Appendix ARB

Arborist Report

Traverso Tree

September 3, 2021

James Goodman, AIA
James Goodman Architecture

Capistrano Beach, CA 92624
949-493-0740 | jimgoodman@jgaia.com

Re: Arborist Report for ExtraSpace Storage, 3516 San Pablo Dam Road, San Pablo

Dear James,

This arborist report addresses the proposed storage facility expansion at 3516 San Pablo Dam Road. Per the City of San Pablo's Tree Protection Ordinance Chapter 17.48.080, the scope of work includes:

- Tag, identify and measure trees with diameter ≥6" (measured at 3' above grade) on the property. Exempt trees include those on the prohibited plant list, trees that are unsafe, in poor health, structurally distressed or dead, or those located off-site or in the public right-of-way.
- Assess proposed improvements for potential encroachment.
- Based on proposed encroachment, tree health, structure, and species susceptibility, make recommendations for preservation.
- Provide above information on a Tree Protection Plan, to include: tag #s, approximate dripline, whether a tree is removed or preserved, tree protection fencing locations, and tree protection recommendations.

Project Summary

The property is located on the south side of San Pablo Dam Road, between Miffin Ave & Barranca St, comprising the easternmost parcel of the ExtraSpace Storage facility. A retail shopping center is located to its east, while an undeveloped woodland area backs up to its south property line. Currently, the storage units on this parcel consist of single-level Conex-box type structures on footings over paved asphalt. The proposed project will construct a 3-story storage facility, install two driveway entrances, construct a retaining wall around the property, and install new landscaping in enlarged landscape areas.



Figure 1. Pears #2-4 are located to the right of the existing entrance, but one of the new entrances will be centered on the trees.

Per city requirements, I included 4 on-site pear trees along San Pablo Dam Road in my review – due to high impact from the proposed drive entrances, all 4 will need to be removed (Figure 1). Other trees may be

affected but are exempt from the city's review requirements (sidewalk pear tree, off-site redwoods).

Assumptions & Limitations
This report is based on my site visit on 8/31/21 and the site plan package by James Goodman Architecture dated 6/1/21. I did not review any other plans, such as a survey, grading & drainage, utility, etc. The trees were not surveyed, so I approximately located them on the tree protection plan (their precise locations are not necessary).

The health and structure of the trees were assessed visually from ground level. No drilling, root excavation, or aerial inspections were performed. Internal or non-detectable defects may exist and could lead to part or whole tree failures. Due to the dynamic nature of trees and their environment, it is not possible for arborists to guarantee that trees will not fail in the future.

Tree Inventory & Assessment Table
#s: Each tree was assigned a number from #1-4; they were not physically tagged. Their locations are given in the tree protection plan.
DBH (Diameter at Breast Height): Trunk diameters in inches were measured at 4.5' above average grade with a diameter tape. Height of measurement may deviate from the standard on atypical trunks; deviations are noted under the "Comments" section.

Health & Structural Condition Rating
Dead: Dead or declining past chance of recovery.
Poor (P): Stunted or declining canopy, poor foliar color, possible disease or insect issues. Severe structural defects that may or may not be correctable. Usually not a reliable specimen for preservation.
Fair (F): Fair to moderate vigor. Minor structural defects that can be corrected. More susceptible to construction impacts than a tree in good condition.
Good (G): Good vigor and color, with no obvious problems or defects. Generally more resilient to impacts.
Very Good (VG): Exceptional specimen with excellent vigor and structure. Unusually nice.

Dripline Radius: Canopy radius was visually estimated.

#	Species	DBH	Health	Structure	Dripline Radius	Comments
1	Evergreen pear (*Pyrus kawakamii*)	8.5	G	F	10'	Not surveyed; location approximated based on satellite imagery. Within 1' of proposed driveway. **Remove.**
2	Evergreen pear	9	G	G-F	9'	Not surveyed; location approximated based on satellite imagery. Within 1' of proposed driveway. **Remove.**
3	Evergreen pear	8	F/F-P	F	9'	Not surveyed; location approximated based on satellite imagery. Slightly sparse canopy. Underground concrete utility box 2' to NE. In proposed driveway. **Remove.**
4	Evergreen pear	10.5	G	F	10'	Not surveyed; location approximated based on satellite imagery. Previously topped at 9'. Proposed driveway ~7' from trunk. **Remove.**

Discussion & Recommendations

The proposed improvements are separated from the native oak woodland area to the south by a sturdy chain-link fence – as long as the fencing remains in place throughout construction, the trees will not be affected. Grading of the hillside between the existing hardscape and the fence will not negatively affect the trees south of (above) the fence.

The entirety of the area inside the existing storage facility has been paved, so there are no trees located in the proposed building area. The new drive aisles will replace existing hardscape, so the overall encroachment is reduced. The primary impact comes from the new entrances – two entrances are proposed along the property frontage where they will replace the existing landscaping areas. One evergreen pear is located east of the existing entrance, and three pears are located west of the existing entrance. All four trees will be removed due to the proposed entrances and landscaping.



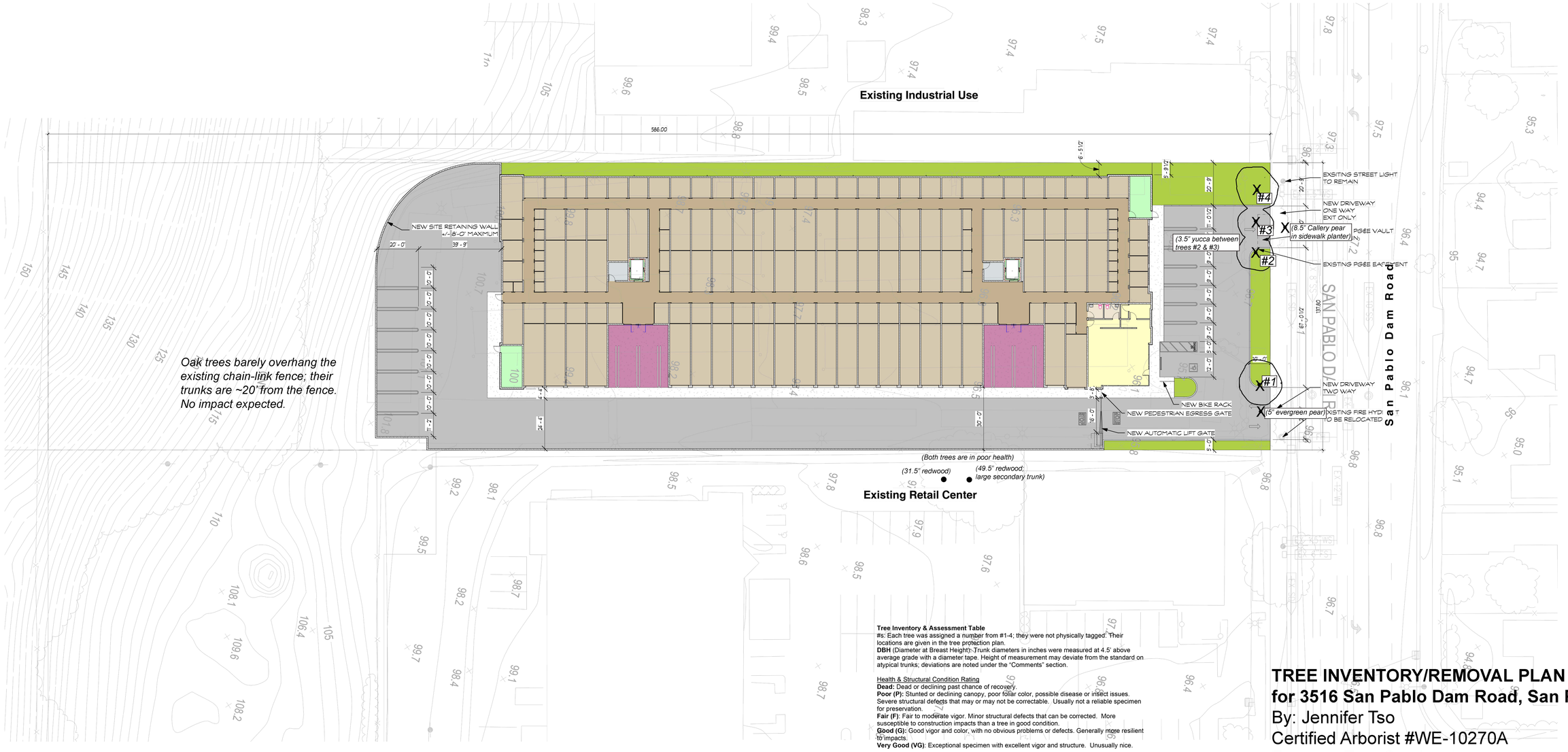
Figure 2. Pear #1 is located east of the existing entrance in conflict with the new east entrance.

Thank you for the opportunity to provide this report, and please do not hesitate to contact me if there are any questions or concerns.

Please see attached tree location plan.

Sincerely,

Jennifer Tso
Certified Arborist #WE-10270A
ISA Tree Risk Assessor Qualified



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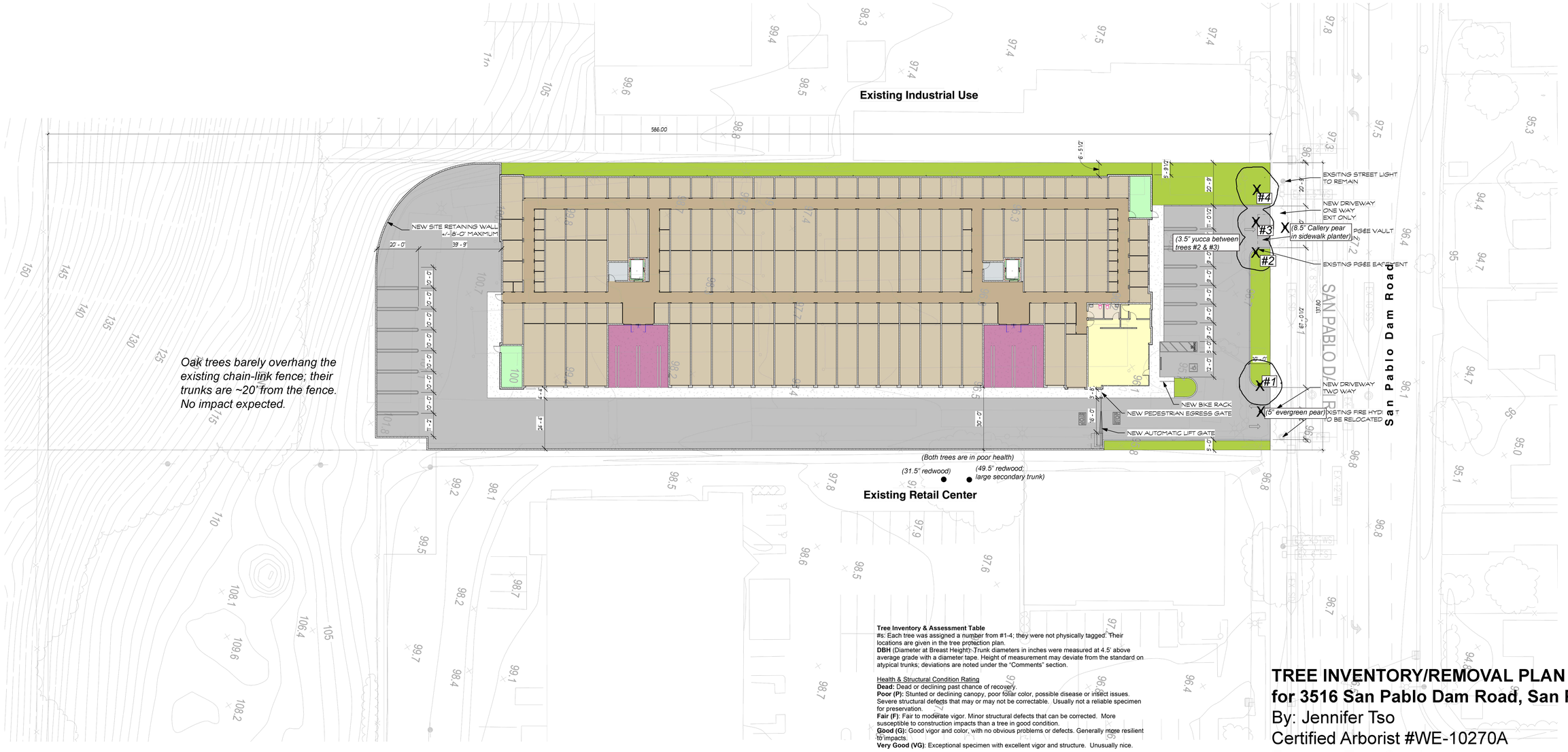
Dripline Radius: Canopy radius was visually estimated.

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TREE INVENTORY/REMOVAL PLAN for 3516 San Pablo Dam Road, San Pablo

By: Jennifer Tso
Certified Arborist #WE-10270A
Traverso Tree Service, Inc.
September 3, 2021
(drawn on proposed site plan)

Note: the trees were not surveyed. Their trunk locations are approximated based on aerial satellite imagery.



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Appendix AQ

Air Quality and Greenhouse Gas Modeling Outputs

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	22.00
tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00
tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2801	2.8621	2.0177	4.8500e-003	0.1784	0.1220	0.3004	0.0694	0.1132	0.1827	0.0000	427.1443	427.1443	0.1055	8.2900e-003	432.2515
2023	0.5241	0.3812	0.3718	7.9000e-004	9.3700e-003	0.0165	0.0259	2.5200e-003	0.0154	0.0179	0.0000	68.9635	68.9635	0.0173	7.8000e-004	69.6290
Maximum	**0.5241**	**2.8621**	**2.0177**	**4.8500e-003**	**0.1784**	**0.1220**	**0.3004**	**0.0694**	**0.1132**	**0.1827**	**0.0000**	**427.1443**	**427.1443**	**0.1055**	**8.2900e-003**	**432.2515**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2801	2.8621	2.0177	4.8500e-003	0.1106	0.1220	0.2325	0.0395	0.1132	0.1527	0.0000	427.1438	427.1438	0.1055	8.2900e-003	432.2510
2023	0.5241	0.3812	0.3718	7.9000e-004	9.3700e-003	0.0165	0.0259	2.5200e-003	0.0154	0.0179	0.0000	68.9635	68.9635	0.0173	7.8000e-004	69.6289
Maximum	**0.5241**	**2.8621**	**2.0177**	**4.8500e-003**	**0.1106**	**0.1220**	**0.2325**	**0.0395**	**0.1132**	**0.1527**	**0.0000**	**427.1438**	**427.1438**	**0.1055**	**8.2900e-003**	**432.2510**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**36.14**	**0.00**	**20.80**	**41.68**	**0.00**	**14.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-1-2022**	**4-30-2022**	1.1800	1.1800
2	**5-1-2022**	**7-31-2022**	0.8015	0.8015
3	**8-1-2022**	**10-31-2022**	0.6928	0.6928
4	**11-1-2022**	**1-31-2023**	0.6679	0.6679
5	**2-1-2023**	**4-30-2023**	0.6816	0.6816
		Highest	1.1800	1.1800

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4075	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Energy	6.8000e-004	6.1900e-003	5.2000e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	53.0446	53.0446	5.4000e-003	7.6000e-004	53.4067
Mobile	0.0893	0.1086	0.8845	1.8800e-003	0.1970	1.3900e-003	0.1984	0.0526	1.2900e-003	0.0539	0.0000	175.4695	175.4695	0.0109	8.2000e-003	178.1866
Waste						0.0000	0.0000		0.0000	0.0000	17.4714	0.0000	17.4714	1.0325	0.0000	43.2847
Water						0.0000	0.0000		0.0000	0.0000	6.7173	15.0695	21.7868	0.6917	0.0165	43.9945
Total	**0.4975**	**0.1148**	**0.8908**	**1.9200e-003**	**0.1970**	**1.8600e-003**	**0.1989**	**0.0526**	**1.7600e-003**	**0.0544**	**24.1887**	**243.5856**	**267.7743**	**1.7405**	**0.0255**	**318.8747**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4075	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Energy	6.2000e-004	5.6700e-003	4.7600e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	52.2200	52.2200	5.3600e-003	7.5000e-004	52.5770
Mobile	0.0893	0.1086	0.8845	1.8800e-003	0.1970	1.3900e-003	0.1984	0.0526	1.2900e-003	0.0539	0.0000	175.4695	175.4695	0.0109	8.2000e-003	178.1866
Waste						0.0000	0.0000		0.0000	0.0000	17.4714	0.0000	17.4714	1.0325	0.0000	43.2847
Water						0.0000	0.0000		0.0000	0.0000	5.3738	12.0556	17.4294	0.5533	0.0132	35.1956
Total	**0.4974**	**0.1143**	**0.8903**	**1.9100e-003**	**0.1970**	**1.8200e-003**	**0.1989**	**0.0526**	**1.7200e-003**	**0.0544**	**22.8453**	**239.7471**	**262.5924**	**1.6022**	**0.0222**	**309.2460**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.01**	**0.45**	**0.05**	**0.52**	**0.00**	**2.15**	**0.02**	**0.00**	**2.27**	**0.07**	**5.55**	**1.58**	**1.94**	**7.95**	**13.00**	**3.02**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40

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Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0106	0.0000	0.0106	1.6000e-003	0.0000	1.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0753	0.7953	0.5822	1.2000e-003		0.0360	0.0360		0.0334	0.0334	0.0000	105.1282	105.1282	0.0307	0.0000	105.8962
Total	**0.0753**	**0.7953**	**0.5822**	**1.2000e-003**	**0.0106**	**0.0360**	**0.0466**	**1.6000e-003**	**0.0334**	**0.0350**	**0.0000**	**105.1282**	**105.1282**	**0.0307**	**0.0000**	**105.8962**

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3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	8.4400e-003	1.7900e-003	3.0000e-005	8.3000e-004	8.0000e-005	9.0000e-004	2.3000e-004	7.0000e-005	3.0000e-004	0.0000	3.0715	3.0715	1.0000e-004	4.9000e-004	3.2190
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2800e-003	0.0154	4.0000e-005	5.1000e-003	3.0000e-005	5.1200e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.0991	4.0991	1.3000e-004	1.2000e-004	4.1375
Total	**2.0000e-003**	**9.7200e-003**	**0.0172**	**7.0000e-005**	**5.9300e-003**	**1.1000e-004**	**6.0200e-003**	**1.5900e-003**	**1.0000e-004**	**1.6800e-003**	**0.0000**	**7.1706**	**7.1706**	**2.3000e-004**	**6.1000e-004**	**7.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7700e-003	0.0000	4.7700e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0753	0.7953	0.5822	1.2000e-003		0.0360	0.0360		0.0334	0.0334	0.0000	105.1281	105.1281	0.0307	0.0000	105.8961
Total	**0.0753**	**0.7953**	**0.5822**	**1.2000e-003**	**4.7700e-003**	**0.0360**	**0.0408**	**7.2000e-004**	**0.0334**	**0.0342**	**0.0000**	**105.1281**	**105.1281**	**0.0307**	**0.0000**	**105.8961**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	8.4400e-003	1.7900e-003	3.0000e-005	8.3000e-004	8.0000e-005	9.0000e-004	2.3000e-004	7.0000e-005	3.0000e-004	0.0000	3.0715	3.0715	1.0000e-004	4.9000e-004	3.2190
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2800e-003	0.0154	4.0000e-005	5.1000e-003	3.0000e-005	5.1200e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.0991	4.0991	1.3000e-004	1.2000e-004	4.1375
Total	**2.0000e-003**	**9.7200e-003**	**0.0172**	**7.0000e-005**	**5.9300e-003**	**1.1000e-004**	**6.0200e-003**	**1.5900e-003**	**1.0000e-004**	**1.6800e-003**	**0.0000**	**7.1706**	**7.1706**	**2.3000e-004**	**6.1000e-004**	**7.3565**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0341	0.0000	0.0341	0.0165	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0990	0.0633	1.3000e-004		4.4500e-003	4.4500e-003		4.1100e-003	4.1100e-003	0.0000	11.4295	11.4295	3.5900e-003	0.0000	11.5192
Total	**9.2300e-003**	**0.0990**	**0.0633**	**1.3000e-004**	**0.0341**	**4.4500e-003**	**0.0385**	**0.0165**	**4.1100e-003**	**0.0206**	**0.0000**	**11.4295**	**11.4295**	**3.5900e-003**	**0.0000**	**11.5192**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.1000e-004	1.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2266	0.2266	0.0000	3.0000e-005	0.2367
Worker	2.7000e-004	2.0000e-004	2.3700e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6292	0.6292	2.0000e-005	2.0000e-005	0.6351
Total	**2.9000e-004**	**8.1000e-004**	**2.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8557**	**0.8557**	**2.0000e-005**	**5.0000e-005**	**0.8717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	7.4200e-003	0.0000	7.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0990	0.0633	1.3000e-004		4.4500e-003	4.4500e-003		4.1100e-003	4.1100e-003	0.0000	11.4295	11.4295	3.5900e-003	0.0000	11.5192
Total	**9.2300e-003**	**0.0990**	**0.0633**	**1.3000e-004**	**0.0153**	**4.4500e-003**	**0.0198**	**7.4200e-003**	**4.1100e-003**	**0.0115**	**0.0000**	**11.4295**	**11.4295**	**3.5900e-003**	**0.0000**	**11.5192**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.1000e-004	1.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2266	0.2266	0.0000	3.0000e-005	0.2367
Worker	2.7000e-004	2.0000e-004	2.3700e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6292	0.6292	2.0000e-005	2.0000e-005	0.6351
Total	**2.9000e-004**	**8.1000e-004**	**2.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8557**	**0.8557**	**2.0000e-005**	**5.0000e-005**	**0.8717**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0787	0.0000	0.0787	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3396	0.2319	5.1000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	44.1442	44.1442	0.0127	0.0000	44.4627
Total	**0.0322**	**0.3396**	**0.2319**	**5.1000e-004**	**0.0787**	**0.0150**	**0.0937**	**0.0364**	**0.0139**	**0.0504**	**0.0000**	**44.1442**	**44.1442**	**0.0127**	**0.0000**	**44.4627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-004	0.0344	7.3200e-003	1.3000e-004	3.3800e-003	3.1000e-004	3.6900e-003	9.3000e-004	3.0000e-004	1.2300e-003	0.0000	12.5369	12.5369	4.1000e-004	1.9900e-003	13.1389
Vendor	4.0000e-005	1.1700e-003	3.4000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4325	0.4325	1.0000e-005	6.0000e-005	0.4519
Worker	8.7000e-004	6.2000e-004	7.5300e-003	2.0000e-005	2.4900e-003	1.0000e-005	2.5000e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0019	2.0019	6.0000e-005	6.0000e-005	2.0206
Total	**1.8400e-003**	**0.0362**	**0.0152**	**1.5000e-004**	**6.0100e-003**	**3.3000e-004**	**6.3400e-003**	**1.6300e-003**	**3.2000e-004**	**1.9500e-003**	**0.0000**	**14.9712**	**14.9712**	**4.8000e-004**	**2.1100e-003**	**15.6114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3396	0.2319	5.1000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	44.1441	44.1441	0.0127	0.0000	44.4626
Total	**0.0322**	**0.3396**	**0.2319**	**5.1000e-004**	**0.0354**	**0.0150**	**0.0504**	**0.0164**	**0.0139**	**0.0303**	**0.0000**	**44.1441**	**44.1441**	**0.0127**	**0.0000**	**44.4626**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-004	0.0344	7.3200e-003	1.3000e-004	3.3800e-003	3.1000e-004	3.6900e-003	9.3000e-004	3.0000e-004	1.2300e-003	0.0000	12.5369	12.5369	4.1000e-004	1.9900e-003	13.1389
Vendor	4.0000e-005	1.1700e-003	3.4000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4325	0.4325	1.0000e-005	6.0000e-005	0.4519
Worker	8.7000e-004	6.2000e-004	7.5300e-003	2.0000e-005	2.4900e-003	1.0000e-005	2.5000e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0019	2.0019	6.0000e-005	6.0000e-005	2.0206
Total	**1.8400e-003**	**0.0362**	**0.0152**	**1.5000e-004**	**6.0100e-003**	**3.3000e-004**	**6.3400e-003**	**1.6300e-003**	**3.2000e-004**	**1.9500e-003**	**0.0000**	**14.9712**	**14.9712**	**4.8000e-004**	**2.1100e-003**	**15.6114**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1448	1.4859	0.9831	2.1600e-003		0.0650	0.0650		0.0603	0.0603	0.0000	185.4711	185.4711	0.0562	0.0000	186.8751
Total	**0.1448**	**1.4859**	**0.9831**	**2.1600e-003**		**0.0650**	**0.0650**		**0.0603**	**0.0603**	**0.0000**	**185.4711**	**185.4711**	**0.0562**	**0.0000**	**186.8751**

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0876	0.0255	3.3000e-004	0.0103	9.0000e-004	0.0112	2.9700e-003	8.6000e-004	3.8400e-003	0.0000	32.2831	32.2831	7.0000e-004	4.7900e-003	33.7271
Worker	0.0111	8.0000e-003	0.0967	2.8000e-004	0.0319	1.7000e-004	0.0321	8.5000e-003	1.6000e-004	8.6600e-003	0.0000	25.6907	25.6907	8.0000e-004	7.4000e-004	25.9315
Total	**0.0145**	**0.0956**	**0.1222**	**6.1000e-004**	**0.0422**	**1.0700e-003**	**0.0433**	**0.0115**	**1.0200e-003**	**0.0125**	**0.0000**	**57.9738**	**57.9738**	**1.5000e-003**	**5.5300e-003**	**59.6586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1448	1.4859	0.9831	2.1600e-003		0.0650	0.0650		0.0603	0.0603	0.0000	185.4709	185.4709	0.0562	0.0000	186.8749
Total	**0.1448**	**1.4859**	**0.9831**	**2.1600e-003**		**0.0650**	**0.0650**		**0.0603**	**0.0603**	**0.0000**	**185.4709**	**185.4709**	**0.0562**	**0.0000**	**186.8749**

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0876	0.0255	3.3000e-004	0.0103	9.0000e-004	0.0112	2.9700e-003	8.6000e-004	3.8400e-003	0.0000	32.2831	32.2831	7.0000e-004	4.7900e-003	33.7271
Worker	0.0111	8.0000e-003	0.0967	2.8000e-004	0.0319	1.7000e-004	0.0321	8.5000e-003	1.6000e-004	8.6600e-003	0.0000	25.6907	25.6907	8.0000e-004	7.4000e-004	25.9315
Total	**0.0145**	**0.0956**	**0.1222**	**6.1000e-004**	**0.0422**	**1.0700e-003**	**0.0433**	**0.0115**	**1.0200e-003**	**0.0125**	**0.0000**	**57.9738**	**57.9738**	**1.5000e-003**	**5.5300e-003**	**59.6586**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0177	0.1761	0.1290	2.9000e-004		7.5700e-003	7.5700e-003		7.0200e-003	7.0200e-003	0.0000	24.7231	24.7231	7.4600e-003	0.0000	24.9097
Total	**0.0177**	**0.1761**	**0.1290**	**2.9000e-004**		**7.5700e-003**	**7.5700e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**24.7231**	**24.7231**	**7.4600e-003**	**0.0000**	**24.9097**

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2900e-003	2.9100e-003	4.0000e-005	1.3700e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	4.1256	4.1256	8.0000e-005	6.1000e-004	4.3095
Worker	1.3800e-003	9.4000e-004	0.0120	4.0000e-005	4.2600e-003	2.0000e-005	4.2800e-003	1.1300e-003	2.0000e-005	1.1500e-003	0.0000	3.3380	3.3380	1.0000e-004	9.0000e-005	3.3677
Total	**1.6000e-003**	**0.0102**	**0.0149**	**8.0000e-005**	**5.6300e-003**	**7.0000e-005**	**5.7100e-003**	**1.5300e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**7.4636**	**7.4636**	**1.8000e-004**	**7.0000e-004**	**7.6773**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0177	0.1761	0.1290	2.9000e-004		7.5700e-003	7.5700e-003		7.0200e-003	7.0200e-003	0.0000	24.7230	24.7230	7.4600e-003	0.0000	24.9096
Total	**0.0177**	**0.1761**	**0.1290**	**2.9000e-004**		**7.5700e-003**	**7.5700e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**24.7230**	**24.7230**	**7.4600e-003**	**0.0000**	**24.9096**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2900e-003	2.9100e-003	4.0000e-005	1.3700e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	4.1256	4.1256	8.0000e-005	6.1000e-004	4.3095
Worker	1.3800e-003	9.4000e-004	0.0120	4.0000e-005	4.2600e-003	2.0000e-005	4.2800e-003	1.1300e-003	2.0000e-005	1.1500e-003	0.0000	3.3380	3.3380	1.0000e-004	9.0000e-005	3.3677
Total	**1.6000e-003**	**0.0102**	**0.0149**	**8.0000e-005**	**5.6300e-003**	**7.0000e-005**	**5.7100e-003**	**1.5300e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**7.4636**	**7.4636**	**1.8000e-004**	**7.0000e-004**	**7.6773**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1764	0.1949	3.6000e-004		7.9300e-003	7.9300e-003		7.3600e-003	7.3600e-003	0.0000	30.6489	30.6489	9.3600e-003	0.0000	30.8830
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0185**	**0.1764**	**0.1949**	**3.6000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**30.6489**	**30.6489**	**9.3600e-003**	**0.0000**	**30.8830**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.4000e-004	8.0500e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2481	2.2481	6.0000e-005	6.0000e-005	2.2681
Total	**9.3000e-004**	**6.4000e-004**	**8.0500e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2481**	**2.2481**	**6.0000e-005**	**6.0000e-005**	**2.2681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1764	0.1949	3.6000e-004		7.9300e-003	7.9300e-003		7.3600e-003	7.3600e-003	0.0000	30.6489	30.6489	9.3600e-003	0.0000	30.8829
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0185**	**0.1764**	**0.1949**	**3.6000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**30.6489**	**30.6489**	**9.3600e-003**	**0.0000**	**30.8829**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.4000e-004	8.0500e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2481	2.2481	6.0000e-005	6.0000e-005	2.2681
Total	**9.3000e-004**	**6.4000e-004**	**8.0500e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2481**	**2.2481**	**6.0000e-005**	**6.0000e-005**	**2.2681**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4825					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0176	0.0226	4.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	3.1987	3.1987	2.1000e-004	0.0000	3.2038
Total	**0.4851**	**0.0176**	**0.0226**	**4.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**3.1987**	**3.1987**	**2.1000e-004**	**0.0000**	**3.2038**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.4400e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6812	0.6812	2.0000e-005	2.0000e-005	0.6873
Total	**2.8000e-004**	**1.9000e-004**	**2.4400e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6812**	**0.6812**	**2.0000e-005**	**2.0000e-005**	**0.6873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4825					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0176	0.0226	4.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	3.1987	3.1987	2.1000e-004	0.0000	3.2038
Total	**0.4851**	**0.0176**	**0.0226**	**4.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**3.1987**	**3.1987**	**2.1000e-004**	**0.0000**	**3.2038**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.4400e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6812	0.6812	2.0000e-005	2.0000e-005	0.6873
Total	**2.8000e-004**	**1.9000e-004**	**2.4400e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6812**	**0.6812**	**2.0000e-005**	**2.0000e-005**	**0.6873**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0893	0.1086	0.8845	1.8800e-003	0.1970	1.3900e-003	0.1984	0.0526	1.2900e-003	0.0539	0.0000	175.4695	175.4695	0.0109	8.2000e-003	178.1866
Unmitigated	0.0893	0.1086	0.8845	1.8800e-003	0.1970	1.3900e-003	0.1984	0.0526	1.2900e-003	0.0539	0.0000	175.4695	175.4695	0.0109	8.2000e-003	178.1866

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.0490	46.0490	5.2400e-003	6.4000e-004	46.3693
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.3019	46.3019	5.2700e-003	6.4000e-004	46.6240
NaturalGas Mitigated	6.2000e-004	5.6700e-003	4.7600e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1710	6.1710	1.2000e-004	1.1000e-004	6.2077
NaturalGas Unmitigated	6.8000e-004	6.1900e-003	5.2000e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.7427	6.7427	1.3000e-004	1.2000e-004	6.7827

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	126353	6.8000e-004	6.1900e-003	5.2000e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.7427	6.7427	1.3000e-004	1.2000e-004	6.7827
Total		**6.8000e-004**	**6.1900e-003**	**5.2000e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.7427**	**6.7427**	**1.3000e-004**	**1.2000e-004**	**6.7827**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	115640	6.2000e-004	5.6700e-003	4.7600e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1710	6.1710	1.2000e-004	1.1000e-004	6.2077
Total		**6.2000e-004**	**5.6700e-003**	**4.7600e-003**	**3.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**6.1710**	**6.1710**	**1.2000e-004**	**1.1000e-004**	**6.2077**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7752.5	1.0197	1.2000e-004	1.0000e-005	1.0268
Unrefrigerated Warehouse-No Rail	344266	45.2822	5.1500e-003	6.2000e-004	45.5972
Total		**46.3019**	**5.2700e-003**	**6.3000e-004**	**46.6240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7752.5	1.0197	1.2000e-004	1.0000e-005	1.0268
Unrefrigerated Warehouse-No Rail	342343	45.0293	5.1200e-003	6.2000e-004	45.3425
Total		**46.0490**	**5.2400e-003**	**6.3000e-004**	**46.3693**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4075	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Unmitigated	0.4075	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Total	**0.4075**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0000e-005**	**0.0000**	**2.1500e-003**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Total	**0.4075**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0000e-005**	**0.0000**	**2.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.4294	0.5533	0.0132	35.1956
Unmitigated	21.7868	0.6917	0.0165	43.9945

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	21.1732 / 0	21.7868	0.6917	0.0165	43.9945
Total		**21.7868**	**0.6917**	**0.0165**	**43.9945**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	16.9386 / 0	17.4294	0.5533	0.0132	35.1956
Total		**17.4294**	**0.5533**	**0.0132**	**35.1956**

8.0 Waste Detail

8.1 Mitigation Measures Waste

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.4714	1.0325	0.0000	43.2847
Unmitigated	17.4714	1.0325	0.0000	43.2847

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	86.07	17.4714	1.0325	0.0000	43.2847
Total		**17.4714**	**1.0325**	**0.0000**	**43.2847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	86.07	17.4714	1.0325	0.0000	43.2847
Total		**17.4714**	**1.0325**	**0.0000**	**43.2847**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	22.00
tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00
tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1871	55.0562	37.0009	0.0963	8.6221	2.2600	10.8821	3.7747	2.0999	5.8746	0.0000	9,454.7216	9,454.7216	2.1597	0.2962	9,596.9868
2023	45.8969	17.7207	20.7580	0.0389	0.5312	0.8065	1.2264	0.1438	0.7545	0.8482	0.0000	3,683.0607	3,683.0607	0.9676	0.0710	3,709.8018
Maximum	**45.8969**	**55.0562**	**37.0009**	**0.0963**	**8.6221**	**2.2600**	**10.8821**	**3.7747**	**2.0999**	**5.8746**	**0.0000**	**9,454.7216**	**9,454.7216**	**2.1597**	**0.2962**	**9,596.9868**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1871	55.0562	37.0009	0.0963	4.4983	2.2600	6.7583	1.8660	2.0999	3.9659	0.0000	9,454.7216	9,454.7216	2.1597	0.2962	9,596.9868
2023	45.8969	17.7207	20.7580	0.0389	0.5312	0.8065	1.2264	0.1438	0.7545	0.8482	0.0000	3,683.0607	3,683.0607	0.9676	0.0710	3,709.8018
Maximum	**45.8969**	**55.0562**	**37.0009**	**0.0963**	**4.4983**	**2.2600**	**6.7583**	**1.8660**	**2.0999**	**3.9659**	**0.0000**	**9,454.7216**	**9,454.7216**	**2.1597**	**0.2962**	**9,596.9868**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	45.05	0.00	34.06	48.71	0.00	28.39	0.00	0.00	0.00	0.00	0.00	0.00

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Mobile	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Total	**2.7307**	**0.6659**	**5.1966**	**0.0105**	**1.1252**	**0.0103**	**1.1354**	**0.2997**	**9.7300e-003**	**0.3094**		**1,098.3649**	**1,098.3649**	**0.0707**	**0.0524**	**1,115.7524**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Mobile	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Total	**2.7304**	**0.6631**	**5.1942**	**0.0105**	**1.1252**	**0.0100**	**1.1352**	**0.2997**	**9.5100e-003**	**0.3092**		**1,094.9120**	**1,094.9120**	**0.0707**	**0.0524**	**1,112.2790**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.01	0.43	0.05	0.10	0.00	2.15	0.02	0.00	2.26	0.07	0.00	0.31	0.31	0.10	0.13	0.31

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	
4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4929	0.0000	0.4929	0.0746	0.0000	0.0746			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554		5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.4929**	**1.6764**	**2.1693**	**0.0746**	**1.5554**	**1.6300**		**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0105	0.3992	0.0843	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.5080	157.5080	5.1800e-003	0.0250	165.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.0996**	**0.4642**	**0.8240**	**3.5000e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0809**		**365.9796**	**365.9796**	**0.0121**	**0.0314**	**375.6374**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2218	0.0000	0.2218	0.0336	0.0000	0.0336			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554	0.0000	5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.2218**	**1.6764**	**1.8982**	**0.0336**	**1.5554**	**1.5890**	**0.0000**	**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0105	0.3992	0.0843	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.5080	157.5080	5.1800e-003	0.0250	165.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.0996**	**0.4642**	**0.8240**	**3.5000e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0809**		**365.9796**	**365.9796**	**0.0121**	**0.0314**	**375.6374**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1978	0.0000	6.1978	2.9967	0.0000	2.9967			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467		2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**6.1978**	**0.8090**	**7.0067**	**2.9967**	**0.7467**	**3.7434**		**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0578**	**0.1528**	**0.4770**	**1.6500e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**170.4985**	**170.4985**	**5.1400e-003**	**0.0106**	**173.7870**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7890	0.0000	2.7890	1.3485	0.0000	1.3485			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467	0.0000	2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**2.7890**	**0.8090**	**3.5980**	**1.3485**	**0.7467**	**2.0952**	**0.0000**	**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0578**	**0.1528**	**0.4770**	**1.6500e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**170.4985**	**170.4985**	**5.1400e-003**	**0.0106**	**173.7870**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4978	0.0000	7.4978	3.4703	0.0000	3.4703			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263		4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**7.4978**	**1.4276**	**8.9253**	**3.4703**	**1.3263**	**4.7966**		**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0877	3.3366	0.7042	0.0121	0.3331	0.0294	0.3626	0.0913	0.0282	0.1195		1,316.3935	1,316.3935	0.0433	0.2085	1,379.6106
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.1811**	**3.5153**	**1.4771**	**0.0146**	**0.5931**	**0.0319**	**0.6250**	**0.1606**	**0.0305**	**0.1910**		**1,570.2807**	**1,570.2807**	**0.0512**	**0.2217**	**1,637.6237**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3740	0.0000	3.3740	1.5616	0.0000	1.5616			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263	0.0000	4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**3.3740**	**1.4276**	**4.8015**	**1.5616**	**1.3263**	**2.8880**	**0.0000**	**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0877	3.3366	0.7042	0.0121	0.3331	0.0294	0.3626	0.0913	0.0282	0.1195		1,316.3935	1,316.3935	0.0433	0.2085	1,379.6106
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.1811**	**3.5153**	**1.4771**	**0.0146**	**0.5931**	**0.0319**	**0.6250**	**0.1606**	**0.0305**	**0.1910**		**1,570.2807**	**1,570.2807**	**0.0512**	**0.2217**	**1,637.6237**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307		2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**		**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.0810	0.3151	4.0200e-003	0.1287	0.0110	0.1396	0.0370	0.0105	0.0475		431.4478	431.4478	9.3500e-003	0.0640	450.7536
Worker	0.1456	0.1061	1.2082	3.3500e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		340.5036	340.5036	0.0113	0.0105	343.9234
Total	**0.1862**	**1.1870**	**1.5233**	**7.3700e-003**	**0.5312**	**0.0131**	**0.5443**	**0.1438**	**0.0124**	**0.1562**		**771.9514**	**771.9514**	**0.0207**	**0.0745**	**794.6770**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307	0.0000	2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**	**0.0000**	**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.0810	0.3151	4.0200e-003	0.1287	0.0110	0.1396	0.0370	0.0105	0.0475		431.4478	431.4478	9.3500e-003	0.0640	450.7536
Worker	0.1456	0.1061	1.2082	3.3500e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		340.5036	340.5036	0.0113	0.0105	343.9234
Total	**0.1862**	**1.1870**	**1.5233**	**7.3700e-003**	**0.5312**	**0.0131**	**0.5443**	**0.1438**	**0.0124**	**0.1562**		**771.9514**	**771.9514**	**0.0207**	**0.0745**	**794.6770**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386		2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**		**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.8623	0.2691	3.8600e-003	0.1287	4.9500e-003	0.1336	0.0371	4.7400e-003	0.0418		413.7669	413.7669	8.4000e-003	0.0612	432.2253
Worker	0.1359	0.0939	1.1219	3.2400e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		331.8197	331.8197	0.0102	9.7500e-003	334.9819
Total	**0.1559**	**0.9563**	**1.3910**	**7.1000e-003**	**0.5312**	**6.9500e-003**	**0.5382**	**0.1438**	**6.5800e-003**	**0.1504**		**745.5866**	**745.5866**	**0.0186**	**0.0710**	**767.2072**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386	0.0000	2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**	**0.0000**	**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.8623	0.2691	3.8600e-003	0.1287	4.9500e-003	0.1336	0.0371	4.7400e-003	0.0418		413.7669	413.7669	8.4000e-003	0.0612	432.2253
Worker	0.1359	0.0939	1.1219	3.2400e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		331.8197	331.8197	0.0102	9.7500e-003	334.9819
Total	**0.1559**	**0.9563**	**1.3910**	**7.1000e-003**	**0.5312**	**6.9500e-003**	**0.5382**	**0.1438**	**6.5800e-003**	**0.1504**		**745.5866**	**745.5866**	**0.0186**	**0.0710**	**767.2072**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693		3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**		**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0916	0.0633	0.7556	2.1800e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		223.4704	223.4704	6.8900e-003	6.5700e-003	225.6001
Total	**0.0916**	**0.0633**	**0.7556**	**2.1800e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**223.4704**	**223.4704**	**6.8900e-003**	**6.5700e-003**	**225.6001**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693	0.0000	3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**	**0.0000**	**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0916	0.0633	0.7556	2.1800e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		223.4704	223.4704	6.8900e-003	6.5700e-003	225.6001
Total	**0.0916**	**0.0633**	**0.7556**	**2.1800e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**223.4704**	**223.4704**	**6.8900e-003**	**6.5700e-003**	**225.6001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836		320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**		**320.5381**	**320.5381**	**0.0206**		**321.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0277	0.0192	0.2290	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		67.7183	67.7183	2.0900e-003	1.9900e-003	68.3637
Total	**0.0277**	**0.0192**	**0.2290**	**6.6000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**67.7183**	**67.7183**	**2.0900e-003**	**1.9900e-003**	**68.3637**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836	0.0000	320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**	**0.0000**	**320.5381**	**320.5381**	**0.0206**		**321.0536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0277	0.0192	0.2290	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		67.7183	67.7183	2.0900e-003	1.9900e-003	68.3637
Total	**0.0277**	**0.0192**	**0.2290**	**6.6000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**67.7183**	**67.7183**	**2.0900e-003**	**1.9900e-003**	**68.3637**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Unmitigated	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
NaturalGas Unmitigated	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	346.172	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Total		**3.7300e-003**	**0.0339**	**0.0285**	**2.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.5800e-003**	**2.5800e-003**		**40.7261**	**40.7261**	**7.8000e-004**	**7.5000e-004**	**40.9681**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.316823	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Total		**3.4200e-003**	**0.0311**	**0.0261**	**1.9000e-004**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**		**37.2733**	**37.2733**	**7.1000e-004**	**6.8000e-004**	**37.4948**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Unmitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	22.00
tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00
tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1846	54.7875	37.0723	0.0967	8.6221	2.2599	10.8820	3.7747	2.0998	5.8745	0.0000	9,496.0952	9,496.0952	2.1578	0.2938	9,637.5893
2023	45.8939	17.7051	20.8014	0.0391	0.5312	0.8065	1.2263	0.1438	0.7545	0.8482	0.0000	3,705.2753	3,705.2753	0.9666	0.0696	3,731.6547
Maximum	**45.8939**	**54.7875**	**37.0723**	**0.0967**	**8.6221**	**2.2599**	**10.8820**	**3.7747**	**2.0998**	**5.8745**	**0.0000**	**9,496.0952**	**9,496.0952**	**2.1578**	**0.2938**	**9,637.5893**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1846	54.7875	37.0723	0.0967	4.4983	2.2599	6.7582	1.8660	2.0998	3.9658	0.0000	9,496.0952	9,496.0952	2.1578	0.2938	9,637.5893
2023	45.8939	17.7051	20.8014	0.0391	0.5312	0.8065	1.2263	0.1438	0.7545	0.8482	0.0000	3,705.2753	3,705.2753	0.9666	0.0696	3,731.6547
Maximum	**45.8939**	**54.7875**	**37.0723**	**0.0967**	**4.4983**	**2.2599**	**6.7582**	**1.8660**	**2.0998**	**3.9658**	**0.0000**	**9,496.0952**	**9,496.0952**	**2.1578**	**0.2938**	**9,637.5893**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	45.05	0.00	34.06	48.71	0.00	28.39	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Mobile	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Total	**2.7761**	**0.5824**	**4.9481**	**0.0111**	**1.1252**	**0.0102**	**1.1354**	**0.2997**	**9.7200e-003**	**0.3094**		**1,161.7037**	**1,161.7037**	**0.0632**	**0.0479**	**1,177.5550**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Mobile	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Total	**2.7758**	**0.5796**	**4.9456**	**0.0111**	**1.1252**	**0.0100**	**1.1352**	**0.2997**	**9.5000e-003**	**0.3092**		**1,158.2508**	**1,158.2508**	**0.0631**	**0.0478**	**1,174.0816**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.01	0.49	0.05	0.09	0.00	2.15	0.02	0.00	2.26	0.07	0.00	0.30	0.30	0.11	0.15	0.29

