant two-story building and 40,473 square feet of hardscape. The project would demolish the existing building and hardscape on-site.

Estimated demolition waste from the existing 17,040 square foot building is based on a 2009 study by the U.S. Environmental Protection Agency (U.S. EPA), where a sample of non-residential demolition projects generated an average of 158 pounds of waste per square foot (U.S. EPA 2009). Based on this generation rate, existing building demolition will produce 1,346.2 tons. Estimated demolition waste from the existing 40,473 square feet of hardscape, which is equal to 749.5 cubic yards of hardscape, is based on the City of San Diego Construction and Demolition Debris Conversion Rate Table (Attachment 1). Based on the generation rate for broken concrete, existing hardscape demolition will produce 899.4 tons. Estimates of material type and amounts are included in Table 1.

Existing Building:

$$17,040 \text{ square feet} \times \frac{158 \text{ pounds}}{\text{square foot}} \times \frac{1 \text{ ton}}{2,000 \text{ pounds}} = 1,346.2 \text{ tons}$$

Existing Hardscape

$$749.5 \text{ cubic yards} \times 1.2 \frac{\text{tons}}{\text{unit}} = 899.4 \text{ tons}$$

Estimates of building material type and amounts are based on the specific characteristics of the buildings to be demolished. Nearest handling facilities are based on the ESD 2020 Certified C&D Recycling Facilities Directory (Attachment 2). Estimates have a degree of uncertainty and would be revised as the project progresses and demolition debris is more specifically identified and weighed.

Table 1 Projected Materials Generated by Demolition Activities					
Material	Tons Generated	Percent Diverted	Nearest Handling Facility ¹	Tons Diverted	Tons Disposed
Existing Building					
Concrete Paving	1,031.1	100%	Hanson Aggregates West-Miramar	1,031.1	0.0
Building Materials (doors, windows, cabinets, etc.)	3.4	100%	Habitat for Humanity ReStore	3.4	0.0
Tile	13.0	100%	Enniss Incorporated	13.0	0.0
Carpet	159.5	100%	DFS Flooring	159.5	0.0
Carpet Padding/Foam	5.4	100%	DFS Flooring	5.4	0.0
Drywall (5/8" thick)	115.4	73%	EDCO Recovery & Transfer	84.2	31.2
Ceiling Tiles	18.5	100%	AMS	18.5	0.0
Existing Hardscape					
Concrete Paving	899.4	100%	Hanson Aggregates West-Miramar	899.4	0.0
TOTAL	2,245.6			2,214.5	31.2
NOTE: Totals may vary due to independent rounding. Portions of material types are based on specific characteristics of buildings to be demolished.					
¹ City of San Diego ESD 2022 Certified C&D Recycling Facility Directory (see Attachment 2).					

5.2 Grading

As discussed in Section 3.0, Proposed Conditions, project grading would require a net export of 32,140 cubic yards of soil. Based on the ESD C&D Debris Conversion Rate Table, graded soil weighs approximately 1.3 tons per cubic yard (see Attachment 1). Therefore, project grading would result in a net export of 41,782 tons of soil, as shown in the calculation below.

Export Soil:

$$32,140 \text{ cubic yards} \times 1.3 \frac{\text{tons}}{\text{unit}} = 41,782 \text{ tons}$$

All exported soil would be recycled using the City’s Clean Fill Dirt Program or an approved Clean Fill Dirt handler listed on the City’s Certified C&D Recycling Facilities Directory (see Attachment 2).

Project grading would also generate green waste that would be source separated and recycled at the Miramar Greenery facility at 5180 Convoy Street. Goals for this phase will be communicated to grading contractors through contract documents, the California Environmental Quality Act (CEQA) document, project conditions of approval that require implementation of WMP measures, and the Solid Waste Management Coordinator (SWMC) for the project.

5.3 Construction

As described in Section 3.0, Proposed Conditions, the project would construct a 168,655-square-foot, self-storage building consisting of three above ground levels and two basement levels. The project would also construct 19,010 square feet of hardscape, which would include exterior on-grade parking spaces. The U.S. EPA (2009) provides an average generation rate of 4.34 pounds of construction waste per square foot for non-residential types of uses. Based on this generation rate, project construction waste is estimated to generate a total of 365.9 tons of waste during construction (see calculations and Table 2 below).

Self-Storage Building (non-residential):

$$168,655 \text{ square feet} \times \frac{4.34 \text{ pounds}}{\text{square foot}} \times \frac{1 \text{ ton}}{2,000 \text{ pounds}} = 365.9 \text{ tons}$$

Table 2 Construction Waste Generation			
Land Use	Amount (square feet)	Generation Rate (pounds per square foot)	Tons Generated
Self-Storage Building (non-residential)	168,655	4.34	365.9
TOTAL			365.9

SOURCE: U.S. Environmental Protection Agency (2009).