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	
4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4929	0.0000	0.4929	0.0746	0.0000	0.0746			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554		5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.4929**	**1.6764**	**2.1693**	**0.0746**	**1.5554**	**1.6300**		**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3784	0.0829	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.4568	157.4568	5.1900e-003	0.0249	165.0183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.0980**	**0.4310**	**0.8585**	**3.6600e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0808**		**381.8757**	**381.8757**	**0.0113**	**0.0305**	**391.2578**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2218	0.0000	0.2218	0.0336	0.0000	0.0336			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554	0.0000	5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.2218**	**1.6764**	**1.8982**	**0.0336**	**1.5554**	**1.5890**	**0.0000**	**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3784	0.0829	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.4568	157.4568	5.1900e-003	0.0249	165.0183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.0980**	**0.4310**	**0.8585**	**3.6600e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0808**		**381.8757**	**381.8757**	**0.0113**	**0.0305**	**391.2578**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1978	0.0000	6.1978	2.9967	0.0000	2.9967			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467		2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**6.1978**	**0.8090**	**7.0067**	**2.9967**	**0.7467**	**3.7434**		**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0567**	**0.1395**	**0.4974**	**1.7400e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**180.0485**	**180.0485**	**4.6600e-003**	**0.0101**	**183.1701**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7890	0.0000	2.7890	1.3485	0.0000	1.3485			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467	0.0000	2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**2.7890**	**0.8090**	**3.5980**	**1.3485**	**0.7467**	**2.0952**	**0.0000**	**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0567**	**0.1395**	**0.4974**	**1.7400e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**180.0485**	**180.0485**	**4.6600e-003**	**0.0101**	**183.1701**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4978	0.0000	7.4978	3.4703	0.0000	3.4703			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263		4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**7.4978**	**1.4276**	**8.9253**	**3.4703**	**1.3263**	**4.7966**		**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0897	3.1622	0.6931	0.0121	0.3331	0.0294	0.3625	0.0913	0.0281	0.1194		1,315.9657	1,315.9657	0.0434	0.2084	1,379.1619
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.1813**	**3.3227**	**1.5007**	**0.0147**	**0.5931**	**0.0318**	**0.6249**	**0.1606**	**0.0304**	**0.1910**		**1,585.7818**	**1,585.7818**	**0.0505**	**0.2208**	**1,652.8278**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3740	0.0000	3.3740	1.5616	0.0000	1.5616			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263	0.0000	4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**3.3740**	**1.4276**	**4.8015**	**1.5616**	**1.3263**	**2.8880**	**0.0000**	**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0897	3.1622	0.6931	0.0121	0.3331	0.0294	0.3625	0.0913	0.0281	0.1194		1,315.9657	1,315.9657	0.0434	0.2084	1,379.1619
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.1813**	**3.3227**	**1.5007**	**0.0147**	**0.5931**	**0.0318**	**0.6249**	**0.1606**	**0.0304**	**0.1910**		**1,585.7818**	**1,585.7818**	**0.0505**	**0.2208**	**1,652.8278**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307		2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**		**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0410	1.0250	0.3044	4.0200e-003	0.1287	0.0109	0.1396	0.0370	0.0104	0.0475		431.2731	431.2731	9.3900e-003	0.0639	450.5511
Worker	0.1425	0.0860	1.2667	3.6000e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		366.5509	366.5509	9.9900e-003	9.1400e-003	369.5244
Total	**0.1835**	**1.1109**	**1.5712**	**7.6200e-003**	**0.5312**	**0.0130**	**0.5442**	**0.1438**	**0.0124**	**0.1562**		**797.8240**	**797.8240**	**0.0194**	**0.0730**	**820.0755**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307	0.0000	2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**	**0.0000**	**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0410	1.0250	0.3044	4.0200e-003	0.1287	0.0109	0.1396	0.0370	0.0104	0.0475		431.2731	431.2731	9.3900e-003	0.0639	450.5511
Worker	0.1425	0.0860	1.2667	3.6000e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		366.5509	366.5509	9.9900e-003	9.1400e-003	369.5244
Total	**0.1835**	**1.1109**	**1.5712**	**7.6200e-003**	**0.5312**	**0.0130**	**0.5442**	**0.1438**	**0.0124**	**0.1562**		**797.8240**	**797.8240**	**0.0194**	**0.0730**	**820.0755**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386		2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**		**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.8149	0.2603	3.8500e-003	0.1287	4.9300e-003	0.1336	0.0371	4.7200e-003	0.0418		413.1759	413.1759	8.4600e-003	0.0611	431.5893
Worker	0.1325	0.0761	1.1714	3.4900e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		357.1340	357.1340	9.0100e-003	8.4700e-003	359.8840
Total	**0.1532**	**0.8911**	**1.4316**	**7.3400e-003**	**0.5312**	**6.9300e-003**	**0.5381**	**0.1438**	**6.5600e-003**	**0.1504**		**770.3100**	**770.3100**	**0.0175**	**0.0696**	**791.4733**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386	0.0000	2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**	**0.0000**	**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.8149	0.2603	3.8500e-003	0.1287	4.9300e-003	0.1336	0.0371	4.7200e-003	0.0418		413.1759	413.1759	8.4600e-003	0.0611	431.5893
Worker	0.1325	0.0761	1.1714	3.4900e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		357.1340	357.1340	9.0100e-003	8.4700e-003	359.8840
Total	**0.1532**	**0.8911**	**1.4316**	**7.3400e-003**	**0.5312**	**6.9300e-003**	**0.5381**	**0.1438**	**6.5600e-003**	**0.1504**		**770.3100**	**770.3100**	**0.0175**	**0.0696**	**791.4733**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693		3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**		**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0893	0.0513	0.7889	2.3500e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		240.5188	240.5188	6.0700e-003	5.7100e-003	242.3709
Total	**0.0893**	**0.0513**	**0.7889**	**2.3500e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**240.5188**	**240.5188**	**6.0700e-003**	**5.7100e-003**	**242.3709**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693	0.0000	3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**	**0.0000**	**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0893	0.0513	0.7889	2.3500e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		240.5188	240.5188	6.0700e-003	5.7100e-003	242.3709
Total	**0.0893**	**0.0513**	**0.7889**	**2.3500e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**240.5188**	**240.5188**	**6.0700e-003**	**5.7100e-003**	**242.3709**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836		320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**		**320.5381**	**320.5381**	**0.0206**		**321.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0271	0.0155	0.2391	7.1000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		72.8845	72.8845	1.8400e-003	1.7300e-003	73.4457
Total	**0.0271**	**0.0155**	**0.2391**	**7.1000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**72.8845**	**72.8845**	**1.8400e-003**	**1.7300e-003**	**73.4457**

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836	0.0000	320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**	**0.0000**	**320.5381**	**320.5381**	**0.0206**		**321.0536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0271	0.0155	0.2391	7.1000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		72.8845	72.8845	1.8400e-003	1.7300e-003	73.4457
Total	**0.0271**	**0.0155**	**0.2391**	**7.1000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**72.8845**	**72.8845**	**1.8400e-003**	**1.7300e-003**	**73.4457**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Unmitigated	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
NaturalGas Unmitigated	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	346.172	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Total		**3.7300e-003**	**0.0339**	**0.0285**	**2.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.5800e-003**	**2.5800e-003**		**40.7261**	**40.7261**	**7.8000e-004**	**7.5000e-004**	**40.9681**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.316823	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Total		**3.4200e-003**	**0.0311**	**0.0261**	**1.9000e-004**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**		**37.2733**	**37.2733**	**7.1000e-004**	**6.8000e-004**	**37.4948**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

San Pablo Dam Road Self Storage - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Unmitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage Mitigated AQ

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	22.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00
tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1871	55.0562	37.0009	0.0963	8.6221	2.2600	10.8821	3.7747	2.0999	5.8746	0.0000	9,454.7216	9,454.7216	2.1597	0.2962	9,596.9868
2023	45.8969	17.7207	20.7580	0.0389	0.5312	0.8065	1.2264	0.1438	0.7545	0.8482	0.0000	3,683.0607	3,683.0607	0.9676	0.0710	3,709.8018
Maximum	**45.8969**	**55.0562**	**37.0009**	**0.0963**	**8.6221**	**2.2600**	**10.8821**	**3.7747**	**2.0999**	**5.8746**	**0.0000**	**9,454.7216**	**9,454.7216**	**2.1597**	**0.2962**	**9,596.9868**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1670	41.2289	46.6672	0.0963	4.4983	1.9065	6.4048	1.8660	1.9044	3.7704	0.0000	9,454.7216	9,454.7216	2.1597	0.2962	9,596.9868
2023	44.7607	16.0004	23.1084	0.0389	0.5312	0.8648	1.2181	0.1438	0.8647	0.9584	0.0000	3,683.0607	3,683.0607	0.9676	0.0710	3,709.8018
Maximum	**44.7607**	**41.2289**	**46.6672**	**0.0963**	**4.4983**	**1.9065**	**6.4048**	**1.8660**	**1.9044**	**3.7704**	**0.0000**	**9,454.7216**	**9,454.7216**	**2.1597**	**0.2962**	**9,596.9868**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	8.14	21.36	-20.81	0.00	45.05	9.63	37.05	48.71	2.99	29.66	0.00	0.00	0.00	0.00	0.00	0.00

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Mobile	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Total	**2.7307**	**0.6659**	**5.1966**	**0.0105**	**1.1252**	**0.0103**	**1.1354**	**0.2997**	**9.7300e-003**	**0.3094**		**1,098.3649**	**1,098.3649**	**0.0707**	**0.0524**	**1,115.7524**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Mobile	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Total	**2.7304**	**0.6631**	**5.1942**	**0.0105**	**1.1252**	**0.0100**	**1.1352**	**0.2997**	**9.5100e-003**	**0.3092**		**1,094.9120**	**1,094.9120**	**0.0707**	**0.0524**	**1,112.2790**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.01	0.43	0.05	0.10	0.00	2.15	0.02	0.00	2.26	0.07	0.00	0.31	0.31	0.10	0.13	0.31

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	
4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4929	0.0000	0.4929	0.0746	0.0000	0.0746			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554		5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.4929**	**1.6764**	**2.1693**	**0.0746**	**1.5554**	**1.6300**		**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0105	0.3992	0.0843	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.5080	157.5080	5.1800e-003	0.0250	165.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.0996**	**0.4642**	**0.8240**	**3.5000e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0809**		**365.9796**	**365.9796**	**0.0121**	**0.0314**	**375.6374**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2218	0.0000	0.2218	0.0336	0.0000	0.0336			0.0000			0.0000
Off-Road	1.3305	27.7569	34.1533	0.0559		1.4792	1.4792		1.4792	1.4792	0.0000	5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**1.3305**	**27.7569**	**34.1533**	**0.0559**	**0.2218**	**1.4792**	**1.7010**	**0.0336**	**1.4792**	**1.5128**	**0.0000**	**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0105	0.3992	0.0843	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.5080	157.5080	5.1800e-003	0.0250	165.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.0996**	**0.4642**	**0.8240**	**3.5000e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0809**		**365.9796**	**365.9796**	**0.0121**	**0.0314**	**375.6374**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1978	0.0000	6.1978	2.9967	0.0000	2.9967			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467		2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**6.1978**	**0.8090**	**7.0067**	**2.9967**	**0.7467**	**3.7434**		**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0578**	**0.1528**	**0.4770**	**1.6500e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**170.4985**	**170.4985**	**5.1400e-003**	**0.0106**	**173.7870**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7890	0.0000	2.7890	1.3485	0.0000	1.3485			0.0000			0.0000
Off-Road	0.5546	11.4322	13.8755	0.0239		0.5825	0.5825		0.5825	0.5825	0.0000	2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**0.5546**	**11.4322**	**13.8755**	**0.0239**	**2.7890**	**0.5825**	**3.3715**	**1.3485**	**0.5825**	**1.9310**	**0.0000**	**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0578**	**0.1528**	**0.4770**	**1.6500e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**170.4985**	**170.4985**	**5.1400e-003**	**0.0106**	**173.7870**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4978	0.0000	7.4978	3.4703	0.0000	3.4703			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263		4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**7.4978**	**1.4276**	**8.9253**	**3.4703**	**1.3263**	**4.7966**		**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0877	3.3366	0.7042	0.0121	0.3331	0.0294	0.3626	0.0913	0.0282	0.1195		1,316.3935	1,316.3935	0.0433	0.2085	1,379.6106
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.1811**	**3.5153**	**1.4771**	**0.0146**	**0.5931**	**0.0319**	**0.6250**	**0.1606**	**0.0305**	**0.1910**		**1,570.2807**	**1,570.2807**	**0.0512**	**0.2217**	**1,637.6237**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3740	0.0000	3.3740	1.5616	0.0000	1.5616			0.0000			0.0000
Off-Road	1.1277	23.2935	28.3402	0.0482		1.1964	1.1964		1.1964	1.1964	0.0000	4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**1.1277**	**23.2935**	**28.3402**	**0.0482**	**3.3740**	**1.1964**	**4.5704**	**1.5616**	**1.1964**	**2.7580**	**0.0000**	**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0877	3.3366	0.7042	0.0121	0.3331	0.0294	0.3626	0.0913	0.0282	0.1195		1,316.3935	1,316.3935	0.0433	0.2085	1,379.6106
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0892	0.0650	0.7397	2.0500e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		208.4716	208.4716	6.9300e-003	6.4400e-003	210.5654
Total	**0.1811**	**3.5153**	**1.4771**	**0.0146**	**0.5931**	**0.0319**	**0.6250**	**0.1606**	**0.0305**	**0.1910**		**1,570.2807**	**1,570.2807**	**0.0512**	**0.2217**	**1,637.6237**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307		2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**		**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.0810	0.3151	4.0200e-003	0.1287	0.0110	0.1396	0.0370	0.0105	0.0475		431.4478	431.4478	9.3500e-003	0.0640	450.7536
Worker	0.1456	0.1061	1.2082	3.3500e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		340.5036	340.5036	0.0113	0.0105	343.9234
Total	**0.1862**	**1.1870**	**1.5233**	**7.3700e-003**	**0.5312**	**0.0131**	**0.5443**	**0.1438**	**0.0124**	**0.1562**		**771.9514**	**771.9514**	**0.0207**	**0.0745**	**794.6770**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6721	13.2331	15.3266	0.0262		0.6652	0.6652		0.6652	0.6652	0.0000	2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**0.6721**	**13.2331**	**15.3266**	**0.0262**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**0.0000**	**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.0810	0.3151	4.0200e-003	0.1287	0.0110	0.1396	0.0370	0.0105	0.0475		431.4478	431.4478	9.3500e-003	0.0640	450.7536
Worker	0.1456	0.1061	1.2082	3.3500e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		340.5036	340.5036	0.0113	0.0105	343.9234
Total	**0.1862**	**1.1870**	**1.5233**	**7.3700e-003**	**0.5312**	**0.0131**	**0.5443**	**0.1438**	**0.0124**	**0.1562**		**771.9514**	**771.9514**	**0.0207**	**0.0745**	**794.6770**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386		2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**		**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.8623	0.2691	3.8600e-003	0.1287	4.9500e-003	0.1336	0.0371	4.7400e-003	0.0418		413.7669	413.7669	8.4000e-003	0.0612	432.2253
Worker	0.1359	0.0939	1.1219	3.2400e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		331.8197	331.8197	0.0102	9.7500e-003	334.9819
Total	**0.1559**	**0.9563**	**1.3910**	**7.1000e-003**	**0.5312**	**6.9500e-003**	**0.5382**	**0.1438**	**6.5800e-003**	**0.1504**		**745.5866**	**745.5866**	**0.0186**	**0.0710**	**767.2072**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6721	13.2331	15.3266	0.0261		0.6652	0.6652		0.6652	0.6652	0.0000	2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**0.6721**	**13.2331**	**15.3266**	**0.0261**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**0.0000**	**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.8623	0.2691	3.8600e-003	0.1287	4.9500e-003	0.1336	0.0371	4.7400e-003	0.0418		413.7669	413.7669	8.4000e-003	0.0612	432.2253
Worker	0.1359	0.0939	1.1219	3.2400e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		331.8197	331.8197	0.0102	9.7500e-003	334.9819
Total	**0.1559**	**0.9563**	**1.3910**	**7.1000e-003**	**0.5312**	**6.9500e-003**	**0.5382**	**0.1438**	**6.5800e-003**	**0.1504**		**745.5866**	**745.5866**	**0.0186**	**0.0710**	**767.2072**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693		3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**		**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0916	0.0633	0.7556	2.1800e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		223.4704	223.4704	6.8900e-003	6.5700e-003	225.6001
Total	**0.0916**	**0.0633**	**0.7556**	**2.1800e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**223.4704**	**223.4704**	**6.8900e-003**	**6.5700e-003**	**225.6001**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7155	14.5610	20.2915	0.0326		0.7680	0.7680		0.7680	0.7680	0.0000	3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7155**	**14.5610**	**20.2915**	**0.0326**		**0.7680**	**0.7680**		**0.7680**	**0.7680**	**0.0000**	**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0916	0.0633	0.7556	2.1800e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		223.4704	223.4704	6.8900e-003	6.5700e-003	225.6001
Total	**0.0916**	**0.0633**	**0.7556**	**2.1800e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**223.4704**	**223.4704**	**6.8900e-003**	**6.5700e-003**	**225.6001**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836		320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**		**320.5381**	**320.5381**	**0.0206**		**321.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0277	0.0192	0.2290	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		67.7183	67.7183	2.0900e-003	1.9900e-003	68.3637
Total	**0.0277**	**0.0192**	**0.2290**	**6.6000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**67.7183**	**67.7183**	**2.0900e-003**	**1.9900e-003**	**68.3637**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	3.5200e-003		0.0951	0.0951		0.0951	0.0951	0.0000	320.5381	320.5381	0.0206		321.0536
Total	**43.9259**	**1.3570**	**1.8324**	**3.5200e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**320.5381**	**320.5381**	**0.0206**		**321.0536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0277	0.0192	0.2290	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		67.7183	67.7183	2.0900e-003	1.9900e-003	68.3637
Total	**0.0277**	**0.0192**	**0.2290**	**6.6000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**67.7183**	**67.7183**	**2.0900e-003**	**1.9900e-003**	**68.3637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580
Unmitigated	0.4935	0.6319	5.1566	0.0103	1.1252	7.6300e-003	1.1328	0.2997	7.1100e-003	0.3068		1,057.6141	1,057.6141	0.0699	0.0517	1,074.7580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
NaturalGas Unmitigated	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	346.172	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Total		**3.7300e-003**	**0.0339**	**0.0285**	**2.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.5800e-003**	**2.5800e-003**		**40.7261**	**40.7261**	**7.8000e-004**	**7.5000e-004**	**40.9681**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.316823	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Total		**3.4200e-003**	**0.0311**	**0.0261**	**1.9000e-004**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**		**37.2733**	**37.2733**	**7.1000e-004**	**6.8000e-004**	**37.4948**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Unmitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage Mitigated AQ

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	22.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00
tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1846	54.7875	37.0723	0.0967	8.6221	2.2599	10.8820	3.7747	2.0998	5.8745	0.0000	9,496.0952	9,496.0952	2.1578	0.2938	9,637.5893
2023	45.8939	17.7051	20.8014	0.0391	0.5312	0.8065	1.2263	0.1438	0.7545	0.8482	0.0000	3,705.2753	3,705.2753	0.9666	0.0696	3,731.6547
Maximum	**45.8939**	**54.7875**	**37.0723**	**0.0967**	**8.6221**	**2.2599**	**10.8820**	**3.7747**	**2.0998**	**5.8745**	**0.0000**	**9,496.0952**	**9,496.0952**	**2.1578**	**0.2938**	**9,637.5893**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1645	40.9602	46.7386	0.0967	4.4983	1.9064	6.4047	1.8660	1.9043	3.7704	0.0000	9,496.0952	9,496.0952	2.1578	0.2938	9,637.5893
2023	44.7577	15.9848	23.1518	0.0391	0.5312	0.8648	1.2181	0.1438	0.8647	0.9584	0.0000	3,705.2753	3,705.2753	0.9666	0.0696	3,731.6547
Maximum	**44.7577**	**40.9602**	**46.7386**	**0.0967**	**4.4983**	**1.9064**	**6.4047**	**1.8660**	**1.9043**	**3.7704**	**0.0000**	**9,496.0952**	**9,496.0952**	**2.1578**	**0.2938**	**9,637.5893**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	8.14	21.45	-20.76	0.00	45.05	9.63	37.05	48.71	2.99	29.66	0.00	0.00	0.00	0.00	0.00	0.00

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Mobile	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Total	**2.7761**	**0.5824**	**4.9481**	**0.0111**	**1.1252**	**0.0102**	**1.1354**	**0.2997**	**9.7200e-003**	**0.3094**		**1,161.7037**	**1,161.7037**	**0.0632**	**0.0479**	**1,177.5550**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Energy	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Mobile	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Total	**2.7758**	**0.5796**	**4.9456**	**0.0111**	**1.1252**	**0.0100**	**1.1352**	**0.2997**	**9.5000e-003**	**0.3092**		**1,158.2508**	**1,158.2508**	**0.0631**	**0.0478**	**1,174.0816**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.01	0.49	0.05	0.09	0.00	2.15	0.02	0.00	2.26	0.07	0.00	0.30	0.30	0.11	0.15	0.29

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	
4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4929	0.0000	0.4929	0.0746	0.0000	0.0746			0.0000			0.0000
Off-Road	3.5013	36.9913	27.0772	0.0559		1.6764	1.6764		1.5554	1.5554		5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**3.5013**	**36.9913**	**27.0772**	**0.0559**	**0.4929**	**1.6764**	**2.1693**	**0.0746**	**1.5554**	**1.6300**		**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3784	0.0829	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.4568	157.4568	5.1900e-003	0.0249	165.0183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.0980**	**0.4310**	**0.8585**	**3.6600e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0808**		**381.8757**	**381.8757**	**0.0113**	**0.0305**	**391.2578**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2218	0.0000	0.2218	0.0336	0.0000	0.0336			0.0000			0.0000
Off-Road	1.3305	27.7569	34.1533	0.0559		1.4792	1.4792		1.4792	1.4792	0.0000	5,389.9527	5,389.9527	1.5751		5,429.3297
Total	**1.3305**	**27.7569**	**34.1533**	**0.0559**	**0.2218**	**1.4792**	**1.7010**	**0.0336**	**1.4792**	**1.5128**	**0.0000**	**5,389.9527**	**5,389.9527**	**1.5751**		**5,429.3297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3784	0.0829	1.4500e-003	0.0399	3.5200e-003	0.0434	0.0109	3.3700e-003	0.0143		157.4568	157.4568	5.1900e-003	0.0249	165.0183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.0980**	**0.4310**	**0.8585**	**3.6600e-003**	**0.2863**	**4.8100e-003**	**0.2911**	**0.0763**	**4.5600e-003**	**0.0808**		**381.8757**	**381.8757**	**0.0113**	**0.0305**	**391.2578**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1978	0.0000	6.1978	2.9967	0.0000	2.9967			0.0000			0.0000
Off-Road	1.6784	17.9977	11.5157	0.0239		0.8090	0.8090		0.7467	0.7467		2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**1.6784**	**17.9977**	**11.5157**	**0.0239**	**6.1978**	**0.8090**	**7.0067**	**2.9967**	**0.7467**	**3.7434**		**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0567**	**0.1395**	**0.4974**	**1.7400e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**180.0485**	**180.0485**	**4.6600e-003**	**0.0101**	**183.1701**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7890	0.0000	2.7890	1.3485	0.0000	1.3485			0.0000			0.0000
Off-Road	0.5546	11.4322	13.8755	0.0239		0.5825	0.5825		0.5825	0.5825	0.0000	2,290.7087	2,290.7087	0.7189		2,308.6813
Total	**0.5546**	**11.4322**	**13.8755**	**0.0239**	**2.7890**	**0.5825**	**3.3715**	**1.3485**	**0.5825**	**1.9310**	**0.0000**	**2,290.7087**	**2,290.7087**	**0.7189**		**2,308.6813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0567**	**0.1395**	**0.4974**	**1.7400e-003**	**0.1614**	**1.9200e-003**	**0.1633**	**0.0431**	**1.8100e-003**	**0.0449**		**180.0485**	**180.0485**	**4.6600e-003**	**0.0101**	**183.1701**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4978	0.0000	7.4978	3.4703	0.0000	3.4703			0.0000			0.0000
Off-Road	3.0649	32.3432	22.0836	0.0482		1.4276	1.4276		1.3263	1.3263		4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**3.0649**	**32.3432**	**22.0836**	**0.0482**	**7.4978**	**1.4276**	**8.9253**	**3.4703**	**1.3263**	**4.7966**		**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0897	3.1622	0.6931	0.0121	0.3331	0.0294	0.3625	0.0913	0.0281	0.1194		1,315.9657	1,315.9657	0.0434	0.2084	1,379.1619
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.1813**	**3.3227**	**1.5007**	**0.0147**	**0.5931**	**0.0318**	**0.6249**	**0.1606**	**0.0304**	**0.1910**		**1,585.7818**	**1,585.7818**	**0.0505**	**0.2208**	**1,652.8278**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3740	0.0000	3.3740	1.5616	0.0000	1.5616			0.0000			0.0000
Off-Road	1.1277	23.2935	28.3402	0.0482		1.1964	1.1964		1.1964	1.1964	0.0000	4,634.3457	4,634.3457	1.3375		4,667.7820
Total	**1.1277**	**23.2935**	**28.3402**	**0.0482**	**3.3740**	**1.1964**	**4.5704**	**1.5616**	**1.1964**	**2.7580**	**0.0000**	**4,634.3457**	**4,634.3457**	**1.3375**		**4,667.7820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0897	3.1622	0.6931	0.0121	0.3331	0.0294	0.3625	0.0913	0.0281	0.1194		1,315.9657	1,315.9657	0.0434	0.2084	1,379.1619
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0873	0.0526	0.7755	2.2100e-003	0.2464	1.2900e-003	0.2477	0.0654	1.1900e-003	0.0666		224.4189	224.4189	6.1200e-003	5.6000e-003	226.2394
Total	**0.1813**	**3.3227**	**1.5007**	**0.0147**	**0.5931**	**0.0318**	**0.6249**	**0.1606**	**0.0304**	**0.1910**		**1,585.7818**	**1,585.7818**	**0.0505**	**0.2208**	**1,652.8278**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7549	18.0106	11.9169	0.0262		0.7875	0.7875		0.7307	0.7307		2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**1.7549**	**18.0106**	**11.9169**	**0.0262**		**0.7875**	**0.7875**		**0.7307**	**0.7307**		**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0410	1.0250	0.3044	4.0200e-003	0.1287	0.0109	0.1396	0.0370	0.0104	0.0475		431.2731	431.2731	9.3900e-003	0.0639	450.5511
Worker	0.1425	0.0860	1.2667	3.6000e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		366.5509	366.5509	9.9900e-003	9.1400e-003	369.5244
Total	**0.1835**	**1.1109**	**1.5712**	**7.6200e-003**	**0.5312**	**0.0130**	**0.5442**	**0.1438**	**0.0124**	**0.1562**		**797.8240**	**797.8240**	**0.0194**	**0.0730**	**820.0755**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6721	13.2331	15.3266	0.0262		0.6652	0.6652		0.6652	0.6652	0.0000	2,478.1437	2,478.1437	0.7504		2,496.9041
Total	**0.6721**	**13.2331**	**15.3266**	**0.0262**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**0.0000**	**2,478.1437**	**2,478.1437**	**0.7504**		**2,496.9041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0410	1.0250	0.3044	4.0200e-003	0.1287	0.0109	0.1396	0.0370	0.0104	0.0475		431.2731	431.2731	9.3900e-003	0.0639	450.5511
Worker	0.1425	0.0860	1.2667	3.6000e-003	0.4025	2.1000e-003	0.4046	0.1068	1.9400e-003	0.1087		366.5509	366.5509	9.9900e-003	9.1400e-003	369.5244
Total	**0.1835**	**1.1109**	**1.5712**	**7.6200e-003**	**0.5312**	**0.0130**	**0.5442**	**0.1438**	**0.0124**	**0.1562**		**797.8240**	**797.8240**	**0.0194**	**0.0730**	**820.0755**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6076	16.0110	11.7247	0.0261		0.6882	0.6882		0.6386	0.6386		2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**1.6076**	**16.0110**	**11.7247**	**0.0261**		**0.6882**	**0.6882**		**0.6386**	**0.6386**		**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.8149	0.2603	3.8500e-003	0.1287	4.9300e-003	0.1336	0.0371	4.7200e-003	0.0418		413.1759	413.1759	8.4600e-003	0.0611	431.5893
Worker	0.1325	0.0761	1.1714	3.4900e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		357.1340	357.1340	9.0100e-003	8.4700e-003	359.8840
Total	**0.1532**	**0.8911**	**1.4316**	**7.3400e-003**	**0.5312**	**6.9300e-003**	**0.5381**	**0.1438**	**6.5600e-003**	**0.1504**		**770.3100**	**770.3100**	**0.0175**	**0.0696**	**791.4733**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6721	13.2331	15.3266	0.0261		0.6652	0.6652		0.6652	0.6652	0.0000	2,477.5008	2,477.5008	0.7480		2,496.1994
Total	**0.6721**	**13.2331**	**15.3266**	**0.0261**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**0.0000**	**2,477.5008**	**2,477.5008**	**0.7480**		**2,496.1994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.8149	0.2603	3.8500e-003	0.1287	4.9300e-003	0.1336	0.0371	4.7200e-003	0.0418		413.1759	413.1759	8.4600e-003	0.0611	431.5893
Worker	0.1325	0.0761	1.1714	3.4900e-003	0.4025	2.0000e-003	0.4045	0.1068	1.8400e-003	0.1086		357.1340	357.1340	9.0100e-003	8.4700e-003	359.8840
Total	**0.1532**	**0.8911**	**1.4316**	**7.3400e-003**	**0.5312**	**6.9300e-003**	**0.5381**	**0.1438**	**6.5600e-003**	**0.1504**		**770.3100**	**770.3100**	**0.0175**	**0.0696**	**791.4733**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6770	16.0364	17.7211	0.0326		0.7212	0.7212		0.6693	0.6693		3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6770**	**16.0364**	**17.7211**	**0.0326**		**0.7212**	**0.7212**		**0.6693**	**0.6693**		**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0893	0.0513	0.7889	2.3500e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		240.5188	240.5188	6.0700e-003	5.7100e-003	242.3709
Total	**0.0893**	**0.0513**	**0.7889**	**2.3500e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**240.5188**	**240.5188**	**6.0700e-003**	**5.7100e-003**	**242.3709**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7155	14.5610	20.2915	0.0326		0.7680	0.7680		0.7680	0.7680	0.0000	3,071.3339	3,071.3339	0.9380		3,094.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7155**	**14.5610**	**20.2915**	**0.0326**		**0.7680**	**0.7680**		**0.7680**	**0.7680**	**0.0000**	**3,071.3339**	**3,071.3339**	**0.9380**		**3,094.7845**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0893	0.0513	0.7889	2.3500e-003	0.2711	1.3400e-003	0.2724	0.0719	1.2400e-003	0.0731		240.5188	240.5188	6.0700e-003	5.7100e-003	242.3709
Total	**0.0893**	**0.0513**	**0.7889**	**2.3500e-003**	**0.2711**	**1.3400e-003**	**0.2724**	**0.0719**	**1.2400e-003**	**0.0731**		**240.5188**	**240.5188**	**6.0700e-003**	**5.7100e-003**	**242.3709**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2342	1.6019	2.0524	3.5200e-003		0.0836	0.0836		0.0836	0.0836		320.5381	320.5381	0.0206		321.0536
Total	**44.1007**	**1.6019**	**2.0524**	**3.5200e-003**		**0.0836**	**0.0836**		**0.0836**	**0.0836**		**320.5381**	**320.5381**	**0.0206**		**321.0536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0271	0.0155	0.2391	7.1000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		72.8845	72.8845	1.8400e-003	1.7300e-003	73.4457
Total	**0.0271**	**0.0155**	**0.2391**	**7.1000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**72.8845**	**72.8845**	**1.8400e-003**	**1.7300e-003**	**73.4457**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.8665					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	3.5200e-003		0.0951	0.0951		0.0951	0.0951	0.0000	320.5381	320.5381	0.0206		321.0536
Total	**43.9259**	**1.3570**	**1.8324**	**3.5200e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**320.5381**	**320.5381**	**0.0206**		**321.0536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0271	0.0155	0.2391	7.1000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		72.8845	72.8845	1.8400e-003	1.7300e-003	73.4457
Total	**0.0271**	**0.0155**	**0.2391**	**7.1000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**72.8845**	**72.8845**	**1.8400e-003**	**1.7300e-003**	**73.4457**

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606
Unmitigated	0.5388	0.5484	4.9080	0.0109	1.1252	7.6200e-003	1.1328	0.2997	7.1000e-003	0.3068		1,120.9529	1,120.9529	0.0624	0.0471	1,136.5606

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
NaturalGas Unmitigated	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	346.172	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003		40.7261	40.7261	7.8000e-004	7.5000e-004	40.9681
Total		**3.7300e-003**	**0.0339**	**0.0285**	**2.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.5800e-003**	**2.5800e-003**		**40.7261**	**40.7261**	**7.8000e-004**	**7.5000e-004**	**40.9681**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.316823	3.4200e-003	0.0311	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		37.2733	37.2733	7.1000e-004	6.8000e-004	37.4948
Total		**3.4200e-003**	**0.0311**	**0.0261**	**1.9000e-004**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**		**37.2733**	**37.2733**	**7.1000e-004**	**6.8000e-004**	**37.4948**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Unmitigated	2.2335	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.0000e-004	0.0115	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0247	0.0247	6.0000e-005		0.0263
Total	**2.2335**	**1.0000e-004**	**0.0115**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0247**	**0.0247**	**6.0000e-005**		**0.0263**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

San Pablo Dam Road Self Storage Mitigated AQ - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Self Storage AQ Model

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	21.53	1000sqft	0.49	21,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in San Pablo, Contra Costa County

Land Use - Existing self-storage is 21,530 square feet

Construction Phase - Operation model only, no construction

Off-road Equipment - Construction equipment list

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Generation Rates from W-Trans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater - EBMUD is a wastewater treatment plant. No spectic tanks or faculative lagoons

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	2/15/2022	2/14/2022
tblVehicleTrips	ST_TR	1.74	1.53
tblVehicleTrips	SU_TR	1.74	1.53
tblVehicleTrips	WD_TR	1.74	1.53
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Energy	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	12.2335	12.2335	1.2400e-003	1.8000e-004	12.3169
Mobile	0.0161	0.0195	0.1591	3.4000e-004	0.0354	2.5000e-004	0.0357	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	31.5647	31.5647	1.9700e-003	1.4800e-003	32.0534
Waste						0.0000	0.0000		0.0000	0.0000	4.1085	0.0000	4.1085	0.2428	0.0000	10.1787
Water						0.0000	0.0000		0.0000	0.0000	1.7615	3.5435	5.3051	6.4700e-003	3.8800e-003	6.6228
Total	**0.1116**	**0.0210**	**0.1605**	**3.5000e-004**	**0.0354**	**3.6000e-004**	**0.0358**	**9.4700e-003**	**3.4000e-004**	**9.8100e-003**	**5.8701**	**47.3421**	**53.2121**	**0.2525**	**5.5400e-003**	**61.1723**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Energy	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	12.2335	12.2335	1.2400e-003	1.8000e-004	12.3169
Mobile	0.0161	0.0195	0.1591	3.4000e-004	0.0354	2.5000e-004	0.0357	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	31.5647	31.5647	1.9700e-003	1.4800e-003	32.0534
Waste						0.0000	0.0000		0.0000	0.0000	4.1085	0.0000	4.1085	0.2428	0.0000	10.1787
Water						0.0000	0.0000		0.0000	0.0000	1.7615	3.5435	5.3051	6.4700e-003	3.8800e-003	6.6228
Total	**0.1116**	**0.0210**	**0.1605**	**3.5000e-004**	**0.0354**	**3.6000e-004**	**0.0358**	**9.4700e-003**	**3.4000e-004**	**9.8100e-003**	**5.8701**	**47.3421**	**53.2121**	**0.2525**	**5.5400e-003**	**61.1723**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/15/2022	2/14/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0161	0.0195	0.1591	3.4000e-004	0.0354	2.5000e-004	0.0357	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	31.5647	31.5647	1.9700e-003	1.4800e-003	32.0534
Unmitigated	0.0161	0.0195	0.1591	3.4000e-004	0.0354	2.5000e-004	0.0357	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	31.5647	31.5647	1.9700e-003	1.4800e-003	32.0534

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	32.94	32.94	32.94	96,171	96,171
Total	32.94	32.94	32.94	96,171	96,171

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.6479	10.6479	1.2100e-003	1.5000e-004	10.7220
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.6479	10.6479	1.2100e-003	1.5000e-004	10.7220
NaturalGas Mitigated	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
NaturalGas Unmitigated	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	29711.4	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
Total		**1.6000e-004**	**1.4600e-003**	**1.2200e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5855**	**1.5855**	**3.0000e-005**	**3.0000e-005**	**1.5949**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	29711.4	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
Total		**1.6000e-004**	**1.4600e-003**	**1.2200e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5855**	**1.5855**	**3.0000e-005**	**3.0000e-005**	**1.5949**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	80952.8	10.6479	1.2100e-003	1.5000e-004	10.7220
Total		**10.6479**	**1.2100e-003**	**1.5000e-004**	**10.7220**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	80952.8	10.6479	1.2100e-003	1.5000e-004	10.7220
Total		**10.6479**	**1.2100e-003**	**1.5000e-004**	**10.7220**

6.0 Area Detail

6.1 Mitigation Measures Area

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Unmitigated	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0953**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0953**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.3051	6.4700e-003	3.8800e-003	6.6228
Unmitigated	5.3051	6.4700e-003	3.8800e-003	6.6228

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	4.97881 / 0	5.3051	6.4700e-003	3.8800e-003	6.6228
Total		**5.3051**	**6.4700e-003**	**3.8800e-003**	**6.6228**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	4.97881 / 0	5.3051	6.4700e-003	3.8800e-003	6.6228
Total		**5.3051**	**6.4700e-003**	**3.8800e-003**	**6.6228**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.1085	0.2428	0.0000	10.1787
Unmitigated	4.1085	0.2428	0.0000	10.1787

Existing Self Storage AQ Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	20.24	4.1085	0.2428	0.0000	10.1787
Total		**4.1085**	**0.2428**	**0.0000**	**10.1787**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	20.24	4.1085	0.2428	0.0000	10.1787
Total		**4.1085**	**0.2428**	**0.0000**	**10.1787**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Self Storage AQ Model

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	21.53	1000sqft	0.49	21,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in San Pablo, Contra Costa County

Land Use - Existing self-storage is 21,530 square feet

Construction Phase - Operation model only, no construction

Off-road Equipment - Construction equipment list

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Generation Rates from W-Trans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater - EBMUD is a wastewater treatment plant. No spectic tanks or faculative lagoons

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	2/15/2022	2/14/2022
tblVehicleTrips	ST_TR	1.74	1.53
tblVehicleTrips	SU_TR	1.74	1.53
tblVehicleTrips	WD_TR	1.74	1.53
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.2575	0.0000	0.0000	0.2369	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2575**	**0.0000**	**0.0000**	**0.2369**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.2575	0.0000	0.0000	0.2369	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2575**	**0.0000**	**0.0000**	**0.2369**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Energy	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Mobile	0.0969	0.0987	0.8829	1.9600e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		201.6448	201.6448	0.0112	8.4800e-003	204.4524
Total	**0.6203**	**0.1067**	**0.8918**	**2.0100e-003**	**0.2024**	**1.9900e-003**	**0.2044**	**0.0539**	**1.9000e-003**	**0.0558**		**211.2261**	**211.2261**	**0.0114**	**8.6600e-003**	**214.0910**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Energy	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Mobile	0.0969	0.0987	0.8829	1.9600e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		201.6448	201.6448	0.0112	8.4800e-003	204.4524
Total	**0.6203**	**0.1067**	**0.8918**	**2.0100e-003**	**0.2024**	**1.9900e-003**	**0.2044**	**0.0539**	**1.9000e-003**	**0.0558**		**211.2261**	**211.2261**	**0.0114**	**8.6600e-003**	**214.0910**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/15/2022	2/14/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0969	0.0987	0.8829	1.9600e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		201.6448	201.6448	0.0112	8.4800e-003	204.4524
Unmitigated	0.0969	0.0987	0.8829	1.9600e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		201.6448	201.6448	0.0112	8.4800e-003	204.4524

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	32.94	32.94	32.94	96,171	96,171
Total	32.94	32.94	32.94	96,171	96,171

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
NaturalGas Unmitigated	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	81.4011	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Total		**8.8000e-004**	**7.9800e-003**	**6.7000e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**		**9.5766**	**9.5766**	**1.8000e-004**	**1.8000e-004**	**9.6335**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.0814011	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Total		**8.8000e-004**	**7.9800e-003**	**6.7000e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**		**9.5766**	**9.5766**	**1.8000e-004**	**1.8000e-004**	**9.6335**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Unmitigated	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Total	**0.5225**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7100e-003**	**4.7100e-003**	**1.0000e-005**		**5.0200e-003**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Total	**0.5225**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7100e-003**	**4.7100e-003**	**1.0000e-005**		**5.0200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

Existing Self Storage AQ Model - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Self Storage AQ Model

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	21.53	1000sqft	0.49	21,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in San Pablo, Contra Costa County

Land Use - Existing self-storage is 21,530 square feet

Construction Phase - Operation model only, no construction

Off-road Equipment - Construction equipment list

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Generation Rates from W-Trans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater - EBMUD is a wastewater treatment plant. No spectic tanks or faculative lagoons

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	2/15/2022	2/14/2022
tblVehicleTrips	ST_TR	1.74	1.53
tblVehicleTrips	SU_TR	1.74	1.53
tblVehicleTrips	WD_TR	1.74	1.53
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.2575	0.0000	0.0000	0.2369	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2575**	**0.0000**	**0.0000**	**0.2369**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.2575	0.0000	0.0000	0.2369	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2575**	**0.0000**	**0.0000**	**0.2369**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Energy	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Mobile	0.0888	0.1137	0.9276	1.8500e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		190.2510	190.2510	0.0126	9.2900e-003	193.3349
Total	**0.6121**	**0.1217**	**0.9365**	**1.9000e-003**	**0.2024**	**1.9900e-003**	**0.2044**	**0.0539**	**1.9000e-003**	**0.0558**		**199.8323**	**199.8323**	**0.0128**	**9.4700e-003**	**202.9735**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Energy	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Mobile	0.0888	0.1137	0.9276	1.8500e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		190.2510	190.2510	0.0126	9.2900e-003	193.3349
Total	**0.6121**	**0.1217**	**0.9365**	**1.9000e-003**	**0.2024**	**1.9900e-003**	**0.2044**	**0.0539**	**1.9000e-003**	**0.0558**		**199.8323**	**199.8323**	**0.0128**	**9.4700e-003**	**202.9735**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/15/2022	2/14/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0888	0.1137	0.9276	1.8500e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		190.2510	190.2510	0.0126	9.2900e-003	193.3349
Unmitigated	0.0888	0.1137	0.9276	1.8500e-003	0.2024	1.3700e-003	0.2038	0.0539	1.2800e-003	0.0552		190.2510	190.2510	0.0126	9.2900e-003	193.3349

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	32.94	32.94	32.94	96,171	96,171
Total	32.94	32.94	32.94	96,171	96,171

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
NaturalGas Unmitigated	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	81.4011	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Total		**8.8000e-004**	**7.9800e-003**	**6.7000e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**		**9.5766**	**9.5766**	**1.8000e-004**	**1.8000e-004**	**9.6335**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.0814011	8.8000e-004	7.9800e-003	6.7000e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.5766	9.5766	1.8000e-004	1.8000e-004	9.6335
Total		**8.8000e-004**	**7.9800e-003**	**6.7000e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**		**9.5766**	**9.5766**	**1.8000e-004**	**1.8000e-004**	**9.6335**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Unmitigated	0.5225	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Total	**0.5225**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7100e-003**	**4.7100e-003**	**1.0000e-005**		**5.0200e-003**

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7100e-003	4.7100e-003	1.0000e-005		5.0200e-003
Total	**0.5225**	**2.0000e-005**	**2.2000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7100e-003**	**4.7100e-003**	**1.0000e-005**		**5.0200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

Existing Self Storage AQ Model - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

San Pablo Dam Road Self Storage GHG

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	91.56	1000sqft	1.90	91,560.00	0
Other Non-Asphalt Surfaces	2.32	1000sqft	0.00	2,323.00	0
Parking Lot	19.00	Space	0.00	22,150.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2030
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 91,560 sf building area, 19 parking stalls with a paved area of 22,150 sf, and 2,323 sf of landscape area. Total project site is approx 1.9 acres

Construction Phase - Construction schedule provided for project

Off-road Equipment - Construction equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Off-road Equipment - Construction plan equipment list

Trips and VMT - Applicant submitted information includes water trucks for these phases

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolish approximatley 21,530 sf of building

Grading - Export 3,200 cy of soil material during grading

Architectural Coating - VOC limits from BAAQMD Regulation 8, Rule 3 updated July 1, 2009

Vehicle Trips - Trip generation rates based on project traffic study estimate of 183 daily trips.