5.4 Waste Diversion

Implementing the City’s 75 percent diversion of waste target goal adopted under the Zero Waste Objective requires a majority of waste to be handled at facilities other than landfills. There are two types of waste diversion: “mixed-debris diversion” and “source-separated diversion.” Mixed-debris diversion is a method in which all material waste is disposed of in a single container for transport to a mixed C&D recycling facility. Under source-separated diversion, materials are separated on-site before transport to appropriate facilities that accept specific material types. Generally, a greater diversion rate is achieved under source-separated diversion, as facilities that accept mixed debris typically achieve 50 to 70 percent diversion, whereas single materials recyclers often achieve a nearly 100 percent diversion rate (City of San Diego 2013).

The project would implement source-separated diversion, and recyclable waste materials would be separated on-site into material-specific containers and diverted to an approved recycler selected from the City’s ESD directory of facilities that recycle specific waste materials from construction and demolition (see Attachment 2). These facilities achieve a 100 percent diversion rate for most materials, with the exception of a 73 percent diversion rate for drywall.

Table 3 provides a breakdown of the 365.9 tons of construction waste estimated to be generated by anticipated types of material and identifies the most likely handling facility and diversion method. As shown in Table 3, use of the source-separation method for most of the material types

(where feasible) would result in the total diversion of approximately 283.0 tons, with approximately 82.9 tons being disposed of in the landfill.

With implementation of the diversion-estimated calculations outlined in Table 3, it is estimated that approximately 283.0 tons, equivalent to 77.0 percent of the waste generated during the construction phase of the project, would be diverted to appropriate facilities for reuse. Subsequently, 82.9 tons, equivalent to 23.0 percent of the total construction waste, would be required to be disposed of in the landfill.

Table 3 Construction Waste Diversion and Disposal by Material Type					
Material Type	Estimated Waste (tons)	Percent Diverted ¹	Nearest Handling Facility ¹	Estimated Diversion (tons)	Estimated Disposal (tons)
Asphalt and Concrete	51.7	100%	Vulcan Otay Asphalt Recycling Center	51.7	0
Metals	81.3	100%	Cactus Recycling	81.3	0
Brick/Masonry/Tile	24.9	100%	Vulcan Carol Canyon Landfill and Recycle Site	24.9	0
Clean Wood/Wood Pallets	13.9	100%	Otay Landfill	13.9	0
Carpet, Padding/Foam	29.6	100%	DFS Flooring	29.6	0
Drywall	81.3	73%	EDCO Recovery & Transfer	59.4	22.0
Corrugated Cardboard	22.2	100%	Cactus Recycling	22.2	0
Trash/Garbage	61.0	0%	Otay Landfill	0.0	61.0
TOTAL	365.9	--	--	283.0 (77.0%)	82.9 (23.0%)

NOTE: Totals may vary due to independent rounding.
¹City of San Diego ESD 2022 Certified C&D Recycling Facility Directory (see Attachment 2).

5.4.1 Contractor Education and Responsibilities

In order to ensure that the anticipated diversion of waste would occur during project construction, the project would include the designation of a SWMC for the duration of project construction. The SWMC would ensure that all contractors and subcontractors are educated and trained to follow City waste diversion regulations and that procedures for waste reduction and recycling efforts are implemented. Specific responsibilities of the SWMC would include the following:

- Review the WMP at the preconstruction meeting, including the SWMC responsibilities.
- Distribute the WMP to all contractors when they first begin work on-site and when training workers, subcontractors, and suppliers on proper waste management procedures applicable to the project.
- Work with the contractors to estimate the quantities of each type of material that would be salvaged, recycled, or disposed of as waste, then assist in documentation.

- Use detailed material estimates to reduce risk of unplanned and potentially wasteful material cuts.
- Review and enforce procedures for source-separated receptacles. Containers of various sizes shall:
 - Be placed in readily accessible areas that will minimize misuse or contamination.
 - Be clearly labeled with a list of acceptable and unacceptable materials, the same as the materials recycled at the receiving material recovery facility or recycling processor.
 - Contain no more than 10 percent non-recyclable materials, by volume.
 - Be inspected daily to remove contaminants and evaluate discarded material for reuse on-site.
- Review and enforce procedures for transportation of materials to appropriate recipients selected from ESD's directory of facilities that recycle C&D materials (see Attachment 2 for ESD's facility directory).
- Ensure removal of C&D waste materials from the project site at least once every week to ensure no over-topping of containers. The accumulation and burning of on-site construction, demolition, and land-clearing waste materials will be prohibited.
- Document the return or reuse of excess materials and packaging to enhance the diversion rate.
- Coordinate implementation of a "buy recycled" program for green construction products, including incorporating mulch and compost into the landscaping.
- Coordinate implementation of solid waste mitigation with other requirements such as storm water requirements, which may include specifications such as the placement of bins to minimize the possibility of runoff contamination.

The SWMC would ensure that the project meets the following state law and City Municipal Code requirements. Adjustments would be made as needed to maintain conformance:

- The City's C&D Debris Diversion Deposit Program, which requires a refundable deposit based on the tonnage of the expected recyclable waste materials as part of the building permit requirements (City of San Diego 2008).
- The City's Recycling Ordinance, which requires that collection of recyclable materials must be provided (City of San Diego 2007a).
- The City's Storage Ordinance, which requires that areas for recyclable material collection must be provided (City of San Diego 2007b).
- The name and contact information of the waste contractor provided to ESD at least 10 days prior to the start of any work and updated within 5 days of any changes.

5.4.2 Total Diversion

With the oversight of the SWMC, the project would meet City waste diversion goals. Table 4 summarizes the amount of waste estimated to be generated and diverted by each phase of the project. Of the 44,393.5 tons estimated to be generated, 44,226.3 tons would be diverted, primarily through source separation. This would result in the diversion and reuse of 99.7 percent of the waste material generated from the project from the landfill, which would meet the City’s current 75 percent waste diversion goal.

Table 4 Total Waste Generated, Diverted, and Disposed of by Phase			
Phase	Tons Generated	Tons Diverted	Tons Disposed
Demolition	2,245.6	2,214.5	31.2
Grading	41,782.0	41,782.0	0.0
Construction	365.9	283.0	82.9
TOTAL	44,393.5	44,226.3	114.1
NOTE: Totals may vary due to independent rounding.			

6.0 Occupancy – Operational Waste

Unlike grading and construction, occupancy is an ongoing process. The project would construct a 168,655-square-foot, self-storage building consisting of three above ground levels and two basement levels. The project would also construct 19,010 square feet of hardscape which would include exterior on-grade parking spaces. The project requires an ongoing plan to manage and reduce waste to meet the waste reduction goals established by local and state policies. The building would be served by a franchisee.

The City operates the Miramar Landfill, which is currently the only municipal landfill in the city. According to the City Municipal Code (San Diego Municipal Code, Chapter 6, Article 6, Division 7, Section 66.0701), the Miramar Landfill is expected to reach capacity in 2030 and preserving landfill capacity is a realistic concern. City efforts have made progress, but studies have shown that there is still room for improvement through additional recycling efforts. Approximately 21 percent of the waste generated in the City and delivered for landfill disposal is paper and 16 percent is compostable organics, all of which could be diverted from landfill disposal.

6.1 Waste Generation

The estimated annual waste to be generated during occupancy of the project is based on the expected waste generation which was calculated using the City ESD waste generation factors for commercial/industrial uses (Attachment 3). A waste generation rate for storage buildings is not available, therefore, the generation rate for office under commercial/industrial uses of 0.0017 is used to estimate waste generation for self-storage buildings. The estimated annual amount in tons is calculated below:

$$168,655 \text{ square feet} \times 0.0017 = 286.7 \text{ tons/year}$$

Table 5 shows the number of 168,655 square feet would generate approximately 286.7 tons of waste per year. As discussed in the following section, Waste Reduction Measures, an ongoing plan to manage waste disposal to meet state and City waste reduction goals would be implemented by the applicant (or applicant’s successor in interest).

Table 5 Occupancy Phase Annual Waste Generation						
Land Use	Maximum Buildout	Generation Rate	Waste Generated (tons)	Percent Diverted	Tons Diverted	Tons Disposed
Commercial/Industrial Uses-Office	168,655 square feet	0.0017 tons/year/unit	286.7	50	143.3	143.3
NOTE: Totals may vary due to independent rounding. SOURCE: Attachment 3.						

6.2 Waste Reduction Measures

According to the City’s Guidelines for a Waste Management Plan (City of San Diego 2013), compliance with the City’s Recycling Ordinance is expected to provide a minimum recycling service volume of 50 percent. Therefore, waste anticipated to be diverted during the occupancy phase would be approximately 143.3 tons per year. The remaining 143.3 tons per year would exceed the 60.0-ton-per-year threshold of significance for a cumulative impact on solid waste services in the city (City of San Diego 2016).