Area Coating - Based on BAAQMD Regulation 8, Rule 3, updated July 1 2009

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Construction best management practices provided by the applicant

Mobile Land Use Mitigation -

Area Mitigation - Based on BAAQMD Regulation 8, Rule 3

Energy Mitigation - Title 24 exceedance from applicant submitted project information

Water Mitigation - 20% water use reduction/indoor based on CALGreen compliance

Fleet Mix -

Energy Use - No natural gas

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	15
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	200.00	187.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	2.00	11.00
tblEnergyUse	NT24NG	0.21	0.00
tblEnergyUse	T24NG	1.17	0.00
tblGrading	MaterialExported	0.00	3,200.00
tblLandUse	LandUseSquareFeet	2,320.00	2,323.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LandUseSquareFeet	7,600.00	22,150.00
tblLandUse	LotAcreage	2.10	1.90
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	1.74	2.00
tblVehicleTrips	SU_TR	1.74	2.00
tblVehicleTrips	WD_TR	1.74	2.00

2.0 Emissions Summary

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2801	2.8621	2.0177	4.8500e-003	0.1784	0.1220	0.3004	0.0694	0.1132	0.1827	0.0000	427.1443	427.1443	0.1055	8.2900e-003	432.2515
2023	0.5241	0.3812	0.3718	7.9000e-004	9.3700e-003	0.0165	0.0259	2.5200e-003	0.0154	0.0179	0.0000	68.9635	68.9635	0.0173	7.8000e-004	69.6290
Maximum	**0.5241**	**2.8621**	**2.0177**	**4.8500e-003**	**0.1784**	**0.1220**	**0.3004**	**0.0694**	**0.1132**	**0.1827**	**0.0000**	**427.1443**	**427.1443**	**0.1055**	**8.2900e-003**	**432.2515**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2801	2.8621	2.0177	4.8500e-003	0.1106	0.1220	0.2325	0.0395	0.1132	0.1527	0.0000	427.1438	427.1438	0.1055	8.2900e-003	432.2510
2023	0.5241	0.3812	0.3718	7.9000e-004	9.3700e-003	0.0165	0.0259	2.5200e-003	0.0154	0.0179	0.0000	68.9635	68.9635	0.0173	7.8000e-004	69.6289
Maximum	**0.5241**	**2.8621**	**2.0177**	**4.8500e-003**	**0.1106**	**0.1220**	**0.2325**	**0.0395**	**0.1132**	**0.1527**	**0.0000**	**427.1438**	**427.1438**	**0.1055**	**8.2900e-003**	**432.2510**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**36.14**	**0.00**	**20.80**	**41.68**	**0.00**	**14.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-1-2022**	**4-30-2022**	1.1800	1.1800
2	**5-1-2022**	**7-31-2022**	0.8015	0.8015
3	**8-1-2022**	**10-31-2022**	0.6928	0.6928
4	**11-1-2022**	**1-31-2023**	0.6679	0.6679
5	**2-1-2023**	**4-30-2023**	0.6816	0.6816
		Highest	1.1800	1.1800

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4075	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	46.3019	46.3019	5.2700e-003	6.4000e-004	46.6240
Mobile	0.0694	0.0792	0.7016	1.5500e-003	0.1971	1.0200e-003	0.1981	0.0527	9.5000e-004	0.0536	0.0000	151.5758	151.5758	8.5600e-003	6.6300e-003	153.7652
Waste						0.0000	0.0000		0.0000	0.0000	17.4714	0.0000	17.4714	1.0325	0.0000	43.2847
Water						0.0000	0.0000		0.0000	0.0000	6.7173	15.0695	21.7868	0.6917	0.0165	43.9945
Total	**0.4769**	**0.0792**	**0.7027**	**1.5500e-003**	**0.1971**	**1.0200e-003**	**0.1981**	**0.0527**	**9.5000e-004**	**0.0536**	**24.1887**	**212.9492**	**237.1379**	**1.7380**	**0.0238**	**287.6706**

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4075	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	46.0490	46.0490	5.2400e-003	6.4000e-004	46.3693
Mobile	0.0694	0.0792	0.7016	1.5500e-003	0.1971	1.0200e-003	0.1981	0.0527	9.5000e-004	0.0536	0.0000	151.5758	151.5758	8.5600e-003	6.6300e-003	153.7652
Waste						0.0000	0.0000		0.0000	0.0000	17.4714	0.0000	17.4714	1.0325	0.0000	43.2847
Water						0.0000	0.0000		0.0000	0.0000	5.3738	12.0556	17.4294	0.5533	0.0132	35.1956
Total	**0.4769**	**0.0792**	**0.7027**	**1.5500e-003**	**0.1971**	**1.0200e-003**	**0.1981**	**0.0527**	**9.5000e-004**	**0.0536**	**22.8453**	**209.6824**	**232.5277**	**1.5997**	**0.0205**	**278.6170**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.55**	**1.53**	**1.94**	**7.96**	**13.88**	**3.15**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2022	3/31/2022	5	43	
2	Site Preparation	Site Preparation	4/1/2022	4/15/2022	5	11	
3	Grading	Grading	4/16/2022	5/16/2022	5	21	

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4	Building Construction	Building Construction	5/16/2022	1/31/2023	5	187	
5	Paving	Paving	2/1/2023	3/2/2023	5	22	
6	Architectural Coating	Architectural Coating	2/1/2023	3/2/2023	5	22	

Acres of Grading (Site Preparation Phase): 9.63

Acres of Grading (Grading Phase): 28.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,340; Non-Residential Outdoor: 45,780; Striped Parking Area: 1,468 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	2	8.00	212	0.43
Demolition	Pressure Washers	1	8.00	13	0.30
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation	Crawler Tractors	1	7.00	212	0.43
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Pressure Washers	1	8.00	13	0.30
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	7.00	81	0.73
Grading	Crawler Tractors	2	7.00	212	0.43
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Pressure Washers	1	8.00	13	0.30
Grading	Rubber Tired Dozers	1	8.00	247	0.40

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Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Crawler Tractors	2	6.00	212	0.43
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pressure Washers	1	8.00	13	0.30
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Dumpers/Tenders	1	8.00	16	0.38
Paving	Excavators	1	8.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Pressure Washers	1	8.00	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	98.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	30.00	2.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Paving	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0106	0.0000	0.0106	1.6000e-003	0.0000	1.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0753	0.7953	0.5822	1.2000e-003		0.0360	0.0360		0.0334	0.0334	0.0000	105.1282	105.1282	0.0307	0.0000	105.8962
Total	**0.0753**	**0.7953**	**0.5822**	**1.2000e-003**	**0.0106**	**0.0360**	**0.0466**	**1.6000e-003**	**0.0334**	**0.0350**	**0.0000**	**105.1282**	**105.1282**	**0.0307**	**0.0000**	**105.8962**

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3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	8.4400e-003	1.7900e-003	3.0000e-005	8.3000e-004	8.0000e-005	9.0000e-004	2.3000e-004	7.0000e-005	3.0000e-004	0.0000	3.0715	3.0715	1.0000e-004	4.9000e-004	3.2190
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2800e-003	0.0154	4.0000e-005	5.1000e-003	3.0000e-005	5.1200e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.0991	4.0991	1.3000e-004	1.2000e-004	4.1375
Total	**2.0000e-003**	**9.7200e-003**	**0.0172**	**7.0000e-005**	**5.9300e-003**	**1.1000e-004**	**6.0200e-003**	**1.5900e-003**	**1.0000e-004**	**1.6800e-003**	**0.0000**	**7.1706**	**7.1706**	**2.3000e-004**	**6.1000e-004**	**7.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7700e-003	0.0000	4.7700e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0753	0.7953	0.5822	1.2000e-003		0.0360	0.0360		0.0334	0.0334	0.0000	105.1281	105.1281	0.0307	0.0000	105.8961
Total	**0.0753**	**0.7953**	**0.5822**	**1.2000e-003**	**4.7700e-003**	**0.0360**	**0.0408**	**7.2000e-004**	**0.0334**	**0.0342**	**0.0000**	**105.1281**	**105.1281**	**0.0307**	**0.0000**	**105.8961**

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3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	8.4400e-003	1.7900e-003	3.0000e-005	8.3000e-004	8.0000e-005	9.0000e-004	2.3000e-004	7.0000e-005	3.0000e-004	0.0000	3.0715	3.0715	1.0000e-004	4.9000e-004	3.2190
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2800e-003	0.0154	4.0000e-005	5.1000e-003	3.0000e-005	5.1200e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.0991	4.0991	1.3000e-004	1.2000e-004	4.1375
Total	**2.0000e-003**	**9.7200e-003**	**0.0172**	**7.0000e-005**	**5.9300e-003**	**1.1000e-004**	**6.0200e-003**	**1.5900e-003**	**1.0000e-004**	**1.6800e-003**	**0.0000**	**7.1706**	**7.1706**	**2.3000e-004**	**6.1000e-004**	**7.3565**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0341	0.0000	0.0341	0.0165	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0990	0.0633	1.3000e-004		4.4500e-003	4.4500e-003		4.1100e-003	4.1100e-003	0.0000	11.4295	11.4295	3.5900e-003	0.0000	11.5192
Total	**9.2300e-003**	**0.0990**	**0.0633**	**1.3000e-004**	**0.0341**	**4.4500e-003**	**0.0385**	**0.0165**	**4.1100e-003**	**0.0206**	**0.0000**	**11.4295**	**11.4295**	**3.5900e-003**	**0.0000**	**11.5192**

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3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.1000e-004	1.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2266	0.2266	0.0000	3.0000e-005	0.2367
Worker	2.7000e-004	2.0000e-004	2.3700e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6292	0.6292	2.0000e-005	2.0000e-005	0.6351
Total	**2.9000e-004**	**8.1000e-004**	**2.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8557**	**0.8557**	**2.0000e-005**	**5.0000e-005**	**0.8717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	7.4200e-003	0.0000	7.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0990	0.0633	1.3000e-004		4.4500e-003	4.4500e-003		4.1100e-003	4.1100e-003	0.0000	11.4295	11.4295	3.5900e-003	0.0000	11.5192
Total	**9.2300e-003**	**0.0990**	**0.0633**	**1.3000e-004**	**0.0153**	**4.4500e-003**	**0.0198**	**7.4200e-003**	**4.1100e-003**	**0.0115**	**0.0000**	**11.4295**	**11.4295**	**3.5900e-003**	**0.0000**	**11.5192**

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3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.1000e-004	1.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2266	0.2266	0.0000	3.0000e-005	0.2367
Worker	2.7000e-004	2.0000e-004	2.3700e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6292	0.6292	2.0000e-005	2.0000e-005	0.6351
Total	**2.9000e-004**	**8.1000e-004**	**2.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8557**	**0.8557**	**2.0000e-005**	**5.0000e-005**	**0.8717**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0787	0.0000	0.0787	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3396	0.2319	5.1000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	44.1442	44.1442	0.0127	0.0000	44.4627
Total	**0.0322**	**0.3396**	**0.2319**	**5.1000e-004**	**0.0787**	**0.0150**	**0.0937**	**0.0364**	**0.0139**	**0.0504**	**0.0000**	**44.1442**	**44.1442**	**0.0127**	**0.0000**	**44.4627**

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3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-004	0.0344	7.3200e-003	1.3000e-004	3.3800e-003	3.1000e-004	3.6900e-003	9.3000e-004	3.0000e-004	1.2300e-003	0.0000	12.5369	12.5369	4.1000e-004	1.9900e-003	13.1389
Vendor	4.0000e-005	1.1700e-003	3.4000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4325	0.4325	1.0000e-005	6.0000e-005	0.4519
Worker	8.7000e-004	6.2000e-004	7.5300e-003	2.0000e-005	2.4900e-003	1.0000e-005	2.5000e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0019	2.0019	6.0000e-005	6.0000e-005	2.0206
Total	**1.8400e-003**	**0.0362**	**0.0152**	**1.5000e-004**	**6.0100e-003**	**3.3000e-004**	**6.3400e-003**	**1.6300e-003**	**3.2000e-004**	**1.9500e-003**	**0.0000**	**14.9712**	**14.9712**	**4.8000e-004**	**2.1100e-003**	**15.6114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3396	0.2319	5.1000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	44.1441	44.1441	0.0127	0.0000	44.4626
Total	**0.0322**	**0.3396**	**0.2319**	**5.1000e-004**	**0.0354**	**0.0150**	**0.0504**	**0.0164**	**0.0139**	**0.0303**	**0.0000**	**44.1441**	**44.1441**	**0.0127**	**0.0000**	**44.4626**

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3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3000e-004	0.0344	7.3200e-003	1.3000e-004	3.3800e-003	3.1000e-004	3.6900e-003	9.3000e-004	3.0000e-004	1.2300e-003	0.0000	12.5369	12.5369	4.1000e-004	1.9900e-003	13.1389
Vendor	4.0000e-005	1.1700e-003	3.4000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4325	0.4325	1.0000e-005	6.0000e-005	0.4519
Worker	8.7000e-004	6.2000e-004	7.5300e-003	2.0000e-005	2.4900e-003	1.0000e-005	2.5000e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0019	2.0019	6.0000e-005	6.0000e-005	2.0206
Total	**1.8400e-003**	**0.0362**	**0.0152**	**1.5000e-004**	**6.0100e-003**	**3.3000e-004**	**6.3400e-003**	**1.6300e-003**	**3.2000e-004**	**1.9500e-003**	**0.0000**	**14.9712**	**14.9712**	**4.8000e-004**	**2.1100e-003**	**15.6114**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1448	1.4859	0.9831	2.1600e-003		0.0650	0.0650		0.0603	0.0603	0.0000	185.4711	185.4711	0.0562	0.0000	186.8751
Total	**0.1448**	**1.4859**	**0.9831**	**2.1600e-003**		**0.0650**	**0.0650**		**0.0603**	**0.0603**	**0.0000**	**185.4711**	**185.4711**	**0.0562**	**0.0000**	**186.8751**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0876	0.0255	3.3000e-004	0.0103	9.0000e-004	0.0112	2.9700e-003	8.6000e-004	3.8400e-003	0.0000	32.2831	32.2831	7.0000e-004	4.7900e-003	33.7271
Worker	0.0111	8.0000e-003	0.0967	2.8000e-004	0.0319	1.7000e-004	0.0321	8.5000e-003	1.6000e-004	8.6600e-003	0.0000	25.6907	25.6907	8.0000e-004	7.4000e-004	25.9315
Total	**0.0145**	**0.0956**	**0.1222**	**6.1000e-004**	**0.0422**	**1.0700e-003**	**0.0433**	**0.0115**	**1.0200e-003**	**0.0125**	**0.0000**	**57.9738**	**57.9738**	**1.5000e-003**	**5.5300e-003**	**59.6586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1448	1.4859	0.9831	2.1600e-003		0.0650	0.0650		0.0603	0.0603	0.0000	185.4709	185.4709	0.0562	0.0000	186.8749
Total	**0.1448**	**1.4859**	**0.9831**	**2.1600e-003**		**0.0650**	**0.0650**		**0.0603**	**0.0603**	**0.0000**	**185.4709**	**185.4709**	**0.0562**	**0.0000**	**186.8749**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0876	0.0255	3.3000e-004	0.0103	9.0000e-004	0.0112	2.9700e-003	8.6000e-004	3.8400e-003	0.0000	32.2831	32.2831	7.0000e-004	4.7900e-003	33.7271
Worker	0.0111	8.0000e-003	0.0967	2.8000e-004	0.0319	1.7000e-004	0.0321	8.5000e-003	1.6000e-004	8.6600e-003	0.0000	25.6907	25.6907	8.0000e-004	7.4000e-004	25.9315
Total	**0.0145**	**0.0956**	**0.1222**	**6.1000e-004**	**0.0422**	**1.0700e-003**	**0.0433**	**0.0115**	**1.0200e-003**	**0.0125**	**0.0000**	**57.9738**	**57.9738**	**1.5000e-003**	**5.5300e-003**	**59.6586**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0177	0.1761	0.1290	2.9000e-004		7.5700e-003	7.5700e-003		7.0200e-003	7.0200e-003	0.0000	24.7231	24.7231	7.4600e-003	0.0000	24.9097
Total	**0.0177**	**0.1761**	**0.1290**	**2.9000e-004**		**7.5700e-003**	**7.5700e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**24.7231**	**24.7231**	**7.4600e-003**	**0.0000**	**24.9097**

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2900e-003	2.9100e-003	4.0000e-005	1.3700e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	4.1256	4.1256	8.0000e-005	6.1000e-004	4.3095
Worker	1.3800e-003	9.4000e-004	0.0120	4.0000e-005	4.2600e-003	2.0000e-005	4.2800e-003	1.1300e-003	2.0000e-005	1.1500e-003	0.0000	3.3380	3.3380	1.0000e-004	9.0000e-005	3.3677
Total	**1.6000e-003**	**0.0102**	**0.0149**	**8.0000e-005**	**5.6300e-003**	**7.0000e-005**	**5.7100e-003**	**1.5300e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**7.4636**	**7.4636**	**1.8000e-004**	**7.0000e-004**	**7.6773**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0177	0.1761	0.1290	2.9000e-004		7.5700e-003	7.5700e-003		7.0200e-003	7.0200e-003	0.0000	24.7230	24.7230	7.4600e-003	0.0000	24.9096
Total	**0.0177**	**0.1761**	**0.1290**	**2.9000e-004**		**7.5700e-003**	**7.5700e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**24.7230**	**24.7230**	**7.4600e-003**	**0.0000**	**24.9096**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2900e-003	2.9100e-003	4.0000e-005	1.3700e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	4.1256	4.1256	8.0000e-005	6.1000e-004	4.3095
Worker	1.3800e-003	9.4000e-004	0.0120	4.0000e-005	4.2600e-003	2.0000e-005	4.2800e-003	1.1300e-003	2.0000e-005	1.1500e-003	0.0000	3.3380	3.3380	1.0000e-004	9.0000e-005	3.3677
Total	**1.6000e-003**	**0.0102**	**0.0149**	**8.0000e-005**	**5.6300e-003**	**7.0000e-005**	**5.7100e-003**	**1.5300e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**7.4636**	**7.4636**	**1.8000e-004**	**7.0000e-004**	**7.6773**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1764	0.1949	3.6000e-004		7.9300e-003	7.9300e-003		7.3600e-003	7.3600e-003	0.0000	30.6489	30.6489	9.3600e-003	0.0000	30.8830
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0185**	**0.1764**	**0.1949**	**3.6000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**30.6489**	**30.6489**	**9.3600e-003**	**0.0000**	**30.8830**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.4000e-004	8.0500e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2481	2.2481	6.0000e-005	6.0000e-005	2.2681
Total	**9.3000e-004**	**6.4000e-004**	**8.0500e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2481**	**2.2481**	**6.0000e-005**	**6.0000e-005**	**2.2681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1764	0.1949	3.6000e-004		7.9300e-003	7.9300e-003		7.3600e-003	7.3600e-003	0.0000	30.6489	30.6489	9.3600e-003	0.0000	30.8829
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0185**	**0.1764**	**0.1949**	**3.6000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**30.6489**	**30.6489**	**9.3600e-003**	**0.0000**	**30.8829**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.4000e-004	8.0500e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2481	2.2481	6.0000e-005	6.0000e-005	2.2681
Total	**9.3000e-004**	**6.4000e-004**	**8.0500e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2481**	**2.2481**	**6.0000e-005**	**6.0000e-005**	**2.2681**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4825					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0176	0.0226	4.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	3.1987	3.1987	2.1000e-004	0.0000	3.2038
Total	**0.4851**	**0.0176**	**0.0226**	**4.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**3.1987**	**3.1987**	**2.1000e-004**	**0.0000**	**3.2038**

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.4400e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6812	0.6812	2.0000e-005	2.0000e-005	0.6873
Total	**2.8000e-004**	**1.9000e-004**	**2.4400e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6812**	**0.6812**	**2.0000e-005**	**2.0000e-005**	**0.6873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4825					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0176	0.0226	4.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	3.1987	3.1987	2.1000e-004	0.0000	3.2038
Total	**0.4851**	**0.0176**	**0.0226**	**4.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**3.1987**	**3.1987**	**2.1000e-004**	**0.0000**	**3.2038**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.4400e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6812	0.6812	2.0000e-005	2.0000e-005	0.6873
Total	**2.8000e-004**	**1.9000e-004**	**2.4400e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6812**	**0.6812**	**2.0000e-005**	**2.0000e-005**	**0.6873**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0694	0.0792	0.7016	1.5500e-003	0.1971	1.0200e-003	0.1981	0.0527	9.5000e-004	0.0536	0.0000	151.5758	151.5758	8.5600e-003	6.6300e-003	153.7652
Unmitigated	0.0694	0.0792	0.7016	1.5500e-003	0.1971	1.0200e-003	0.1981	0.0527	9.5000e-004	0.0536	0.0000	151.5758	151.5758	8.5600e-003	6.6300e-003	153.7652

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	183.12	183.12	183.12	534,621	534,621
Total	183.12	183.12	183.12	534,621	534,621

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Parking Lot	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

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Unrefrigerated Warehouse-No Rail	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.0490	46.0490	5.2400e-003	6.4000e-004	46.3693
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.3019	46.3019	5.2700e-003	6.4000e-004	46.6240
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7752.5	1.0197	1.2000e-004	1.0000e-005	1.0268
Unrefrigerated Warehouse-No Rail	344266	45.2822	5.1500e-003	6.2000e-004	45.5972
Total		**46.3019**	**5.2700e-003**	**6.3000e-004**	**46.6240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7752.5	1.0197	1.2000e-004	1.0000e-005	1.0268
Unrefrigerated Warehouse-No Rail	342343	45.0293	5.1200e-003	6.2000e-004	45.3425
Total		**46.0490**	**5.2400e-003**	**6.3000e-004**	**46.3693**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4075	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Unmitigated	0.4075	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Total	**0.4075**	**1.0000e-005**	**1.0300e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0000e-005**	**0.0000**	**2.1500e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0200e-003	2.0200e-003	1.0000e-005	0.0000	2.1500e-003
Total	**0.4075**	**1.0000e-005**	**1.0300e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0000e-005**	**0.0000**	**2.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.4294	0.5533	0.0132	35.1956
Unmitigated	21.7868	0.6917	0.0165	43.9945

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	21.1732 / 0	21.7868	0.6917	0.0165	43.9945
Total		**21.7868**	**0.6917**	**0.0165**	**43.9945**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	16.9386 / 0	17.4294	0.5533	0.0132	35.1956
Total		**17.4294**	**0.5533**	**0.0132**	**35.1956**

8.0 Waste Detail

8.1 Mitigation Measures Waste

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.4714	1.0325	0.0000	43.2847
Unmitigated	17.4714	1.0325	0.0000	43.2847

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	86.07	17.4714	1.0325	0.0000	43.2847
Total		**17.4714**	**1.0325**	**0.0000**	**43.2847**

San Pablo Dam Road Self Storage GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	86.07	17.4714	1.0325	0.0000	43.2847
Total		**17.4714**	**1.0325**	**0.0000**	**43.2847**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Self Storage GHG Model

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	21.53	1000sqft	0.49	21,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2030
Utility Company	MCE				
CO2 Intensity (lb/MWhr)	289.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in San Pablo, Contra Costa County

Land Use - Existing self-storage is 21,530 square feet

Construction Phase - Operation model only, no construction

Off-road Equipment - Construction equipment list

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Generation Rates from W-Trans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater - EBMUD is a wastewater treatment plant. No spectic tanks or faculative lagoons

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	2/15/2022	2/14/2022
tblVehicleTrips	ST_TR	1.74	1.53
tblVehicleTrips	SU_TR	1.74	1.53
tblVehicleTrips	WD_TR	1.74	1.53
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Energy	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	12.2335	12.2335	1.2400e-003	1.8000e-004	12.3169
Mobile	0.0125	0.0142	0.1262	2.8000e-004	0.0355	1.8000e-004	0.0356	9.4700e-003	1.7000e-004	9.6400e-003	0.0000	27.2665	27.2665	1.5400e-003	1.1900e-003	27.6604
Waste						0.0000	0.0000		0.0000	0.0000	4.1085	0.0000	4.1085	0.2428	0.0000	10.1787
Water						0.0000	0.0000		0.0000	0.0000	1.7615	3.5435	5.3051	6.4700e-003	3.8800e-003	6.6228
Total	**0.1080**	**0.0157**	**0.1276**	**2.9000e-004**	**0.0355**	**2.9000e-004**	**0.0358**	**9.4700e-003**	**2.8000e-004**	**9.7500e-003**	**5.8701**	**43.0439**	**48.9139**	**0.2521**	**5.2500e-003**	**56.7793**

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Energy	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	12.2335	12.2335	1.2400e-003	1.8000e-004	12.3169
Mobile	0.0125	0.0142	0.1262	2.8000e-004	0.0355	1.8000e-004	0.0356	9.4700e-003	1.7000e-004	9.6400e-003	0.0000	27.2665	27.2665	1.5400e-003	1.1900e-003	27.6604
Waste						0.0000	0.0000		0.0000	0.0000	4.1085	0.0000	4.1085	0.2428	0.0000	10.1787
Water						0.0000	0.0000		0.0000	0.0000	1.7615	3.5435	5.3051	6.4700e-003	3.8800e-003	6.6228
Total	**0.1080**	**0.0157**	**0.1276**	**2.9000e-004**	**0.0355**	**2.9000e-004**	**0.0358**	**9.4700e-003**	**2.8000e-004**	**9.7500e-003**	**5.8701**	**43.0439**	**48.9139**	**0.2521**	**5.2500e-003**	**56.7793**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/15/2022	2/14/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0125	0.0142	0.1262	2.8000e-004	0.0355	1.8000e-004	0.0356	9.4700e-003	1.7000e-004	9.6400e-003	0.0000	27.2665	27.2665	1.5400e-003	1.1900e-003	27.6604
Unmitigated	0.0125	0.0142	0.1262	2.8000e-004	0.0355	1.8000e-004	0.0356	9.4700e-003	1.7000e-004	9.6400e-003	0.0000	27.2665	27.2665	1.5400e-003	1.1900e-003	27.6604

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	32.94	32.94	32.94	96,171	96,171
Total	32.94	32.94	32.94	96,171	96,171

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.6479	10.6479	1.2100e-003	1.5000e-004	10.7220
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.6479	10.6479	1.2100e-003	1.5000e-004	10.7220
NaturalGas Mitigated	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
NaturalGas Unmitigated	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	29711.4	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
Total		**1.6000e-004**	**1.4600e-003**	**1.2200e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5855**	**1.5855**	**3.0000e-005**	**3.0000e-005**	**1.5949**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	29711.4	1.6000e-004	1.4600e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5855	1.5855	3.0000e-005	3.0000e-005	1.5949
Total		**1.6000e-004**	**1.4600e-003**	**1.2200e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5855**	**1.5855**	**3.0000e-005**	**3.0000e-005**	**1.5949**

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	80952.8	10.6479	1.2100e-003	1.5000e-004	10.7220
Total		**10.6479**	**1.2100e-003**	**1.5000e-004**	**10.7220**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	80952.8	10.6479	1.2100e-003	1.5000e-004	10.7220
Total		**10.6479**	**1.2100e-003**	**1.5000e-004**	**10.7220**

6.0 Area Detail

6.1 Mitigation Measures Area

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Unmitigated	0.0953	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0953**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0953**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.3051	6.4700e-003	3.8800e-003	6.6228
Unmitigated	5.3051	6.4700e-003	3.8800e-003	6.6228

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	4.97881 / 0	5.3051	6.4700e-003	3.8800e-003	6.6228
Total		**5.3051**	**6.4700e-003**	**3.8800e-003**	**6.6228**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	4.97881 / 0	5.3051	6.4700e-003	3.8800e-003	6.6228
Total		**5.3051**	**6.4700e-003**	**3.8800e-003**	**6.6228**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.1085	0.2428	0.0000	10.1787
Unmitigated	4.1085	0.2428	0.0000	10.1787

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	20.24	4.1085	0.2428	0.0000	10.1787
Total		**4.1085**	**0.2428**	**0.0000**	**10.1787**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	20.24	4.1085	0.2428	0.0000	10.1787
Total		**4.1085**	**0.2428**	**0.0000**	**10.1787**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Existing Self Storage GHG Model - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Pablo Dam Road Self Storage

Natural Gas to Electricity Conversion and Emissions Estimation Tool

Total Estimated Natural Gas Usage (kBTU)	Equivalent Electricity Usage (kBtu)	Equivalent Electricity Usage (MWh)
115,640	115,640	34

GHG Emission Calculations

	MCE		CO_2e Conversion Calculations	
	Energy Intensity Factor (lbs/MWh)	Emissions (lbs)	Total CO_2e Emissions (lbs)	Total CO_2e Emissions (MT)
CO_2	289.98	9,828	9,828	4
CH_4	0.033	1	28	0
N_2O	0.004	0	40	0
			TOTAL GHG EMISSIONS FROM ELECTRICITY	**4**

Notes

- Natural gas usage calculated in CalEEMod.
- Energy intensity factors for MCE based on 2021 energy intensity factor
- Natural gas to electricity conversion assumes an equal energy demand would be supplied by electricity rather than natural gas.
- CH_4 conversion assumes 1 lb CH_4 is equivalent to 25 lbs CO_2e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)
- N_2O conversion assumes 1 lb N_2O is equivalent to 298 lbs CO_2e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)

San Pablo Dam Road Self Storage

Last Updated: 11/11/2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588		HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Concrete/Industrial Saws	1	8	81	0.73	Demolition Phase	1,195.31
Crawler Tractors	2	8	212	0.43	Demolition Phase	3,315.21
Pressure Washers	1	8	13	0.3	Demolition Phase	78.84
Rubber Tired Dozers	1	8	247	0.4	Demolition Phase	1,796.53
Rubber Tired Loaders	1	8	203	0.36	Demolition Phase	1,328.85
Tractors/Loaders/Backhoes	6	8	97	0.37	Demolition Phase	4,353.07
Crawler Tractors	1	7	212	0.43	Site Preparation Phase	371.03
Dumpers/Tenders	1	8	16	0.38	Site Preparation Phase	31.44
Pressure Washers	1	8	13	0.3	Site Preparation Phase	20.17
Skid Steer Loaders	1	8	65	0.37	Site Preparation Phase	124.37
Rubber Tired Dozers	1	7	247	0.4	Site Preparation Phase	402.13
Tractors/Loaders/Backhoes	2	7	97	0.37	Site Preparation Phase	324.79
Concrete/Industrial Saws	1	7	81	0.73	Grading Phase	510.79
Crawler Tractors	2	7	212	0.43	Grading Phase	1,416.68
Dumpers/Tenders	1	8	16	0.38	Grading Phase	60.02
Pressure Washers	1	8	13	0.3	Grading Phase	38.50
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	877.37
Rubber Tired Loaders	1	8	203	0.36	Grading Phase	648.97
Skid Steer Loaders	1	8	65	0.37	Grading Phase	237.43
Tractors/Loaders/Backhoes	4	7	97	0.37	Grading Phase	1,240.12
Cranes	1	8	231	0.29	Building Construction Phase	5,297.37
Crawler Tractors	2	6	212	0.43	Building Construction Phase	10,813.00
Forklifts	2	7	89	0.2	Building Construction Phase	2,738.44
Tractors/Loaders/Backhoes	2	6	97	0.37	Building Construction Phase	4,732.70
Welders	1	8	46	0.45	Building Construction Phase	1,819.76
Pressure Washers	1	8	13	0.3	Building Construction Phase	342.85
Air Compressors	1	6	78	0.48	Architectural Coating Phase	290.42
Pressure Washers	1	8	13	0.3	Architectural Coating Phase	40.34
Cement and Mortar Mixers	4	8	9	0.56	Paving Phase	208.50
Crawler Tractors	1	8	212	0.43	Paving Phase	848.08
Dumpers/Tenders	1	8	16	0.38	Paving Phase	62.88
Excavators	1	8	158	0.38	Paving Phase	558.56
Pavers	1	8	130	0.42	Paving Phase	507.95
Paving Equipment	1	8	132	0.36	Paving Phase	442.09
Pressure Washers	1	8	13	0.3	Paving Phase	40.34
Rollers	1	8	80	0.38	Paving Phase	314.41
Tractors/Loaders/Backhoes	2	8	97	0.37	Paving Phase	742.38
					Total Fuel Used	**48,171.72**
						(Gallons)

Construction Phase	Days of Operation
Demolition Phase	43
Site Preparation Phase	11
Grading Phase	21
Building Construction Phase	187
Paving Phase	22
Architectural Coating Phase	22
Total Days	306

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Demolition Phase	24.1	30	10.8	578.09
Site Preparation Phase	24.1	18	10.8	88.73
Grading Phase	24.1	30	10.8	282.32
Building Construction Phase	24.1	49	10.8	4,106.24
Paving Phase	24.1	33	10.8	325.34
Architectural Coating Phase	24.1	8	10.8	78.87
			Total	**5,459.60**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Demolition Phase	7.5	98	20.0	261.33
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	400	20.0	1,066.67
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
			Total	**1,328.00**
VENDOR TRIPS				
Demolition Phase	7.5	0	7.3	0.00
Site Preparation Phase	7.5	2	7.3	21.41
Grading Phase	7.5	2	7.3	40.88
Building Construction Phase	7.5	19	7.3	3,458.25
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
			Total	**3,520.55**

Total Gasoline Consumption (gallons)	**5,459.60**
Total Diesel Consumption (gallons)	**53,020.26**

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2* . September. Available at: https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

San Pablo Dam Road Self Storage

Last Updated: 8/24/2021

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	534,621		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix
Light Duty Auto (LDA)	0.552821
Light Duty Truck 1 (LDT1)	0.058334
Light Duty Truck 2 (LDT2)	0.189005
Medium Duty Vehicle (MDV)	0.121481
Light Heavy Duty 1 (LHD1)	0.023262
Light Heavy Duty 2 (LHD2)	0.005577
Medium Heavy Duty (MHD)	0.010166
Heavy Heavy Duty (HHD)	0.007476
Other Bus (OBUS)	0.001000
Urban Bus (UBUS)	0.000579
Motorcycle (MCY)	0.026545
School Bus (SBUS)	0.000826
Motorhome (MH)	0.002928

Fuel Economy (MPG) [1]	
Passenger Vehicles	24.1
Light-Med Duty Trucks	17.6
Heavy Trucks/Other	7.5
Motorcycles	44

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	*55.28%*	*Gasoline*	295550	0.00	12,263.47
Light-Medium Duty Trucks	*36.88%*	*Gasoline*	197179	0.00	11,203.35
Heavy Trucks/Other	*5.18%*	*Diesel*	27701	0.00	3,693.45
Motorcycle	*2.65%*	*Gasoline*	14192	0.00	322.53

Total Gasoline Consumption (gallons)	**23,789.36**
Total Diesel Consumption (gallons)	**3,693.45**

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2021. National Transportation Statistics. Available at: https://www.bts.gov/topics/national-transportation-statistics.

Equipment	Horsepower	Load Factor
Aerial Lifts	63	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	221	0.5
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	231	0.29
Crawler Tractors	212	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	158	0.38
Forklifts	89	0.2
Generator Sets	84	0.74
Graders	187	0.41
Off-Highway Tractors	124	0.44
Off-Highway Trucks	402	0.38
Other Construction Equipment	172	0.42
Other General Industrial Equipment	88	0.34
Other Material Handling Equipment	168	0.4
Pavers	130	0.42
Paving Equipment	132	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.3
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Dozers	247	0.4
Rubber Tired Loaders	203	0.36
Scrapers	367	0.48
Signal Boards	6	0.82
Skid Steer Loaders	65	0.37
Surfacing Equipment	263	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	78	0.5
Welders	46	0.45

Appendix GEO

Geotechnical Report

Geotechnical Engineering Report

Extra Space Storage – San Pablo
San Pablo, Contra Costa County, California
October 22, 2021
Terracon Project No. ND205065

Prepared for:
Extra Space Storage
Salt Lake City, Utah

Prepared by:
Terracon Consultants, Inc.
Concord, California

October 22, 2021

Extra Space Storage
2795 E Cottonwood Pkwy, Ste 400
Salt Lake City, Utah 84121

Attn: Mr. John Bennett
P: (801) 365 2096
E: jbennett@extraspace.com

Re: Geotechnical Engineering Report
Extra Space Storage – San Pablo
3516 San Pablo Dam Road
San Pablo, Contra Costa County, California
Terracon Project No. ND205065

Dear Mr. Bennett:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. PND215065 dated August 17, 2021. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, pavements, retaining walls, and floor slabs for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Noah T. Smith, P.E., G.E.
Principal

Robert Fosse, P.E., G.E.
Principal

REPORT TOPICS

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Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the ***GeoReport*** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS
SUPPORTING INFORMATION

Note: Refer to each individual Attachment for a listing of contents.

REPORT SUMMARY

Topic [1]	Overview Statement [2]
Project Description	The project will consist of the demolition of existing storage facility buildings and the construction of a three-story storage building with a footprint of about 32,000 square feet (sf) and associated paved parking and drives. Anticipated maximum loads: ■ Columns: 200 kips ■ Walls: 6 kips per linear foot (klf) ■ Slabs: 200 pounds per square foot (psf)
Geotechnical Characterization	Subgrade soils encountered in our borings generally consisted of 3 to 3½ feet of FILL consisting of loose clayey gravel, well graded gravel, and aggregate base underlain by medium stiff to very stiff lean clay with variable amounts of sand to the maximum depths explored varying from 5 to 51½ feet below the existing ground surface (bgs) in the borings Groundwater was encountered in Borings B1 through B3 at depths ranging from 26 to 28 feet bgs while drilling.
Earthwork	Preliminary grading plans were not yet available for review at the time this report was prepared and should be made available to Terracon for review once completed. ■ General cuts and fills on the order of 2 feet or less are anticipated to develop final grade. ■ Cuts up to 8 feet may be required to facilitate development along the southern portion of the property and excavations up to 5 feet may be required to facilitate construction of elevator pits. ■ Undocumented fill encountered during grading operations should be over-excavated, cleaned and processed. The undocumented fill may be reused provided it meets the criteria for general or structural fill presented in the ***Fill Material Types*** section of this report. Grading should be conducted in accordance with the **Earthwork** section of this report.
Shallow Foundations	The proposed building and retaining walls may be supported by spread footings. Footings should extend at least 12 inches below lowest adjacent grade and bear on a minimum 3 feet of Low Volume Change (LVC) structural fill. ■ Allowable bearing pressure = 2,000 psf Expected settlements: < 1-inch total, < ½ inch differential
Mat Slab	As an alternative to spread footings, the building may be supported by a **Mat Slab Foundation** underlain by a minimum 24 inches of Low Volume Change (LVC) structural fill. Allowable bearing pressure = 500 psf Expected settlements: < 1½ inch total, < ½ inch differential
Below-Grade Structures	**Lateral Earth Pressures** have been provided for use in design of proposed building elevator pits.
Retaining Walls	**Lateral Earth Pressures** have been provided for use in design of site cantilevered retaining walls up to 8 feet tall.
Floor Slabs	In order to help mitigate the effects of moderately plastic soils at the site, the upper 18 inches of subgrade below soil supported floor slabs should consist of Low Volume Change (LVC) structural fill.

Pavements	Pavement sections are provided for both rigid and flexible pavements. Alternate pavement sections utilizing triaxial geogrid reinforcement or chemical treatment of subgrade soils are provided.
General Comments	This section contains important information about the limitations of this geotechnical engineering report.

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

Geotechnical Engineering Report

Extra Space Storage – San Pablo
3516 San Pablo Dam Road
San Pablo, Contra Costa County, California

Terracon Project No. ND205065

October 22, 2021

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed storage facility to be located at 3516 San Pablo Dam Road in San Pablo, Contra Costa County, California. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Seismic site classification per 2019 CBC
- Soil corrosivity
- Foundation design and construction
- Floor slab design and construction
- Lateral earth pressures
- Liquefaction Analysis
- Pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of 6 test borings to depths ranging from approximately 5 to 51½ feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and/or as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions was derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at 3516 San Pablo Dam Road in San Pablo, Contra Costa County, California. The site is approximately 1.85 acres in size. 37.9630°N 122.3208°W (approximate) See **Site Location**

Item	Description
Existing Improvements	The site is currently developed with about 22,000 square feet (sf) of single-story storage facilities and associated asphalt paved parking and drives.
Current Ground Cover	Asphalt paved parking and drives.
Existing Topography	The site gently slopes from the south down to the north with approximately 6 feet of relief over a distance about 380 feet. The southern edge of the site is located at the toe of a slope that ascends from the north to the south at an approximate 3.5H:1V (Horizontal:Vertical) grade.
Geology	Geologic maps indicate subsurface conditions consist of alluvial fan deposits underlain by coarse alluvial conglomerates associated with the Orinda Formation.[1] Beneath the existing pavement and undocumented fill, the subgrade soils encountered in our borings were generally consistent with mapped geology.

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	The project Planning Submittal Plan Set (dated June 1, 2021) was provided to Terracon for review by James Goodman via email.
Project Description	The project will consist of the demolition of the existing storage facility and construction of a new storage facility and associated paved parking and drives.
Proposed Structure	The new storage facility will include a three-story building with a footprint of about 32,000 square feet.
Building Construction	We have assumed the building will consist masonry and steel frame construction with a concrete slab-on-grade floor.
Finished Floor Elevation	The proposed finished floor elevation was not known at the time this report was prepared. We have anticipated finished floor elevation will be within 1 foot of the existing grade.
Maximum Loads (assumed)	■ Columns: 200 kips ■ Walls: 6 kips per linear foot (klf) ■ Slabs: 200 pounds per square foot (psf)

[1] *Graymer, R.W., 2000, Geologic map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California: U.S. Geological Survey, Miscellaneous Investigations Series Map MF-2342, scale 1:50,000*

Item	Description
Grading/Slopes	We anticipate general earthwork may consist of cuts and fills of 2 feet or less to develop final grade. However, cuts up to 8 feet may be required to facilitate development along the southern portion of the property and excavations up to 5 feet may be required to facilitate construction of elevator pits. Final slope angles of 3H:1V (Horizontal: Vertical) or flatter are expected.
Below-Grade Structures	We have assumed below grade construction will be limited to elevator pits that will be approximately 5 feet or less in depth.
Free-Standing Retaining Walls	Retaining walls are expected to be constructed as part of site development along the southern portion of the site to achieve final grades. Wall heights up to 8 feet are anticipated. We have assumed retaining walls will consist of either cantilevered concrete or masonry construction.
Pavements	Paved drives and parking will be constructed as part of development. We have assumed both rigid (concrete) and flexible (asphalt) pavement sections will be constructed. Anticipated traffic indices (TIs) are as follows: ■ Auto Parking Areas: TI = 5.0 ■ Auto Road: TI = 5.5 ■ Truck Parking Areas: TI = 6.0 ■ Truck Ramps and Roads: TI = 8.0 Average Daily Truck Traffic for rigid pavements ■ Car Parking and Access Lanes: ADTT = 1 (Category A) ■ Truck Parking: ADTT = 25 (Category B) ■ Dumpster Pads: Per Category C The pavement design period is 20 years.

GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of site preparation and foundation options. Conditions encountered at each exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** section and the GeoModel can be found in the **Figures** section of this report.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring location, refer to the GeoModel.

Model Layer	Layer Name	General Description
1	**Pavement**	Asphalt concrete.
2	**FILL**	Loose clayey gravel, well graded gravel, and aggregate base.
3	**Lean Clay**	Medium stiff to very stiff lean clay with variable amounts of sand.

Groundwater Conditions

The boreholes were observed while drilling for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs, in **Exploration Results** and are summarized below.

Boring Number	Approximate Depth to Groundwater while Drilling[1] (feet)
B1	27
B2	28
B3	26

1. Below ground surface

Since the borings were backfilled relatively soon after completion, the water levels summarized above for the borings are not stable groundwater levels. Due to the low permeability of soils encountered in the borings, a relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole. Long term observations in piezometers or observation wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

GEOTECHNICAL OVERVIEW

The subject site has geotechnical considerations that will affect the construction and performance of the proposed improvements that are discussed in this report. The primary geotechnical considerations that have been identified at the subject site that will affect development of the site are the following:

- Moderately plastic clay

- Soft subgrade potential
- Undocumented fill

Moderately Plastic Clay

As indicated in the **Geotechnical Characterization** section of this report, the soils below the surface fill generally consist of medium stiff to very stiff moderately plastic lean clay with variable amounts of sand. The clay could become exposed where cuts and/or over-excavation of the surface fill are required. This material could become unstable with typical earthwork and construction traffic, especially after precipitation events. Effective drainage should be completed early in the construction sequence and maintained after construction to avoid potential issues. If possible, the grading should be performed during the warmer and drier times of the year. If grading is performed during the winter months, an increased risk for possible undercutting and replacement of unstable subgrade will persist. Additional site preparation recommendations, including subgrade improvement and fill placement, are provided in the **Earthwork** section.

The clay soils encountered in our borings exhibit potential for shrink-swell movements with changes in moisture content from seasonal or manmade conditions. Additional areas of localized moderately to highly plastic clays may be present in the building area where borings were not performed. The building and retaining walls may be supported by spread footings provided they extend at least 12 inches below lowest adjacent grade and bear on a minimum 3 feet of Low Volume Change (LVC) material. As an alternative, the building may be supported by a **Mat Slab Foundation** system underlain by minimum 24 inches of LVC material. If a mat slab foundation will not be used, in order to help mitigate the effects of the moderately plastic soils on the building floor slab, we recommend the slab-on-grade be underlain by minimum of 18 inches of LVC material.

The **Shallow Foundations** and **Mat Slab Foundation** sections address support of the building accordingly. The **Floor Slabs** section addresses slab-on-grade support of the building.

This report provides recommendations to help mitigate the effects of soil shrinkage and expansion. However, even if these procedures are followed, some movement and (at least minor) cracking in the building should be anticipated. The severity of cracking and other damage such as uneven floor slabs will likely increase if any modification of the site results in excessive wetting or drying of the expansive soils. Eliminating the risk of movement and distress may not be feasible, but it may be possible to further reduce the risk of movement if significantly more extensive measures, such as performing ground improvement or supporting the building on deep foundations are used during construction. We would be pleased to discuss other construction alternatives with you upon request.

Soft Subgrade Potential

Clay soils with varying amounts of sand were noted below the surface fill our soil borings. The clay could become exposed where cuts and/or over-excavation of the surface fill are required. These soils may become unstable when disturbed. During periods of dry weather, these soils may be stable upon initial exposure, however, these soils could become relatively soft and unstable under construction traffic. Furthermore, depending upon site conditions during construction, over-excavation or stabilization of the subgrade and/or base of over-excavations may be needed to achieve a suitable working surface. Accordingly, we recommend that the owner budget for the possibility that over-excavation and/or stabilization may be required, and contractors be prepared to handle potentially unstable and/or soft conditions.

Undocumented Fill

Approximately 3 to 3½ feet of fill was encountered in our borings at the time of our field exploration. The fill consisted of loose clayey gravel, well graded gravel, and aggregate base. The thickness and extent of fill across the site may vary, and the thicknesses encountered in our borings should not be construed as a minimum or maximum.

No compaction records for the fill were located or made available for review. Such undocumented fill can result in differential settlement and damage to proposed structures relying on the fill for structural support. As a result, the fill is not suitable to support the proposed improvements. We recommend the undocumented fill be over-excavated to firm native soil, cleaned of organic material and debris, moisture conditioned, and compacted during rough grading per the recommendations provided in the **Earthwork** section of this report. Such undocumented fill may be present in other areas of the site where exploration was not performed. A representative from Terracon should be present during grading to help identify areas of undocumented fill that will require over-excavation and to verify all fill has been over-excavated and processed.

The **General Comments** section provides an understanding of the report limitations.

SEISMIC CONSIDERATIONS

The 2019 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16 and 2019 CBC. The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than or equal 0.2.

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of

Section C11 of ASCE 7-16) states that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." Based on our understanding of the proposed structures, it is our assumption that the exception in Section 11.4.8 applies to the proposed structure. However, the structural engineer should verify the applicability of this exception.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

Description	Value
2019 California Building Code Site Classification (CBC) [1]	D[2]
Site Latitude	37.9630° N
Site Longitude	122.3208° W
S_s, Spectral Acceleration for a Short Period[3]	2.359
S_1, Spectral Acceleration for a 1-Second Period[3]	0.903
F_a, Site Coefficient[3]	1.2
F_v, Site Coefficient (1-second period)[3]	1.7
S_{DS}, Spectral Acceleration for a Short Period[3]	1.887
S_{D1}, Spectral Acceleration for a 1-Second Period[3]	1.023

1. Seismic site classification in general accordance with the *2019 California Building Code*.
2. The 2019 California Building Code (CBC) requires a site soil profile determination extending a depth of 100 feet for seismic site classification. The current scope requested does not include the required 100-foot soil profile determination. The borings for this report extended to a maximum depth of approximately 51½ feet and this seismic site class assignment considers that similar medium stiff to very stiff soil continues below the maximum depth of the subsurface exploration. Additional exploration to greater depths could be considered to confirm the conditions below the current depth of exploration. Alternatively, a geophysical exploration could be utilized in order to attempt to justify a more favorable seismic site class.
3. These values were obtained using online seismic design maps and tools provided by the SEAOC/OSHPD (https://seismicmaps.org/).

Typically, a site-specific ground motion study will generate less conservative coefficients and acceleration values which may reduce construction costs. We recommend consulting with a structural engineer to evaluate the need for such study and its potential impact on construction costs. Terracon should be contacted if a site-specific ground motion study is desired.

Faulting and Estimated Ground Motions

The site is located in the San Francisco Bay Area of California, which is a relatively high seismicity region. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. The following

table indicates the distance of the fault zones and the associated maximum credible earthquake that can be produced by nearby seismic events, as calculated using the USGS Unified Hazard Tool. Segments of the Hayward Fault, which is located approximately 2 kilometers from the site, are considered to have the most significant effect at the site from a design standpoint.

Characteristics and Estimated Earthquakes for Regional Faults

Fault Name	Approximate Contribution (%)	Approximate Distance to Site (kilometers)	Maximum Credible Earthquake (MCE) Magnitude
UC33brAvg_FM32: Hayward (No) [4]	41.13	2.25	7.17
UC33brAvg_FM31: Hayward (No) [4]	40.83	2.25	7.17

Based on the ASCE 7-16 Standard, the peak ground acceleration (PGA_M) at the subject site is approximately 1.187g. Based on the USGS 2014 interactive deaggregations, the PGA at the subject site for a 2% probability of exceedance in 50 years (return period of 2475 years) is expected to be about 1.058g. The site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[1]

LIQUEFACTION

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils or low plasticity fine grained soils exist below groundwater. The project site has not yet been reviewed for liquefaction hazards by the California Geologic Survey (CGS) However, the site is located in an area designated by the Association of Bay Area Governments as having moderate susceptibility to liquefaction. Therefore, a liquefaction analysis was performed to determine the liquefaction induced settlement.

Our liquefaction hazard evaluation was performed in general compliance with the California Geological Survey (CGS) Special Publication 117A (2008) and the Southern California Earthquake Center "Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction Hazards in California," 1999 report.

[1] California Department of Conservation Division of Mines and Geology (CDMG), *"Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region"*, CDMG Compact Disc 2000-003, 2000.

We performed a screening analysis to determine if there is a potential for liquefaction to occur at the site. We evaluated the soils encountered in boring B2 advanced to a maximum depth of approximately 51½ feet below the existing ground surface (bgs). We evaluated these soils based on soil classification, corrected SPT blow counts, water content, Atterberg limits, groundwater elevation, shear strength, and peak ground acceleration. In our screening investigation we looked at the Atterberg limits and fines content of the lean clay soils encountered from a depth of about 3 feet bgs to 51½ feet bgs in boring B2. The Atterberg limits for these fine-grained soils exhibited liquid limits ranging from 36 to 47 and plasticity indexes ranging from 21 to 22. We also calculated the ratio of the in-situ moisture content to the liquid limit. This data was then compared to the criteria by Idriss and Boulanger (2006) and Bray and Sancio (2006) for potential liquefaction or cyclic softening of fine-grained soils. Based on our screening analysis we believe the fine-grained soils at the site have a low potential for cyclic softening/liquefaction. Subsequently, further qualitative evaluation of the potential for liquefaction to occur at the site was not performed.