According to the CalRecycle 2018 Facility-Based Characterization of Solid Waste in California (CalRecycle 2020b), organic material accounted for approximately 36.4 percent of the franchised commercial disposed waste. Therefore, of the 143.3 tons of disposed materials anticipated after the standard 50 percent diversion rate (see Table 5), it is assumed that 36.4 percent of that tonnage would be organic. In other words, it is assumed that the project would generate 52.2 tons per year of organic materials (Table 6). To comply with SB 1383, the project would need to demonstrate diversion of 50 percent of organic waste prior to January 1, 2025 and 75 percent diversion thereafter. Based on implementation of new programs and mandates for recycling of food waste and the availability of organic material recycling services from franchised waste haulers (refer to Section 4.2 for discussion of new City programs and requirements), a 75 percent diversion of organic waste is anticipated. Only 75 percent diversion is assumed to account for individual non-compliance and assuming certain items would not be eligible for composting. With these assumptions, the project would be consistent with regulatory requirements for 75 percent organic material diversion, providing a total organic material diversion of 39.1 tons as detailed in Table 6.

Table 6 Estimate of Project Organic Waste Generation and Diversion	
Tons of Solid Waste Disposed before Organics Recycling (Project)	143.3 tons
Estimated Percentage of Organic Franchised Commercial Disposed Waste ¹	36.4%
Estimate of Project Organic Waste	52.2 tons
Estimate 75% diversion with Franchisee organics recycling programs implemented	39.1 tons
Estimated of Disposed Organics	13.1 tons or 75% diversion
¹ CalRecycle 2020b, Table 6.	

To mitigate for the cumulative impact on solid waste, the applicant (or applicant’s successor in interest) shall be responsible for implementing a long-term WMP, as outlined below, which would ensure that the development meets or exceeds the requirements set forth in AB 939 and AB 341. This program shall include recyclable collection services required by and in accordance with the City’s Recycling Ordinance, as well as providing exterior storage space for refuse, recyclable materials, and a means of handling landscaping and green waste materials. Specific program measures shall include the following:

- For commercial facilities, which receive solid waste collection services from a franchisee, the responsible person shall provide on-site recycling services to occupants as required by the dates prescribed in the City Municipal Code, Chapter 6, Article 6, Division 7, Section 66.0707a.
- Occupants of commercial facilities, which receive solid waste collection services from a franchisee, shall participate in a recycling program by separating recyclable material from other solid waste and depositing the recyclable materials in the recycling container provided by the Franchisee or Recyclable Materials Collector.
- Consistent with SB 1383, commercial facilities which receive solid waste collection services from a franchisee, shall participate in a recycling program for organic waste collection, including food waste. This requirement shall be implemented by commercial facilities, unless an exemption is granted, as soon as the City’s Municipal Code is amended, and new franchise hauler agreements are in place that comply with the City’s new organic waste collection requirements. New organic waste collection programs are anticipated by summer 2022.
- At a minimum, commercial facilities’ recycling services would include the following (City Municipal Code, Chapter 6, Article 6, Division 7, Section 66.0707c):
 1. Collection of recyclable materials as frequently as necessary to meet demand.
 2. Collection of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers.
 3. Collection of other recyclable materials for which markets exist, such as scrap metal, wood pallets, and food waste.
 4. Utilization of recycling receptacles which comply with the standards in the Container and Signage Guidelines established by the City ESD or its successor.
 5. Designated recycling collection and storage areas.

6. Signage on all recycling receptacles, containers, and/or enclosures which comply with the standards described in the Container and Signage Guidelines established by the City ESD or its successor.
- Occupant Education – For commercial facilities, the responsible person shall ensure that occupants are educated about the recycling services as follows (City Municipal Code, Chapter 6, Article 6, Division 7, Section 66.0707d):
 1. Information, including the types of recyclable materials accepted, the location of recycling containers, and the occupants' responsibility to recycle, shall be distributed to all occupants annually.
 2. All new occupants shall be given educational information on recycling programs and procedures and instructions upon occupancy.
 3. All occupants shall be given information and instructions upon any change in recycling service to the facility.
 - Green Waste Diversion – The applicant (or applicant's successor in interest) shall provide exterior storage space for handling landscaping and green waste materials. Green waste generated by the project shall be source separated and diverted to the Miramar Greenery facility.

Implementation of a project-specific waste management program would reduce the project's cumulative portion of impacts on solid waste, as, per the City's CEQA Significance Determination Thresholds, the implementation of a WMP would ensure that the overall waste produced is reduced sufficiently to comply with waste reduction targets established in the Public Resources Code (City of San Diego 2016).

6.3 Exterior Storage

This WMP follows the City's Municipal Code on-site refuse and recyclable material storage space requirements (City of San Diego 2007b). Table 7 shows the exterior storage area requirements for non-residential developments.