EARTHWORK

We anticipate general earthwork may consist of cuts and fills of 2 feet or less to develop final grade. However, cuts up to 8 feet may be required to facilitate development along the southern portion of the property and excavations up to 5 feet may be required to facilitate construction of elevator pits. If greater cuts and fills are required, Terracon should be contacted to determine if additional earthwork recommendations are warranted.

Earthwork is anticipated to include clearing and grubbing, excavations, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria, as necessary, to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements.

Site Preparation

Prior to general site grading, existing pavements and construction-related debris should be demolished and removed off-site. Existing or temporary underground utilities located within the proposed construction areas should be relocated prior to excavation. Debris generated from the demolition of underground utilities should be removed from the site as construction proceeds. If pipes are abandoned in-place, they should be filled completely with lean cement grout, or other suitable material, to avoid collapse in the future.

Existing Undocumented Fill

As noted in **Geotechnical Characterization**, approximately 3 to 3½ feet of undocumented fill was encountered in our borings. The undocumented fill consisted of loose clayey gravel, well graded gravel, and aggregate base. No compaction records for the fill were located or made

available for review. Such undocumented fill can result in differential settlement and damage to proposed improvements relying on the fill for structural support. As a result, the fill is not suitable to support the proposed improvements. We recommend undocumented fill be over-excavated to firm native soil, moisture conditioned, and compacted during rough grading per the recommendations provided in the following sections of this report. Such undocumented fill may be present in other areas of the site where exploration was not performed. A representative from Terracon should be present during grading to help identify areas of undocumented fill that will require over-excavation and to verify all fill has been over-excavated and processed.

Subgrade Preparation

After clearing, any required cuts and over-excavation should be made. Permanent cut slopes should be no steeper than 3H:1V (Horizontal:Vertical). Once cuts and any required over-excavation operations are complete, the resulting subgrade should be proof-rolled with an adequately loaded vehicle such as a fully loaded tandem axle dump truck. The proof-rolling should be performed under the direction of the Geotechnical Engineer. Areas excessively deflecting under the proof-roll should be delineated and subsequently addressed by the Geotechnical Engineer. Such areas should either be removed or modified by stabilizing as noted in the following section **Soil Stabilization**. Excessively wet or dry material should either be removed, or moisture conditioned and recompacted. Exposed surfaces should be free or mounds and depressions which could prevent uniform compaction. Subgrade preparation should extend at least 5 feet laterally beyond the building footprint and at least 3 feet laterally beyond pavement and exterior concrete flatwork.

Excavated material may be stockpiled for use as fill provided it is cleaned of organic material, debris, and any other deleterious material and meets the criteria for general or structural fill specified in the ***Fill Material Types*** section of this report.

Once proof rolling has been performed, and prior to placing any fill, the subgrade soil should be scarified, moisture conditioned, and compacted. The depth of scarification of subgrade soils and moisture conditioning of the subgrade is highly dependent on the time of year of construction and the site conditions that exist immediately prior to construction. If construction occurs during the winter or spring, when the subgrade soils are typically already in a moist condition, scarification and compaction may only be 12 inches. If construction occurs during the summer or fall when the subgrade soils have been allowed to dry out deeper, the depth of scarification and moisture conditioning may be as much as 18 inches. Elevated moisture contents were encountered in the soils obtained from our borings below the existing pavement. Subsequently, the subgrade soil may be in an elevated moisture condition and compaction could require some drying before it can be compacted. A representative from Terracon should be present to observe the exposed subgrade and specify the depth of scarification and moisture conditioning required.

Following scarification and compaction of the subgrade, any required fill may be placed and compacted in accordance with the ***Fill Material Types*** and ***Fill Compaction Requirements*** sections of this report. As indicated, the surficial subgrade soil in floor slab areas should consist of a minimum 18 inches of LVC material. The upper 18 inches or deeper of subgrade below the LVC structural fill should be evaluated by Terracon prior to placement to verify the subgrade soils are in an over optimum moisture condition.

The moisture content and compaction of subgrade soils should be maintained until foundation, slab, and pavement construction. Care should be taken to also prevent wetting or drying of the bearing materials during construction.

The proposed development may involve regrading of existing slopes at the site. The architect, engineer, and contractor should be aware that regrading of slopes may affect the stability of the slopes. It is the contractor's responsibility to meet OSHA standards for cuts and excavations and to maintain the stability of temporary cuts and adjacent structures during construction. It is the contractor's responsibility to utilize the data provided in this report and their experience to implement shoring and stabilization measures as necessary. An engineer or geologist from Terracon should be present during grading and when any cuts are being made to observe the soil lithology and help identify any adverse conditions that may be present that would warrant our recommendations to be revised.

Soil Stabilization

Areas excessively deflecting under proof-rolling or construction traffic such as rutting or pumping soil may require soil stabilization. Methods of subgrade improvement, as described below, could include scarification, moisture conditioning and recompaction, and removal of unstable materials and replacement with granular fill (with or without geosynthetics or chemical treatment). The appropriate method of improvement, if required, would be dependent on factors such as schedule, weather, the size of the area to be stabilized, and the nature of the instability. More detailed recommendations can be provided during construction as the need for subgrade stabilization occurs. Performing site grading operations during warm seasons and dry periods would help to reduce the amount of subgrade stabilization required.

If the exposed subgrade is unstable during proof rolling operations, it could be stabilized using one of the methods outlined below.

- **Scarification and Compaction** – It may be feasible to scarify, dry, and compact the exposed soils. The success of this procedure would depend primarily upon favorable weather and sufficient time to dry the soils. Stable subgrades likely would not be achievable if the thickness of the unstable soil is greater than about 1 foot or if construction is performed during a period of wet or cool weather when drying is difficult.

- **Aggregate Base** – The use of Caltrans Class II aggregate base is the most common procedure to improve subgrade stability. Typical undercut depths would be expected to range from about 12 to 18 inches below finished subgrade elevation with this procedure. The use of high modulus geotextiles or geogrid could also be considered. Equipment should not be operated above the geotextiles or geogrid until one full lift of aggregate base is placed above it. The maximum particle size of granular material placed over geogrid should meet the manufacturer's specifications.

- **Chemical Treatment** – Chemical treatment involves treating the unstable or pavement subgrade soils with a certain percentage of high calcium quicklime or cement. Usually 3.5 to 5.5 percent based on the dry unit weight of the soil, for a depth of 12 inches. The actual amount of lime or cement to be used should be determined by Terracon and by laboratory testing **at least three weeks prior** to the start of grading operations. Chemical treatment is performed after rough grading is completed.

Further evaluation of the need and recommendations for subgrade stabilization can be provided during construction as the geotechnical conditions are exposed.

Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Structural fill is material used below, or within 5 feet of structures or within 3 feet of pavements. General fill is material used to achieve grade outside of these areas. Earthen materials used for structural and general fill should meet the following material property requirements:

Fill Type[1]	USCS Classification	Acceptable Location for Placement
Lean Clay/Clayey Sand	CL, SC (LL<40)	All structural and general locations and elevations, except as LVC material unless material explicitly meets LVC requirements.
Moderate Plasticity Material[2]	CL, SC (50>LL≥40 or 30>PI≥25)	All general fill locations and elevations
Well-graded Granular[3]	GW, GC, GM, SM, SW	All structural and general fill locations and elevations
Low Volume Change (LVC) Material[4]	CL, SC (LL<30 & PI<12) or Well-graded Granular Material [3]	All structural and general fill locations and elevations
On-site Soils[5]	GC, CL, GW	As indicated above

Fill Type[1]	USCS Classification	Acceptable Location for Placement

1. Compacted structural fill should consist of approved materials that are free of organic matter and debris and should contain no material larger than 3 inches in greatest dimension. A sample of each material type should be submitted to Terracon for evaluation and approval at least 2 weeks prior to grading operations.
2. Delineation of moderate to highly plastic clays should be performed in the field by a qualified geotechnical engineer or their representative and could require additional laboratory testing.
3. Caltrans Class II aggregate base may be used for this material. Recycled aggregate base should not be used without prior approval by the geotechnical engineer.
4. Low plasticity cohesive soil or granular soil having low plasticity fines. Material should be approved by the geotechnical engineer.
5. This material should be removed and recompacted if used as an engineered or structural fill as described in section **Fill Compaction Requirements**. Existing fill soils to be re-used as structural or general fill should be processed to remove any vegetation or debris present in the material prior to re-use.

For all import material, the contractor shall submit current verified reports from a recognized analytical laboratory indicating that the import has a “not applicable” (Class S0) potential for sulfate attack based upon current ACI criteria and is “mildly corrosive” to ferrous metal and copper. The reports shall be accompanied by a written statement from the contractor that the laboratory test results are representative of all import material that will be brought to the project.

Fill Compaction Requirements

Structural and general fill should meet the following compaction requirements.

Item	Structural Fill	General Fill
Maximum Lift Thickness[2]	8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used	Same as Structural fill
Minimum Compaction Requirements [1, 3]	95% of max: Upper 12 inches of subgrade in pavement areas, for aggregate base and chemically treated soil, below slabs and foundations, and where fill thicknesses exceed 5 feet. 90% of max: All other locations	90% of max.
Water Content Range [1]	Low to moderate plasticity cohesive: +1% to +3% above optimum Granular: -2% to +2% of optimum	As required to achieve min. compaction requirements[4]

1. Maximum density and optimum water content as determined by the Modified Proctor test (ASTM D 1557).
2. Reduced lift thicknesses are recommended in confined areas (e.g., utility trenches, foundation excavations, and foundation backfill) and when hand-operated compaction equipment is used.
3. We recommend that engineered fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved. This procedure is intended for soils with 30 percent

Item	Structural Fill	General Fill
	or less material larger than ¾ inch. Accordingly, we recommend full time proof roll observation be performed instead of moisture density testing for materials containing more than 30 percent aggregate retained on the ¾-inch sieve.	
4.	Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proof rolled.	

Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction. If utility trenches are backfilled with relatively clean granular material, they should be capped with at least 18 inches of cementitious flowable fill or cohesive fill in non-pavement areas and areas outside of the building footprint to reduce the infiltration and conveyance of surface water through the trench backfill. Attempts should also be made to limit the amount of fine migration into the clean granular material. Fines migration into clean granular fill may result in unanticipated localized settlements over a period of time. To help limit the amount of fines migration, Terracon recommends the use of a geotextile fabric that is designed to prevent fines migration in areas of contact between clean granular material and fine-grained soils. Terracon also recommends that clean granular fill be tracked or tamped in place where possible in order to limit the amount of future densification which may cause localized settlements over time.

Utility trenches are a common source of water infiltration and migration. Utility trenches penetrating beneath the building should be effectively sealed to restrict water intrusion and flow through the trenches, which could migrate below the building. The trench should provide an effective trench plug that extends at least 5 feet from the face of the building exterior. The plug material should consist of cementitious flowable fill or low permeability clay. The trench plug material should be placed to surround the utility line. If used, the clay trench plug material should be placed and compacted to comply with the water content and compaction recommendations for structural fill stated previously in this report.

If chemical (lime) treatment of subgrade soils is performed and occurs before utility construction, Controlled Low Strength Material (CLSM) or sand/cement slurry should be used as backfill material to cap utility trenches in pavement, hardscape, and building areas where trenches have cut through the treated subgrade. The thickness of the CLSM or slurry should be at least the thickness or depth of chemically treated subgrade. Such areas trenched through chemically treated soil should not be backfilled with aggregate base, native soil, or chemically treated soil.

Post construction trenching through geogrid reinforced pavement areas shall be accomplished with conventional trenching equipment. Repairs to the trenched section shall be accomplished using a full structural replacement of the displaced materials or with a repaired section that is identical to the original section. If the trench section is repaired to match the original, the trench

backfill must be compacted to the same or higher density and the geogrid must be over-lapped a minimum 3-inches at the proper geogrid elevation.

Grading and Drainage

All grades must provide effective drainage away from the building during and after construction and should be maintained throughout the life of the structure. Water retained next to the building can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential floor slab and/or foundation movements, cracked slabs and walls, and roof leaks. The roof should have gutters/drains with downspouts that discharge onto splash blocks at a distance of at least 10 feet from the building.

Exposed ground should be sloped and maintained at a minimum 5 percent away from the building for at least 10 feet beyond the perimeter of the foundation. If a minimum 5 percent slope cannot be achieved due to site grades, a minimum 2½ percent slope could be used provided pavement or hardscape surrounds and extends to the building or a subdrain could be installed around the perimeter of the foundations that carries water away from the building. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After building construction and landscaping, final grades should be verified to document effective drainage has been achieved. Grades around the structure should also be periodically inspected and adjusted as necessary as part of the structure's maintenance program. Where paving or flatwork abuts the structure a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Planters and bio-swales located within 10 feet of the structure should be self-contained or lined with an impermeable membrane to prevent water from accessing building subgrade soils. Sprinkler mains and spray heads should be located a minimum of 5 feet away from the building lines.

Trees or other vegetation whose root systems have the ability to remove excessive moisture from the subgrade and foundation soils should not be planted next to the building. Trees and shrubbery should be kept away from the exterior of the structure a distance at least equal to their expected mature height.

Drains should be provided at the top of all slopes where the contributing drainage area to the slope has a flow path longer than 30 feet measured horizontally. Runoff water should not be allowed to run over the slopes. Runoff over the existing slope can cause erosion and instability of the slope. Surface drainage should be collected and discharged to an existing drainage system or to a positive gravity outlet with a dissipater.

Implementation of adequate drainage for this project can affect the surrounding developments. Consequently, in addition to designing and constructing drainage for this project, the effects of

site drainage should be taken into consideration for the undeveloped portions of this property, and surrounding sites. Extra care should be taken to ensure irrigation and drainage from adjacent areas do not drain onto the project site or saturate the construction area.

Earthwork Construction Considerations

Excavations for the proposed structure are anticipated to be accomplished with conventional construction equipment. Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of foundations, floor slabs, and pavements. Construction traffic over the completed subgrades should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to slab or pavement construction.

We recommend that the earthwork portion of this project be completed during extended periods of dry weather if possible. If earthwork is completed during the wet season (typically November through April) it may be necessary to take extra precautionary measures to protect subgrade soils. Wet season earthwork operations may require additional mitigation measures beyond that which would be expected during the drier summer and fall months. This could include ground stabilization utilizing chemical treatment of the subgrade, diversion of surface runoff around exposed soils, and draining of ponded water on the site. Once subgrades are established, it may be necessary to protect the exposed subgrade soils from construction traffic.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, “Excavations” and its appendices, and in accordance with any applicable local, and/or state regulations. Stockpiles of soil, construction materials, and construction equipment should not be placed near trenches or excavations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and topsoil, proofrolling, and mitigation of areas delineated by the proofroll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked, as necessary, until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building and pavement areas. One density and water content test per lift should be performed for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. If unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

Design Parameters – Compressive Loads

Item	Description
Maximum Net Allowable Bearing pressure [1, 2]	2,000 psf
Required Bearing Stratum [3]	Minimum 3 feet of LVC structural fill below the bottom of footings.
Minimum Foundation Dimensions	Columns: 2 feet Continuous: 1 foot
Maximum Foundation Dimensions	Columns: 10 feet Continuous: 4 feet
Passive Resistance [4,8] **(equivalent fluid pressures)**	300 pcf
Coefficient of Sliding Friction [5,8]	0.35 (structural fill)
Minimum Embedment below Finished Grade [6]	12 inches
Estimated Total Settlement from Structural Loads [2]	Less than about 1 inch
Estimated Differential Settlement [2, 7]	About 1/2 of total settlement

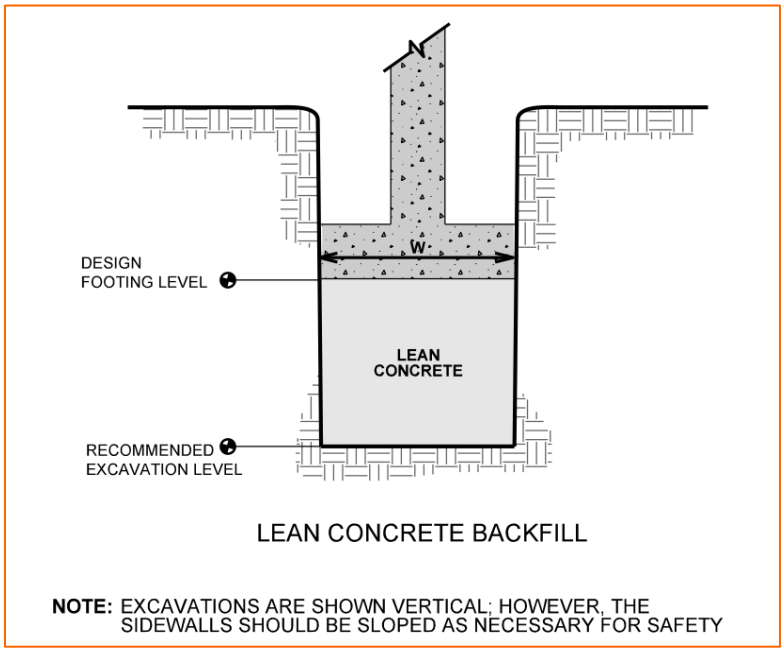
Item	Description
1.	The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. A factor of safety has been applied. These bearing pressures can be increased by 1/3 for transient loads unless those loads have been factored to account for transient conditions. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2.	Values provided are for maximum loads noted in **Project Description**.
3.	Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in the **Earthwork**.
4.	Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face.
5.	Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6.	Embedment necessary to minimize the effects of seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
7.	Differential settlements are as measured over a span of 40 feet.
8.	Passive pressure and sliding friction may be combined to resist sliding provided the passive pressure is reduced by 50 percent.

Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

To ensure foundations have adequate support, special care should be taken when footings are located adjacent to trenches. The bottom of such footings should be at least 1 foot below an imaginary plane with an inclination of 1.5 horizontal to 1.0 vertical extending upward from the nearest edge of adjacent trenches.

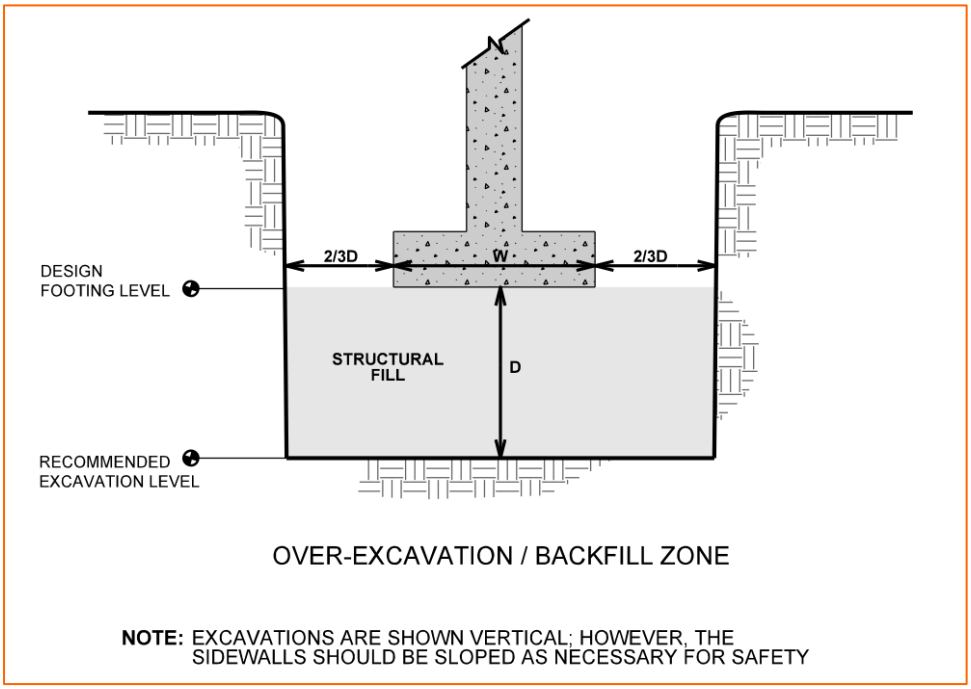
If unsuitable bearing soils are encountered at the base of the planned footing excavations, the excavations should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. This is illustrated on the following below.



LEAN CONCRETE BACKFILL

NOTE: EXCAVATIONS ARE SHOWN VERTICAL; HOWEVER, THE SIDEWALLS SHOULD BE SLOPED AS NECESSARY FOR SAFETY

Over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with LVC structural fill placed, as recommended in the **Earthwork** section.



OVER-EXCAVATION / BACKFILL ZONE

NOTE: EXCAVATIONS ARE SHOWN VERTICAL; HOWEVER, THE SIDEWALLS SHOULD BE SLOPED AS NECESSARY FOR SAFETY

MAT SLAB FOUNDATION

As an alternative to shallow foundations, the proposed building may be supported by a **Mat Slab Foundation** system. The following design parameters are applicable for a mat slab foundation at this site.

Item	Description
Maximum Net Allowable Bearing pressure [1, 2]	500 psf
Required Bearing Stratum [3]	Minimum 24 inches of Low Volume Change (LVC) structural fill as described in the ***Fill Material Types*** section
Passive Resistance [4,8] **(equivalent fluid pressure)**	300 pcf
Coefficient of Sliding Friction [5,8]	0.35 (LVC structural fill)
Minimum Embedment below Finished Grade [6]	12 inches
Estimated Total Settlement from Structural Loads [2]	Less than about 1½ inches
Estimated Static Differential Settlement [2, 7]	About 1/2 of total settlement
Design Modulus of Subgrade Reaction, k	k_1 = 115 psi/in $K_{(BxB)} = K_1\left(\frac{B+1}{2B}\right)^2$ $K_{(BxL)} = \frac{K_{BxB}\left(1+0.5*\left(\frac{B}{L}\right)\right)}{1.5}$ Where: k_1 = coefficient of subgrade reaction of foundations measuring 1 ft. x 1ft. $K_{(BxB)}$ = coefficient of subgrade modulus for a square foundation having dimensions BxB. $K_{(BxL)}$ = coefficient of subgrade modulus for a rectangular foundation having dimensions BxL.

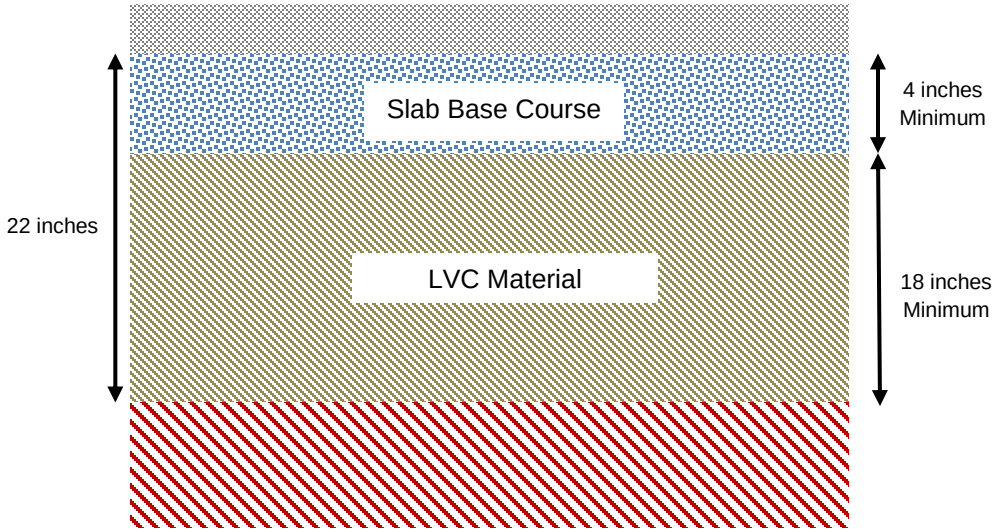
Item	Description
1.	The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the foundation base elevation. A factor of safety has been applied. This bearing pressure can be increased by 1/3 for transient loads unless those loads have been factored to account for transient conditions. Values assume that exterior grades are no steeper than 20% within 10 feet of structure. The bearing pressure provided assumes a rigid mat slab design that applies a uniform pressure across the footprint of the slab. If bearing pressures will vary across the slab, Terracon should be contacted to perform a detailed settlement analysis based on the actual bearing pressure distribution.
2.	Values provided are for maximum loads noted in **Project Description**.
3.	Unstable or soft soils should be over-excavated and replaced according to the recommendations present in **Earthwork.**
4.	Use of passive earth pressures require the sides of the excavation for the foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the foundation forms be removed and compacted structural fill be placed against the vertical foundation face.
5.	Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6.	Embedment necessary to minimize the effects of seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
7.	Differential settlements are as measured over a span of 40 feet.
8.	Passive pressure and sliding friction may be combined to resist sliding provided the passive pressure is reduced by 50 percent.

FLOOR SLABS

We understand that the building will be constructed with a concrete slab-on-grade floor if a mat slab foundation is not utilized. In order to help mitigate the effects of the moderately plastic soils on the building floor slab, we recommend the slab-on-grade be underlain by minimum of 18 inches of LVC structural fill. Using 18 inches of LVC structural fill as recommended in this report may not eliminate all future subgrade volume change and resultant slab movements. However, the procedures outlined herein should help to reduce the potential for subgrade volume change. LVC fill should meet the specifications and be placed and compacted as recommended in **Earthwork** section of this report.

Due to the potential for significant moisture fluctuations of subgrade material beneath slabs supported at-grade, the Geotechnical Engineer should evaluate the material within 12 inches of the bottom of the LVC fill immediately prior to placement of additional fill or slabs. Soils below the specified water contents within this zone should be moisture conditioned or replaced with structural fill as stated in our **Earthwork** section.

Concrete Slab-on-Grade



Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure.

Floor Slab Design Parameters

Item	Description
Floor Slab Support [1]	At least 18 inches of low volume change (LVC) material as described for structural fill in the ***Fill Material Types*** section.
Estimated Modulus of Subgrade Reaction [2]	k_1 = 115 psi/in $K_{(BxB)} = K_1 \left(\frac{B+1}{2B}\right)^2$ $K_{(BxL)} = \frac{K_{(BxB)}\left(1 + 0.5 * \left(\frac{B}{L}\right)\right)}{1.5}$ Where: k_1 = coefficient of subgrade reaction of foundations measuring 1 ft. x 1ft. $K_{(BxB)}$ = coefficient of subgrade modulus for a square foundation having dimensions BxB. $K_{(BxL)}$ = coefficient of subgrade modulus for a rectangular foundation having dimensions BxL.

Item	Description
Slab Base Course[3]	Minimum 4 inches of Caltrans Class II aggregate base compacted to at least 95% of ASTM D1557.

1. Floor slabs should be structurally independent of building foundations or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.
3. These granular materials are in addition to the LVC zone unless Class II aggregate base is used for LVC material.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

Floor Slab Construction Considerations

Finished subgrade, within and for at least 10 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

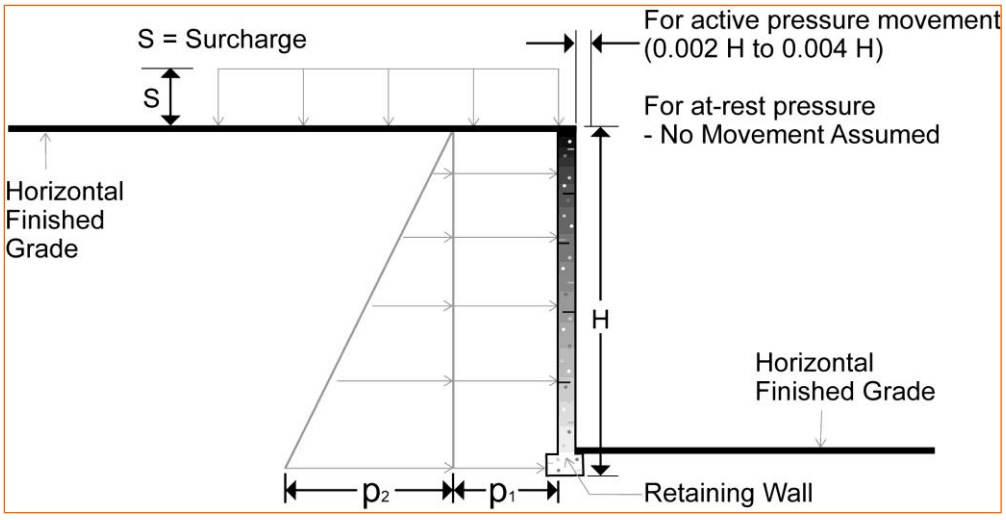
The Geotechnical Engineer should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

LATERAL EARTH PRESSURES

Design Parameters

We anticipate below-grade walls at this site will consist of cantilevered concrete retaining walls up to 5 feet tall installed to facilitate construction of elevator pits and retaining walls up to 8 feet tall will be constructed along the southern portion of the property to facilitate site development. The lateral earth pressure recommendations given in the following paragraphs are applicable to the design of cantilever or gravity type concrete or masonry walls. These recommendations are not applicable to the design of modular block - geogrid reinforced backfill walls. Recommendations covering these types of wall systems are beyond the scope of services for this assignment. However, we would be pleased to develop recommendations for the design of such wall systems upon request.

Structures with unbalanced backfill levels on opposite sides should be designed for earth pressures at least equal to values indicated in the following table. Earth pressures will be influenced by structural design of the walls, conditions of wall restraint, methods of construction and/or compaction and the strength of the materials being restrained. Two wall restraint conditions are shown in the diagram below. Active earth pressure is commonly used for design of free-standing cantilever retaining walls and assumes wall movement. The “at-rest” condition assumes no wall movement and is commonly used for basement walls, loading dock walls, or other walls restrained at the top. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls (unless stated).



Lateral Earth Pressure Design Parameters				
Earth Pressure Condition [1]	Coefficient for Backfill Type[2]	Surcharge Pressure [3, 4, 5] p_1 (psf)	Effective Fluid Pressures (psf) [2, 4, 5]	
			Unsaturated[6]	Saturated[6]
Active (Ka)	LVC structural fill - 0.31	(0.31)S	(40)H	(80)H
	Native soils – 0.53	(0.53)S	(65)H	(95)H
At-Rest (Ko)	LVC structural fill - 0.47	(0.47)S	(55)H	(90)H
	Native soils - 0.69	(0.69)S	(85)H	(105)H
Passive (Kp)	LVC structural fill - 3.25	---	(375)H	(250)H
	Native soils 1.89	---	(225)H	(175)H

1. For active earth pressure, wall must rotate about base, with top lateral movements 0.002 H to 0.004 H, where H is wall height. For passive earth pressure, wall must move horizontally to mobilize resistance.
2. Uniform, horizontal backfill, compacted to at least 90 percent of the ASTM D 1557 maximum dry density, rendering a maximum unit weight of 120 pcf.
3. Uniform surcharge, where S is surcharge pressure. The project structural engineer should provide any surcharge loading.
4. Loading from heavy compaction equipment is not included.
5. No safety factor is included in these values.
6. To achieve "Unsaturated" conditions, follow guidelines in **Subsurface Drainage for Below-Grade Walls** or **Retaining Wall Drainage**. "Saturated" conditions are recommended when drainage behind walls is not incorporated into the design.

Backfill placed against structures should consist of LVC structural fill or low plasticity cohesive soils. For the LVC structural fill values to be valid, the fill backfill must extend out and up from the base of the wall at an angle of at least 45 and 60 degrees from vertical for the active and passive cases, respectively.

Total lateral earth pressure acting on retaining or below grade walls during a seismic event will likely include the active or at-rest static force and dynamic increment. The active dynamic increment should be applied to the wall as resultant force acting at 0.6H height from the base of the wall and the at-rest dynamic increment should be applies to the wall as resultant force acting at 0.63H height from the base of the wall. Such increments should be added to the static earth pressures. A dynamic lateral earth resultant force of $17H^2$ (in units of pounds per linear foot (plf), where H (in units of feet) is the height of the soil behind the wall[1] should be used in design.

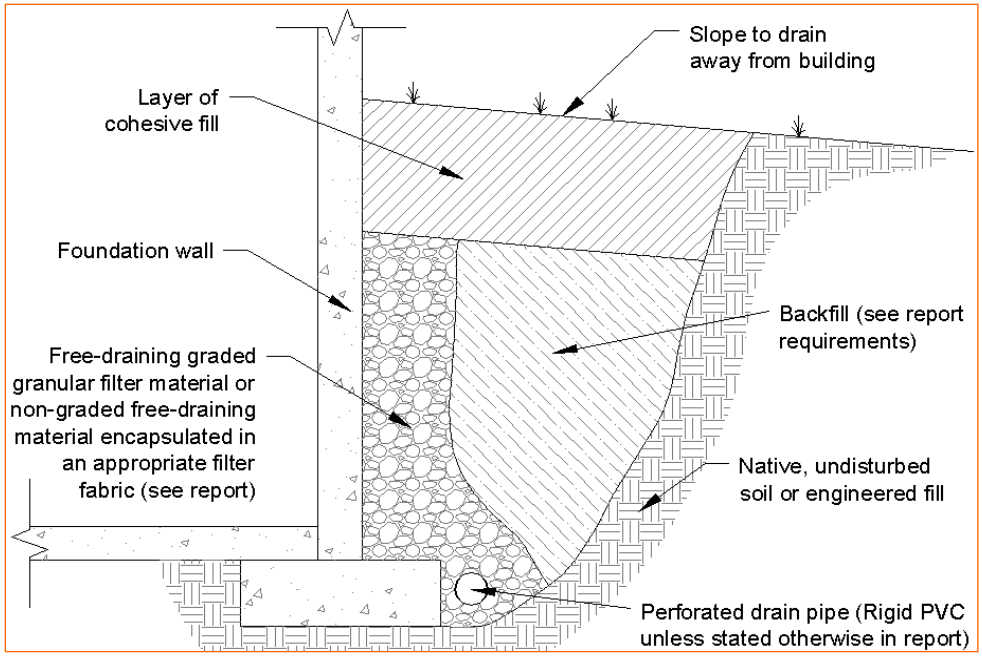
Heavy equipment should not operate within a distance closer than the exposed height of retaining or below grade walls to prevent lateral pressures more than those provided. Compaction of each lift adjacent to wall should be accomplished with hand-operated tampers for other lightweight

[1] *Seed & Whitman (1970)*

compactors. Over-compaction may cause excessive lateral earth pressures which could result in wall movement.

Subsurface Drainage for Below-Grade Walls

A perforated rigid plastic drain line installed behind the base of walls and extends below adjacent grade is recommended to prevent hydrostatic loading on the walls. The invert of a drain line around a below-grade building area or exterior retaining wall should be placed near foundation bearing level. The drain line should be sloped to provide positive gravity drainage to daylight or to a sump pit and pump. The drain line should be surrounded by clean, free-draining granular material having less than 5% passing the No. 200 sieve, such as No. 57 aggregate. The free-draining aggregate should be encapsulated in a filter fabric. The granular fill should extend to within 2 feet of final grade, where it should be capped with compacted cohesive fill to reduce infiltration of surface water into the drain system.

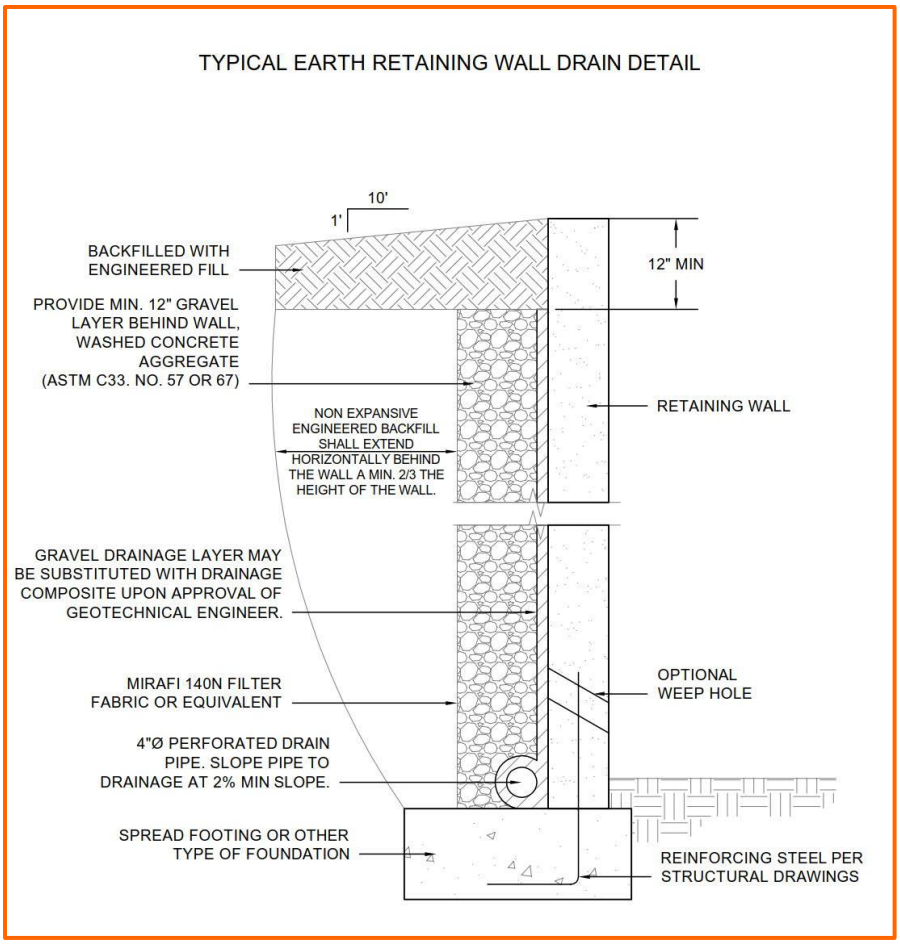


As an alternative to free-draining granular fill, a pre-fabricated drainage structure may be used. A pre-fabricated drainage structure is a plastic drainage core or mesh which is covered with filter fabric to prevent soil intrusion and is fastened to the wall prior to placing backfill.

Retaining Wall Drainage

To control hydrostatic pressure behind the wall we recommend that a drain be installed at the bottom of the wall with a collection pipe leading to a reliable discharge. The drainage should consist of either a composite drain or a 12-inch thick free draining gravel blanket. Free draining gravel should consist of Caltrans Class II permeable material or ¾ inch clean gravel wrapped in Mirafi 140N filter fabric or

equivalent. The drainage should extend from the bottom of the wall to within 12 inches of the top of the wall. The drainage should be capped with 12 inches of compacted cohesive soil. The collection pipe should be designed by the Civil Engineer but should be a minimum 4-inch diameter perforated Schedule 40 PVC or ABS drain pipe and should slope to an existing drainage system or to a positive gravity outlet. A typical earth retaining wall drain detail is illustrated on the following sketch.



PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

Differential movement should be considered when planning the development of pavement areas. Site drainage should be designed to compensate for differential settlement in pavement areas. Long term maintenance should be planned for in pavement and drainage areas adjacent to building entrances.

On most project sites, the site grading is accomplished relatively early in the construction phase. Fills are placed and compacted in a uniform manner. However, as construction proceeds, excavations are made into these areas, rainfall and surface water saturates some areas, heavy traffic from concrete trucks and other delivery vehicles disturbs the subgrade and many surface irregularities are filled in with loose soils to improve trafficability temporarily. As a result, the pavement subgrades, initially prepared early in the project, should be carefully evaluated as the time for pavement construction approaches.

We recommend the moisture content and density of the top 12 inches of the subgrade be evaluated and the pavement subgrades be proofrolled within two days prior to commencement of actual paving operations. Areas not in compliance with the required ranges of moisture or density should be moisture conditioned and recompacted. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by removing and replacing the materials with properly compacted fills.

After proof rolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified and developed as recommended in the **Earthwork** section this report to provide a uniform subgrade for pavement construction. Areas that appear severely desiccated following site stripping may require further undercutting and moisture conditioning. If a significant precipitation event occurs after the evaluation or if the surface becomes disturbed, the subgrade should be reviewed by qualified personnel immediately prior to paving. The subgrade should be in its finished form at the time of the final review.

Pavement Design Parameters

Design of Asphaltic Concrete (AC) pavement sections were calculated using the Caltrans Highway Design Manual, latest edition, and a 20-year design life. Design of Portland Cement Concrete (PCC) pavement sections were designed using ACI 330R-08, “Guide for the Design and Construction of Concrete Parking Lots.”

Bulk samples of the near surface native soils were collected to Hveem Stabilometer (R-Value) testing. A representative bulk sample from Boring P2 was selected for testing. The testing resulted in an R-Value of less than 5. Subsequently, a design R-Value of 5 was used to calculate the AC pavement thickness sections. A modulus of subgrade reaction of 50 pci was use for the PCC pavement designs. Additional R-Value testing may be performed following rough grading of the site on the subgrade soils that will ultimately support proposed pavements in order to

determine if a more favorable R-Value result may be used in design reducing planning pavement sections.

Based on this relatively low R-value the conventional pavement sections will be relatively thick. The deeper pavement sections will require more off haul of material on site if the same grades are kept. As an alternative to conventional pavement sections, reinforcing the pavement sections with geogrid or chemical treatment of the subgrade soils may be performed to improve their physical support characteristics and reduce the pavement section.

Recommendations for conventional, geogrid reinforced, and chemically treated pavement sections are presented below. The recommendations are based on the subgrade being in a firm and unyielding condition.

Pavement Section Thicknesses

The following tables provide options for AC, AC with geogrid reinforcement, AC with chemical treatment and PCC Sections:

Asphaltic Concrete Design				
Layer	Thickness (inches)			
	Auto Parking Areas (TI=5.0 assumed)[3]	Auto Road (TI=5.5 assumed)[3]	Truck Parking Areas (TI=6.0 assumed)[3]	Truck Ramps and Roads (TI=8.0 assumed)[3]
AC [1, 2]	3.0	3.5	3.5	5.0
Aggregate Base [1]	10.0	11.0	13.0	18.0

1. All materials should meet the current Caltrans Highway Design Manual specifications
   - Asphaltic Base – Caltrans Class 2 aggregate base
2. A minimum 1.5-inch surface course should be used on ACC pavements.
3. The traffic index (TI) is a measure of traffic wheel loading frequency and intensity of anticipated traffic.

The following table provides options for AC pavement sections reinforced with geogrid. The sections were calculated using the Tensar SpectraPave4PRO-California software. The geogrid material shall be Tensar TriAx TX5 or an equivalent conforming to the physical properties in the latest Greenbook Standard Specifications, Multi-Axial Geogrid Table 213-5.2 (E) Type R2. The geogrid shall be placed directly on the subgrade below the aggregate base layer. Adjacent rolls of geogrid shall be overlapped a minimum of 1 foot. Soft subgrade conditions may require up to 3 feet of overlap at the discretion of the geotechnical engineer. The development of wrinkles in the geogrid shall be avoided. A minimum loose fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. When underlying substrate is trafficable with

minimal rutting, rubber-tired equipment may pass over the geogrid reinforcement at slow speeds (less than 10 mph).

Reinforced pavement design procedures developed by grid producers rely on product specific field and laboratory research. In some cases, this research has tested pavement sections within a limited range of subgrade conditions and pavement thicknesses. Extrapolations are typically used for thicker pavement sections outside those parameters based on computer modeling. These methods represent the state of the practice but have not always been specifically verified by performance testing.

Asphaltic Concrete Design with Geogrid Reinforcement				
Layer	Thickness (inches)			
	Auto Parking Areas (TI=5.0 assumed)[3]	Auto Road (TI=5.5 assumed)[3]	Truck Parking Areas (TI=6.0 assumed)[3]	Truck Ramps and Roads (TI=8.0 assumed)[3]
AC [1, 2]	3.0	3.5	3.5	5.0
Aggregate Base [1]	5.0	6.0	8.0	11.0

1. All materials should meet the current Caltrans Highway Design Manual specifications
   - Asphaltic Base – Caltrans Class 2 aggregate base
2. A minimum 1.5-inch surface course should be used on ACC pavements.
3. The traffic index (TI) is a measure of traffic wheel loading frequency and intensity of anticipated traffic.

The following table provides options for AC pavement sections supported by chemically treated soil. Chemical treatment involves treating the pavement subgrade soils with a certain percentage of lime and/or cement. Usually 4.0 to 5.5 percent based on the dry unit weight of the soil, for a depth of 12 inches. For estimating purposes, we recommend using 4.5 percent lime and/or cement and a soil unit weight of 110 pounds per cubic foot. For a 12-inch treatment depth, this results in an estimated minimum spread rate of 5 pounds per square foot cement. The actual amount of lime and/or cement to be used should be determined by Terracon and by laboratory testing **at least three weeks prior** to the start of grading operations. Chemical treatment is performed after rough grading of the pavement areas is completed.

Chemically Treated Subgrade Asphaltic Concrete Design				
Layer	Thickness (inches)			
	Auto Parking Areas (TI=5.0 assumed)[3]	Auto Road (TI=5.5 assumed)[3]	Truck Parking Areas (TI=6.0 assumed)[3]	Truck Ramps and Roads (TI=8.0 assumed)[3]
AC [1, 2]	3.0	3.5	3.5	5.0
Aggregate Base [1]	4.0	4.0	4.0	8.0
Chemically Treated Subgrade[1,4]	12.0	12.0	12.0	12.0

1. All materials should meet the current Caltrans Highway Design Manual specifications
   - Asphaltic Base – Caltrans Class 2 aggregate base
2. A minimum 1.5-inch surface course should be used on ACC pavements.
3. The traffic index (TI) is a measure of traffic wheel loading frequency and intensity of anticipated traffic.
4. Chemically treated material shall have a minimum unconfined compressive strength of 300 psi.

Rigid PCC pavements will perform better than AC in areas where short-radii turning and braking are expected due to better resistance to rutting and shoving. In addition, PCC pavement will perform better in areas subject to large or sustained loads. An adequate number of longitudinal and transverse control joints should be placed in the rigid pavement in accordance with ACI and/or AASHTO requirements. Expansion (isolation) joints must be full depth and should only be used to isolate fixed objects abutting or within the paved area.

All concrete for rigid pavements should have a minimum flexural strength of 550 psi, a minimum compressive strength of 4,500 psi. and be placed with a maximum slump of four inches. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. All joints should be sealed to prevent entry of foreign material and dowelled where necessary for load transfer.

We recommend all PCC pavement details for joint spacing, joint reinforcement, and joint sealing be prepared in accordance with American Concrete Institute (ACI 330R and ACI 325R.9). PCC pavements should be provided with mechanically reinforced joints (doweled or keyed) in accordance with ACI 330R. Where practical, we recommend early-entry cutting of crack-control joints in PCC pavements. Cutting of the concrete in its “green” state typically reduces the potential for micro-cracking of the pavements prior to the crack control joints being formed, compared to cutting the joints after the concrete has fully set. Micro-cracking of pavements may lead to crack formation in locations other than the sawed joints, and/or reduction of fatigue life of the pavement.

Thickened edges should be used along outside edges of concrete pavements. Edge thickness should be at least 2 inches thicker than concrete pavement thickness and taper to the actual

concrete pavement thickness 36 inches inward from the edge. Integral curbs may be used in lieu of thickened edges.

Portland Cement Concrete Design			
Layer	Thickness (inches)		
	Car Parking and Access Lanes [1]	Truck Parking [1]	Dumpster Pads [1,3]
PCC [2]	5.0	6.5	7.5
Aggregate base [2]	4.0	6.0	6.0

1. Car Parking and Access Lanes: ADTT = 1 truck per day
   Truck Parking: ADTT = 25 trucks per day
   Dumpster Pads: Per Category C
2. All materials should meet the current Caltrans Highway Design Manual specifications.
3. The trash container pad should be large enough to support the container and the tipping axle of the collection truck.

As more specific traffic information becomes available for the project specific and project traffic indexes are determined, we should be contacted to reevaluate the pavement calculations.

Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the granular subbase.

The pavement surfacing, and adjacent sidewalks should be sloped to provide rapid drainage of surface water. Water should not be allowed to pond on or adjacent to these grade-supported slabs, since this could saturate the subgrade and contribute to premature pavement or slab deterioration. In areas where pavement sections abut bioswales, curb should extend below the planned AB section to intercept water infiltration below the pavement section. Water migration in and out of the pavement sections may result in repeated shrinkage and swelling and increasing pavement section fatigue.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment.