Table 7 Minimum Exterior Refuse and Recyclable Material Storage Areas for Non-Residential Development			
Gross Floor Area Per Development (square feet)	Minimum Refuse Storage Area Per Development (square feet)	Minimum Recyclable Material Storage Area Per Development (square feet)	Total Minimum Area Per Development (square feet)
0-5,000	12	12	24
5,000-10,000	24	24	48
10,001-25,000	48	48	96
25,001-50,000	96	96	192
50,001-75,000	144	144	244
75,001-100,000	192	192	384
100,001+	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	384 plus 96 square feet for every 25,000 square feet of building above 100,001
Project: 168,655 sq. ft.¹	324	324	648
¹ The hardscape and surface parking lot would not generate waste, and therefore has been excluded from this calculation. SOURCE: City of San Diego Municipal Code, Chapter 14, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, Section 142.0830, Table 142-08C.			

Because the project would include a total of 168,655 square feet of development for self-storage uses, a minimum of 324 square feet of refuse storage area and a minimum of 324 square feet of recyclable material storage area would be required. The total exterior refuse and recyclable material storage requirement for the project would be 648 square feet.

During occupancy, the expected annual waste to be generated from the proposed project would be 286.7 tons, based on the generation rate for office under commercial/industrial uses of 0.0017. An ongoing plan to manage waste disposal in order to meet state and city certification waste reduction goals shall be implemented by the property manager through this WMP. Included in this program shall be the provision of a minimum of 324 square feet of exterior refuse storage area and 324 square feet of exterior recyclable material storage area, as required by the City's Municipal Code. The project would meet this requirement by providing a minimum combined refuse storage and recyclable material storage area of 700 square feet.

6.4 Organic Waste Recycling

The project would require landscaping, landscape maintenance, and brush management. Drought-tolerant plants would be used to reduce the amount of green waste produced. Collection of organic waste and its disposal at recycling centers that accept organic waste would further reduce the waste generated by the project during occupancy. Implementation of ongoing WMP requirements would include a means for handling landscaping and other organic waste materials, including food waste. The ongoing WMP measures discussed in Section 6.2, Waste Reduction Measures, would include a means for handling landscaping and other organic waste materials, in addition to food waste recycling once this service is offered by franchisees. City implementation of SB 1383, including

citywide collection and composting of food waste, is anticipated to ensure 75 percent organic material diversion by 2025 as detailed in Section 6.2 (City of San Diego 2021a).

7.0 Conclusion

7.1 Demolition, Grading, and Construction Waste

Diversion goals would be communicated to contractors through contract documents; the project's CEQA document, this WMP and corresponding project conditions; and the SWMC for the project. The project would require a net export of 32,140 cubic yards of soil. All exported soil would be recycled using the City's Clean Fill Dirt Program or an approved Clean Fill Dirt handler listed on the City's Certified C&D Recycling Facilities Directory. All green waste would be recycled at the Miramar Greenery facility (5180 Convoy Street); thus, the project would achieve 100 percent diversion during grading.

Of the 44,393.5 tons estimated to be generated (2,245.6 from demolition, 41,782 tons from grading and 365.9 tons from construction), 44,279.5 tons would be diverted (2,214.5 tons from demolition, 41,782 tons from grading and 283.0 tons from construction). This would result in the diversion and reuse of 99.7 percent of the waste material generated from the project from the landfill, which would meet the City's current 75 percent waste diversion goal.

7.2 Occupancy – Operational Waste

The project would construct a 168,655-square-foot, self-storage building consisting of three above ground levels and two basement levels. The project would also construct 19,010 square feet of hardscape which includes exterior on-grade parking spaces. As such, the project would be required to provide a minimum of 324 square feet of exterior refuse area and 324 square feet of recyclable material storage area (total of 648 square feet; see Table 7). The project would meet this requirement by providing a combined refuse storage and recyclable material storage area of 700 square feet.

The applicant (or applicant's successor in interest) would implement the ongoing waste reduction measures as prescribed in this WMP to ensure that the generation of solid waste is minimized and the operation of the project complies with City ordinances. According to the City Guidelines for a Waste Management Plan (City of San Diego 2013), compliance with existing ordinances is expected to achieve a 50 percent diversion rate. Therefore, approximately 143.3 tons of non-recyclable waste per year would be generated from the project, exceeding the 60.0 ton-per-year threshold of significance for having a cumulative impact on solid waste services by 83.3 tons per year. However, preparation of this WMP and implementation of the waste reduction measures, outlined in Section 6.2 above, would ensure the cumulative solid waste impact is reduced to below a level of significance.

8.0 Overall Compliance

With implementation of the strategies outlined in this WMP and compliance with all applicable City ordinances, solid waste impacts would be reduced to below a level of significance regarding collection, diversion, and disposal of waste generated from C&D, grading, and occupancy. With the oversight of the SWMC during the construction phase, the project would divert and reuse 77.0 percent of construction waste from landfill disposal. This would reduce the anticipated impact of waste disposal during construction to a level less than significant.

During occupancy, the applicant or applicant's successor in interest would be required to implement the ongoing WMP measures detailed herein to ensure maximum diversion from landfills. Exterior storage space for refuse, recyclable, and landscape/green waste materials would be provided consistent with City Municipal Code requirements described herein. Compliance with existing ordinances is expected to achieve a 50 percent diversion rate. Preparation of this WMP and implementation of the Waste Reduction Measures, outlined in Section 6.2 above, would reduce cumulative solid waste impacts to a level less than significant.

9.0 References Cited

California, State of

1989 Assembly Bill 939. Integrated Waste Management Act.

2010 Senate Bill 1016. Solid Waste Per Capita Disposal Measurement Act.

2011 Assembly Bill 341. Jobs and Recycling.

2016 Senate Bill 1383. Short-Lived Climate Pollutants (SLCP).

California Department of Resources Recycling and Recovery (CalRecycle)

2020a New Statewide Mandatory Organic Waste Collection,
<https://www.calrecycle.ca.gov/organics/slcp/collection>. Accessed December 22, 2021.

2020b 2018 Facility-Based Characterization of Solid Waste in California. May 15.

Public Works Standards, Inc.

2021 2021 Greenbook: Standard Specifications for Public Works Construction.

San Diego, City of

2007a Recycling Ordinance. San Diego Municipal Code Chapter 6, Article 6, Division 7. November 20.

2007b Refuse and Recyclable Materials Storage Regulations. Municipal Code Chapter 14, Article 2, Division 8. December 9.

- 2008 Construction and Demolition Debris Diversion Deposit Program. San Diego Municipal Code Chapter 6, Article 6, Division 6.
- 2013 California Environmental Quality Act – Guidelines for a Waste Management Plan. June.
- 2016 California Environmental Quality Act – Significance Determination Thresholds. July.
- 2021a New Food and Yard Waste Rules – SB 1383. City of San Diego, Environmental Services.
<https://www.sandiego.gov/environmental-services/recycling/sb1383>.
- 2021b The “Whitebook” Standard Specifications For Public Works Construction 2021 Edition.
https://www.sandiego.gov/sites/default/files/the_whitebook_2021_edition.pdf.
- U.S. Environmental Protection Agency (U.S. EPA)
- 2009 Estimating 2003 Building-Related Construction and Demolition Materials Amounts.
<https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf>.

ATTACHMENTS

ATTACHMENT 1

City of San Diego Construction & Demolition (C&D) Debris Conversion Rate Table



CITY OF SAN DIEGO CONSTRUCTION & DEMOLITION (C&D) DEBRIS CONVERSION RATE TABLE



This worksheet lists materials typically generated from a construction or demolition project and provides formulas for converting common units (i.e., cubic yards, square feet, and board feet) to tons. It should be used for preparing your Waste Management Form, which requires that quantities be provided in tons.

Step 1
Enter the estimated quantity for each applicable material in Column I, based on units of cubic yards (cy), square feet (sq ft), or board feet (bd ft).

Step 2
Multiply by Tons/Unit figure listed in Column II. Enter the result for each material in Column III. If using Excel version, column III will automatically calculate tons.

Step 3
Enter quantities for each separated material from Column III on this worksheet into the corresponding section of your Waste Management Form.

For your final calculations, use the actual quantities, based on weight tags, gate receipts, or other documents.