Maintenance consists of both localized maintenance (e.g., crack and joint sealing and patching) and global maintenance (e.g., surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur, and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.
- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

CORROSIVITY

The table below lists the results of laboratory soluble sulfate, soluble chloride, electrical resistivity, and pH testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary						
Boring	**Sample Depth (feet)**	**Soil Description**	**Soluble Sulfate (%)**	**Soluble Chloride (%)**	**Electrical Resistivity (Ω-cm)**	**pH**
B1	2 to 3 ½	Clayey Gravel	0.0237	0.0065	970	8.56

These test results are provided to assist in determining the type and degree of corrosion protection that may be required for the project. We recommend that a certified corrosion engineer determine the need for corrosion protection and design appropriate protective measures.

Resistivity

The resistivity values indicate the sample tested exhibits a very high corrosive potential to buried metal pipes at boring B1. Evaluation of the test results is based upon the guidelines of J.F. Palmer, "Soil Resistivity Measurements and Analysis", Materials Performance, Volume 13, January 1974. The following table outlines the guidelines for soil resistivity for corrosion potential.

Corrosion Potential of Soil on Steel	
Soil Resistivity (ohm-cm)	**Corrosion Potential**
0 to 1,000	Very High
1,000 to 2,000	High
2,000 to 5,000	Moderate
> 5,000	Mild

Sulfates

The sulfate test results indicate that the soil from boring B1 at depths of 2 to 3½ feet bgs classifies as Class S0 according to Table 19.3.1.1 of ACI 318-14. This indicates that the sulfate severity is negligible when considering corrosion to concrete. Based on the sulfate content test results, ACI 318-14, Section 19.3 does not specify a required type of cement or a maximum water-cement ratio for concrete for sulfate Class S0. For further information, see ACI 318-14, Section 19.3.

Laboratory pH

Data suggests the soil pH should not be the dominant soil variable affecting soil corrosion if the soil has a pH in the 5 to 8 range. The pH of the sample tested was above the recommended range, and should therefore be considered when determining soil corrosion potential.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing. This report should not be used after 3 years without written authorization from Terracon.

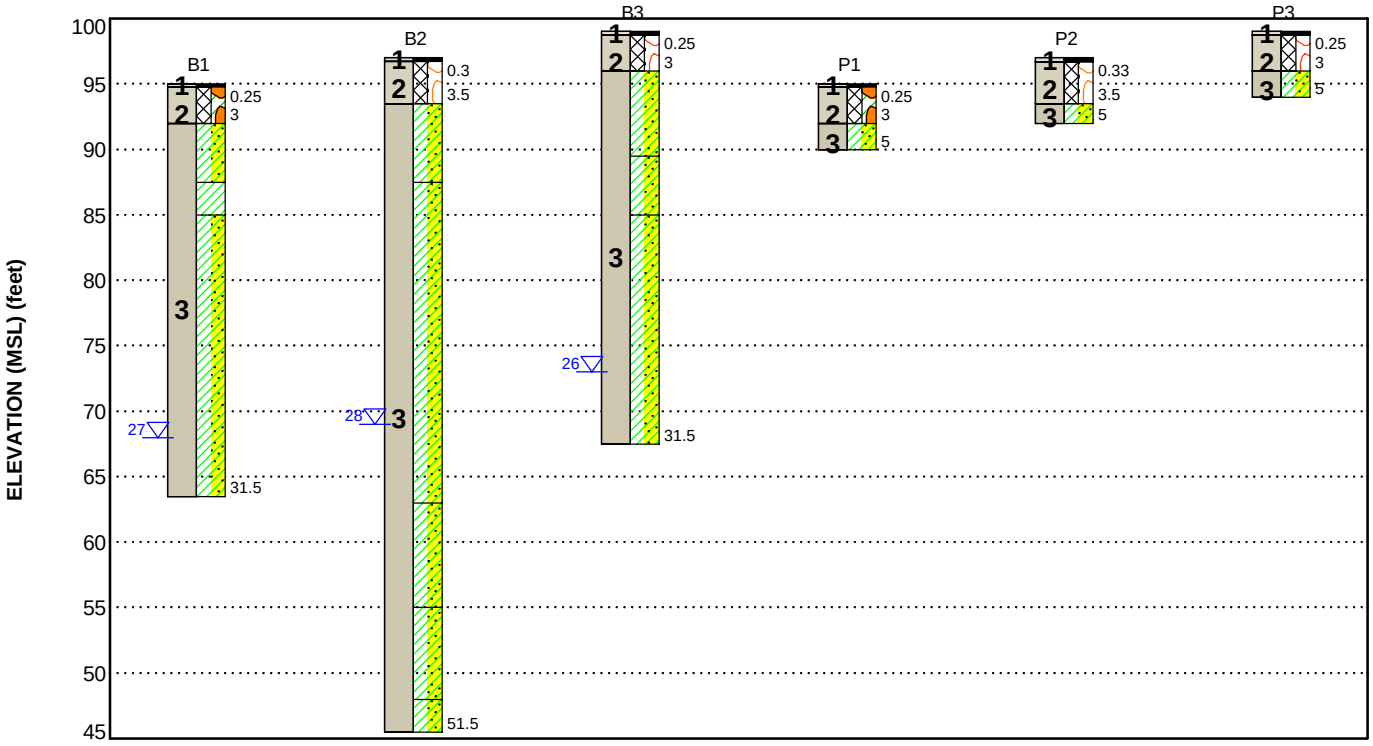
FIGURES

Contents:

GeoModel

GEOMODEL

Extra Space Storage - San Pablo ■ San Pablo, CA
Terracon Project No. ND215065



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Pavement**	Asphalt concrete.
2	**FILL**	Loose clayey gravel, well graded gravel, and aggregate base.
3	**Lean Clay**	Medium stiff to very stiff lean clay with variable amounts of sand.

LEGEND

- Asphalt
- Clayey Gravel
- Lean Clay with Sand
- Lean Clay
- Well-graded Gravel
- Aggregate Base Course

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
2	31½	Planned building area
1	51½	Planned building area
3	5	Planned parking and drive areas

Boring Layout and Elevations: Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±15 feet) and approximate elevations were obtained from GoogleEarthPro. If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced the borings with a truck-mounted rotary drill rig using continuous flight augers (solid stem and/or hollow stem, as necessary, depending on soil conditions). For the shallow borings, a grab sample of the subgrade below the existing fill was collected. For the deeper borings, four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling was performed using split-barrel sampling. In the split-barrel sampling procedure, a 3.0-inch outer diameter Modified California split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration was recorded on the boring logs. Tube-lined, split barrel sampling procedures are similar to split-spoon sampling procedures; however, blow counts are not equivalent to SPT blow counts. The values provided on our logs are uncorrected. For safety purposes, all deep borings were backfilled with grout after their completion. Pavements were patched with cold-mix asphalt.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural

standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D4318 Standard Test Method for Determining the Amount of Material Finer than No. 200 Sieve by Soil Washing
- ASTM D2166/D2166M Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
- ASTM D2435/D2435M Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
- ASTM D2844 Standard Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils
- ASTM G162 – 99 Standard Practice for Conducting and Evaluating Laboratory Corrosion Tests in Soils

The laboratory testing program often included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location Plan
Exploration Plan

Note: All attachments are one page unless noted above.

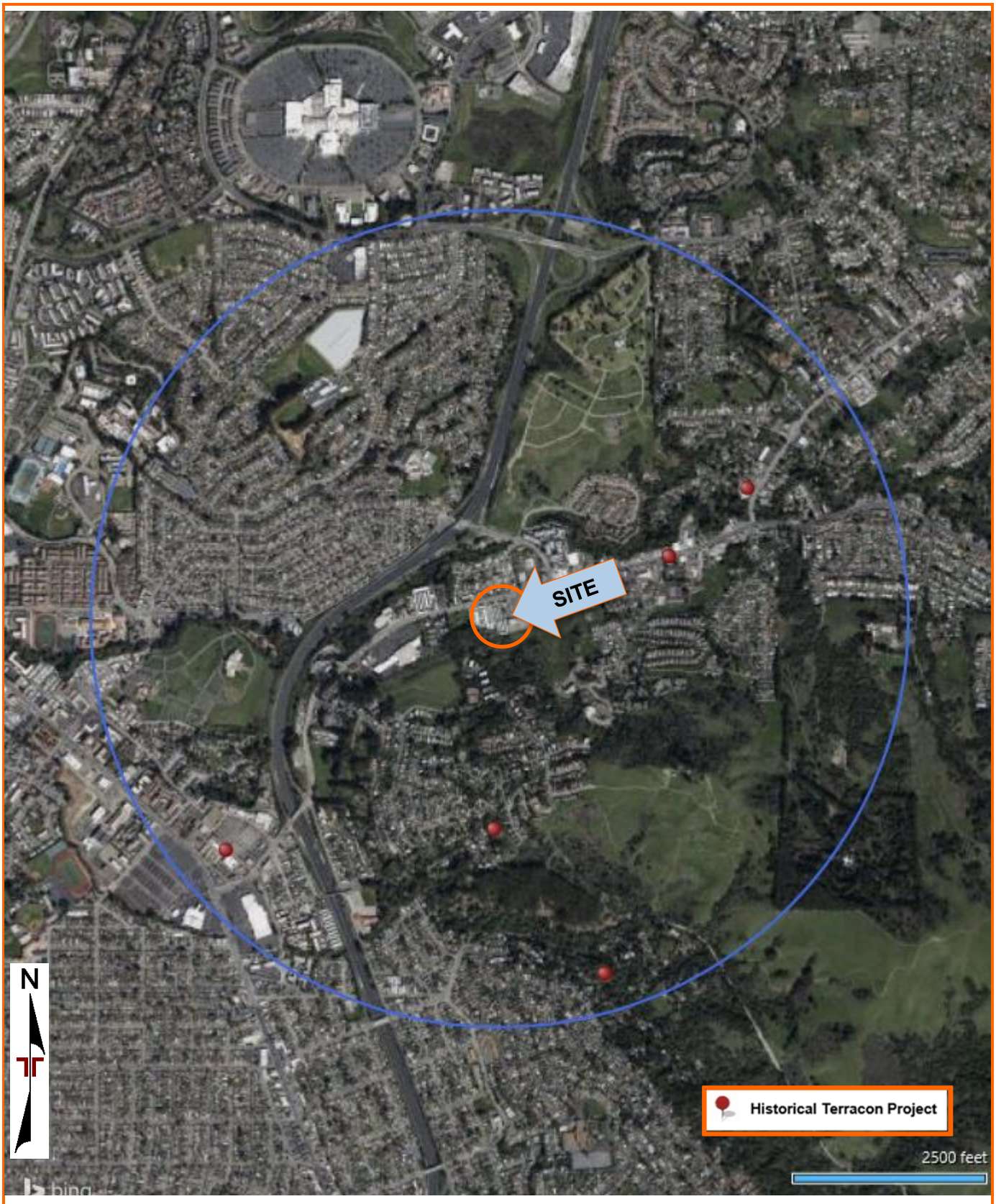


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Contents:

Boring Logs (B1 through B3, P1 through P3)
Atterberg Limits
Consolidation (3 pages)
Unconfined Compressive Strength (2 pages)
R-Value
Corrosivity

Note: All attachments are one page unless noted above.

BORING LOG NO. B1

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9633° Longitude: -122.3210°

Approximate Surface Elev.: 95 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	95+/-										
2			**ASPHALT**, 3 inches.										
			FILL - CLAYEY GRAVEL (GC), fine to coarse grained, black, loose.										
		3.0	92+/-										
			LEAN CLAY WITH SAND (CL), gray black, stiff.				3-5-9	3.0 (HP)		29.2			
				5			5-5-11	3.5 (HP)		26.7			
		7.5	87.5+/-										
			LEAN CLAY (CL), dark brown, very stiff.				5-9-13	3.5 (HP)		23.2			91
		10.0	85+/-	10			5-9-12	3.0 (HP)		22.3			
3			**LEAN CLAY WITH SAND (CL)**, bluish gray, stiff to very stiff.	15			6-9-15	2.75 (HP)		24.2			
				20			5-10-14	2.0 (HP)		22.0			
				25	▽		5-7-15	1.25 (HP)		30.1			

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

▽

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-20-2021 | Boring Completed: 09-20-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. B1

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9633° Longitude: -122.3210°

Approximate Surface Elev.: 95 (Ft.) +/-

DEPTH ELEVATION (Ft.)

MODEL LAYER	GRAPHIC LOG	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
3		30			9-9-12	1.25 (HP)		32.7			

LEAN CLAY WITH SAND (CL), bluish gray, stiff to very stiff. *(continued)*

31.5 63.5+/-

Boring Terminated at 31.5 Feet

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-20-2021 Boring Completed: 09-20-2021

Drill Rig: D-50 Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. B2

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9630° Longitude: -122.3208°

Approximate Surface Elev.: 97 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	96.5+/-										
2			**ASPHALT**, 4 inches.										
			FILL - WELL GRADED GRAVEL (GW), fine to coarse grained, brown, loose.				10-5-4			2.7			
		3.5	93.5+/-	5			3-6-8	2.25 (HP)		28.2		47-25-22	83
			LEAN CLAY WITH SAND (CL), black, stiff.				3-8-11		2.63	26.3			
		9.5	87.5+/-	10			4-8-12	2.75 (HP)		22.3			
3			**LEAN CLAY WITH SAND (CL)**, dark brown, stiff to very stiff.	15			4-7-11		1.99	25.5			
				20			4-8-11	2.75 (HP)		25.8		36-15-21	71
				25			3-9-15	3.75 (HP)		26.3			

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-20-2021 | Boring Completed: 09-20-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. B2

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9630° Longitude: -122.3208°

Approximate Surface Elev.: 97 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
3			**LEAN CLAY WITH SAND (CL)**, dark brown, stiff to very stiff. *(continued)*	30									
							5-8-11	2.5 (HP)		32.6			
		34.0	63+/-	35									
			LEAN CLAY WITH SAND (CL), brown, stiff to very stiff.				6-7-13	1.25 (HP)		22.7		37-16-21	83
				40			3-5-8						
		42.0	55+/-										
			LEAN CLAY WITH SAND (CL), gray brown, stiff.	45			9-7-10	2.75 (HP)		23.6			85
		49.0	48+/-										
			LEAN CLAY WITH SAND (CL), gray, medium stiff.	50				1.25 (HP)		26.8			
		51.5	45.5+/-										
			Boring Terminated at 51.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-20-2021 | Boring Completed: 09-20-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. B3

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9626° Longitude: -122.3206°

Approximate Surface Elev.: 99 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	99+/-										
2			**ASPHALT**, 3 inches.										
			FILL - AGGREGATE BASE COURSE, brown, loose.										
		3.0	96+/-										
			LEAN CLAY WITH SAND (CL), black, medium stiff to stiff.										
							7-5-6			5.1			
				5			4-6-8	2.0 (HP)		27.4			
							3-6-8	2.5 (HP)		25.1			
		9.5	89.5+/-										
			LEAN CLAY WITH SAND (CL), dark brown, stiff.	10			4-6-8	1.75 (HP)		25.3			
		14.0	85+/-										
3			**LEAN CLAY WITH SAND (CL)**, light brown, stiff to very stiff.	15			9-11-16	3.25 (HP)		28.6			
				20			4-7-9	2.5 (HP)		22.9			
				25	▽		5-10-12	2.5 (HP)		20.7			

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

▽

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-21-2021 | Boring Completed: 09-21-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. B3

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 37.9626° Longitude: -122.3206° Approximate Surface Elev.: 99 (Ft.) +/- DEPTH / ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
3		**LEAN CLAY WITH SAND (CL)**, light brown, stiff to very stiff. *(continued)*	30									
		31.5 67.5+/-				7-10-14	4.5 (HP)		19.2			
		Boring Terminated at 31.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-21-2021 | Boring Completed: 09-21-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. P1

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9634° Longitude: -122.3210°

Approximate Surface Elev.: 95 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	95+/-										
			ASPHALT, 3 inches.										
2			**FILL - CLAYEY GRAVEL (GC)**, fine to coarse grained, black.										
		3.0	92+/-										
3			**LEAN CLAY WITH SAND (CL)**, gray black.										
		5.0	90+/-	5									
			Boring Terminated at 5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with auger cuttings

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-21-2021 | Boring Completed: 09-21-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. P2

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9631° Longitude: -122.3207°

Approximate Surface Elev.: 97 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	96.5+/-										
2			**ASPHALT**, 4 inches.										
			FILL - WELL GRADED GRAVEL (GW), fine to coarse grained, brown.										
		3.5	93.5+/-										
3			**LEAN CLAY (CL)**, black.										
		5.0	92+/-	5									
			Boring Terminated at 5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with auger cuttings

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-21-2021 | Boring Completed: 09-21-2021

Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

BORING LOG NO. P3

PROJECT: Extra Space Storage - San Pablo

CLIENT: Extra Space Storage
Salt Lake City, UT

SITE: 3516 San Pablo Dam Road
San Pablo, CA

LOCATION See Exploration Plan

Latitude: 37.9625° Longitude: -122.3207°

Approximate Surface Elev.: 99 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	99+/-										
2			**ASPHALT**, 3 inches.										
			FILL - AGGREGATE BASE COURSE , fine to coarse grained, brown.										
		3.0	96+/-										
3			**LEAN CLAY WITH SAND (CL)**, black.										
		5.0	94+/-	5									
			Boring Terminated at 5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" Hollow Stem Auger

Abandonment Method:
Boring backfilled with auger cuttings

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations estimated from GoogleEarthPro.

Notes:

WATER LEVEL OBSERVATIONS

Terracon
5075 Commercial Cir Ste E
Concord, CA

Boring Started: 09-21-2021 | Boring Completed: 09-21-2021

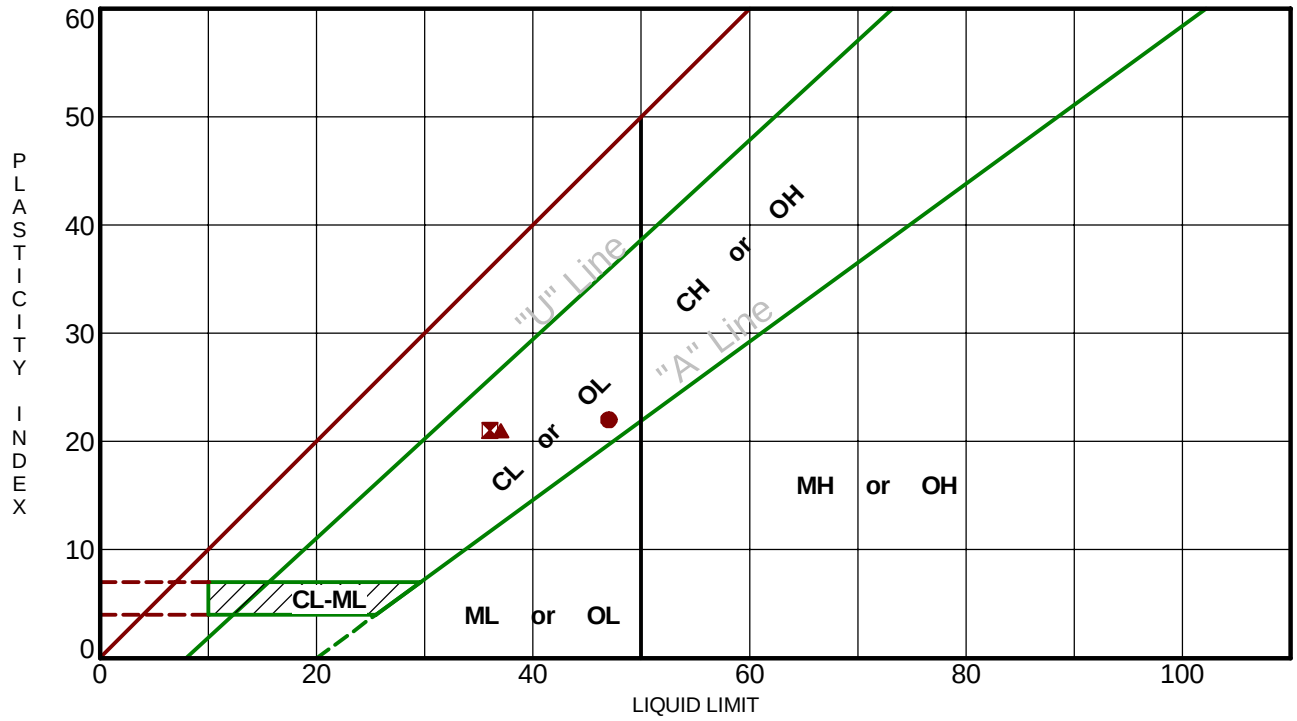
Drill Rig: D-50 | Driller: Terracon

Project No.: ND215065

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/22/21

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID		Depth	LL	PL	PI	Fines	USCS	Description
●	B2	5 - 6.5	47	25	22	82.7	CL	LEAN CLAY with SAND
⊠	B2	20 - 21.5	36	15	21	70.7	CL	LEAN CLAY with SAND
▲	B2	35 - 36.5	37	16	21	83.1	CL	LEAN CLAY with SAND

PROJECT: Extra Space Storage - San Pablo

PROJECT NUMBER: ND215065

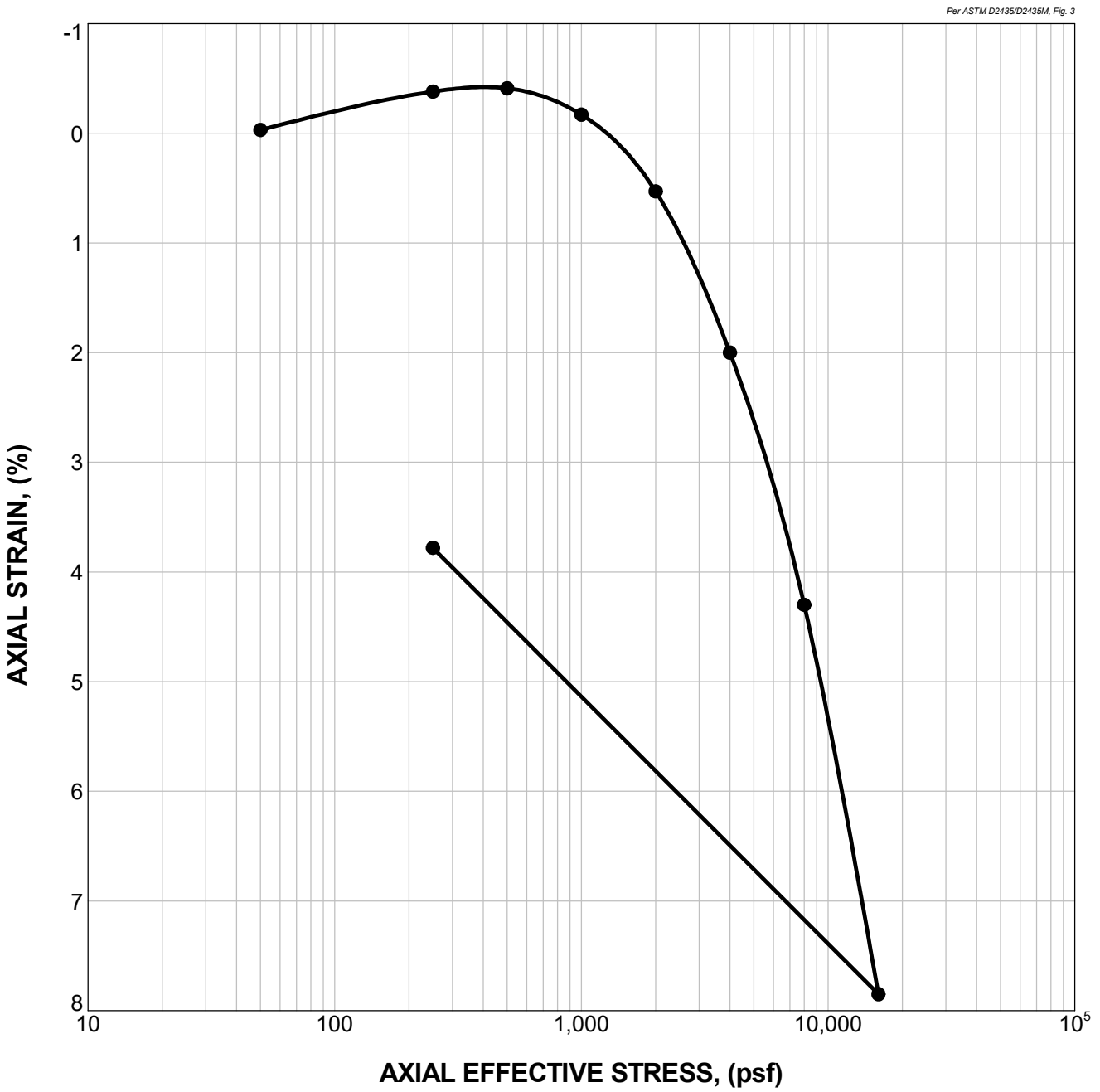
SITE: 3516 San Pablo Dam Road
San Pablo, CA

Terracon
5075 Commercial Cir Ste E
Concord, CA

CLIENT: Extra Space Storage
Salt Lake City, UT

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/20/21

CONSOLIDATION TEST (D2435)



Natural		Initial Dry Density (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c (% / log stress)	C_r (% / log stress)	Initial Void Ratio
Saturation	Moisture									
105.1 %	24.8 %	100.6			2.60	1880				

MATERIAL DESCRIPTION	USCS	AASHTO
Lean Clay with Sand	CL	

NOTES:

Borehole: B1 Depth: 15 ft Specimen #: B1-5

PROJECT: Extra Space Storage - San Pablo

SITE: 3516 San Pablo Dam Road
San Pablo, CA

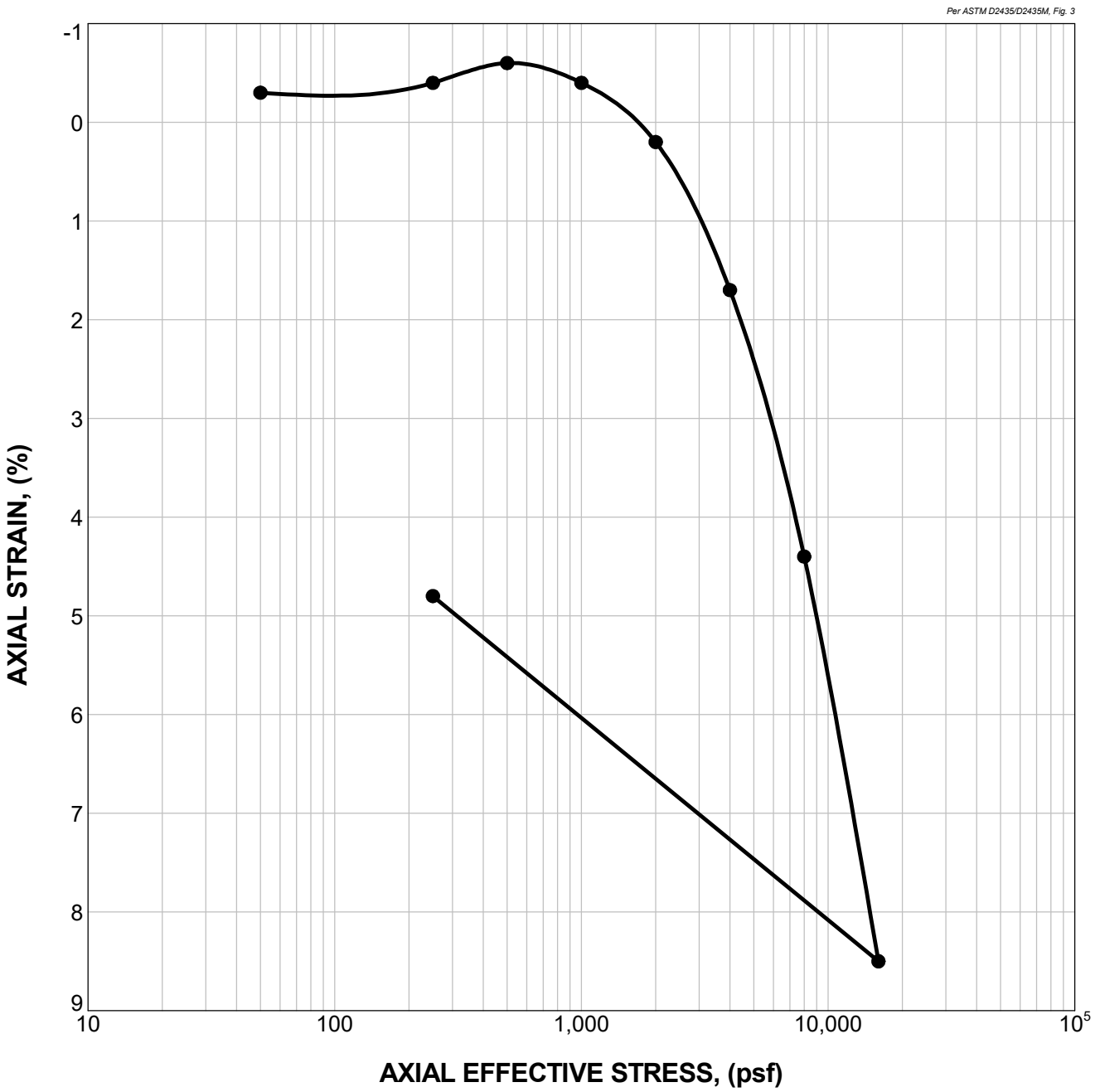
Terracon
5075 Commercial Cir Ste E
Concord, CA

PROJECT NUMBER: ND215065

CLIENT: Extra Space Storage
Salt Lake City, UT

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CONS_LOAD-DEF_PROP_STRESS-STRAIN ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/5/21

CONSOLIDATION TEST (D2435)



Natural		Initial Dry Density (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c (% / log stress)	C_r (% / log stress)	Initial Void Ratio
Saturation	Moisture									
104.2 %	28.0 %	95.6			2.60	620				

MATERIAL DESCRIPTION	USCS	AASHTO
Fat Clay	CH	

NOTES:

Borehole: B3 Depth: 5 ft Specimen #: B3-2

PROJECT: Extra Space Storage - San Pablo

SITE: 3516 San Pablo Dam Road
San Pablo, CA

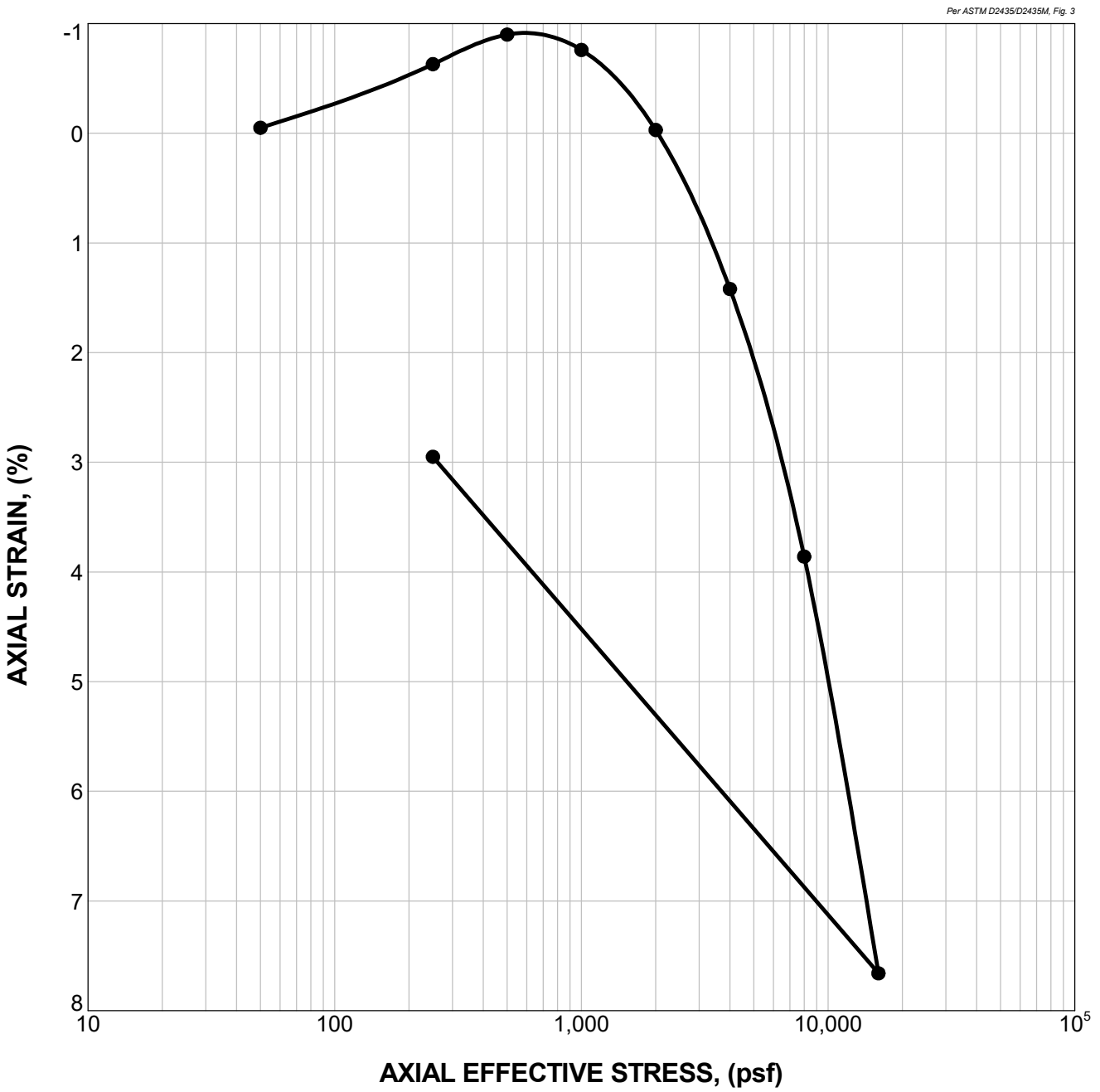
Terracon
5075 Commercial Cir Ste E
Concord, CA

PROJECT NUMBER: ND215065

CLIENT: Extra Space Storage
Salt Lake City, UT

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CONS_LOAD-DEF_PROP_STRESS-STRAIN ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/5/21

CONSOLIDATION TEST (D2435)



Natural		Initial Dry Density (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c (% / log stress)	C_r (% / log stress)	Initial Void Ratio
Saturation	Moisture									
105.6 %	24.6 %	101.1			2.60	1200				

MATERIAL DESCRIPTION	USCS	AASHTO
Fat Clay	CH	

NOTES:

Borehole: B3 Depth: 10 ft Specimen #: B3-4

PROJECT: Extra Space Storage - San Pablo

PROJECT NUMBER: ND215065

SITE: 3516 San Pablo Dam Road
San Pablo, CA

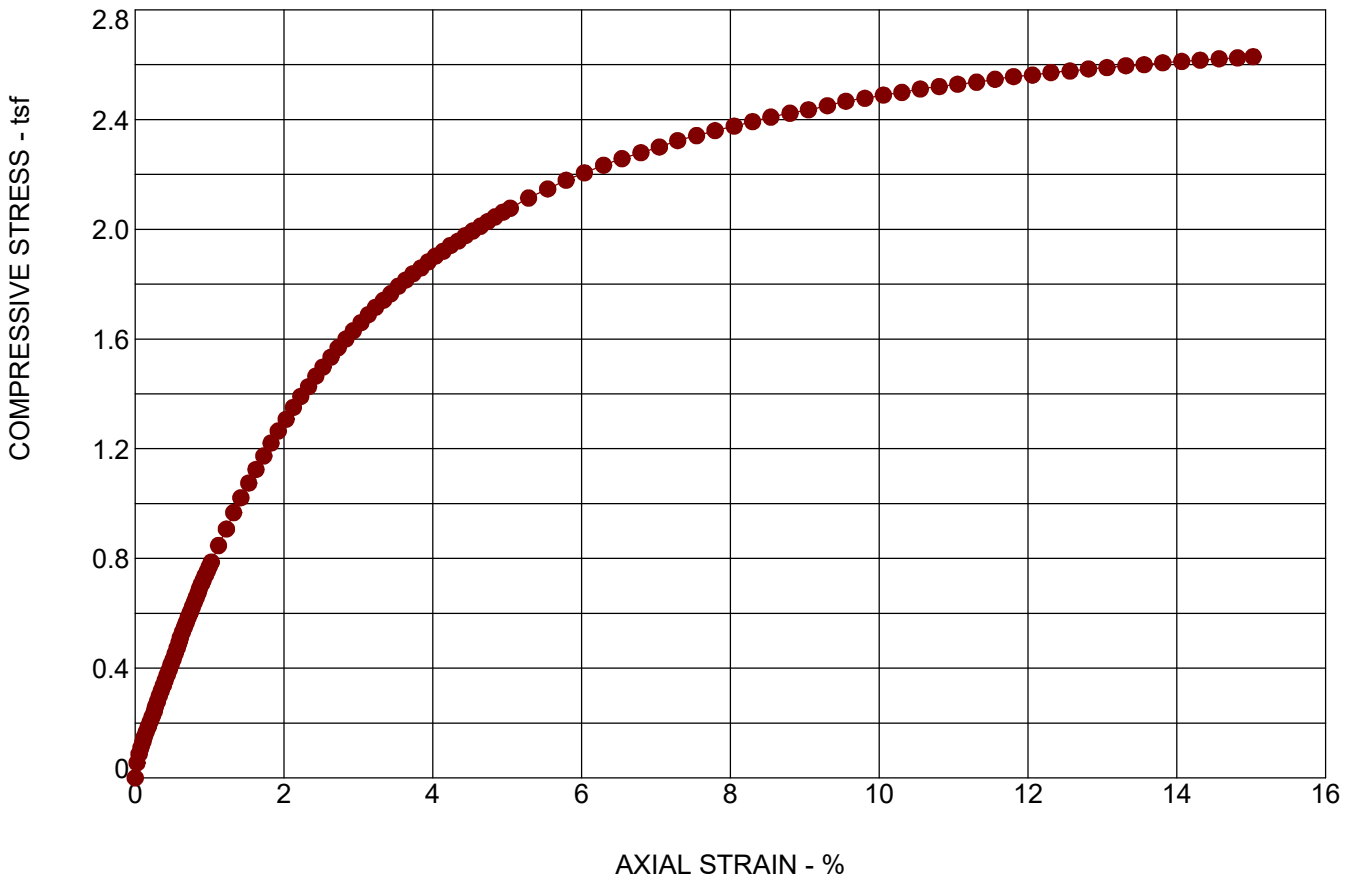
Terracon
5075 Commercial Cir Ste E
Concord, CA

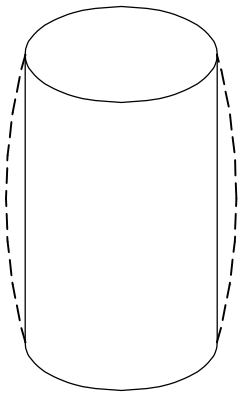
CLIENT: Extra Space Storage
Salt Lake City, UT

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CONS_LOAD-DEF_PROP_STRESS-STRAIN ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 10/5/21

UNCONFINED COMPRESSION TEST

ASTM D2166



SPECIMEN FAILURE MODE	SPECIMEN TEST DATA		
	Moisture Content:	%	
	Dry Density:	pcf	
	Diameter:	in.	2.39
	Height:	in.	4.44
	Height / Diameter Ratio:		1.85
	Calculated Saturation:	%	
	Calculated Void Ratio:		
	Assumed Specific Gravity:		
	Failure Strain:	%	15.00
	Unconfined Compressive Strength	(tsf)	2.63
	Undrained Shear Strength:	(tsf)	1.31
	Strain Rate:	in/min	
	Remarks:		

Failure Mode: Bulge (dashed)

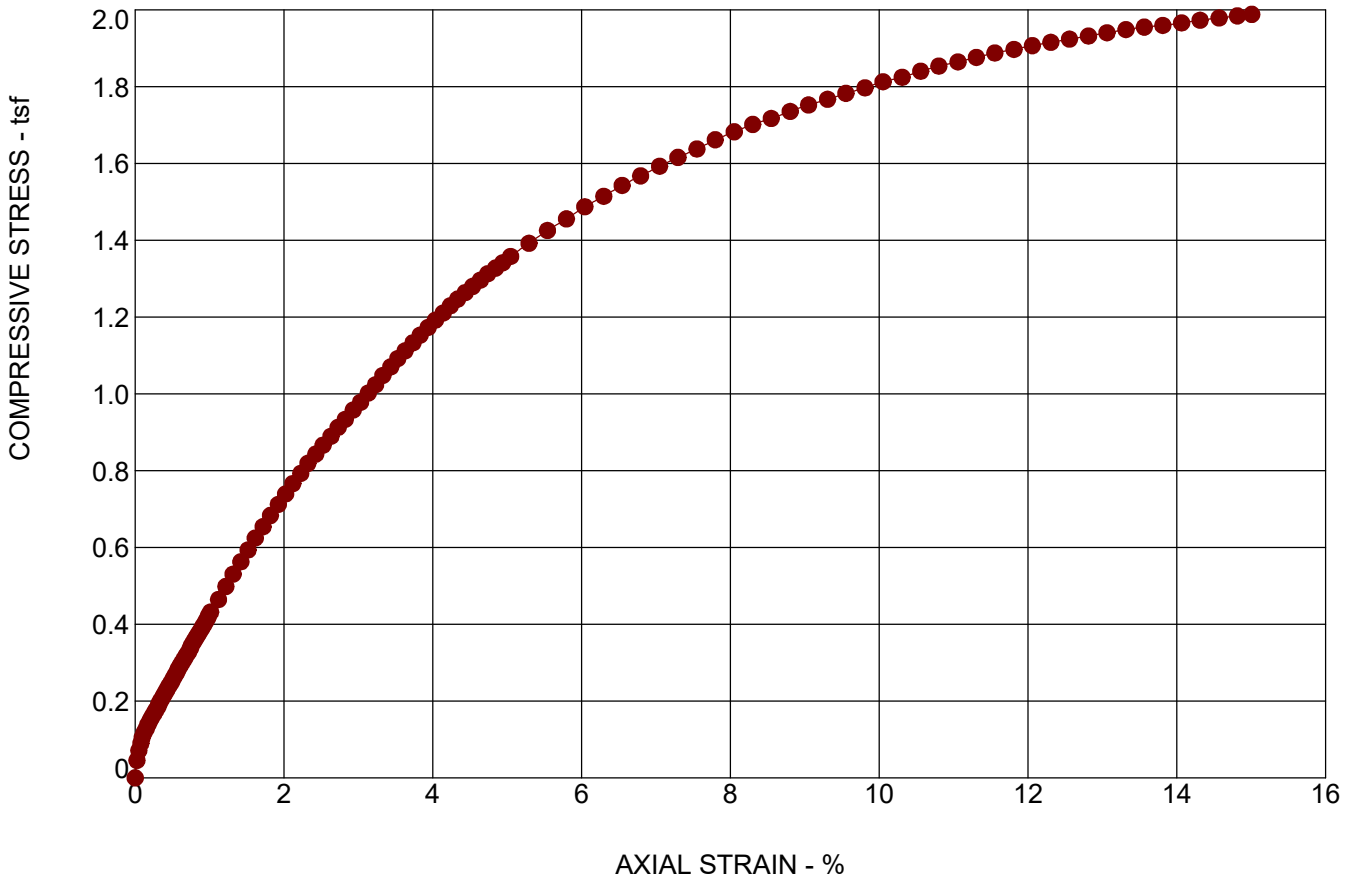
SAMPLE TYPE: CARS	SAMPLE LOCATION: B2 @ 7.5 - 9 feet			
DESCRIPTION:	LL	PL	PI	Percent < #200 Sieve

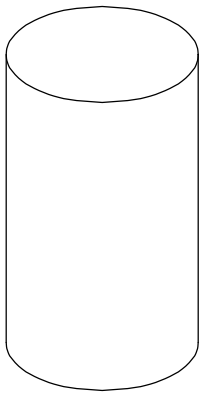
PROJECT: Extra Space Storage - San Pablo	Terracon 5075 Commercial Cir Ste E Concord, CA	PROJECT NUMBER: ND215065
SITE: 3516 San Pablo Dam Road San Pablo, CA		CLIENT: Extra Space Storage Salt Lake City, UT
		EXHIBIT: B-1

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. UNCONFINED ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 9/29/21

UNCONFINED COMPRESSION TEST

ASTM D2166

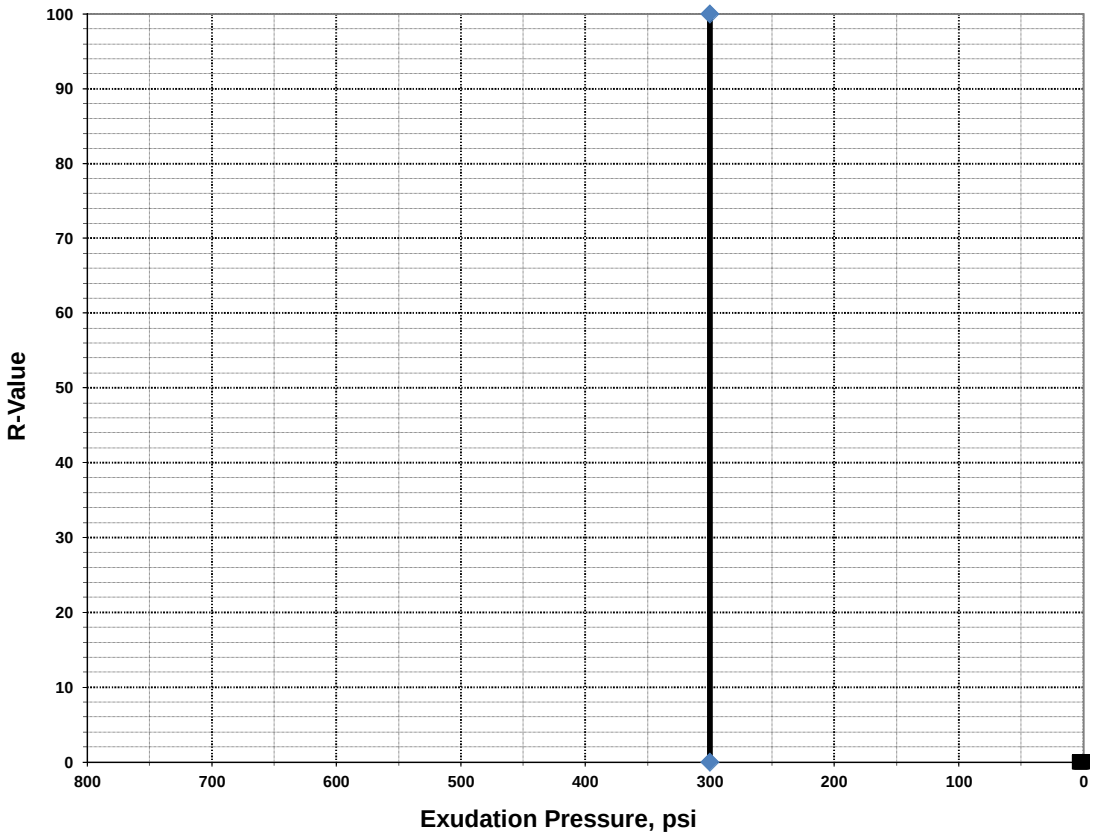


SPECIMEN FAILURE MODE	SPECIMEN TEST DATA		
 Failure Mode: (dashed)	Moisture Content:	%	
	Dry Density:	pcf	
	Diameter:	in.	2.41
	Height:	in.	4.70
	Height / Diameter Ratio:		1.96
	Calculated Saturation:	%	
	Calculated Void Ratio:		
	Assumed Specific Gravity:		
	Failure Strain:	%	15.00
	Unconfined Compressive Strength	(tsf)	1.99
	Undrained Shear Strength:	(tsf)	0.99
	Strain Rate:	in/min	
	Remarks:		

SAMPLE TYPE: CARS	SAMPLE LOCATION: B2 @ 15 - 16.5 feet			
DESCRIPTION:	LL	PL	PI	Percent < #200 Sieve

PROJECT: Extra Space Storage - San Pablo	Terracon 5075 Commercial Cir Ste E Concord, CA	PROJECT NUMBER: ND215065
SITE: 3516 San Pablo Dam Road San Pablo, CA		CLIENT: Extra Space Storage Salt Lake City, UT
		EXHIBIT: B-2

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. UNCONFINED ND215065 EXTRA SPACE STORA.GPJ TERRACON_DATATEMPLATE.GDT 9/29/21



Specimen Identification	Compaction Pressure (psi)	R-Value at 300 psi
P2	**100.0**	**<5**

Material extruded from bottom of mold during exudation on 1st attempt. Test aborted. Material has an R-value of <5

R-Value Test

Client:	Extra Space Storage, Salt Lake City, UT
Project:	Extra Space Storage - San Pablo
Site:	San Pablo
Project No.:	ND215065

750 Pilot Road, Suite F
Las Vegas, Nevada 89119
(702) 597-9393

Client
Extra Space Storage

Project
Extra Space Storage- San Pablo

Sample Submitted By: Terracon (ND) **Date Received:** 9/29/2021 **Lab No.: 21-0729**

Results of Corrosion Analysis

Sample Number	B1-1
Sample Location	B1
Sample Depth (ft.)	2.0-3.5
pH Analysis, ASTM G 51	8.56
Water Soluble Sulfate (SO4), ASTM C 1580 (mg/kg)	237
Sulfides, AWWA 4500-S D, (mg/kg)	Nil
Chlorides, ASTM D 512, (mg/kg)	65
Red-Ox, ASTM G 200, (mV)	+707
Total Salts, AWWA 2520 B, (mg/kg)	706
Saturated Minimum Resistivity, ASTM G 57, (ohm-cm)	970

Analyzed By:
Nathan Campo
Engineering Technician II

The tests were performed in general accordance with applicable ASTM and AWWA test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

SUPPORTING INFORMATION

Contents:

General Notes
Unified Soil Classification System

Note: All attachments are one page unless noted above.