<u>Category</u>	<u>Material</u>	<u>Column I</u>		<u>Column II</u>		<u>Column III</u>
		<u>Volume</u>	<u>Unit</u>	<u>Tons/Unit</u>	<u>Tons</u>	
Asphalt/Concrete	Asphalt (broken)	_____	cy	x	0.70 =	_____
	Concrete (broken)	_____	cy	x	1.20 =	_____
	Concrete (solid slab)	_____	cy	x	1.30 =	_____
Brick/Masonry/Tile	Brick (broken)	_____	cy	x	0.70 =	_____
	Brick (whole, palletized)	_____	cy	x	1.51 =	_____
	Masonry Brick (broken)	_____	cy	x	0.60 =	_____
	Tile	_____	sq ft	x	0.00175 =	_____
Building Materials (doors, windows, cabinets, etc.)		_____	cy	x	0.15 =	_____
Cardboard (flat)		_____	cy	x	0.05 =	_____
Carpet	By square foot	_____	sq ft	x	0.0005 =	_____
	By cubic yard	_____	cy	x	0.30 =	_____
Carpet Padding/Foam		_____	sq ft	x	0.000125 =	_____
Ceiling Tiles	Whole (palletized)	_____	sq ft	x	0.0003 =	_____
	Loose	_____	cy	x	0.09 =	_____
Drywall (new or used)	1/2" (by square foot)	_____	sq ft	x	0.0008 =	_____
	5/8" (by square foot)	_____	sq ft	x	0.00105 =	_____
	Demo/used (by cubic yd)	_____	cy	x	0.25 =	_____
Earth	Loose/Dry	_____	cy	x	1.20 =	_____
	Excavated/Wet	_____	cy	x	1.30 =	_____
	Sand (loose)	_____	cy	x	1.20 =	_____
Landscape Debris (brush, trees, etc)		_____	cy	x	0.15 =	_____
Mixed Debris	Construction	_____	cy	x	0.18 =	_____
	Demolition	_____	cy	x	1.19 =	_____
Scrap metal		_____	cy	x	0.51 =	_____
Shingles, asphalt		_____	cy	x	0.22 =	_____
Stone (crushed)		_____	cy	x	2.35 =	_____
Unpainted Wood & Pallets	By board foot	_____	bd ft	x	0.001375 =	_____
	By cubic yard	_____	cy	x	0.15 =	_____
Garbage/Trash		_____	cy	x	0.18 =	_____
Other (estimated weight)		_____	cy	x	estimate =	_____
		_____	cy	x	estimate =	_____
		_____	cy	x	estimate =	_____
		_____	cy	x	estimate =	_____

ATTACHMENT 2

City of San Diego 2022 Construction & Demolition
Recycling Facility Directory



• **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**

• You must use one of these facilities to receive diversion credit.

• Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.

• Ensure the project address and permit number are on the receipt.

The facilities marked below with an asterisk are transfer stations

IMPORTANT DRIVER INSTRUCTIONS - If you deliver to a transfer station, you must have your driver:

- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.

- Tickets coded as "MSW, trash, or refuse" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
EDCO Recovery & Transfer 3660 Dalbergia St, San Diego, CA 92113 619-234-7774 www.edcodisposal.com	•									•						•		73%
EDCO Station Transfer Station & Buy Back Center 8184 Commercial St, La Mesa, CA 91942 619-466-3355 www.edcodisposal.com	•			•						•			•			•		73%
EDCO CDI Recycling & Buy Back Center 224 S. Las Posas Rd, San Marcos, CA 92078 760-744-2700 www.edcodisposal.com				•	•	•							•			•		80%
Escondido Resource Recovery 1044 W. Washington Ave, Escondido 760-745-3203 www.edcodisposal.com																		73%
Fallbrook Transfer Station & Buy Back Center 550 W. Aviation Rd, Fallbrook, CA 92028 760-728-6114 www.edcodisposal.com				•									•			•		73%
Otay C&D/Inert Debris Processing Facility 1700 Maxwell Rd, Chula Vista, CA 91913 619-421-3773 www.sd.disposal.com																		90%
Ramona Transfer Station & Buy Back Center 324 Maple St, Ramona, CA 92065 760-789-0516 www.edcodisposal.com				•									•			•		73%
SANCO Resource Recovery & Buy Back Center 6750 Federal Blvd, Lemon Grove, CA 91945 619-287-5696 www.edcodisposal.com				•	•	•							•					73%
Allan Company 6733 Consolidated Wy, San Diego, CA 92121 858-578-9300 www.allancompany.com/facilities				•									•					
Allan Company Miramar Recycling 5165 Convoy St, San Diego, CA 92111 858-268-8971 www.allancompany.com/facilities				•									•					
Alpine Asphalt & Concrete Recycling 5690 Willows Rd, Alpine, CA 91901 760-451-6481 www.alpineasphaltandconcrete.com	•	•	•					•										
Alpine Asphalt & Concrete Recycling 0 Duro Rd, Escondido, CA 92028 760-451-6481 www.alpineasphaltandconcrete.com	•	•	•					•										
Aquafil Carpet Collection 187 Mace St, Chula Vista, CA 91911 619-816-0787 www.aquafil.com				•	•													



• **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**

• You must use one of these facilities to receive diversion credit.

• Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.

• Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**

- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.