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS
Extra Space Storage - San Pablo ■ San Pablo, CA
Terracon Project No. ND215065

Terracon GeoReport

SAMPLING	WATER LEVEL	FIELD TESTS
Modified California Ring Sampler Grab Sample	**Water Initially Encountered** **Water Level After a Specified Period of Time** **Water Level After a Specified Period of Time** **Cave In Encountered** Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	**N** Standard Penetration Test Resistance (Blows/Ft.) **(HP)** Hand Penetrometer **(T)** Torvane **(DCP)** Dynamic Cone Penetrometer **UC** Unconfined Compressive Strength **(PID)** Photo-Ionization Detector **(OVA)** Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (tsf)**	**Standard Penetration or N-Value Blows/Ft.**
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or [Cc<1 or Cc>3.0] [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or [Cc<1 or Cc>3.0] [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"		CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K, L, M, N]
			Liquid limit - not dried			Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K, L, M]
			PI plots below "A" line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K, L, M, P]
			Liquid limit - not dried			Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

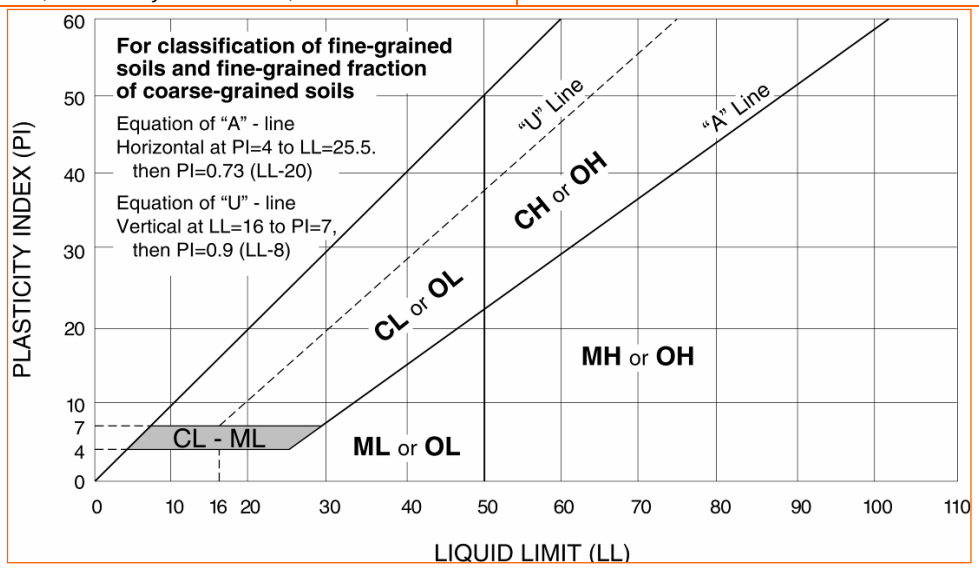
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



Appendix NOI

Noise Modeling Outputs and References

Groundborne Noise and Vibration Modeling

Notes
The reference distance is measured from the nearest anticipated point of construction equipment to the nearest structure.

	Reference Level Inputs			
Equipment	**PPV_{ref} (in/sec)**	**Lv_{ref} (VdB)**	**RMS_{ref} (in/sec)**	**Reference Distance**
Vibratory Roller	0.21	94	0.050	25
Hoe Ram	0.089	87	0.022	25
Large bulldozer	0.089	87	0.022	25
Caisson drilling	0.089	87	0.022	25
Loaded trucks	0.076	83	0.014	25
Jack hammer	0.035	79	0.009	25
Small bulldozer	0.003	58	0.001	25

	Vibration Level at Receiver			
Equipment	**Distance (feet)**	**PPV_x (in/sec)**	**Lv_x (VdB)**	**RMS_x (in/sec)**
Vibratory Roller	135	0.0329	78	0.008
Hoe Ram	135	0.0139	71	0.004
Large bulldozer	75	0.0266	77	0.007
Caisson drilling	135	0.0139	71	0.004
Loaded trucks	75	0.0227	73	0.004
Jack hammer	75	0.0105	69	0.003
Small bulldozer	135	0.0005	42	0.000

	Vibration Contours		
	Distance to (feet)		
Equipment	**0.200 PPV**	**72.0 VdB**	**0.0080 RMS**
Vibratory Roller	26	250	133
Hoe Ram	12	120	64
Large bulldozer	12	120	64
Caisson drilling	12	120	64
Loaded trucks	10	79	42
Jack hammer	5	52	28
Small bulldozer	1	6	3

Source
California Department of Transportation (Caltrans). 2013. Transportation and Construction Last Updated: 4/11/2019

38HDR
Performance™ Series Air Conditioner with Puron® Refrigerant
1–1/2 to 5 Nominal Tons

Carrier®
Turn to the Experts.℠

Product Data



Puron™ the environmentally sound refrigerant

Performance™ SERIES

Carrier's Air Conditioners with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 38HDR has been designed utilizing Carrier's Puron refrigerant. The environmentally sound refrigerant allows you to make a responsible decision in the protection of the earth's ozone layer.

As an Energy Star® Partner, Carrier Corporation has determined that this product meets the Energy Star® guidelines for energy efficiency. Refer to the combination ratings in the Product Data for system combinations that meet Energy Star® guidelines.

NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

INDUSTRY LEADING FEATURES / BENEFITS

Energy Efficiency

- 13 - 15 SEER/10.9 - 12.5 EER

Sound

- Levels as low as 68 dBA

Design Features

- New aesthetics
- Small footprint, same as old model and "stackable"
- WeatherArmor™ cabinet
  - — All steel cabinet construction
  - — Baked on powder paint
  - — Mesh coil guard

Reliability, Quality and Toughness

- Scroll compressor
- Crankcase Heater standard on sizes 030-060
- Factory-supplied filter drier
- High pressure switch
- Low pressure switch
- Line lengths up to 250' (76.2 m)
- Low ambient operation (down to -20°F/-28.9°C) with low ambient accessories.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13
N	N	A	A	A/N	N	N	N	A/N	A/N	A/N	N	N
3	8	H	D	R	0	1	8	A	0	0	3	0
Product Series	HDR = Horizontal Discharge Condensing Unit			Cooling Capacity				Variations	Open	Open	Voltage	Minor Series
38=AC/HP	Major Model			1,000 Btuh Nominal				A=Standard	0=Not Defined	0=Not Defined	3=208/230–1 5=208/230–3 6=460/3	0, 1, 2...

Puron™ the environmentally sound refrigerant

ARI PERFORMANCE CERTIFIED™ ARI Standard 210/240 Unitary Air Conditioners

ISO 9001:2000 QMI REGISTERED

c UL® us

ENERGY STAR PARTNER

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturing refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**

PHYSICAL DATA

UNIT 38HDR	018	024	030	036	048	060
NOMINAL CAPACITY (Tons)	1.5	2.0	2.50	3.0	4.0	5.0
OPERATING WEIGHT lb (kg)	155 (70.3)	180 (81.6)	200 (90.7)	218 (98.9)	284 (128.8)	294 (133.4)
REFRIGERANT TYPE	R–410A					
METERING DEVICE	TXV					
CHARGE lb (kg)	6.3 (2.86)	6.0 (2.73)	8.7 (3.95)	8.7 (3.95)	11.5 (5.23)	12.0 (5.45)
COMPRESSOR						
Type	Scroll					
Oil Charge (POE –oz)	25.0	25.0	25.0	25.0	42.0	42.0
Crankcase Heater (watts)	—	—	40	40	40	40
OUTDOOR FAN						
Rpm/Cfm	840/1720	840/1720	850/3900	850/3900	850/3900	850/3900
Diameter in. (mm)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)
No. Blades	3	3	3	3	3	3
Motor hp (w)	1/8 (93)	1/8 (93)	1/4 (187)	1/4 (187)	1/4 (187)	1/4 (187)
OUTDOOR COIL						
Face Area (sq ft)	5.8	7.3	12.1	12.1	14.1	14.1
No. Rows	2	2	2	2	2	2
FPI	20	20	20	20	20	20
HIGH PRESSURE SWITCH						
Cut–In (psig) Cutout (psig)	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10
LOW PRESSURE SWITCH						
Cut–In (psig) Cutout (psig)	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5
REFRIGERANT LINES						
Connection Type	Sweat					
Max. Liquid Line* (in.) OD	3/8	3/8	3/8	3/8	3/8	3/8
Rated Vapor Line† (in.) OD	5/8	5/8	3/4	3/4	7/8	1–1/8**
CONTROLS						
Control Voltage‡	24 vac					
System Voltage	208/230 v	208/230 v	208/230 v	208/230 v, Single and 3 Phase, 460 v, 3 Phase		
FINISH	Gray					

* See *Liquid Line Sizing For Cooling Only Systems with Puron Refrigerant* tables.

† Units are rated with 25 ft (7.6 m) of lineset length. See *Vapor Line Sizing and Cooling Capacity Loss* table when using other sizes and lengths of lineset.

‡ 24 v and a minimum of 40 va is provided in the fan coil unit.

** Vapor connection size is 7/8 inch.

FPI – Fins Per Inch

POE – Polyol Ester

REFRIGERANT PIPING LENGTH LIMITATIONS

Liquid Line Sizing and Maximum Total Equivalent Lengths† for Cooling Only Systems with Puron® Refrigerant:

The maximum allowable length of a residential split system depends on the liquid line diameter and vertical separation between indoor and outdoor units.

See Table below for liquid line sizing and maximum lengths :

Maximum Total Equivalent Length
Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit BELOW Indoor Vertical Separation ft (m)								
			0–5 (0–1.5)	6–10 (1.8–3.0)	11–20 (3.4–6.1)	21–30 (6.4–9.1)	31–40 (9.4–12.2)	41–50 (12.5–15.2)	51–60 (15.5–18.3)	61–70 (18.6–21.3)	71–80 (21.6–24.4)
018 AC with Puron	3/8	1/4	150	150	125	100	100	75	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	225*	150
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
024 AC with Puron	3/8	1/4	75	75	75	50	50	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	225*	175	125	100
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
030 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –	– –
		5/16	175	225*	200	175	125	100	75	– –	– –
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
036 AC with Puron	3/8	5/16	175	150	150	100	100	100	75	– –	– –
		3//8	250*	250*	250*	250*	250*	250*	250*	250*	250*
048 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	– –
060 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	– –	– –

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

Maximum Total Equivalent Length
Outdoor Unit ABOVE Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit ABOVE Indoor Vertical Separation ft (m)							
			25 (7.6)	26–50 (7.9–15.2)	51–75 (15.5–22.9)	76–100 (23.2–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)
018 AC with Puron	3/8	1/4	175	250*	250*	250*	250*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
024 AC with Puron	3/8	1/4	100	125	175	200	225*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
030 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
036 AC with Puron	3/8	5/16	225*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
048 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
060 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	Puron Charge oz/ft (g/m)
3/8	0.60 (17.74) (Factory charge for lineset = 9 oz / 266.16 g)
5/16	0.40 (11.83)
1/4	0.27 (7.98)

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz (266.16 g). When using other length or diameter liquid lines, charge adjustments are required per the chart above.

Charging Formula:

[(Lineset oz/ft x total length) – (factory charge for lineset)] = charge adjustment

Example 1: System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?

Formula: (.27 oz/ft x 15ft) – (9 oz) = (-4.95) oz.

Net result is to remove 4.95 oz of refrigerant from the system

Example 2: System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

Formula: (.40 oz/ft. x 45ft) – (9 oz.) = 9 oz.

Net result is to add 9 oz of refrigerant to the system

LONG LINE APPLICATIONS

An application is considered Long Line, when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. See Accessory Usage Guideline table for required accessories. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Air Conditioner systems, the chart below shows when an application is considered Long Line.

AC WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
1/4	No accessories needed within allowed lengths	No accessories needed within allowed lengths	175 (53.3)
5/16	120 (36.6)	50 (15.2) vertical or 120 (36.6) total	120 (36.6)
3/8	80 (24.4)	35 (10.7) vertical or 80 24.4) total	80 (24.4)

Note: See Long Line Guideline for details

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for AC systems with Puron refrigerant:

Vapor Line Sizing and Cooling Capacity Losses — Puron® Refrigerant 1-Stage Air Conditioner Applications

Unit Nominal Size (Btuh)	Maximum Liquid Line Diameters (In. OD)	Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length ft. (m)								
			26–50 (7.9–15.2)	51–80 (15.5–24.4)	81–100 (24.7–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)	201–225 (61.3–68.6)	226–250 (68.9–76.2)
018 1 Stage AC with Puron	3/8	1/2	1	2	3	5	6	7	8	9	11
		5/8	0	1	1	1	2	2	2	3	3
		3/4	0	0	0	0	1	1	1	1	1
024 1 Stage AC with Puron	3/8	5/8	0	1	2	2	3	3	4	5	5
		3/4	0	0	1	1	1	1	1	2	2
		7/8	0	0	0	0	0	1	1	1	1
030 1 Stage AC with Puron	3/8	5/8	1	2	3	3	4	5	6	7	8
		3/4	0	0	1	1	1	2	2	2	3
		7/8	0	0	0	0	1	1	1	1	1
036 1 Stage AC with Puron	3/8	5/8	1	2	4	5	6	8	9	10	12
		3/4	0	1	1	2	2	3	3	4	4
		7/8	0	0	0	1	1	1	1	2	2
048 1 Stage AC with Puron	3/8	3/4	0	1	2	3	4	5	5	6	7
		7/8	0	0	1	1	2	2	2	3	3
		1 1/8	0	0	0	0	0	0	0	1	1
060 1 Stage AC with Puron	3/8	3/4	1	2	4	5	6	7	9	10	11
		7/8	0	1	2	2	3	4	4	5	5
		1 1/8	0	0	0	1	1	1	1	1	1

Applications in this area may be long line and may have height restrictions. See the *Residential Piping and Long Line Guideline*.

ACCESSORY THERMOSTATS

THERMOSTAT / SUBBASE PKG.	DESCRIPTION
TP–PRH01–A	Programmable Thermidistat
TP–NRH01–A	Non–programmable Thermidistat
TP–PAC01	Performance Series Programmable AC Stat
TP–NAC01	Performance Series Non–programmable AC Stat
TSTATCCSEN01–B	Outdoor Air Temperature Sensor
TSTATXXBBP01	Backplate for Builder's Thermostat
TSTATXXNBP01	Backplate for Non–Programmable Thermostat
TSTATXXPBP01	Backplate for Programmable Thermostat
TSTATXXCNV10	Thermostat Conversion Kit (4 to 5 wires) – 10 Pack

ACCESSORIES

KIT NUMBER	KIT NAME	018	024	030	036	048	060
KAACH1401AAA	Crankcase Heater	X	X				
Standard	Crankcase Heater			S	S	S	S
KAAFT0101AAA	Evaporator Freeze Stat	X	X	X	X	X	X
KAATD0101TDR	Time Delay Relay	X	X	X	X	X	X
KAAWS0101AAA	Winter Start Kit (for low ambient)	X	X	X	X	X	X
53DS–900–––086	Low Ambient Control (Puron)	X	X	X	X	X	X
53DS–900–––070	Wind Baffle	X					
53DS–900–––087	Wind Baffle		X				
53DS–900–––071	Wind Baffle			X	X		
53DS–900–––088	Wind Baffle					X	X
53DS–900–––075	Stacking Kit	X	X				
53DS–900–––076	Stacking Kit			X	X	X	X
53DS–900–––077	Wall Mounting Kit	X	X				
53DS–900–––078	Wall Mounting Kit			X	X	X	X

X = Accessory, S = Standard

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW–AMBIENT COOLING APPLICATIONS (Below 55°F/12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 ft. / 24.4 m)	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles / 3.2 km)
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shutoff TXV	Yes	Yes	Yes
Liquid Line Solenoid Valve	No	See Longline Application Guideline	No
Low–ambient Control	Yes	No	No
Winter Start Control	Yes	No	No

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 35 ft. (10.7 m) vertical differential, refer to Residential Piping and Longline Guideline.

Accessory Description and Usage (Listed Alphabetically)

1. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

2. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

3. Low-Ambient Control

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± 5.5°C).

Usage Guideline:

A Low Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

4. Outdoor Air Temperature Sensor

Designed for use with Carrier Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also

is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Carrier thermostats listed in this publication.

5. Thermostatic Expansion Valve (TXV)

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Kit includes valve, adapter tubes, and external equalizer tube. Hard shut off types are available.

NOTE: When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist Capacitor and Relay is required.

Usage Guideline:

Accessory required to meet ARI rating and system reliability, where indoor not equipped.

Hard shut off TXV or LLS required in air conditioner long line applications.

Required for use on all zoning systems.

6. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

NOTE: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

Accessory required to meet ARI rating, where indoor not equipped.

7. Winter Start Control

This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.

ELECTRICAL DATA

38HDR UNIT SIZE	V–PH–Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/CKT BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
018–31	208/230–1–60	187	253	9.0	48.0	0.8	0.125	0.09	12.1	20
024–32	208/230–1–60	187	253	13.5	58.3	0.8	0.125	0.09	17.7	25
030–31	208/230–1–60	187	253	14.1	73.0	1.5	0.250	0.19	19.1	30
036–31	208/230–1–60	187	253	14.1	77.0	1.5	0.250	0.19	19.1	30
	208/230–3–60	187	253	9.2	71.0	1.5	0.250	0.19	13.0	20
	460–3–60	414	506	5.6	38.0	0.8	0.250	0.19	7.9	10
048–32	208/230–1–60	187	253	19.9	109.0	1.5	0.250	0.19	26.4	40
	208/230–3–60	187	253	13.1	83.1	1.5	0.250	0.19	17.9	25
	460–3–60	414	506	6.1	41.0	0.8	0.250	0.19	8.4	15
060–32	208/230–1–60	187	253	26.4	134.0	1.5	0.250	0.19	34.5	60
	208/230–3–60	187	253	16.0	110.0	1.5	0.250	0.19	21.5	30
	460–3–60	414	506	7.8	52.0	0.8	0.250	0.19	10.6	15

* Permissible limits of the voltage range at which the unit will operate satisfactorily

FLA – Full Load Amps

HACR – Heating, Air Conditioning, Refrigeration

LRA – Locked Rotor Amps

NEC – National Electrical Code

RLA – Rated Load Amps (compressor)

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER (dBA)

Unit Size	Standard Rating (dBA)	Typical Octave Band Spectrum (dBA) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018–31	68	52.0	57.5	60.5	63.5	60.5	57.5	46.5
024–32	69	57.5	61.5	63.0	61.0	60.0	56.0	45.0
030–31	72	56.5	63.0	65.0	66.0	64.0	62.5	57.0
036–31	72	65.0	61.5	63.5	65.0	64.5	61.0	54.5
048–32	72	58.5	61.0	64.0	67.5	66.0	64.0	57.0
060–32	72	63.0	61.5	64.0	66.5	66.0	64.5	55.5

NOTE: Tested in accordance with ARI Standard 270–08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

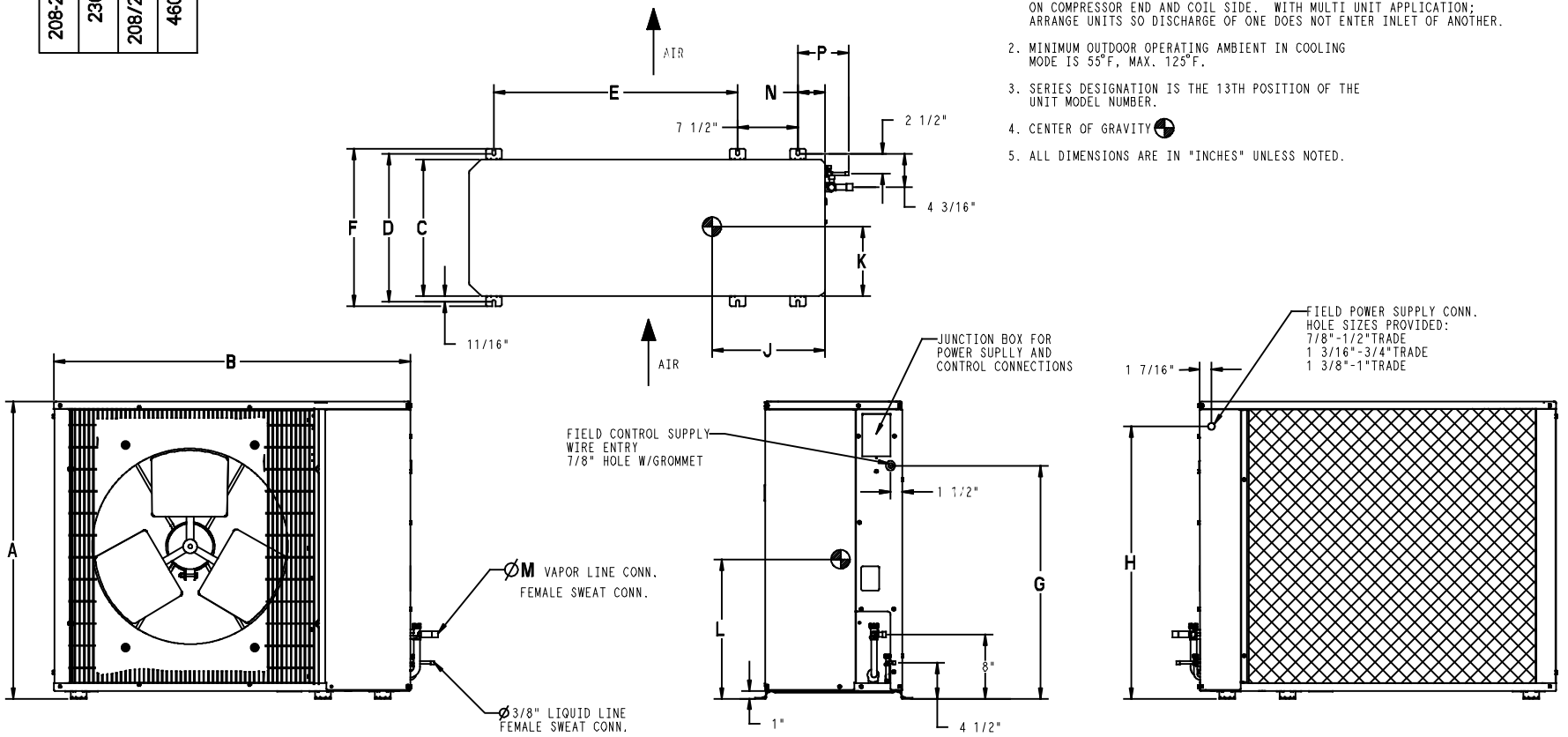
UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
018–31	12 (6.7)
024–32	12 (6.7)
030–31	12 (6.7)
036–31	12 (6.7)
048–32	12 (6.7)
060–32	12 (6.7)

DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L	M	N	P	OPERATING WEIGHT(lbs)	SHIPPING WEIGHT(lbs)	SHIPPING DIMENSIONS (L x W x H)
38HDR018	1	X	O	O	O	25 1/8"	36 15/16"	14 9/16"	16"	23 7/16"	17 3/16"	17 1/8"	22"	13"	6 5/8"	11 1/4"	5/8"	2 15/16"	6"	155	171	42 9/10" X 18" X 28 1/10"
38HDR024	1,2	X	O	O	O	31 1/8"	36 15/16"	14 9/16"	16"	23 7/16"	17 3/16"	23 1/8"	28"	14"	6 3/4"	11 5/8"	5/8"	2 15/16"	6"	180	198	42 9/10" X 18" X 34 1/10"
38HDR030	1	X	O	O	O	37 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	29 3/16"	34 1/16"	13 11/16"	8 1/8"	15 7/8"	3/4"	3 7/16"	6 1/2"	200	223	50 1/2" X 20 1/2" X 40 2/10"
38HDR036	1	X	O	X	X	37 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	29 3/16"	34 1/16"	13 11/16"	8 1/8"	15 7/8"	3/4"	3 7/16"	6 1/2"	218	240	50 1/2" X 20 1/2" X 40 2/10"
38HDR048	1,2	X	O	X	X	43 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	35 3/16"	40 1/16"	14 1/2"	8 1/2"	18 7/8"	7/8"	3 7/16"	6 1/2"	284	309	50 1/2" X 20 1/2" X 46 2/10"
38HDR060	1,2	X	O	X	X	43 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	35 3/16"	40 1/16"	14 1/2"	8 1/2"	18 7/8"	7/8"	3 7/16"	6 1/2"	294	319	50 1/2" X 20 1/2" X 46 2/10"
		208-230-1-60	230-1-60	208/230-3-60	460-3-60																	

X = YES
O = NO

1. REQUIRED CLEARANCES: WITH COIL FACING WALL; ALLOW 6" MIN CLEARANCE ON COIL SIDE AND COIL END AND 36" MIN CLEARANCE ON COMPRESSOR END AND FAN SIDE. WITH FAN FACING WALL; ALLOW 8" MIN CLEARANCE ON FAN SIDE AND COIL END AND 36" MIN CLEARANCE ON COMPRESSOR END AND COIL SIDE. WITH MULTI UNIT APPLICATION; ARRANGE UNITS SO DISCHARGE OF ONE DOES NOT ENTER INLET OF ANOTHER.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 13TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY
5. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.



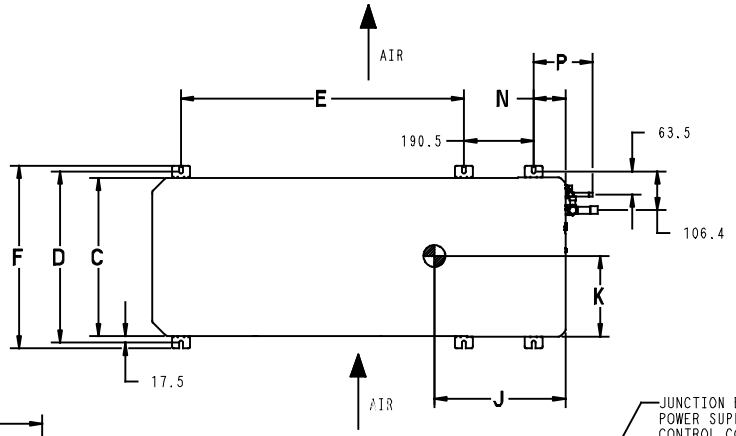
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18,24	23" X 42"
30,36,48,60	24" X 50"

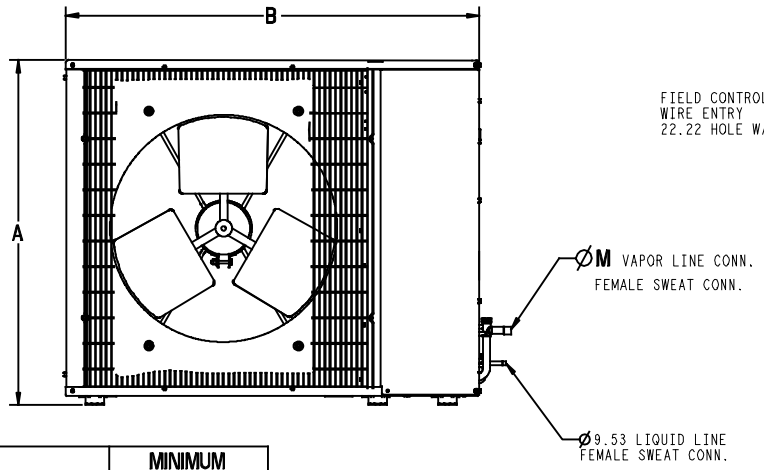
DIMENSIONS - SI

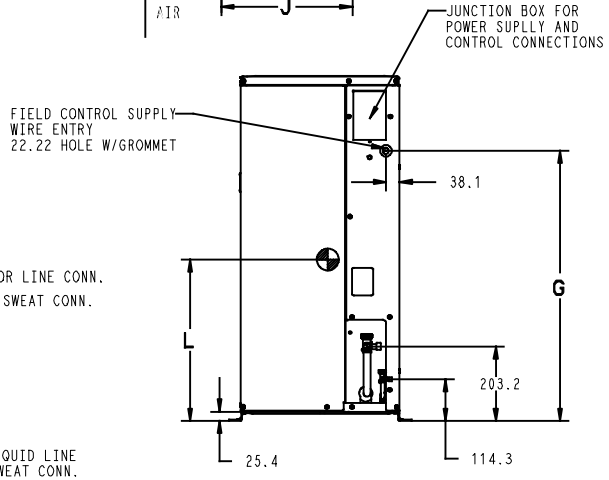
UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L	M	N	P	OPERATING WEIGHT(KG)	SHIPPING WEIGHT(KG)	SHIPPING DIMENSIONS (L x W x H)
38HDR018	1	X	O	O	O	638.2	938.2	369.9	406.4	595.3	436.6	435.0	558.8	330.2	168.3	285.8	15.9	74.6	152.4	70.4	77.7	1090.2 X 457.7 X 714.3
38HDR024	1,2	X	O	O	O	790.6	938.2	369.9	406.4	595.3	436.6	587.4	711.2	355.6	171.5	295.3	15.9	74.6	152.4	81.8	90.0	1090.2 X 457.7 X 866.7
38HDR030	1	X	O	O	O	944.6	1131.9	433.4	468.3	774.7	498.5	741.4	865.2	347.7	206.4	403.2	19.0	87.3	165.1	90.9	101.4	1282.7 X 520.7 X 1020.7
38HDR036	1	X	O	X	X	944.6	1131.9	433.4	468.3	774.7	498.5	741.4	865.2	347.7	206.4	403.2	19.0	87.3	165.1	99.0	109.0	1282.7 X 520.7 X 1020.7
38HDR048	1,2	X	O	X	X	1097.0	1131.9	433.4	468.3	774.7	498.5	893.8	1017.6	368.3	215.9	479.4	22.2	87.3	165.1	129.0	140.4	1282.7 X 520.7 X 1173.1
38HDR060	1,2	X	O	X	X	1097.0	1131.9	433.4	468.3	774.7	498.5	893.8	1017.6	368.3	215.9	479.4	22.2	87.3	165.1	133.6	145.0	1282.7 X 520.7 X 1173.1
		208-230-1-60	230-1-60	208/230-3-60	460-3-60																	

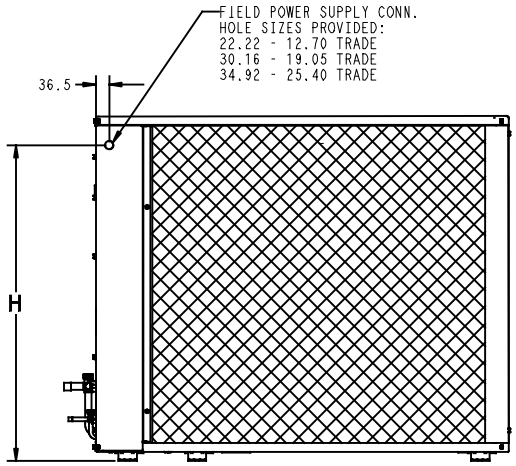
X = YES
O = NO

1. REQUIRED CLEARANCES: WITH COIL FACING WALL; ALLOW 152.4 MIN CLEARANCE ON COIL SIDE AND COIL END AND 914.4 MIN CLEARANCE ON COMPRESSOR END AND FAN SIDE. WITH FAN FACING WALL; ALLOW 203.2 MIN CLEARANCE ON FAN SIDE AND COIL END AND 914.4 MIN CLEARANCE ON COMPRESSOR END AND COIL SIDE. WITH MULTI UNIT APPLICATION; ARRANGE UNITS SO DISCHARGE OF ONE DOES NOT ENTER INLET OF ANOTHER.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 12.8°C, MAX. 51.7°C.
3. SERIES DESIGNATION IS THE 13TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY
5. ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.









UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18,24	584.2 X 1066.8
30,36,48,60	609.6 X 1270.0

COMBINATION RATINGS

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085392	38HDR018−31	†CNPV*1814A**+TDR		17,000	11.0	13.0
1117974	38HDR018−31	40QAC024−−−3		18,000	11.5	13.0
1085396	38HDR018−31	CAP**1814A**	58CV(A,X)070−12	17,000	11.5	14.0
3015375	38HDR018−31	CAP**1814A**	58PH*045−08	17,000	11.5	14.0
1085394	38HDR018−31	CAP**1814A**+TDR		17,000	10.9	13.0
1085400	38HDR018−31	CAP**2414A**	58CV(A,X)070−12	17,400	11.5	14.0
3015376	38HDR018−31	CAP**2414A**	58PH*045−08	17,400	12.0	14.5
1085398	38HDR018−31	CAP**2414A**+TDR		17,400	11.0	13.0
1085456	38HDR018−31	CAP**2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085406	38HDR018−31	CAP**2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112072	38HDR018−31	CAP**2417A**	58MEB040−12	17,400	12.0	14.5
3112073	38HDR018−31	CAP**2417A**	58MEB060−12	17,400	12.0	14.5
1390388	38HDR018−31	CAP**2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1085402	38HDR018−31	CAP**2417A**+TDR		17,400	11.0	13.0
1085432	38HDR018−31	CNPF*2418A**+TDR		17,400	11.0	13.0
1085428	38HDR018−31	CNPH*2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085430	38HDR018−31	CNPH*2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112076	38HDR018−31	CNPH*2417A**	58MEB040−12	17,400	12.0	14.5
3112077	38HDR018−31	CNPH*2417A**	58MEB060−12	17,400	12.0	14.5
1390392	38HDR018−31	CNPH*2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1390396	38HDR018−31	CNPH*2417A**	58MV(B,C)080−14	17,400	11.5	14.0
3015379	38HDR018−31	CNPH*2417A**	58PH*045−08	17,400	12.0	14.5
1085420	38HDR018−31	CNPH*2417A**+TDR		17,400	11.0	13.0
1085408	38HDR018−31	CNPV*1814A**	58CV(A,X)070−12	17,000	11.5	14.0
3015377	38HDR018−31	CNPV*1814A**	58PH*045−08	17,000	11.5	14.0
1085412	38HDR018−31	CNPV*2414A**	58CV(A,X)070−12	17,400	11.5	14.0
3015378	38HDR018−31	CNPV*2414A**	58PH*045−08	17,400	12.0	14.5
1085410	38HDR018−31	CNPV*2414A**+TDR		17,400	11.0	13.0
1085458	38HDR018−31	CNPV*2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085418	38HDR018−31	CNPV*2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112074	38HDR018−31	CNPV*2417A**	58MEB040−12	17,400	12.0	14.5
3112075	38HDR018−31	CNPV*2417A**	58MEB060−12	17,400	12.0	14.5
1390390	38HDR018−31	CNPV*2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1085414	38HDR018−31	CNPV*2417A**+TDR		17,400	11.0	13.0
1085442	38HDR018−31	CSPH*2412A**	58CV(A,X)070−12	17,400	11.5	14.0
1085444	38HDR018−31	CSPH*2412A**	58CV(A,X)090−16	17,400	11.5	14.0
3112078	38HDR018−31	CSPH*2412A**	58MEB040−12	17,400	12.0	14.5
3112079	38HDR018−31	CSPH*2412A**	58MEB060−12	17,400	12.0	14.5
1390394	38HDR018−31	CSPH*2412A**	58MV(B,C)060−14	17,400	11.5	14.0
1390398	38HDR018−31	CSPH*2412A**	58MV(B,C)080−14	17,400	11.5	14.0
3015380	38HDR018−31	CSPH*2412A**	58PH*045−08	17,400	12.0	14.5
1085434	38HDR018−31	CSPH*2412A**+TDR		17,400	11.0	13.0
1086232	38HDR018−31	FE4ANF002+UI		17,400	11.5	14.0
1085450	38HDR018−31	FF1ENP018		17,400	11.0	13.0
1085452	38HDR018−31	FF1ENP024		17,400	11.0	13.0
1085454	38HDR018−31	FV4BNF002		17,400	11.5	14.0
3404623	38HDR018−31	FV4CNF002		17,400	11.5	14.0
1085446	38HDR018−31	FX4CNF018		17,000	11.5	14.0
1085448	38HDR018−31	FX4CNF024		17,400	11.5	14.0
3465486	38HDR024−32	†CNPV*2414A**+TDR		23,400	11.0	13.0
3465806	38HDR024−32	40QAC024−3		22,800	11.5	13.0
3465488	38HDR024−32	CAP**2414A**	58CV(A,X)070−12	23,400	11.5	14.0
3465489	38HDR024−32	CAP**2414A**	58PH*045−08	23,400	11.5	14.0
3465487	38HDR024−32	CAP**2414A**+TDR		23,400	11.0	13.0
3465492	38HDR024−32	CAP**2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465493	38HDR024−32	CAP**2417A**	58MEB040−12	23,400	12.0	14.5
3465494	38HDR024−32	CAP**2417A**	58MEB060−12	23,400	12.0	14.5
3465495	38HDR024−32	CAP**2417A**	58MEB080−12	23,400	12.0	14.5
3465491	38HDR024−32	CAP**2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465490	38HDR024−32	CAP**2417A**+TDR		23,400	11.0	13.0
3465497	38HDR024−32	CAP**3014A**	58CV(A,X)070−12	23,400	11.5	14.0
3465498	38HDR024−32	CAP**3014A**	58PH*045−08	23,600	12.0	14.5
3465496	38HDR024−32	CAP**3014A**+TDR		23,600	11.0	13.0
3465501	38HDR024−32	CAP**3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465502	38HDR024−32	CAP**3017A**	58MEB040−12	23,600	12.0	14.5
3465503	38HDR024−32	CAP**3017A**	58MEB060−12	23,600	12.0	14.5
3465504	38HDR024−32	CAP**3017A**	58MEB080−12	23,600	12.0	14.5
3465500	38HDR024−32	CAP**3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465499	38HDR024−32	CAP**3017A**+TDR		23,600	11.0	13.0
3465554	38HDR024−32	CNPF*2418A**+TDR		23,400	11.0	13.0
3465529	38HDR024−32	CNPH*2417A**	58CV(A,X)070−12	23,400	11.5	14.0
3465530	38HDR024−32	CNPH*2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465531	38HDR024−32	CNPH*2417A**	58CV(A,X)110−20	23,400	11.5	14.0
3465532	38HDR024−32	CNPH*2417A**	58CV(A,X)135−22	23,400	11.5	14.0
3465533	38HDR024−32	CNPH*2417A**	58CV(A,X)155−22	23,400	11.5	14.0
3465535	38HDR024−32	CNPH*2417A**	58MEB040−12	23,400	12.0	14.5
3465536	38HDR024−32	CNPH*2417A**	58MEB060−12	23,400	12.0	14.5
3465537	38HDR024−32	CNPH*2417A**	58MEB080−12	23,400	12.0	14.5

See notes on page 26

COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465524	38HDR024−32	CNPH*2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465525	38HDR024−32	CNPH*2417A**	58MV(B,C)080−14	23,400	11.5	14.0
3465526	38HDR024−32	CNPH*2417A**	58MV(B,C)080−20	23,200	11.5	14.0
3465527	38HDR024−32	CNPH*2417A**	58MV(B,C)100−20	23,400	11.5	14.0
3465528	38HDR024−32	CNPH*2417A**	58MV(B,C)120−20	23,400	11.5	14.0
3465523	38HDR024−32	CNPH*2417A**	58MVB040−14	23,400	11.5	14.0
3465534	38HDR024−32	CNPH*2417A**	58PH*045−08	23,400	11.5	14.0
3465522	38HDR024−32	CNPH*2417A**+TDR		23,400	11.0	13.0
3465545	38HDR024−32	CNPH*3017A**	58CV(A,X)070−12	23,400	11.5	14.0
3465546	38HDR024−32	CNPH*3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465547	38HDR024−32	CNPH*3017A**	58CV(A,X)110−20	23,600	11.5	14.0
3465548	38HDR024−32	CNPH*3017A**	58CV(A,X)135−22	23,600	11.5	14.0
3465549	38HDR024−32	CNPH*3017A**	58CV(A,X)155−22	23,600	11.5	14.0
3465551	38HDR024−32	CNPH*3017A**	58MEB040−12	23,600	12.0	14.5
3465552	38HDR024−32	CNPH*3017A**	58MEB060−12	23,600	12.0	14.5
3465553	38HDR024−32	CNPH*3017A**	58MEB080−12	23,600	12.0	14.5
3465540	38HDR024−32	CNPH*3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465541	38HDR024−32	CNPH*3017A**	58MV(B,C)080−14	23,400	11.5	14.0
3465542	38HDR024−32	CNPH*3017A**	58MV(B,C)080−20	23,400	11.5	14.0
3465543	38HDR024−32	CNPH*3017A**	58MV(B,C)100−20	23,600	11.5	14.0
3465544	38HDR024−32	CNPH*3017A**	58MV(B,C)120−20	23,600	11.5	14.0
3465539	38HDR024−32	CNPH*3017A**	58MVB040−14	23,600	11.5	14.0
3465550	38HDR024−32	CNPH*3017A**	58PH*045−08	23,600	12.0	14.5
3465538	38HDR024−32	CNPH*3017A**+TDR		23,600	11.0	13.0
3465505	38HDR024−32	CNPV*2414A**	58CV(A,X)070−12	23,400	11.5	14.0
3465506	38HDR024−32	CNPV*2414A**	58PH*045−08	23,400	11.5	14.0
3465509	38HDR024−32	CNPV*2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465510	38HDR024−32	CNPV*2417A**	58MEB040−12	23,400	12.0	14.5
3465511	38HDR024−32	CNPV*2417A**	58MEB060−12	23,400	12.0	14.5
3465512	38HDR024−32	CNPV*2417A**	58MEB080−12	23,400	12.0	14.5
3465508	38HDR024−32	CNPV*2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465507	38HDR024−32	CNPV*2417A**+TDR		23,400	11.0	13.0
3465514	38HDR024−32	CNPV*3014A**	58CV(A,X)070−12	23,400	11.5	14.0
3465515	38HDR024−32	CNPV*3014A**	58PH*045−08	23,600	11.5	14.0
3465513	38HDR024−32	CNPV*3014A**+TDR		23,600	11.0	13.0
3465518	38HDR024−32	CNPV*3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465519	38HDR024−32	CNPV*3017A**	58MEB040−12	23,600	12.0	14.5
3465520	38HDR024−32	CNPV*3017A**	58MEB060−12	23,600	12.0	14.5
3465521	38HDR024−32	CNPV*3017A**	58MEB080−12	23,600	12.0	14.5
3465517	38HDR024−32	CNPV*3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465516	38HDR024−32	CNPV*3017A**+TDR		23,600	11.0	13.0
3465562	38HDR024−32	CSPH*2412A**	58CV(A,X)070−12	23,400	11.5	14.0
3465563	38HDR024−32	CSPH*2412A**	58CV(A,X)090−16	23,400	11.5	14.0
3465564	38HDR024−32	CSPH*2412A**	58CV(A,X)110−20	23,400	11.5	14.0
3465565	38HDR024−32	CSPH*2412A**	58CV(A,X)135−22	23,400	11.5	14.0
3465566	38HDR024−32	CSPH*2412A**	58CV(A,X)155−22	23,400	11.5	14.0
3465568	38HDR024−32	CSPH*2412A**	58MEB040−12	23,400	12.0	14.5
3465569	38HDR024−32	CSPH*2412A**	58MEB060−12	23,400	12.0	14.5
3465570	38HDR024−32	CSPH*2412A**	58MEB080−12	23,400	12.0	14.5
3465557	38HDR024−32	CSPH*2412A**	58MV(B,C)060−14	23,400	11.5	14.0
3465558	38HDR024−32	CSPH*2412A**	58MV(B,C)080−14	23,400	11.5	14.0
3465559	38HDR024−32	CSPH*2412A**	58MV(B,C)080−20	23,400	11.5	14.0
3465560	38HDR024−32	CSPH*2412A**	58MV(B,C)100−20	23,400	11.5	14.0
3465561	38HDR024−32	CSPH*2412A**	58MV(B,C)120−20	23,400	11.5	14.0
3465556	38HDR024−32	CSPH*2412A**	58MVB040−14	23,400	11.5	14.0
3465567	38HDR024−32	CSPH*2412A**	58PH*045−08	23,400	11.5	14.0
3465555	38HDR024−32	CSPH*2412A**+TDR		23,400	11.0	13.0
3465578	38HDR024−32	CSPH*3012A**	58CV(A,X)070−12	23,600	11.5	14.0
3465579	38HDR024−32	CSPH*3012A**	58CV(A,X)090−16	23,600	11.5	14.0
3465580	38HDR024−32	CSPH*3012A**	58CV(A,X)110−20	23,600	11.5	14.0
3465581	38HDR024−32	CSPH*3012A**	58CV(A,X)135−22	23,600	11.5	14.0
3465582	38HDR024−32	CSPH*3012A**	58CV(A,X)155−22	23,600	11.5	14.0
3465584	38HDR024−32	CSPH*3012A**	58MEB040−12	23,600	12.0	14.5
3465585	38HDR024−32	CSPH*3012A**	58MEB060−12	23,600	12.0	14.5
3465586	38HDR024−32	CSPH*3012A**	58MEB080−12	23,600	12.0	14.5
3465573	38HDR024−32	CSPH*3012A**	58MV(B,C)060−14	23,600	11.5	14.0
3465574	38HDR024−32	CSPH*3012A**	58MV(B,C)080−14	23,600	11.5	14.0
3465575	38HDR024−32	CSPH*3012A**	58MV(B,C)080−20	23,400	11.5	14.0
3465576	38HDR024−32	CSPH*3012A**	58MV(B,C)100−20	23,600	11.5	14.0
3465577	38HDR024−32	CSPH*3012A**	58MV(B,C)120−20	23,600	11.5	14.0
3465572	38HDR024−32	CSPH*3012A**	58MVB040−14	23,600	11.5	14.0
3465583	38HDR024−32	CSPH*3012A**	58PH*045−08	23,600	12.0	14.5
3465571	38HDR024−32	CSPH*3012A**+TDR		23,600	11.0	13.0
3465594	38HDR024−32	FE4AN(B,F)003+UI		23,800	12.0	14.5
3465592	38HDR024−32	FE4ANF002+UI		23,600	12.0	14.5
3465596	38HDR024−32	FE5ANB004+UI		24,000	12.0	14.5
3465597	38HDR024−32	FF1ENP024		22,800	11.0	13.0
3465606	38HDR024−32	FF1ENP025		23,400	11.5	14.0
3465600	38HDR024−32	FF1ENP030		23,000	11.0	13.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465608	38HDR024−32	FF1ENP031		23,600	11.5	14.0
3465609	38HDR024−32	FF1ENP037		23,800	11.5	14.0
3465603	38HDR024−32	FV4BN(B,F)003		23,800	12.0	14.5
3465601	38HDR024−32	FV4BNF002		23,600	12.0	14.5
3465613	38HDR024−32	FV4CN(B,F)003		23,800	12.0	14.5
3465611	38HDR024−32	FV4CNF002		23,600	12.0	14.5
3465589	38HDR024−32	FX4CNF024		23,400	11.5	14.0
3465590	38HDR024−32	FX4CNF030		23,800	11.5	14.0
3465587	38HDR024−32	FY4ANF024		23,200	11.0	13.0
3465588	38HDR024−32	FY4ANF030		23,600	11.0	13.0
1085620	38HDR030−31	†CNPV*3014A**+TDR		28,000	11.0	13.0
1117978	38HDR030−31	40QAC036−−−3		29,000	12.0	13.0
1085624	38HDR030−31	CAP**3014A**	58CV(A,X)070−12	28,000	11.5	14.0
1085622	38HDR030−31	CAP**3014A**+TDR		28,000	11.0	13.0
1085788	38HDR030−31	CAP**3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085630	38HDR030−31	CAP**3017A**	58CV(A,X)090−16	28,000	11.5	14.0
3112104	38HDR030−31	CAP**3017A**	58MEB040−12	28,000	12.0	14.5
3112105	38HDR030−31	CAP**3017A**	58MEB060−12	28,000	12.0	14.5
3112106	38HDR030−31	CAP**3017A**	58MEB080−12	28,000	12.0	14.5
3112107	38HDR030−31	CAP**3017A**	58MEB080−16	28,000	12.0	14.5
1390448	38HDR030−31	CAP**3017A**	58MV(B,C)060−14	28,000	11.5	14.0
3015389	38HDR030−31	CAP**3017A**	58PH*070−16	28,000	11.5	14.0
1085626	38HDR030−31	CAP**3017A**+TDR		28,000	11.0	13.0
1085634	38HDR030−31	CAP**3614A**	58CV(A,X)070−12	28,600	11.5	14.0
1085632	38HDR030−31	CAP**3614A**+TDR		28,600	11.0	13.0
1085790	38HDR030−31	CAP**3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085640	38HDR030−31	CAP**3617A**	58CV(A,X)090−16	28,600	11.5	14.0
3112108	38HDR030−31	CAP**3617A**	58MEB040−12	28,600	12.0	14.5
3112109	38HDR030−31	CAP**3617A**	58MEB060−12	28,600	12.0	14.5
3112110	38HDR030−31	CAP**3617A**	58MEB080−12	28,600	12.0	14.5
3112111	38HDR030−31	CAP**3617A**	58MEB080−16	28,600	12.0	14.5
1390450	38HDR030−31	CAP**3617A**	58MV(B,C)060−14	28,600	11.5	14.0
3015390	38HDR030−31	CAP**3617A**	58PH*070−16	28,600	12.0	14.5
1085636	38HDR030−31	CAP**3617A**+TDR		28,600	11.0	13.0
1085794	38HDR030−31	CAP**3621A**	58CV(A,X)090−16	28,600	11.5	14.0
1085650	38HDR030−31	CAP**3621A**	58CV(A,X)110−20	28,600	11.5	14.0
1390464	38HDR030−31	CAP**3621A**	58MV(B,C)060−14	28,600	11.5	14.0
1390468	38HDR030−31	CAP**3621A**	58MV(B,C)080−14	28,600	11.5	14.0
1390480	38HDR030−31	CAP**3621A**	58MV(B,C)080−20	28,600	11.5	14.0
1390492	38HDR030−31	CAP**3621A**	58MV(B,C)100−20	28,600	11.5	14.0
3015391	38HDR030−31	CAP**3621A**	58PH*090−16	28,600	12.0	14.5
1085642	38HDR030−31	CAP**3621A**+TDR		28,600	11.0	13.0
1085724	38HDR030−31	CNPF*3618A**+TDR		28,600	11.0	13.0
1085690	38HDR030−31	CNPH*3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085692	38HDR030−31	CNPH*3017A**	58CV(A,X)090−16	28,000	11.5	14.0
1085694	38HDR030−31	CNPH*3017A**	58CV(A,X)110−20	28,000	11.5	14.0
1085696	38HDR030−31	CNPH*3017A**	58CV(A,X)135−22	28,000	11.5	14.0
1085698	38HDR030−31	CNPH*3017A**	58CV(A,X)155−22	28,000	11.5	14.0
3112120	38HDR030−31	CNPH*3017A**	58MEB040−12	28,000	12.0	14.5
3112121	38HDR030−31	CNPH*3017A**	58MEB060−12	28,000	12.0	14.5
3112122	38HDR030−31	CNPH*3017A**	58MEB080−12	28,000	12.0	14.5
3112123	38HDR030−31	CNPH*3017A**	58MEB080−16	28,000	12.0	14.5
1390456	38HDR030−31	CNPH*3017A**	58MV(B,C)060−14	28,000	11.5	14.0
1390472	38HDR030−31	CNPH*3017A**	58MV(B,C)080−14	28,000	11.5	14.0
1390484	38HDR030−31	CNPH*3017A**	58MV(B,C)080−20	28,000	11.5	14.0
1390496	38HDR030−31	CNPH*3017A**	58MV(B,C)100−20	28,000	11.5	14.0
1390504	38HDR030−31	CNPH*3017A**	58MV(B,C)120−20	28,000	11.5	14.0
3015395	38HDR030−31	CNPH*3017A**	58PH*070−16	28,000	11.5	14.0
3015396	38HDR030−31	CNPH*3017A**	58PH*090−16	28,000	11.5	14.0
1085676	38HDR030−31	CNPH*3017A**+TDR		28,000	11.0	13.0
1085714	38HDR030−31	CNPH*3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085716	38HDR030−31	CNPH*3617A**	58CV(A,X)090−16	28,600	11.5	14.0
1085718	38HDR030−31	CNPH*3617A**	58CV(A,X)110−20	28,600	11.5	14.0
1085720	38HDR030−31	CNPH*3617A**	58CV(A,X)135−22	28,600	11.5	14.0
1085722	38HDR030−31	CNPH*3617A**	58CV(A,X)155−22	28,600	11.5	14.0
3112124	38HDR030−31	CNPH*3617A**	58MEB040−12	28,600	12.0	14.5
3112125	38HDR030−31	CNPH*3617A**	58MEB060−12	28,600	12.0	14.5
3112126	38HDR030−31	CNPH*3617A**	58MEB080−12	28,600	12.0	14.5
3112127	38HDR030−31	CNPH*3617A**	58MEB080−16	28,600	12.0	14.5
1390458	38HDR030−31	CNPH*3617A**	58MV(B,C)060−14	28,600	11.5	14.0
1390474	38HDR030−31	CNPH*3617A**	58MV(B,C)080−14	28,600	11.5	14.0
1390486	38HDR030−31	CNPH*3617A**	58MV(B,C)080−20	28,600	11.5	14.0
1390498	38HDR030−31	CNPH*3617A**	58MV(B,C)100−20	28,600	11.5	14.0
1390506	38HDR030−31	CNPH*3617A**	58MV(B,C)120−20	28,600	11.5	14.0
3015397	38HDR030−31	CNPH*3617A**	58PH*070−16	28,600	12.0	14.5
3015398	38HDR030−31	CNPH*3617A**	58PH*090−16	28,600	12.0	14.5
1085700	38HDR030−31	CNPH*3617A**+TDR		28,600	11.0	13.0
1085652	38HDR030−31	CNPV*3014A**	58CV(A,X)070−12	28,000	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085796	38HDR030−31	CNPV*3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085658	38HDR030−31	CNPV*3017A**	58CV(A,X)090−16	28,000	11.5	14.0
3112112	38HDR030−31	CNPV*3017A**	58MEB040−12	28,000	12.0	14.5
3112113	38HDR030−31	CNPV*3017A**	58MEB060−12	28,000	12.0	14.5
3112114	38HDR030−31	CNPV*3017A**	58MEB080−12	28,000	12.0	14.5
3112115	38HDR030−31	CNPV*3017A**	58MEB080−16	28,000	12.0	14.5
1390452	38HDR030−31	CNPV*3017A**	58MV(B,C)060−14	28,000	11.5	14.0
3015392	38HDR030−31	CNPV*3017A**	58PH*070−16	28,000	11.5	14.0
1085654	38HDR030−31	CNPV*3017A**+TDR		28,000	11.0	13.0
1085798	38HDR030−31	CNPV*3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085664	38HDR030−31	CNPV*3617A**	58CV(A,X)090−16	28,600	11.5	14.0
3112116	38HDR030−31	CNPV*3617A**	58MEB040−12	28,600	12.0	14.5
3112117	38HDR030−31	CNPV*3617A**	58MEB060−12	28,600	12.0	14.5
3112118	38HDR030−31	CNPV*3617A**	58MEB080−12	28,600	12.0	14.5
3112119	38HDR030−31	CNPV*3617A**	58MEB080−16	28,600	12.0	14.5
1390454	38HDR030−31	CNPV*3617A**	58MV(B,C)060−14	28,600	11.5	14.0
3015393	38HDR030−31	CNPV*3617A**	58PH*070−16	28,600	12.0	14.5
1085660	38HDR030−31	CNPV*3617A**+TDR		28,600	11.0	13.0
1085802	38HDR030−31	CNPV*3621A**	58CV(A,X)090−16	28,600	11.5	14.0
1085674	38HDR030−31	CNPV*3621A**	58CV(A,X)110−20	28,600	11.5	14.0
1390466	38HDR030−31	CNPV*3621A**	58MV(B,C)060−14	28,600	11.5	14.0
1390470	38HDR030−31	CNPV*3621A**	58MV(B,C)080−14	28,600	11.5	14.0
1390482	38HDR030−31	CNPV*3621A**	58MV(B,C)080−20	28,600	11.5	14.0
1390494	38HDR030−31	CNPV*3621A**	58MV(B,C)100−20	28,600	11.5	14.0
3015394	38HDR030−31	CNPV*3621A**	58PH*090−16	28,600	12.0	14.5
1085666	38HDR030−31	CNPV*3621A**+TDR		28,600	11.0	13.0
1085740	38HDR030−31	CSPH*3012A**	58CV(A,X)070−12	28,000	11.5	14.0
1085742	38HDR030−31	CSPH*3012A**	58CV(A,X)090−16	28,000	11.5	14.0
1085744	38HDR030−31	CSPH*3012A**	58CV(A,X)110−20	28,000	11.5	14.0
1085746	38HDR030−31	CSPH*3012A**	58CV(A,X)135−22	28,000	11.5	14.0
1085748	38HDR030−31	CSPH*3012A**	58CV(A,X)155−22	28,000	11.5	14.0
3112128	38HDR030−31	CSPH*3012A**	58MEB040−12	28,000	12.0	14.5
3112129	38HDR030−31	CSPH*3012A**	58MEB060−12	28,000	12.0	14.5
3112130	38HDR030−31	CSPH*3012A**	58MEB080−12	28,000	12.0	14.5
3112131	38HDR030−31	CSPH*3012A**	58MEB080−16	28,000	12.0	14.5
1390460	38HDR030−31	CSPH*3012A**	58MV(B,C)060−14	28,000	11.5	14.0
1390476	38HDR030−31	CSPH*3012A**	58MV(B,C)080−14	28,000	11.5	14.0
1390488	38HDR030−31	CSPH*3012A**	58MV(B,C)080−20	28,000	11.5	14.0
1390500	38HDR030−31	CSPH*3012A**	58MV(B,C)100−20	28,000	11.5	14.0
1390508	38HDR030−31	CSPH*3012A**	58MV(B,C)120−20	28,000	11.5	14.0
3015399	38HDR030−31	CSPH*3012A**	58PH*070−16	28,000	11.5	14.0
3015400	38HDR030−31	CSPH*3012A**	58PH*090−16	28,000	11.5	14.0
1085726	38HDR030−31	CSPH*3012A**+TDR		28,000	11.0	13.0
1085764	38HDR030−31	CSPH*3612A**	58CV(A,X)070−12	28,600	11.5	14.0
1085766	38HDR030−31	CSPH*3612A**	58CV(A,X)090−16	28,600	11.5	14.0
1085768	38HDR030−31	CSPH*3612A**	58CV(A,X)110−20	28,600	11.5	14.0
1085770	38HDR030−31	CSPH*3612A**	58CV(A,X)135−22	28,600	11.5	14.0
1085772	38HDR030−31	CSPH*3612A**	58CV(A,X)155−22	28,600	11.5	14.0
3112132	38HDR030−31	CSPH*3612A**	58MEB040−12	28,600	12.0	14.5
3112133	38HDR030−31	CSPH*3612A**	58MEB060−12	28,600	12.0	14.5
3112134	38HDR030−31	CSPH*3612A**	58MEB080−12	28,600	12.0	14.5
3112135	38HDR030−31	CSPH*3612A**	58MEB080−16	28,600	12.0	14.5
1390462	38HDR030−31	CSPH*3612A**	58MV(B,C)060−14	28,600	11.5	14.0
1390478	38HDR030−31	CSPH*3612A**	58MV(B,C)080−14	28,600	11.5	14.0
1390490	38HDR030−31	CSPH*3612A**	58MV(B,C)080−20	28,600	11.5	14.0
1390502	38HDR030−31	CSPH*3612A**	58MV(B,C)100−20	28,600	11.5	14.0
1390510	38HDR030−31	CSPH*3612A**	58MV(B,C)120−20	28,600	11.5	14.0
3015401	38HDR030−31	CSPH*3612A**	58PH*070−16	28,600	12.0	14.5
3015402	38HDR030−31	CSPH*3612A**	58PH*090−16	28,600	12.0	14.5
1085750	38HDR030−31	CSPH*3612A**+TDR		28,600	11.0	13.0
1086240	38HDR030−31	FE4AN(B,F)003+UI		28,600	11.5	14.0
1086242	38HDR030−31	FE4AN(B,F)005+UI		29,000	12.5	15.0
1086238	38HDR030−31	FE4ANF002+UI		28,600	11.5	14.0
1085782	38HDR030−31	FF1ENP030		28,000	11.0	13.0
1085784	38HDR030−31	FF1ENP036		28,600	11.0	13.0
1085786	38HDR030−31	FV4BNF002		28,600	11.5	14.0
3404625	38HDR030−31	FV4CNF002		28,600	11.5	14.0
1085780	38HDR030−31	FX4CN(B,F)036		28,600	11.5	14.0
1085778	38HDR030−31	FX4CNF030		28,000	11.5	14.0
1085774	38HDR030−31	FY4ANF030		28,000	11.0	13.0
1085776	38HDR030−31	FY4ANF036		28,600	11.0	13.0
1085804	38HDR036−31	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117980	38HDR036−31	40QAC036−−−3		33,000	11.4	13.0
1085808	38HDR036−31	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015403	38HDR036−31	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1085806	38HDR036−31	CAP**3614A**+TDR		32,600	11.0	13.0
1085982	38HDR036−31	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1085814	38HDR036−31	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0

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ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3112136	38HDR036−31	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3112137	38HDR036−31	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3112138	38HDR036−31	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3112139	38HDR036−31	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390512	38HDR036−31	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015404	38HDR036−31	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1085810	38HDR036−31	CAP**3617A**+TDR		33,000	11.0	13.0
1085986	38HDR036−31	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1085824	38HDR036−31	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3112140	38HDR036−31	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390524	38HDR036−31	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390532	38HDR036−31	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390550	38HDR036−31	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390568	38HDR036−31	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015405	38HDR036−31	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015406	38HDR036−31	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1085816	38HDR036−31	CAP**3621A**+TDR		33,000	11.0	13.0
1085990	38HDR036−31	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1085834	38HDR036−31	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3112141	38HDR036−31	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390526	38HDR036−31	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390534	38HDR036−31	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390552	38HDR036−31	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390570	38HDR036−31	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015407	38HDR036−31	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015408	38HDR036−31	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1085826	38HDR036−31	CAP**4221A**+TDR		33,400	11.0	13.0
1085998	38HDR036−31	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1085842	38HDR036−31	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1085844	38HDR036−31	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390548	38HDR036−31	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390566	38HDR036−31	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390584	38HDR036−31	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390586	38HDR036−31	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1085836	38HDR036−31	CAP**4224A**+TDR		33,400	11.0	13.0
1085918	38HDR036−31	CNPF*3618A**+TDR		33,000	11.0	13.0
1085884	38HDR036−31	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1085886	38HDR036−31	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1085888	38HDR036−31	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1085890	38HDR036−31	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1085892	38HDR036−31	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3112156	38HDR036−31	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3112157	38HDR036−31	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3112158	38HDR036−31	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3112159	38HDR036−31	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3112160	38HDR036−31	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390516	38HDR036−31	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390540	38HDR036−31	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390558	38HDR036−31	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5
1390576	38HDR036−31	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390588	38HDR036−31	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015414	38HDR036−31	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015415	38HDR036−31	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015416	38HDR036−31	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015417	38HDR036−31	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1085870	38HDR036−31	CNPH*3617A**+TDR		33,000	11.0	13.0
1085908	38HDR036−31	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1085910	38HDR036−31	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1085912	38HDR036−31	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1085914	38HDR036−31	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1085916	38HDR036−31	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3112161	38HDR036−31	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3112162	38HDR036−31	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3112163	38HDR036−31	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5
3112164	38HDR036−31	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3112165	38HDR036−31	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390518	38HDR036−31	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390542	38HDR036−31	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390560	38HDR036−31	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390578	38HDR036−31	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390590	38HDR036−31	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015418	38HDR036−31	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015419	38HDR036−31	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015420	38HDR036−31	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015421	38HDR036−31	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1085894	38HDR036−31	CNPH*4221A**+TDR		33,400	11.0	13.0
1086000	38HDR036−31	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1085850	38HDR036−31	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3112142	38HDR036−31	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3112143	38HDR036−31	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3112144	38HDR036−31	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3112145	38HDR036−31	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390514	38HDR036−31	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015409	38HDR036−31	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1085846	38HDR036−31	CNPV*3617A**+TDR		33,000	11.0	13.0
1086004	38HDR036−31	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1085860	38HDR036−31	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3112146	38HDR036−31	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390528	38HDR036−31	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390536	38HDR036−31	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390554	38HDR036−31	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390572	38HDR036−31	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015410	38HDR036−31	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015411	38HDR036−31	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1085852	38HDR036−31	CNPV*3621A**+TDR		33,000	11.0	13.0
3112149	38HDR036−31	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3112151	38HDR036−31	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3112152	38HDR036−31	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3112153	38HDR036−31	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3112154	38HDR036−31	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3112148	38HDR036−31	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3112150	38HDR036−31	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3112147	38HDR036−31	CNPV*4217A**+TDR		33,400	11.0	13.0
1086008	38HDR036−31	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1085868	38HDR036−31	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3112155	38HDR036−31	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390530	38HDR036−31	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390538	38HDR036−31	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390556	38HDR036−31	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390574	38HDR036−31	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015412	38HDR036−31	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015413	38HDR036−31	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1085934	38HDR036−31	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1085936	38HDR036−31	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1085938	38HDR036−31	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1085940	38HDR036−31	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1085942	38HDR036−31	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3112166	38HDR036−31	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3112167	38HDR036−31	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3112168	38HDR036−31	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3112169	38HDR036−31	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3112170	38HDR036−31	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390520	38HDR036−31	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390544	38HDR036−31	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390562	38HDR036−31	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390580	38HDR036−31	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390592	38HDR036−31	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015422	38HDR036−31	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0
3015423	38HDR036−31	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015424	38HDR036−31	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015425	38HDR036−31	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1085920	38HDR036−31	CSPH*3612A**+TDR		33,000	11.0	13.0
1085958	38HDR036−31	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1085960	38HDR036−31	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1085962	38HDR036−31	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1085964	38HDR036−31	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1085966	38HDR036−31	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3112171	38HDR036−31	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3112172	38HDR036−31	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3112173	38HDR036−31	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3112174	38HDR036−31	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3112175	38HDR036−31	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390522	38HDR036−31	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0
1390546	38HDR036−31	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390564	38HDR036−31	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390582	38HDR036−31	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390594	38HDR036−31	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015426	38HDR036−31	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015427	38HDR036−31	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015428	38HDR036−31	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015429	38HDR036−31	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1085944	38HDR036−31	CSPH*4212A**+TDR		33,400	11.0	13.0
1086246	38HDR036−31	FE4AN(B,F)003+UI		33,000	11.5	14.0
1086248	38HDR036−31	FE4AN(B,F)005+UI		33,400	12.5	15.0
1086250	38HDR036−31	FE4ANB006+UI		33,400	12.5	15.0
1086244	38HDR036−31	FE4ANF002+UI		33,000	11.5	13.5
1085976	38HDR036−31	FF1ENP036		33,000	11.0	13.0
1085980	38HDR036−31	FV4BNB006		33,400	12.5	15.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085978	38HDR036−31	FV4BNF002		33,000	11.5	13.5
3404627	38HDR036−31	FV4CNB006		33,400	12.5	15.0
3404626	38HDR036−31	FV4CNF002		33,000	11.5	13.5
1085972	38HDR036−31	FX4CN(B,F)036		33,000	11.5	14.0
1085974	38HDR036−31	FX4CN(B,F)042		33,400	11.5	14.0
1085968	38HDR036−31	FY4ANF036		33,000	11.0	13.0
1085970	38HDR036−31	FY4ANF042		33,400	11.0	13.0
1117042	38HDR036−51	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117982	38HDR036−51	40QAC036−−−3		33,000	11.4	13.0
1117046	38HDR036−51	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015466	38HDR036−51	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1117044	38HDR036−51	CAP**3614A**+TDR		32,600	11.0	13.0
1117228	38HDR036−51	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117052	38HDR036−51	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0
3116284	38HDR036−51	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3116285	38HDR036−51	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3116286	38HDR036−51	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3116287	38HDR036−51	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390596	38HDR036−51	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015467	38HDR036−51	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1117048	38HDR036−51	CAP**3617A**+TDR		33,000	11.0	13.0
1117232	38HDR036−51	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1145786	38HDR036−51	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3116288	38HDR036−51	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390602	38HDR036−51	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390616	38HDR036−51	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390634	38HDR036−51	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390658	38HDR036−51	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015468	38HDR036−51	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015469	38HDR036−51	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1117054	38HDR036−51	CAP**3621A**+TDR		33,000	11.0	13.0
1117236	38HDR036−51	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1145796	38HDR036−51	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3116289	38HDR036−51	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390604	38HDR036−51	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390624	38HDR036−51	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390642	38HDR036−51	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390660	38HDR036−51	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015470	38HDR036−51	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015471	38HDR036−51	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1145788	38HDR036−51	CAP**4221A**+TDR		33,400	11.0	13.0
1117244	38HDR036−51	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1145804	38HDR036−51	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1145806	38HDR036−51	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390622	38HDR036−51	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390640	38HDR036−51	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390656	38HDR036−51	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390674	38HDR036−51	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1145798	38HDR036−51	CAP**4224A**+TDR		33,400	11.0	13.0
1117156	38HDR036−51	CNPF*3618A**+TDR		33,000	11.0	13.0
1145846	38HDR036−51	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1145848	38HDR036−51	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1145850	38HDR036−51	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1145852	38HDR036−51	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1145854	38HDR036−51	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3116304	38HDR036−51	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3116305	38HDR036−51	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3116306	38HDR036−51	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3116307	38HDR036−51	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3116308	38HDR036−51	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390612	38HDR036−51	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390630	38HDR036−51	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390648	38HDR036−51	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5
1390666	38HDR036−51	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390676	38HDR036−51	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015477	38HDR036−51	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015478	38HDR036−51	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015479	38HDR036−51	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015480	38HDR036−51	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1145832	38HDR036−51	CNPH*3617A**+TDR		33,000	11.0	13.0
1145870	38HDR036−51	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1145872	38HDR036−51	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1145874	38HDR036−51	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1117152	38HDR036−51	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1117154	38HDR036−51	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3116309	38HDR036−51	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3116310	38HDR036−51	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3116311	38HDR036−51	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3116312	38HDR036−51	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3116313	38HDR036−51	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390614	38HDR036−51	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390632	38HDR036−51	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390650	38HDR036−51	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390668	38HDR036−51	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390678	38HDR036−51	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015481	38HDR036−51	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015482	38HDR036−51	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015483	38HDR036−51	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015484	38HDR036−51	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1145856	38HDR036−51	CNPH*4221A**+TDR		33,400	11.0	13.0
1117246	38HDR036−51	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1145812	38HDR036−51	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3116290	38HDR036−51	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5
3116291	38HDR036−51	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3116292	38HDR036−51	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3116293	38HDR036−51	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390610	38HDR036−51	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015472	38HDR036−51	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1145808	38HDR036−51	CNPV*3617A**+TDR		33,000	11.0	13.0
1117250	38HDR036−51	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1145822	38HDR036−51	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3116294	38HDR036−51	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390606	38HDR036−51	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390626	38HDR036−51	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390644	38HDR036−51	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390662	38HDR036−51	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015473	38HDR036−51	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015474	38HDR036−51	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1145814	38HDR036−51	CNPV*3621A**+TDR		33,000	11.0	13.0
3116297	38HDR036−51	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3116299	38HDR036−51	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3116300	38HDR036−51	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3116301	38HDR036−51	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3116302	38HDR036−51	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3116296	38HDR036−51	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3116298	38HDR036−51	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3116295	38HDR036−51	CNPV*4217A**+TDR		33,400	11.0	13.0
1117254	38HDR036−51	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1145830	38HDR036−51	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3116303	38HDR036−51	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390608	38HDR036−51	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390628	38HDR036−51	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390646	38HDR036−51	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390664	38HDR036−51	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015475	38HDR036−51	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015476	38HDR036−51	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1117172	38HDR036−51	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1117174	38HDR036−51	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1117176	38HDR036−51	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1117178	38HDR036−51	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1117180	38HDR036−51	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3116314	38HDR036−51	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3116315	38HDR036−51	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3116316	38HDR036−51	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3116317	38HDR036−51	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3116318	38HDR036−51	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390598	38HDR036−51	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390618	38HDR036−51	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390636	38HDR036−51	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390652	38HDR036−51	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390670	38HDR036−51	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015485	38HDR036−51	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0
3015486	38HDR036−51	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015487	38HDR036−51	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015488	38HDR036−51	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1117158	38HDR036−51	CSPH*3612A**+TDR		33,000	11.0	13.0
1117196	38HDR036−51	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1117198	38HDR036−51	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1117200	38HDR036−51	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1117202	38HDR036−51	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1117204	38HDR036−51	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3116319	38HDR036−51	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3116320	38HDR036−51	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3116321	38HDR036−51	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3116322	38HDR036−51	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3116323	38HDR036−51	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390600	38HDR036−51	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1390620	38HDR036−51	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390638	38HDR036−51	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390654	38HDR036−51	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390672	38HDR036−51	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015489	38HDR036−51	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015490	38HDR036−51	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015491	38HDR036−51	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015492	38HDR036−51	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1117182	38HDR036−51	CSPH*4212A**+TDR		33,400	11.0	13.0
1117216	38HDR036−51	FE4AN(B,F)003+UI		33,000	11.5	14.0
1117218	38HDR036−51	FE4AN(B,F)005+UI		33,400	12.5	15.0
1117220	38HDR036−51	FE4ANB006+UI		33,400	12.5	15.0
1117214	38HDR036−51	FE4ANF002+UI		33,000	11.5	13.5
1117222	38HDR036−51	FF1ENP036		33,000	11.0	13.0
1117226	38HDR036−51	FV4BNB006		33,400	12.5	15.0
1117224	38HDR036−51	FV4BNF002		33,000	11.5	13.5
3404631	38HDR036−51	FV4CNB006		33,400	12.5	15.0
3404630	38HDR036−51	FV4CNF002		33,000	11.5	13.5
1117210	38HDR036−51	FX4CN(B,F)036		33,000	11.5	14.0
1117212	38HDR036−51	FX4CN(B,F)042		33,400	11.5	14.0
1117206	38HDR036−51	FY4ANF036		33,000	11.0	13.0
1117208	38HDR036−51	FY4ANF042		33,400	11.0	13.0
1117484	38HDR036−61	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117984	38HDR036−61	40QAC036−−−3		33,000	11.4	13.0
1117488	38HDR036−61	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015493	38HDR036−61	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1117486	38HDR036−61	CAP**3614A**+TDR		32,600	11.0	13.0
1117670	38HDR036−61	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117494	38HDR036−61	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0
3116353	38HDR036−61	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3116354	38HDR036−61	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3116355	38HDR036−61	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3116356	38HDR036−61	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390680	38HDR036−61	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015494	38HDR036−61	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1117490	38HDR036−61	CAP**3617A**+TDR		33,000	11.0	13.0
1117674	38HDR036−61	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1117504	38HDR036−61	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3116357	38HDR036−61	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390692	38HDR036−61	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390700	38HDR036−61	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390718	38HDR036−61	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390736	38HDR036−61	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015495	38HDR036−61	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015496	38HDR036−61	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1117496	38HDR036−61	CAP**3621A**+TDR		33,000	11.0	13.0
1117678	38HDR036−61	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1117514	38HDR036−61	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3116358	38HDR036−61	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390694	38HDR036−61	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390702	38HDR036−61	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390720	38HDR036−61	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390738	38HDR036−61	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015497	38HDR036−61	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015498	38HDR036−61	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1117506	38HDR036−61	CAP**4221A**+TDR		33,400	11.0	13.0
1117686	38HDR036−61	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1117522	38HDR036−61	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1117524	38HDR036−61	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390716	38HDR036−61	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390734	38HDR036−61	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390752	38HDR036−61	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390754	38HDR036−61	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1117516	38HDR036−61	CAP**4224A**+TDR		33,400	11.0	13.0
1117598	38HDR036−61	CNPF*3618A**+TDR		33,000	11.0	13.0
1117564	38HDR036−61	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1117566	38HDR036−61	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1117568	38HDR036−61	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1117570	38HDR036−61	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1117572	38HDR036−61	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3116373	38HDR036−61	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3116374	38HDR036−61	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3116375	38HDR036−61	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3116376	38HDR036−61	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3116377	38HDR036−61	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390684	38HDR036−61	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390708	38HDR036−61	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390726	38HDR036−61	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1390744	38HDR036−61	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390756	38HDR036−61	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015504	38HDR036−61	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015505	38HDR036−61	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015506	38HDR036−61	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015507	38HDR036−61	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1117550	38HDR036−61	CNPH*3617A**+TDR		33,000	11.0	13.0
1117588	38HDR036−61	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1117590	38HDR036−61	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1117592	38HDR036−61	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1117594	38HDR036−61	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1117596	38HDR036−61	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3116378	38HDR036−61	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3116379	38HDR036−61	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3116380	38HDR036−61	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5
3116381	38HDR036−61	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3116382	38HDR036−61	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390686	38HDR036−61	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390710	38HDR036−61	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390728	38HDR036−61	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390746	38HDR036−61	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390758	38HDR036−61	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015508	38HDR036−61	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015509	38HDR036−61	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015510	38HDR036−61	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015511	38HDR036−61	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1117574	38HDR036−61	CNPH*4221A**+TDR		33,400	11.0	13.0
1117688	38HDR036−61	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117530	38HDR036−61	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3116359	38HDR036−61	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5
3116360	38HDR036−61	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3116361	38HDR036−61	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3116362	38HDR036−61	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390682	38HDR036−61	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015499	38HDR036−61	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1117526	38HDR036−61	CNPV*3617A**+TDR		33,000	11.0	13.0
1117692	38HDR036−61	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1117540	38HDR036−61	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3116363	38HDR036−61	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390696	38HDR036−61	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390704	38HDR036−61	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390722	38HDR036−61	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390740	38HDR036−61	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015500	38HDR036−61	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015501	38HDR036−61	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1117532	38HDR036−61	CNPV*3621A**+TDR		33,000	11.0	13.0
3116366	38HDR036−61	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3116368	38HDR036−61	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3116369	38HDR036−61	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3116370	38HDR036−61	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3116371	38HDR036−61	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3116365	38HDR036−61	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3116367	38HDR036−61	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3116364	38HDR036−61	CNPV*4217A**+TDR		33,400	11.0	13.0
1117696	38HDR036−61	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1117548	38HDR036−61	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3116372	38HDR036−61	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390698	38HDR036−61	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390706	38HDR036−61	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390724	38HDR036−61	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390742	38HDR036−61	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015502	38HDR036−61	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015503	38HDR036−61	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1117614	38HDR036−61	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1117616	38HDR036−61	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1117618	38HDR036−61	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1117620	38HDR036−61	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1117622	38HDR036−61	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3116383	38HDR036−61	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3116384	38HDR036−61	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3116385	38HDR036−61	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3116386	38HDR036−61	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3116387	38HDR036−61	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390688	38HDR036−61	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390712	38HDR036−61	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390730	38HDR036−61	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390748	38HDR036−61	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390760	38HDR036−61	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015512	38HDR036−61	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3015513	38HDR036−61	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015514	38HDR036−61	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015515	38HDR036−61	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1117600	38HDR036−61	CSPH*3612A**+TDR		33,000	11.0	13.0
1117638	38HDR036−61	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1117640	38HDR036−61	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1117642	38HDR036−61	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1117644	38HDR036−61	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1117646	38HDR036−61	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3116388	38HDR036−61	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3116389	38HDR036−61	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3116390	38HDR036−61	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3116391	38HDR036−61	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3116392	38HDR036−61	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390690	38HDR036−61	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0
1390714	38HDR036−61	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390732	38HDR036−61	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390750	38HDR036−61	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390762	38HDR036−61	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015516	38HDR036−61	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015517	38HDR036−61	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015518	38HDR036−61	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015519	38HDR036−61	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1117624	38HDR036−61	CSPH*4212A**+TDR		33,400	11.0	13.0
1117658	38HDR036−61	FE4AN(B,F)003+UI		33,000	11.5	14.0
1117660	38HDR036−61	FE4AN(B,F)005+UI		33,400	12.5	15.0
1117662	38HDR036−61	FE4ANB006+UI		33,400	12.5	15.0
1117656	38HDR036−61	FE4ANF002+UI		33,000	11.5	13.5
1117664	38HDR036−61	FF1ENP036		33,000	11.0	13.0
1117668	38HDR036−61	FV4BNB006		33,400	12.5	15.0
1117666	38HDR036−61	FV4BNF002		33,000	11.5	13.5
3404635	38HDR036−61	FV4CNB006		33,400	12.5	15.0
3404634	38HDR036−61	FV4CNF002		33,000	11.5	13.5
1117652	38HDR036−61	FX4CN(B,F)036		33,000	11.5	14.0
1117654	38HDR036−61	FX4CN(B,F)042		33,400	11.5	14.0
1117648	38HDR036−61	FY4ANF036		33,000	11.0	13.0
1117650	38HDR036−61	FY4ANF042		33,400	11.0	13.0
3465144	38HDR048−32	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465807	38HDR048−32	40QAC048−3		45,500	11.5	13.0
3465146	38HDR048−32	CAP**4817A**	58CV(A,X)090−16	46,500	11.5	13.5
3465148	38HDR048−32	CAP**4817A**	58MEB080−16	46,500	11.5	14.0
3465147	38HDR048−32	CAP**4817A**	58PH*070−16	46,500	11.5	13.5
3465145	38HDR048−32	CAP**4817A**+TDR		46,500	11.0	13.0
3465152	38HDR048−32	CAP**4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465155	38HDR048−32	CAP**4821A**	58MEB100−20	46,500	11.5	14.0
3465150	38HDR048−32	CAP**4821A**	58MV(B,C)080−20	46,000	11.5	13.5
3465151	38HDR048−32	CAP**4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465153	38HDR048−32	CAP**4821A**	58PH*090−16	46,500	11.5	14.0
3465154	38HDR048−32	CAP**4821A**	58PH*110−20	46,500	11.5	14.0
3465149	38HDR048−32	CAP**4821A**+TDR		47,000	11.0	13.0
3465158	38HDR048−32	CAP**4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465159	38HDR048−32	CAP**4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465161	38HDR048−32	CAP**4824A**	58MEB120−20	46,500	11.5	14.0
3465157	38HDR048−32	CAP**4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465160	38HDR048−32	CAP**4824A**	58PH*135−20	46,500	11.5	14.0
3465156	38HDR048−32	CAP**4824A**+TDR		47,000	11.0	13.0
3465165	38HDR048−32	CAP**6021A**	58CV(A,X)110−20	47,000	11.5	13.5
3465168	38HDR048−32	CAP**6021A**	58MEB100−20	47,000	12.0	14.5
3465163	38HDR048−32	CAP**6021A**	58MV(B,C)080−20	47,000	11.5	13.5
3465164	38HDR048−32	CAP**6021A**	58MV(B,C)100−20	47,000	11.5	13.5
3465166	38HDR048−32	CAP**6021A**	58PH*090−16	47,000	12.0	14.5
3465167	38HDR048−32	CAP**6021A**	58PH*110−20	47,000	12.0	14.5
3465162	38HDR048−32	CAP**6021A**+TDR		47,500	11.0	13.0
3465171	38HDR048−32	CAP**6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465172	38HDR048−32	CAP**6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465174	38HDR048−32	CAP**6024A**	58MEB120−20	47,000	12.0	14.5
3465170	38HDR048−32	CAP**6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465173	38HDR048−32	CAP**6024A**	58PH*135−20	47,000	12.0	14.5
3465169	38HDR048−32	CAP**6024A**+TDR		47,500	11.0	13.0
3465221	38HDR048−32	CNPF*4818A**+TDR		46,000	11.0	13.0
3465197	38HDR048−32	CNPH*4821A**	58CV(A,X)090−16	46,500	11.5	13.5
3465198	38HDR048−32	CNPH*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465199	38HDR048−32	CNPH*4821A**	58CV(A,X)135−22	46,500	11.5	13.5
3465200	38HDR048−32	CNPH*4821A**	58CV(A,X)155−22	46,500	11.5	13.5
3465204	38HDR048−32	CNPH*4821A**	58MEB080−16	46,500	11.5	14.0
3465205	38HDR048−32	CNPH*4821A**	58MEB100−20	46,500	11.5	14.0
3465206	38HDR048−32	CNPH*4821A**	58MEB120−20	46,500	11.5	14.0
3465194	38HDR048−32	CNPH*4821A**	58MV(B,C)080−20	46,500	11.5	13.5