- Tickets coded as "MSW, trash, or refuse" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris	
Aquafil Carpet Collection 7720 Formula Pl, San Diego , CA 92126 602-562-0444 www.aquafil.com					•	•													
Armstrong World Industries, Inc. 300 S. Myrida St, Pensacola, FL 32505 877-276-7876 (Press 1, Then 8) www.armstrong.com/commceilingsna						•													
CMS Recycling Inc. 1428 West Mission Rd, Escondido, CA 92029 760-741-6300 www.cmsmetals.com			•										•						
DFS Flooring 10178 Willow Creek Rd, San Diego, CA 92131 858-630-5200 www.dfsflooring.com				•	•														
Duco Metals 220 Bingham Drive Suite 100, San Marcos, CA 92069 760-747-6330 www.ducometals.com													•						
Escondido Materials 500 N. Tulip St, Escondido, CA 92025 760-432-4690 www.weirasphalt.com	•																		
F.J. Willert Contracting 2385 Cactus Rd, San Diego, CA 92154 619-421-1980 www.fjwillert.com	•																		
Habitat for Humanity ReStore 8101 Mercury Ct, San Diego, CA 92108 619-516-5267 www.sandiegohabitat.org			•																
Hanson Aggregates – Hollister St 389 Hollister St, San Diego, CA 92154 858-974-3849	•																		
Hanson Aggregates West – Lakeside Plant 12560 Highway 67, Lakeside, CA 92040 858-547-2141	•																		
Hanson Aggregates West – Miramar 9229 Harris Plant Rd, San Diego, CA 92126 858-974-3849	•							•											
HVAC Exchange 2675 Faivre St, Chula Vista, CA 91911 619-423-1564 www.hvacx.com													•						



- **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**

- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "MSW, trash, or refuse" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
Inland Pacific Resource Recovery 12650 Slaughterhouse Canyon Rd, Lakeside, CA 92040 619-390-1418 www.iprrgreen.com									•									
Los Angeles Fiber Company 4920 S. Boyle Ave, Vernon, CA 90058 323-589-5637 www.lafiber.com				•	•													
Miramar Greenery, City of San Diego 5180 Convoy St, San Diego, CA 92111 858-694-7000 www.miramargreenery.com								•										
Moody's 3210 Oceanside Blvd, Oceanside, CA 92056 760-433-3316 www.moodyselcorazonrecycling.com	•							•					•					
RAMCO 8354 Nelson Way, Escondido, CA 92026 760-205-1797 www.ramco.us.com	•																	
Reclaimed Aggregates Chula Vista 855 Energy Way, Chula Vista, CA 91913 619-656-1836	•												•					
Robertson's Ready Mix 2094 Willow Glen Dr, El Cajon, CA 92019 619-593-1856 www.rrmca.com	•							•					•					
Rockridge Crushing 12485 Highway 67, Lakeside, CA 92040 619-324-7065	•																	
SA Recycling 3055 Commercial St, San Diego, CA 92113 619-238-6740 www.sarecycling.com													•					
SA Recycling 1211 S. 32nd St, San Diego, CA 92113 619-234-6691 www.sarecycling.com													•					
SCOR Industries 2321 South Willow Ave, Bloomington, CA 92316 909-820-5046 www.scorindustries.com	•	•	•				•	•	•	•	•	•	•	•				
Terra Bella Nursery 302 Hollister St, San Diego, CA 92154 619-585-1118 www.terrabellanursery.com								•	•									



- Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**

- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "MSW, trash, or refuse" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
Vulcan Carol Canyon Landfill and Recycle Site 10051 Black Mountain Rd, San Diego, CA 92126 858-530-9465 www.vulcanmaterials.com	•	•						•						•				
Vulcan Materials Company 2275 Hard Rock Rd, Chula Vista, CA 91913 858-530-9472 www.vulcanmaterials.com	•																	
Vulcan Otay Asphalt Recycle Center 7522 Paseo de la Fuente, San Diego, CA 92154 619-571-1945 www.vulcanmaterials.com	•																	

ATTACHMENT 3

City of San Diego Waste Generation Factors – Occupancy Phase

Waste Generation Factors – Occupancy Phase

The following factors are used by the City of San Diego Environmental Services Department to estimate the expected waste generation in a new residential or commercial development.

Residential Uses

Residential Unit = 1.6 tons/year/unit
 Multi-family Unit = 1.2 tons/year/unit

Example: To calculate the amount of waste that will be generated from a project with 100 new homes, multiply the number of homes by the generation factor.

100 single family homes x 1.6 = 160 tons/year
 100 multi-family units x 1.2 = 120 tons/year

Commercial/Industrial Uses

General Retail	0.0028
Restaurants & Bars	0.0122
Hotels/Motels	0.0045
Food Stores	0.0073
Auto/Service/Repair	0.0051
Medical Offices	0.0033
Hospitals	0.0055
Office	0.0017
Transp/Utilities	0.0085
Manufacturing	0.0059
Education	0.0013
Unclassified Services	0.0042

Example: To calculate the amount of waste that could be generated from a new building with 10,000 square feet for offices and 10,000 square feet for manufacturing, multiply the square footage for each use by the generation factor.

10,000 square feet x 0.0017 = 17 tons/year

10,000 square feet x 0.0059 = 59 tons per year

Total estimated waste generation for building = 76 tons/year