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ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465195	38HDR048−32	CNPH*4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465196	38HDR048−32	CNPH*4821A**	58MV(B,C)120−20	46,500	11.5	13.5
3465201	38HDR048−32	CNPH*4821A**	58PH*090−16	46,500	11.5	13.5
3465202	38HDR048−32	CNPH*4821A**	58PH*110−20	46,500	11.5	13.5
3465203	38HDR048−32	CNPH*4821A**	58PH*135−20	46,500	11.5	13.5
3465193	38HDR048−32	CNPH*4821A**+TDR		47,000	11.0	13.0
3465211	38HDR048−32	CNPH*6024A**	58CV(A,X)090−16	47,000	11.5	13.5
3465212	38HDR048−32	CNPH*6024A**	58CV(A,X)110−20	47,000	11.5	13.5
3465213	38HDR048−32	CNPH*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465214	38HDR048−32	CNPH*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465218	38HDR048−32	CNPH*6024A**	58MEB080−16	47,000	11.5	14.0
3465219	38HDR048−32	CNPH*6024A**	58MEB100−20	47,000	12.0	14.5
3465220	38HDR048−32	CNPH*6024A**	58MEB120−20	47,000	12.0	14.5
3465208	38HDR048−32	CNPH*6024A**	58MV(B,C)080−20	47,000	11.5	13.5
3465209	38HDR048−32	CNPH*6024A**	58MV(B,C)100−20	47,000	11.5	13.5
3465210	38HDR048−32	CNPH*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465215	38HDR048−32	CNPH*6024A**	58PH*090−16	47,000	12.0	14.5
3465216	38HDR048−32	CNPH*6024A**	58PH*110−20	47,000	12.0	14.5
3465217	38HDR048−32	CNPH*6024A**	58PH*135−20	47,000	12.0	14.5
3465207	38HDR048−32	CNPH*6024A**+TDR		47,500	11.0	13.0
3465177	38HDR048−32	CNPV*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465180	38HDR048−32	CNPV*4821A**	58MEB100−20	46,500	11.5	13.5
3465175	38HDR048−32	CNPV*4821A**	58MV(B,C)080−20	46,500	11.5	13.5
3465176	38HDR048−32	CNPV*4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465178	38HDR048−32	CNPV*4821A**	58PH*090−16	46,500	11.5	14.0
3465179	38HDR048−32	CNPV*4821A**	58PH*110−20	46,500	11.5	14.0
3465183	38HDR048−32	CNPV*4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465184	38HDR048−32	CNPV*4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465186	38HDR048−32	CNPV*4824A**	58MEB120−20	46,500	11.5	14.0
3465182	38HDR048−32	CNPV*4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465185	38HDR048−32	CNPV*4824A**	58PH*135−20	46,500	11.5	14.0
3465181	38HDR048−32	CNPV*4824A**+TDR		47,000	11.0	13.0
3465189	38HDR048−32	CNPV*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465190	38HDR048−32	CNPV*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465192	38HDR048−32	CNPV*6024A**	58MEB120−20	47,000	12.0	14.5
3465188	38HDR048−32	CNPV*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465191	38HDR048−32	CNPV*6024A**	58PH*135−20	47,000	12.0	14.5
3465187	38HDR048−32	CNPV*6024A**+TDR		47,500	11.0	13.0
3465226	38HDR048−32	CSPH*4812A**	58CV(A,X)090−16	46,500	11.5	13.5
3465227	38HDR048−32	CSPH*4812A**	58CV(A,X)110−20	46,500	11.5	13.5
3465228	38HDR048−32	CSPH*4812A**	58CV(A,X)135−22	46,500	11.5	13.5
3465229	38HDR048−32	CSPH*4812A**	58CV(A,X)155−22	46,500	11.5	13.5
3465233	38HDR048−32	CSPH*4812A**	58MEB080−16	46,500	11.5	14.0
3465234	38HDR048−32	CSPH*4812A**	58MEB100−20	46,500	11.5	14.0
3465235	38HDR048−32	CSPH*4812A**	58MEB120−20	46,500	11.5	14.0
3465223	38HDR048−32	CSPH*4812A**	58MV(B,C)080−20	46,500	11.5	13.5
3465224	38HDR048−32	CSPH*4812A**	58MV(B,C)100−20	46,500	11.5	13.5
3465225	38HDR048−32	CSPH*4812A**	58MV(B,C)120−20	46,500	11.5	13.5
3465230	38HDR048−32	CSPH*4812A**	58PH*090−16	46,500	11.5	14.0
3465231	38HDR048−32	CSPH*4812A**	58PH*110−20	46,500	11.5	14.0
3465232	38HDR048−32	CSPH*4812A**	58PH*135−20	46,500	11.5	14.0
3465222	38HDR048−32	CSPH*4812A**+TDR		47,000	11.0	13.0
3465240	38HDR048−32	CSPH*6012A**	58CV(A,X)090−16	47,000	11.5	13.5
3465241	38HDR048−32	CSPH*6012A**	58CV(A,X)110−20	47,000	11.5	14.0
3465242	38HDR048−32	CSPH*6012A**	58CV(A,X)135−22	47,000	11.5	14.0
3465243	38HDR048−32	CSPH*6012A**	58CV(A,X)155−22	47,000	11.5	14.0
3465247	38HDR048−32	CSPH*6012A**	58MEB080−16	47,000	12.0	14.5
3465248	38HDR048−32	CSPH*6012A**	58MEB100−20	47,000	12.0	14.5
3465249	38HDR048−32	CSPH*6012A**	58MEB120−20	47,000	12.0	14.5
3465237	38HDR048−32	CSPH*6012A**	58MV(B,C)080−20	47,000	11.5	13.5
3465238	38HDR048−32	CSPH*6012A**	58MV(B,C)100−20	47,000	11.5	13.5
3465239	38HDR048−32	CSPH*6012A**	58MV(B,C)120−20	47,000	11.5	13.5
3465244	38HDR048−32	CSPH*6012A**	58PH*090−16	47,000	12.0	14.5
3465245	38HDR048−32	CSPH*6012A**	58PH*110−20	47,000	12.0	14.5
3465246	38HDR048−32	CSPH*6012A**	58PH*135−20	47,000	12.0	14.5
3465236	38HDR048−32	CSPH*6012A**+TDR		47,500	11.0	13.0
3465254	38HDR048−32	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465255	38HDR048−32	FE4ANB006+UI		47,500	11.5	14.0
3465256	38HDR048−32	FV4BN(B,F)005		47,000	11.5	14.0
3465257	38HDR048−32	FV4BNB006		47,500	11.5	14.0
3465252	38HDR048−32	FX4CN(B,F)048		47,000	11.5	13.5
3465253	38HDR048−32	FX4CN(B,F)060		47,500	11.5	14.0
3465251	38HDR048−32	FY4ANB060		47,500	11.0	13.0
3465250	38HDR048−32	FY4ANF048		47,000	11.0	13.0
3465258	38HDR048−52	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465808	38HDR048−52	40QAC048−3		45,500	11.5	13.0
3465260	38HDR048−52	CAP**4817A**	58CV(A,X)090−16	46,500	11.5	13.5
3465262	38HDR048−52	CAP**4817A**	58MEB080−16	46,500	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465261	38HDR048−52	CAP**4817A**	58PH*070−16	46,500	11.5	13.5
3465259	38HDR048−52	CAP**4817A**+TDR		46,500	11.0	13.0
3465266	38HDR048−52	CAP**4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465269	38HDR048−52	CAP**4821A**	58MEB100−20	46,500	11.5	14.0
3465264	38HDR048−52	CAP**4821A**	58MV(B,C)080−20	46,000	11.5	13.5
3465265	38HDR048−52	CAP**4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465267	38HDR048−52	CAP**4821A**	58PH*090−16	46,500	11.5	14.0
3465268	38HDR048−52	CAP**4821A**	58PH*110−20	46,500	11.5	14.0
3465263	38HDR048−52	CAP**4821A**+TDR		47,000	11.0	13.0
3465272	38HDR048−52	CAP**4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465273	38HDR048−52	CAP**4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465275	38HDR048−52	CAP**4824A**	58MEB120−20	46,500	11.5	14.0
3465271	38HDR048−52	CAP**4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465274	38HDR048−52	CAP**4824A**	58PH*135−20	46,500	11.5	14.0
3465270	38HDR048−52	CAP**4824A**+TDR		47,000	11.0	13.0
3465279	38HDR048−52	CAP**6021A**	58CV(A,X)110−20	47,000	11.5	13.5
3465282	38HDR048−52	CAP**6021A**	58MEB100−20	47,000	12.0	14.5
3465277	38HDR048−52	CAP**6021A**	58MV(B,C)080−20	47,000	11.5	13.5
3465278	38HDR048−52	CAP**6021A**	58MV(B,C)100−20	47,000	11.5	13.5
3465280	38HDR048−52	CAP**6021A**	58PH*090−16	47,000	12.0	14.5
3465281	38HDR048−52	CAP**6021A**	58PH*110−20	47,000	12.0	14.5
3465276	38HDR048−52	CAP**6021A**+TDR		47,500	11.0	13.0
3465285	38HDR048−52	CAP**6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465286	38HDR048−52	CAP**6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465288	38HDR048−52	CAP**6024A**	58MEB120−20	47,000	12.0	14.5
3465284	38HDR048−52	CAP**6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465287	38HDR048−52	CAP**6024A**	58PH*135−20	47,000	12.0	14.5
3465283	38HDR048−52	CAP**6024A**+TDR		47,500	11.0	13.0
3465335	38HDR048−52	CNPF*4818A**+TDR		46,000	11.0	13.0
3465311	38HDR048−52	CNPH*4821A**	58CV(A,X)090−16	46,500	11.5	13.5
3465312	38HDR048−52	CNPH*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465313	38HDR048−52	CNPH*4821A**	58CV(A,X)135−22	46,500	11.5	13.5
3465314	38HDR048−52	CNPH*4821A**	58CV(A,X)155−22	46,500	11.5	13.5
3465318	38HDR048−52	CNPH*4821A**	58MEB080−16	46,500	11.5	14.0
3465319	38HDR048−52	CNPH*4821A**	58MEB100−20	46,500	11.5	14.0
3465320	38HDR048−52	CNPH*4821A**	58MEB120−20	46,500	11.5	14.0
3465308	38HDR048−52	CNPH*4821A**	58MV(B,C)080−20	46,500	11.5	13.5
3465309	38HDR048−52	CNPH*4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465310	38HDR048−52	CNPH*4821A**	58MV(B,C)120−20	46,500	11.5	13.5
3465315	38HDR048−52	CNPH*4821A**	58PH*090−16	46,500	11.5	13.5
3465316	38HDR048−52	CNPH*4821A**	58PH*110−20	46,500	11.5	13.5
3465317	38HDR048−52	CNPH*4821A**	58PH*135−20	46,500	11.5	13.5
3465307	38HDR048−52	CNPH*4821A**+TDR		47,000	11.0	13.0
3465325	38HDR048−52	CNPH*6024A**	58CV(A,X)090−16	47,000	11.5	13.5
3465326	38HDR048−52	CNPH*6024A**	58CV(A,X)110−20	47,000	11.5	13.5
3465327	38HDR048−52	CNPH*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465328	38HDR048−52	CNPH*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465332	38HDR048−52	CNPH*6024A**	58MEB080−16	47,000	11.5	14.0
3465333	38HDR048−52	CNPH*6024A**	58MEB100−20	47,000	12.0	14.5
3465334	38HDR048−52	CNPH*6024A**	58MEB120−20	47,000	12.0	14.5
3465322	38HDR048−52	CNPH*6024A**	58MV(B,C)080−20	47,000	11.5	13.5
3465323	38HDR048−52	CNPH*6024A**	58MV(B,C)100−20	47,000	11.5	13.5
3465324	38HDR048−52	CNPH*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465329	38HDR048−52	CNPH*6024A**	58PH*090−16	47,000	12.0	14.5
3465330	38HDR048−52	CNPH*6024A**	58PH*110−20	47,000	12.0	14.5
3465331	38HDR048−52	CNPH*6024A**	58PH*135−20	47,000	12.0	14.5
3465321	38HDR048−52	CNPH*6024A**+TDR		47,500	11.0	13.0
3465291	38HDR048−52	CNPV*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465294	38HDR048−52	CNPV*4821A**	58MEB100−20	46,500	11.5	13.5
3465289	38HDR048−52	CNPV*4821A**	58MV(B,C)080−20	46,500	11.5	13.5
3465290	38HDR048−52	CNPV*4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465292	38HDR048−52	CNPV*4821A**	58PH*090−16	46,500	11.5	14.0
3465293	38HDR048−52	CNPV*4821A**	58PH*110−20	46,500	11.5	14.0
3465297	38HDR048−52	CNPV*4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465298	38HDR048−52	CNPV*4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465300	38HDR048−52	CNPV*4824A**	58MEB120−20	46,500	11.5	14.0
3465296	38HDR048−52	CNPV*4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465299	38HDR048−52	CNPV*4824A**	58PH*135−20	46,500	11.5	14.0
3465295	38HDR048−52	CNPV*4824A**+TDR		47,000	11.0	13.0
3465303	38HDR048−52	CNPV*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465304	38HDR048−52	CNPV*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465306	38HDR048−52	CNPV*6024A**	58MEB120−20	47,000	12.0	14.5
3465302	38HDR048−52	CNPV*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465305	38HDR048−52	CNPV*6024A**	58PH*135−20	47,000	12.0	14.5
3465301	38HDR048−52	CNPV*6024A**+TDR		47,500	11.0	13.0
3465340	38HDR048−52	CSPH*4812A**	58CV(A,X)090−16	46,500	11.5	13.5
3465341	38HDR048−52	CSPH*4812A**	58CV(A,X)110−20	46,500	11.5	13.5
3465342	38HDR048−52	CSPH*4812A**	58CV(A,X)135−22	46,500	11.5	13.5
3465343	38HDR048−52	CSPH*4812A**	58CV(A,X)155−22	46,500	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465347	38HDR048–52	CSPH*4812A**	58MEB080–16	46,500	11.5	14.0
3465348	38HDR048–52	CSPH*4812A**	58MEB100–20	46,500	11.5	14.0
3465349	38HDR048–52	CSPH*4812A**	58MEB120–20	46,500	11.5	14.0
3465337	38HDR048–52	CSPH*4812A**	58MV(B,C)080–20	46,500	11.5	13.5
3465338	38HDR048–52	CSPH*4812A**	58MV(B,C)100–20	46,500	11.5	13.5
3465339	38HDR048–52	CSPH*4812A**	58MV(B,C)120–20	46,500	11.5	13.5
3465344	38HDR048–52	CSPH*4812A**	58PH*090–16	46,500	11.5	14.0
3465345	38HDR048–52	CSPH*4812A**	58PH*110–20	46,500	11.5	14.0
3465346	38HDR048–52	CSPH*4812A**	58PH*135–20	46,500	11.5	14.0
3465336	38HDR048–52	CSPH*4812A**+TDR		47,000	11.0	13.0
3465354	38HDR048–52	CSPH*6012A**	58CV(A,X)090–16	47,000	11.5	13.5
3465355	38HDR048–52	CSPH*6012A**	58CV(A,X)110–20	47,000	11.5	14.0
3465356	38HDR048–52	CSPH*6012A**	58CV(A,X)135–22	47,000	11.5	14.0
3465357	38HDR048–52	CSPH*6012A**	58CV(A,X)155–22	47,000	11.5	14.0
3465361	38HDR048–52	CSPH*6012A**	58MEB080–16	47,000	12.0	14.5
3465362	38HDR048–52	CSPH*6012A**	58MEB100–20	47,000	12.0	14.5
3465363	38HDR048–52	CSPH*6012A**	58MEB120–20	47,000	12.0	14.5
3465351	38HDR048–52	CSPH*6012A**	58MV(B,C)080–20	47,000	11.5	13.5
3465352	38HDR048–52	CSPH*6012A**	58MV(B,C)100–20	47,000	11.5	13.5
3465353	38HDR048–52	CSPH*6012A**	58MV(B,C)120–20	47,000	11.5	13.5
3465358	38HDR048–52	CSPH*6012A**	58PH*090–16	47,000	12.0	14.5
3465359	38HDR048–52	CSPH*6012A**	58PH*110–20	47,000	12.0	14.5
3465360	38HDR048–52	CSPH*6012A**	58PH*135–20	47,000	12.0	14.5
3465350	38HDR048–52	CSPH*6012A**+TDR		47,500	11.0	13.0
3465368	38HDR048–52	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465369	38HDR048–52	FE4ANB006+UI		47,500	11.5	14.0
3465370	38HDR048–52	FV4BN(B,F)005		47,000	11.5	14.0
3465371	38HDR048–52	FV4BNB006		47,500	11.5	14.0
3465366	38HDR048–52	FX4CN(B,F)048		47,000	11.5	13.5
3465367	38HDR048–52	FX4CN(B,F)060		47,500	11.5	14.0
3465365	38HDR048–52	FY4ANB060		47,500	11.0	13.0
3465364	38HDR048–52	FY4ANF048		47,000	11.0	13.0
3465372	38HDR048–62	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465809	38HDR048–62	40QAC048–3		45,500	11.5	13.0
3465374	38HDR048–62	CAP**4817A**	58CV(A,X)090–16	46,500	11.5	13.5
3465376	38HDR048–62	CAP**4817A**	58MEB080–16	46,500	11.5	14.0
3465375	38HDR048–62	CAP**4817A**	58PH*070–16	46,500	11.5	13.5
3465373	38HDR048–62	CAP**4817A**+TDR		46,500	11.0	13.0
3465380	38HDR048–62	CAP**4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465383	38HDR048–62	CAP**4821A**	58MEB100–20	46,500	11.5	14.0
3465378	38HDR048–62	CAP**4821A**	58MV(B,C)080–20	46,000	11.5	13.5
3465379	38HDR048–62	CAP**4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465381	38HDR048–62	CAP**4821A**	58PH*090–16	46,500	11.5	14.0
3465382	38HDR048–62	CAP**4821A**	58PH*110–20	46,500	11.5	14.0
3465377	38HDR048–62	CAP**4821A**+TDR		47,000	11.0	13.0
3465386	38HDR048–62	CAP**4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465387	38HDR048–62	CAP**4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465389	38HDR048–62	CAP**4824A**	58MEB120–20	46,500	11.5	14.0
3465385	38HDR048–62	CAP**4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465388	38HDR048–62	CAP**4824A**	58PH*135–20	46,500	11.5	14.0
3465384	38HDR048–62	CAP**4824A**+TDR		47,000	11.0	13.0
3465393	38HDR048–62	CAP**6021A**	58CV(A,X)110–20	47,000	11.5	13.5
3465396	38HDR048–62	CAP**6021A**	58MEB100–20	47,000	12.0	14.5
3465391	38HDR048–62	CAP**6021A**	58MV(B,C)080–20	47,000	11.5	13.5
3465392	38HDR048–62	CAP**6021A**	58MV(B,C)100–20	47,000	11.5	13.5
3465394	38HDR048–62	CAP**6021A**	58PH*090–16	47,000	12.0	14.5
3465395	38HDR048–62	CAP**6021A**	58PH*110–20	47,000	12.0	14.5
3465390	38HDR048–62	CAP**6021A**+TDR		47,500	11.0	13.0
3465399	38HDR048–62	CAP**6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465400	38HDR048–62	CAP**6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465402	38HDR048–62	CAP**6024A**	58MEB120–20	47,000	12.0	14.5
3465398	38HDR048–62	CAP**6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465401	38HDR048–62	CAP**6024A**	58PH*135–20	47,000	12.0	14.5
3465397	38HDR048–62	CAP**6024A**+TDR		47,500	11.0	13.0
3465449	38HDR048–62	CNPF*4818A**+TDR		46,000	11.0	13.0
3465425	38HDR048–62	CNPH*4821A**	58CV(A,X)090–16	46,500	11.5	13.5
3465426	38HDR048–62	CNPH*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465427	38HDR048–62	CNPH*4821A**	58CV(A,X)135–22	46,500	11.5	13.5
3465428	38HDR048–62	CNPH*4821A**	58CV(A,X)155–22	46,500	11.5	13.5
3465432	38HDR048–62	CNPH*4821A**	58MEB080–16	46,500	11.5	14.0
3465433	38HDR048–62	CNPH*4821A**	58MEB100–20	46,500	11.5	14.0
3465434	38HDR048–62	CNPH*4821A**	58MEB120–20	46,500	11.5	14.0
3465422	38HDR048–62	CNPH*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465423	38HDR048–62	CNPH*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465424	38HDR048–62	CNPH*4821A**	58MV(B,C)120–20	46,500	11.5	13.5
3465429	38HDR048–62	CNPH*4821A**	58PH*090–16	46,500	11.5	13.5
3465430	38HDR048–62	CNPH*4821A**	58PH*110–20	46,500	11.5	13.5
3465431	38HDR048–62	CNPH*4821A**	58PH*135–20	46,500	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465421	38HDR048−62	CNPH*4821A**+TDR		47,000	11.0	13.0
3465439	38HDR048−62	CNPH*6024A**	58CV(A,X)090−16	47,000	11.5	13.5
3465440	38HDR048−62	CNPH*6024A**	58CV(A,X)110−20	47,000	11.5	13.5
3465441	38HDR048−62	CNPH*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465442	38HDR048−62	CNPH*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465446	38HDR048−62	CNPH*6024A**	58MEB080−16	47,000	11.5	14.0
3465447	38HDR048−62	CNPH*6024A**	58MEB100−20	47,000	12.0	14.5
3465448	38HDR048−62	CNPH*6024A**	58MEB120−20	47,000	12.0	14.5
3465436	38HDR048−62	CNPH*6024A**	58MV(B,C)080−20	47,000	11.5	13.5
3465437	38HDR048−62	CNPH*6024A**	58MV(B,C)100−20	47,000	11.5	13.5
3465438	38HDR048−62	CNPH*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465443	38HDR048−62	CNPH*6024A**	58PH*090−16	47,000	12.0	14.5
3465444	38HDR048−62	CNPH*6024A**	58PH*110−20	47,000	12.0	14.5
3465445	38HDR048−62	CNPH*6024A**	58PH*135−20	47,000	12.0	14.5
3465435	38HDR048−62	CNPH*6024A**+TDR		47,500	11.0	13.0
3465405	38HDR048−62	CNPV*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465408	38HDR048−62	CNPV*4821A**	58MEB100−20	46,500	11.5	13.5
3465403	38HDR048−62	CNPV*4821A**	58MV(B,C)080−20	46,500	11.5	13.5
3465404	38HDR048−62	CNPV*4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465406	38HDR048−62	CNPV*4821A**	58PH*090−16	46,500	11.5	14.0
3465407	38HDR048−62	CNPV*4821A**	58PH*110−20	46,500	11.5	14.0
3465411	38HDR048−62	CNPV*4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465412	38HDR048−62	CNPV*4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465414	38HDR048−62	CNPV*4824A**	58MEB120−20	46,500	11.5	14.0
3465410	38HDR048−62	CNPV*4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465413	38HDR048−62	CNPV*4824A**	58PH*135−20	46,500	11.5	14.0
3465409	38HDR048−62	CNPV*4824A**+TDR		47,000	11.0	13.0
3465417	38HDR048−62	CNPV*6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465418	38HDR048−62	CNPV*6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465420	38HDR048−62	CNPV*6024A**	58MEB120−20	47,000	12.0	14.5
3465416	38HDR048−62	CNPV*6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465419	38HDR048−62	CNPV*6024A**	58PH*135−20	47,000	12.0	14.5
3465415	38HDR048−62	CNPV*6024A**+TDR		47,500	11.0	13.0
3465454	38HDR048−62	CSPH*4812A**	58CV(A,X)090−16	46,500	11.5	13.5
3465455	38HDR048−62	CSPH*4812A**	58CV(A,X)110−20	46,500	11.5	13.5
3465456	38HDR048−62	CSPH*4812A**	58CV(A,X)135−22	46,500	11.5	13.5
3465457	38HDR048−62	CSPH*4812A**	58CV(A,X)155−22	46,500	11.5	13.5
3465461	38HDR048−62	CSPH*4812A**	58MEB080−16	46,500	11.5	14.0
3465462	38HDR048−62	CSPH*4812A**	58MEB100−20	46,500	11.5	14.0
3465463	38HDR048−62	CSPH*4812A**	58MEB120−20	46,500	11.5	14.0
3465451	38HDR048−62	CSPH*4812A**	58MV(B,C)080−20	46,500	11.5	13.5
3465452	38HDR048−62	CSPH*4812A**	58MV(B,C)100−20	46,500	11.5	13.5
3465453	38HDR048−62	CSPH*4812A**	58MV(B,C)120−20	46,500	11.5	13.5
3465458	38HDR048−62	CSPH*4812A**	58PH*090−16	46,500	11.5	14.0
3465459	38HDR048−62	CSPH*4812A**	58PH*110−20	46,500	11.5	14.0
3465460	38HDR048−62	CSPH*4812A**	58PH*135−20	46,500	11.5	14.0
3465450	38HDR048−62	CSPH*4812A**+TDR		47,000	11.0	13.0
3465468	38HDR048−62	CSPH*6012A**	58CV(A,X)090−16	47,000	11.5	13.5
3465469	38HDR048−62	CSPH*6012A**	58CV(A,X)110−20	47,000	11.5	14.0
3465470	38HDR048−62	CSPH*6012A**	58CV(A,X)135−22	47,000	11.5	14.0
3465471	38HDR048−62	CSPH*6012A**	58CV(A,X)155−22	47,000	11.5	14.0
3465475	38HDR048−62	CSPH*6012A**	58MEB080−16	47,000	12.0	14.5
3465476	38HDR048−62	CSPH*6012A**	58MEB100−20	47,000	12.0	14.5
3465477	38HDR048−62	CSPH*6012A**	58MEB120−20	47,000	12.0	14.5
3465465	38HDR048−62	CSPH*6012A**	58MV(B,C)080−20	47,000	11.5	13.5
3465466	38HDR048−62	CSPH*6012A**	58MV(B,C)100−20	47,000	11.5	13.5
3465467	38HDR048−62	CSPH*6012A**	58MV(B,C)120−20	47,000	11.5	13.5
3465472	38HDR048−62	CSPH*6012A**	58PH*090−16	47,000	12.0	14.5
3465473	38HDR048−62	CSPH*6012A**	58PH*110−20	47,000	12.0	14.5
3465474	38HDR048−62	CSPH*6012A**	58PH*135−20	47,000	12.0	14.5
3465464	38HDR048−62	CSPH*6012A**+TDR		47,500	11.0	13.0
3465482	38HDR048−62	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465483	38HDR048−62	FE4ANB006+UI		47,500	11.5	14.0
3465484	38HDR048−62	FV4BN(B,F)005		47,000	11.5	14.0
3465485	38HDR048−62	FV4BNB006		47,500	11.5	14.0
3465480	38HDR048−62	FX4CN(B,F)048		47,000	11.5	13.5
3465481	38HDR048−62	FX4CN(B,F)060		47,500	11.5	14.0
3465479	38HDR048−62	FY4ANB060		47,500	11.0	13.0
3465478	38HDR048−62	FY4ANF048		47,000	11.0	13.0
3465024	38HDR060−32	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465810	38HDR060−32	40QAC060−3		56,000	11.0	13.0
3465026	38HDR060−32	CAP**6021A**	58CV(A,X)110−20	56,000	11.0	13.2
3465029	38HDR060−32	CAP**6021A**	58MEB100−20	56,000	11.0	13.5
3465027	38HDR060−32	CAP**6021A**	58PH*090−16	56,000	11.0	13.2
3465028	38HDR060−32	CAP**6021A**	58PH*110−20	56,000	11.0	13.5
3465025	38HDR060−32	CAP**6021A**+TDR		57,000	11.0	13.0
3465031	38HDR060−32	CAP**6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465032	38HDR060−32	CAP**6024A**	58CV(A,X)155−22	56,000	11.0	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465034	38HDR060−32	CAP**6024A**	58MEB120−20	56,000	11.0	13.5
3465033	38HDR060−32	CAP**6024A**	58PH*135−20	56,000	11.0	13.5
3465030	38HDR060−32	CAP**6024A**+TDR		57,000	11.0	13.0
3465040	38HDR060−32	CNPH*6024A**	58CV(A,X)110−20	56,000	11.0	13.2
3465041	38HDR060−32	CNPH*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465042	38HDR060−32	CNPH*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465046	38HDR060−32	CNPH*6024A**	58MEB080−16	56,000	11.0	13.2
3465047	38HDR060−32	CNPH*6024A**	58MEB100−20	56,000	11.0	13.5
3465048	38HDR060−32	CNPH*6024A**	58MEB120−20	56,000	11.0	13.5
3465043	38HDR060−32	CNPH*6024A**	58PH*090−16	56,000	11.0	13.2
3465044	38HDR060−32	CNPH*6024A**	58PH*110−20	56,000	11.0	13.5
3465045	38HDR060−32	CNPH*6024A**	58PH*135−20	56,000	11.0	13.5
3465039	38HDR060−32	CNPH*6024A**+TDR		57,000	11.0	13.0
3465035	38HDR060−32	CNPV*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465036	38HDR060−32	CNPV*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465038	38HDR060−32	CNPV*6024A**	58MEB120−20	56,000	11.0	13.5
3465037	38HDR060−32	CNPV*6024A**	58PH*135−20	56,000	11.0	13.5
3465051	38HDR060−32	CSPH*6012A**	58CV(A,X)110−20	56,000	11.0	13.5
3465052	38HDR060−32	CSPH*6012A**	58CV(A,X)135−22	56,000	11.0	13.5
3465053	38HDR060−32	CSPH*6012A**	58CV(A,X)155−22	56,000	11.0	13.5
3465057	38HDR060−32	CSPH*6012A**	58MEB080−16	56,000	11.0	13.2
3465058	38HDR060−32	CSPH*6012A**	58MEB100−20	56,000	11.0	13.5
3465059	38HDR060−32	CSPH*6012A**	58MEB120−20	56,000	11.0	13.5
3465050	38HDR060−32	CSPH*6012A**	58MV(B,C)120−20	56,000	11.0	13.2
3465054	38HDR060−32	CSPH*6012A**	58PH*090−16	56,000	11.0	13.5
3465055	38HDR060−32	CSPH*6012A**	58PH*110−20	56,000	11.0	13.5
3465056	38HDR060−32	CSPH*6012A**	58PH*135−20	56,000	11.0	13.5
3465049	38HDR060−32	CSPH*6012A**+TDR		57,000	11.0	13.0
3465062	38HDR060−32	FE4ANB006+UI		57,500	11.0	13.5
3465063	38HDR060−32	FV4BNB006		57,500	11.0	13.5
3465061	38HDR060−32	FX4CN(B,F)060		57,500	11.0	13.5
3465060	38HDR060−32	FY4ANB060		57,000	11.0	13.0
3465064	38HDR060−52	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465811	38HDR060−52	40QAC060−3		56,000	11.0	13.0
3465066	38HDR060−52	CAP**6021A**	58CV(A,X)110−20	56,000	11.0	13.2
3465069	38HDR060−52	CAP**6021A**	58MEB100−20	56,000	11.0	13.5
3465067	38HDR060−52	CAP**6021A**	58PH*090−16	56,000	11.0	13.2
3465068	38HDR060−52	CAP**6021A**	58PH*110−20	56,000	11.0	13.5
3465065	38HDR060−52	CAP**6021A**+TDR		57,000	11.0	13.0
3465071	38HDR060−52	CAP**6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465072	38HDR060−52	CAP**6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465074	38HDR060−52	CAP**6024A**	58MEB120−20	56,000	11.0	13.5
3465073	38HDR060−52	CAP**6024A**	58PH*135−20	56,000	11.0	13.5
3465070	38HDR060−52	CAP**6024A**+TDR		57,000	11.0	13.0
3465080	38HDR060−52	CNPH*6024A**	58CV(A,X)110−20	56,000	11.0	13.2
3465081	38HDR060−52	CNPH*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465082	38HDR060−52	CNPH*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465086	38HDR060−52	CNPH*6024A**	58MEB080−16	56,000	11.0	13.2
3465087	38HDR060−52	CNPH*6024A**	58MEB100−20	56,000	11.0	13.5
3465088	38HDR060−52	CNPH*6024A**	58MEB120−20	56,000	11.0	13.5
3465083	38HDR060−52	CNPH*6024A**	58PH*090−16	56,000	11.0	13.2
3465084	38HDR060−52	CNPH*6024A**	58PH*110−20	56,000	11.0	13.5
3465085	38HDR060−52	CNPH*6024A**	58PH*135−20	56,000	11.0	13.5
3465079	38HDR060−52	CNPH*6024A**+TDR		57,000	11.0	13.0
3465075	38HDR060−52	CNPV*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465076	38HDR060−52	CNPV*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465078	38HDR060−52	CNPV*6024A**	58MEB120−20	56,000	11.0	13.5
3465077	38HDR060−52	CNPV*6024A**	58PH*135−20	56,000	11.0	13.5
3465091	38HDR060−52	CSPH*6012A**	58CV(A,X)110−20	56,000	11.0	13.5
3465092	38HDR060−52	CSPH*6012A**	58CV(A,X)135−22	56,000	11.0	13.5
3465093	38HDR060−52	CSPH*6012A**	58CV(A,X)155−22	56,000	11.0	13.5
3465097	38HDR060−52	CSPH*6012A**	58MEB080−16	56,000	11.0	13.2
3465098	38HDR060−52	CSPH*6012A**	58MEB100−20	56,000	11.0	13.5
3465099	38HDR060−52	CSPH*6012A**	58MEB120−20	56,000	11.0	13.5
3465090	38HDR060−52	CSPH*6012A**	58MV(B,C)120−20	56,000	11.0	13.2
3465094	38HDR060−52	CSPH*6012A**	58PH*090−16	56,000	11.0	13.5
3465095	38HDR060−52	CSPH*6012A**	58PH*110−20	56,000	11.0	13.5
3465096	38HDR060−52	CSPH*6012A**	58PH*135−20	56,000	11.0	13.5
3465089	38HDR060−52	CSPH*6012A**+TDR		57,000	11.0	13.0
3465102	38HDR060−52	FE4ANB006+UI		57,500	11.0	13.5
3465103	38HDR060−52	FV4BNB006		57,500	11.0	13.5
3465101	38HDR060−52	FX4CN(B,F)060		57,500	11.0	13.5
3465100	38HDR060−52	FY4ANB060		57,000	11.0	13.0
3465104	38HDR060−62	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465812	38HDR060−62	40QAC060−3		56,000	11.0	13.0
3465106	38HDR060−62	CAP**6021A**	58CV(A,X)110−20	56,000	11.0	13.2
3465109	38HDR060−62	CAP**6021A**	58MEB100−20	56,000	11.0	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465107	38HDR060−62	CAP**6021A**	58PH*090−16	56,000	11.0	13.2
3465108	38HDR060−62	CAP**6021A**	58PH*110−20	56,000	11.0	13.5
3465105	38HDR060−62	CAP**6021A**+TDR		57,000	11.0	13.0
3465111	38HDR060−62	CAP**6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465112	38HDR060−62	CAP**6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465114	38HDR060−62	CAP**6024A**	58MEB120−20	56,000	11.0	13.5
3465113	38HDR060−62	CAP**6024A**	58PH*135−20	56,000	11.0	13.5
3465110	38HDR060−62	CAP**6024A**+TDR		57,000	11.0	13.0
3465120	38HDR060−62	CNPH*6024A**	58CV(A,X)110−20	56,000	11.0	13.2
3465121	38HDR060−62	CNPH*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465122	38HDR060−62	CNPH*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465126	38HDR060−62	CNPH*6024A**	58MEB080−16	56,000	11.0	13.2
3465127	38HDR060−62	CNPH*6024A**	58MEB100−20	56,000	11.0	13.5
3465128	38HDR060−62	CNPH*6024A**	58MEB120−20	56,000	11.0	13.5
3465123	38HDR060−62	CNPH*6024A**	58PH*090−16	56,000	11.0	13.2
3465124	38HDR060−62	CNPH*6024A**	58PH*110−20	56,000	11.0	13.5
3465125	38HDR060−62	CNPH*6024A**	58PH*135−20	56,000	11.0	13.5
3465119	38HDR060−62	CNPH*6024A**+TDR		57,000	11.0	13.0
3465115	38HDR060−62	CNPV*6024A**	58CV(A,X)135−22	56,000	11.0	13.5
3465116	38HDR060−62	CNPV*6024A**	58CV(A,X)155−22	56,000	11.0	13.5
3465118	38HDR060−62	CNPV*6024A**	58MEB120−20	56,000	11.0	13.5
3465117	38HDR060−62	CNPV*6024A**	58PH*135−20	56,000	11.0	13.5
3465131	38HDR060−62	CSPH*6012A**	58CV(A,X)110−20	56,000	11.0	13.5
3465132	38HDR060−62	CSPH*6012A**	58CV(A,X)135−22	56,000	11.0	13.5
3465133	38HDR060−62	CSPH*6012A**	58CV(A,X)155−22	56,000	11.0	13.5
3465137	38HDR060−62	CSPH*6012A**	58MEB080−16	56,000	11.0	13.2
3465138	38HDR060−62	CSPH*6012A**	58MEB100−20	56,000	11.0	13.5
3465139	38HDR060−62	CSPH*6012A**	58MEB120−20	56,000	11.0	13.5
3465130	38HDR060−62	CSPH*6012A**	58MV(B,C)120−20	56,000	11.0	13.2
3465134	38HDR060−62	CSPH*6012A**	58PH*090−16	56,000	11.0	13.5
3465135	38HDR060−62	CSPH*6012A**	58PH*110−20	56,000	11.0	13.5
3465136	38HDR060−62	CSPH*6012A**	58PH*135−20	56,000	11.0	13.5
3465129	38HDR060−62	CSPH*6012A**+TDR		57,000	11.0	13.0
3465142	38HDR060−62	FE4ANB006+UI		57,500	11.0	13.5
3465143	38HDR060−62	FV4BNB006		57,500	11.0	13.5
3465141	38HDR060−62	FX4CN(B,F)060		57,500	11.0	13.5
3465140	38HDR060−62	FY4ANB060		57,000	11.0	13.0

† Tested combination

EER — Energy Efficiency Ratio

SEER — Seasonal Energy Efficiency Ratio

TDR — Time−Delay Relay. In most cases, only 1 method should be used to achieve TDR function. Using more than 1 method in a system may cause degradation in performance. Use either the accessory Time−Delay Relay KAATD0101TDR or a furnace equipped with TDR. Most Carrier furnaces are equipped with TDR.

TXV — Thermostatic Expansion Valve

NOTES:

1. Ratings are net values reflecting the effects of circulating fan motor heat. Supplemental electric heat is not included.
2. Tested outdoor/indoor combinations have been tested in accordance with DOE test procedures for central air conditioners. Ratings for other combinations are determined under DOE computer simulation procedures.
3. Determine actual CFM values obtainable for your system by referring to fan performance data in fan coil or furnace coil literature.
4. Do not apply with capillary tube coils as performance and reliability are significantly affected.

DETAILED COOLING CAPACITIES*

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR018 Outdoor Section With CNPV*1814A** Indoor Section																			
525	72 (22.2)	20.28	9.40	1.22	19.31	9.07	1.36	18.30	8.73	1.52	17.26	8.38	1.69	16.14	8.01	1.87	14.90	7.61	2.07
	67(19.4)	18.53	11.50	1.22	17.65	11.17	1.36	16.72	10.82	1.52	15.76	10.47	1.69	14.72	10.09	1.87	13.59	9.69	2.07
	62 (16.7)	16.93	13.58	1.23	16.13	13.24	1.37	15.29	12.89	1.52	14.43	12.52	1.69	13.57	13.57	1.87	12.71	12.71	2.07
	57 (13.9)	16.35	16.35	1.23	15.72	15.72	1.37	15.05	15.05	1.52	14.34	14.34	1.69	13.57	13.57	1.87	12.71	12.71	2.07
600	72(22.2)	20.65	9.87	1.25	19.63	9.53	1.39	18.59	9.18	1.54	17.50	8.83	1.71	16.34	8.46	1.90	15.05	8.05	2.10
	67(19.4)	18.90	12.25	1.25	17.97	11.91	1.39	17.00	11.56	1.55	16.00	11.20	1.72	14.93	10.82	1.90	13.75	10.41	2.10
	62 (16.7)	17.33	14.61	1.25	16.51	14.26	1.39	15.67	15.61	1.55	14.91	14.91	1.72	14.08	14.08	1.90	13.16	13.16	2.10
	57 (13.9)	17.07	17.07	1.25	16.39	16.39	1.39	15.67	15.67	1.55	14.91	14.91	1.72	14.08	14.08	1.90	13.16	13.16	2.10
675	72 (22.2)	20.91	10.30	1.27	19.86	9.96	1.41	18.78	9.61	1.57	17.67	9.26	1.74	16.47	8.88	1.93	15.15	8.46	2.13
	67 (19.4)	19.16	12.97	1.27	18.20	12.62	1.42	17.20	12.27	1.57	16.18	11.90	1.74	15.07	11.52	1.93	13.87	11.09	2.13
	62 (16.7)	17.70	17.52	1.28	16.94	16.94	1.42	16.17	16.17	1.57	15.37	15.37	1.74	14.49	14.49	1.93	13.52	13.52	2.13
	57(13.9)	17.67	17.67	1.28	16.94	16.94	1.42	16.17	16.17	1.57	15.37	15.37	1.74	14.49	14.49	1.93	13.52	13.52	2.13

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*1814A**	1.00	1.00	
40QAC(Q)024–3	1.06	1.01	
CAP**1814A**	1.00	1.01	
CAP**2414A**	1.02	1.02	
CAP**2417A**	1.02	1.02	
CNPF*2418A**	1.02	1.02	
CNPH*2417A**	1.02	1.02	
CNPV*2414A**	1.02	1.02	
CNPV*2417A**	1.02	1.02	
CSPH*2412A**	1.02	1.02	
FE4ANF002	1.02	0.98	
FF1ENP018	1.00	1.05	
FF1ENP024	1.02	1.07	
FV4BNF002	1.02	0.99	
FX4CNF018	1.00	0.96	
FX4CNF024	1.02	0.98	
FY4ANF018	1.00	1.05	
FY4ANF024	1.02	1.07	
CAP**1814A**	1.00	0.96	58CV(A,X)070–12
CAP**2414A**	1.02	0.98	58CV(A,X)070–12
CNPH*2417A**	1.02	0.98	58CV(A,X)070–12
CNPV*1814A**	0.10	0.10	58CV(A,X)070–12
CNPV*2414A**	1.02	0.98	58CV(A,X)070–12
CSPH*2412A**	1.02	0.98	58CV(A,X)070–12
CAP**2417A**	1.02	0.98	58CV(A,X)090–16
CNPH*2417A**	1.02	0.98	58CV(A,X)090–16
CNPV*2417A**	1.02	0.98	58CV(A,X)090–16
CSPH*2412A**	1.02	0.98	58CV(A,X)090–16
CAP**2417A**	1.02	0.94	58MEB040–12
CNPH*2417A**	1.02	0.94	58MEB040–12
CNPV*2417A**	1.02	0.94	58MEB040–12
CSPH*2412A**	1.02	0.94	58MEB040–12
CAP**2417A**	1.02	0.94	58MEB060–12
CNPH*2417A**	1.02	0.94	58MEB060–12
CNPV*2417A**	1.02	0.94	58MEB060–12
CSPH*2412A**	1.02	0.94	58MEB060–12
CAP**2417A**	1.02	0.98	58MV(B,C)060–14
CNPH*2417A**	1.02	0.98	58MV(B,C)060–14
CNPV*2417A**	1.02	0.98	58MV(B,C)060–14
CSPH*2412A**	1.02	0.98	58MV(B,C)060–14
CNPH*2417A**	1.02	0.98	58MV(B,C)080–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*2412A**	1.02	0.98	58MV(B,C)080–14
CNPH*2417A**	1.02	0.98	58MVB040–14
CSPH*2412A**	1.02	0.98	58MVB040–14
CAP**1814A**	0.10	0.10	58PH*045–08
CAP**2414A**	1.02	0.94	58PH*045–08
CNPH*2417A**	1.02	0.94	58PH*045–08
CNPV*1814A**	1.00	0.96	58PH*045–08
CNPV*2414A**	1.02	0.94	58PH*045–08
CSPH*2412A**	1.02	0.94	58PH*045–08

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR024 Outdoor Section With CNPV*2414A** Indoor Section																			
700	72 (22.2)	28.11	13.59	1.69	26.70	13.09	1.89	25.17	12.55	2.10	23.54	11.98	2.33	21.76	11.38	2.58	19.78	10.71	2.84
	67(19.4)	25.68	16.61	1.68	24.41	16.11	1.87	23.04	15.58	2.09	21.58	15.02	2.32	19.98	14.42	2.57	18.21	13.77	2.83
	62 (16.7)	23.47	19.61	1.67	22.34	19.11	1.86	21.13	18.58	2.08	19.86	18.01	2.31	18.57	18.57	2.55	17.23	17.23	2.82
	57 (13.9)	22.67	22.67	1.67	21.77	21.77	1.86	20.81	20.81	2.07	19.75	19.75	2.31	18.57	18.57	2.55	17.23	17.23	2.82
800	72(22.2)	28.62	14.25	1.73	27.14	13.73	1.93	25.53	13.18	2.14	23.83	12.61	2.37	21.98	11.99	2.62	19.92	11.32	2.88
	67(19.4)	26.18	17.67	1.72	24.84	17.16	1.91	23.40	16.61	2.13	21.88	16.05	2.36	20.22	15.43	2.61	18.38	14.76	2.87
	62 (16.7)	24.02	21.07	1.71	22.85	20.54	1.90	21.63	21.51	2.12	20.48	20.48	2.35	19.20	19.20	2.60	17.75	17.75	2.86
	57 (13.9)	23.64	23.64	1.71	22.68	22.68	1.90	21.62	21.62	2.12	20.48	20.48	2.35	19.20	19.20	2.60	17.75	17.75	2.86
900	72 (22.2)	28.99	14.87	1.77	27.45	14.34	1.96	25.78	13.78	2.18	24.03	13.20	2.41	22.12	12.57	2.66	20.00	11.89	2.92
	67 (19.4)	26.54	18.68	1.76	25.15	18.16	1.95	23.66	17.61	2.17	22.09	17.03	2.40	20.38	16.40	2.65	18.50	15.71	2.91
	62 (16.7)	24.51	22.41	1.75	23.41	23.41	1.94	22.28	22.28	2.16	21.06	21.06	2.39	19.70	19.70	2.64	18.15	18.15	2.91
	57(13.9)	24.45	24.45	1.75	23.41	23.41	1.94	22.28	22.28	2.16	21.06	21.06	2.39	19.70	19.70	2.64	18.15	18.15	2.91

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*2414A**	1.00	1.00	
40QAC024–3	0.97	0.93	
CAP**2414A**	1.00	1.00	
CAP**2417A**	1.00	1.00	
CAP**3014A**	1.01	1.01	
CAP**3017A**	1.01	1.01	
CNPF*2418A**	1.00	1.00	
CNPH*2417A**	1.00	1.00	
CNPH*3017A**	1.01	1.01	
CNPV*2417A**	1.00	1.00	
CNPV*3014A**	1.01	1.01	
CNPV*3017A**	1.01	1.01	
CSPH*2412A**	1.00	1.00	
CSPH*3012A**	1.01	1.01	
FE4AN(B,F)003	1.02	0.93	
FE4ANF002	1.01	0.92	
FE5ANB004	1.03	0.94	
FF1ENP024	0.97	0.97	
FF1ENP025	1.00	0.96	
FF1ENP030	0.98	0.98	
FF1ENP031	1.01	0.96	
FF1ENP037	1.02	0.97	
FV4BN(B,F)003	1.02	0.93	
FV4BNF002	1.01	0.92	
FV4CN(B,F)003	1.02	0.93	
FV4CNF002	1.01	0.92	
FX4CNF024	1.00	0.96	
FX4CNF030	1.02	0.97	
FY4ANF024	0.99	0.99	
FY4ANF030	1.01	1.01	
CAP**2414A**	1.00	0.96	58CV(A,X)070–12
CAP**3014A**	1.00	0.96	58CV(A,X)070–12
CNPH*2417A**	1.00	0.96	58CV(A,X)070–12
CNPH*3017A**	1.00	0.96	58CV(A,X)070–12
CNPV*2414A**	1.00	0.96	58CV(A,X)070–12
CNPV*3014A**	1.00	0.96	58CV(A,X)070–12
CSPH*2412A**	1.00	0.96	58CV(A,X)070–12
CSPH*3012A**	1.01	0.96	58CV(A,X)070–12
CAP**2417A**	1.00	0.96	58CV(A,X)090–16
CAP**3017A**	1.01	0.96	58CV(A,X)090–16
CNPH*2417A**	1.00	0.96	58CV(A,X)090–16
CNPH*3017A**	1.01	0.96	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*2417A**	1.00	0.96	58CV(A,X)090–16
CNPV*3017A**	1.01	0.96	58CV(A,X)090–16
CSPH*2412A**	1.00	0.96	58CV(A,X)090–16
CSPH*3012A**	1.01	0.96	58CV(A,X)090–16
CNPH*2417A**	1.00	0.96	58CV(A,X)110–20
CNPH*3017A**	1.01	0.96	58CV(A,X)110–20
CSPH*2412A**	1.00	0.96	58CV(A,X)110–20
CSPH*3012A**	1.01	0.96	58CV(A,X)110–20
CNPH*2417A**	1.00	0.96	58CV(A,X)135–22
CNPH*3017A**	1.01	0.96	58CV(A,X)135–22
CSPH*2412A**	1.00	0.96	58CV(A,X)135–22
CSPH*3012A**	1.01	0.96	58CV(A,X)135–22
CNPH*2417A**	1.00	0.96	58CV(A,X)155–22
CNPH*3017A**	1.01	0.96	58CV(A,X)155–22
CSPH*2412A**	1.00	0.96	58CV(A,X)155–22
CSPH*3012A**	1.01	0.96	58CV(A,X)155–22
CAP**2417A**	1.00	0.92	58MEB040–12
CAP**3017A**	1.01	0.92	58MEB040–12
CNPH*2417A**	1.00	0.92	58MEB040–12
CNPH*3017A**	1.01	0.92	58MEB040–12
CNPV*2417A**	1.00	0.92	58MEB040–12
CNPV*3017A**	1.01	0.92	58MEB040–12
CSPH*2412A**	1.00	0.92	58MEB040–12
CSPH*3012A**	1.01	0.92	58MEB040–12
CAP**2417A**	1.00	0.92	58MEB060–12
CAP**3017A**	1.01	0.92	58MEB060–12
CNPH*2417A**	1.00	0.92	58MEB060–12
CNPH*3017A**	1.01	0.92	58MEB060–12
CNPV*2417A**	1.00	0.92	58MEB060–12
CNPV*3017A**	1.01	0.92	58MEB060–12
CSPH*2412A**	1.00	0.92	58MEB060–12
CSPH*3012A**	1.01	0.92	58MEB060–12
CAP**2417A**	1.00	0.92	58MEB080–12
CAP**3017A**	1.01	0.92	58MEB080–12
CNPH*2417A**	1.00	0.92	58MEB080–12
CNPH*3017A**	1.01	0.92	58MEB080–12
CNPV*2417A**	1.00	0.92	58MEB080–12
CNPV*3017A**	1.01	0.92	58MEB080–12
CSPH*2412A**	1.00	0.92	58MEB080–12
CSPH*3012A**	1.01	0.92	58MEB080–12
CAP**2417A**	1.00	0.96	58MV(B,C)060–14
CAP**3017A**	1.01	0.96	58MV(B,C)060–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*2417A**	1.00	0.96	58MV(B,C)060–14
CNPH*3017A**	1.01	0.96	58MV(B,C)060–14
CNPV*2417A**	1.00	0.96	58MV(B,C)060–14
CNPV*3017A**	1.01	0.96	58MV(B,C)060–14
CSPH*2412A**	1.00	0.96	58MV(B,C)060–14
CSPH*3012A**	1.01	0.96	58MV(B,C)060–14
CNPH*2417A**	1.00	0.96	58MV(B,C)080–14
CNPH*3017A**	1.00	0.96	58MV(B,C)080–14
CSPH*2412A**	1.00	0.96	58MV(B,C)080–14
CSPH*3012A**	1.01	0.96	58MV(B,C)080–14
CNPH*2417A**	0.99	0.95	58MV(B,C)080–20
CNPH*3017A**	1.00	0.96	58MV(B,C)080–20
CSPH*2412A**	1.00	0.96	58MV(B,C)080–20
CSPH*3012A**	1.00	0.96	58MV(B,C)080–20
CNPH*2417A**	1.00	0.96	58MV(B,C)100–20
CNPH*3017A**	1.01	0.96	58MV(B,C)100–20
CSPH*2412A**	1.00	0.96	58MV(B,C)100–20
CSPH*3012A**	1.01	0.96	58MV(B,C)100–20
CNPH*2417A**	1.00	0.96	58MV(B,C)120–20
CNPH*3017A**	1.01	0.96	58MV(B,C)120–20
CSPH*2412A**	1.00	0.96	58MV(B,C)120–20
CSPH*3012A**	1.01	0.96	58MV(B,C)120–20
CNPH*2417A**	1.00	0.96	58MVB040–14
CNPH*3017A**	1.01	0.96	58MVB040–14
CSPH*2412A**	1.00	0.96	58MVB040–14
CSPH*3012A**	1.01	0.96	58MVB040–14
CAP**2414A**	1.00	0.96	58PH*045–08
CAP**3014A**	1.01	0.92	58PH*045–08
CNPH*2417A**	1.00	0.96	58PH*045–08
CNPH*3017A**	1.01	0.92	58PH*045–08
CNPV*2414A**	1.00	0.96	58PH*045–08
CNPV*3014A**	1.01	0.96	58PH*045–08
CSPH*2412A**	1.00	0.96	58PH*045–08
CSPH*3012A**	1.01	0.92	58PH*045–08

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR030 Outdoor Section With CNPV*3014A** Indoor Section																			
875	72 (22.2)	33.74	16.03	2.06	32.29	15.52	2.29	30.76	14.99	2.54	29.12	14.43	2.81	27.36	13.84	3.11	25.42	13.19	3.44
	67(19.4)	30.65	19.58	2.06	29.32	19.06	2.29	27.90	18.51	2.54	26.39	17.94	2.81	24.76	17.34	3.11	22.97	16.69	3.43
	62 (16.7)	28.07	23.01	2.07	26.73	22.59	2.29	25.47	22.03	2.54	24.10	21.45	2.81	22.76	22.72	3.11	21.45	21.45	3.43
	57 (13.9)	27.14	27.14	2.07	26.16	26.16	2.29	25.11	25.11	2.53	24.01	24.01	2.80	22.78	22.78	3.11	21.43	21.43	3.43
1000	72(22.2)	34.29	16.79	2.11	32.87	16.29	2.34	31.28	15.69	2.58	29.58	15.18	2.86	27.57	14.54	3.17	25.64	13.91	3.49
	67(19.4)	31.27	20.81	2.11	29.84	20.29	2.34	28.40	19.75	2.58	26.82	19.17	2.86	24.99	18.52	3.16	23.21	17.87	3.49
	62 (16.7)	28.72	24.92	2.11	27.38	24.26	2.34	26.11	26.11	2.58	24.94	24.94	2.85	23.54	23.54	3.16	22.22	22.22	3.48
	57 (13.9)	28.28	28.28	2.11	27.23	27.23	2.34	26.13	26.13	2.58	24.94	24.94	2.85	23.54	23.54	3.16	22.22	22.22	3.48
1125	72 (22.2)	34.76	17.52	2.16	33.30	17.00	2.39	31.65	16.46	2.63	29.90	15.89	2.91	28.03	15.27	3.21	25.95	14.60	3.53
	67 (19.4)	31.86	21.48	2.16	30.25	21.46	2.38	28.76	20.92	2.63	27.14	20.32	2.90	25.39	19.69	3.21	23.44	18.98	3.54
	62 (16.7)	29.27	29.04	2.16	28.12	28.12	2.38	26.98	26.98	2.63	25.71	25.71	2.90	24.35	24.35	3.20	22.84	22.84	3.53
	57(13.9)	29.23	29.23	2.16	28.13	28.13	2.38	26.99	26.99	2.63	25.71	25.71	2.90	24.23	24.23	3.21	22.85	22.85	3.53

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*3014A**	1.00	1.00	
CAP**3014A**	1.00	1.00	
CAP**3017A**	1.00	1.00	
CAP**3614A**	1.02	1.02	
CAP**3617A**	1.02	1.02	
CAP**3621A**	1.02	1.02	
CNPF*3618A**	1.02	1.02	
CNPH*3017A**	1.00	1.00	
CNPH*3617A**	1.02	1.02	
CNPV*3017A**	1.00	1.00	
CNPV*3617A**	1.02	1.02	
CNPV*3621A**	1.02	1.02	
CSPH*3012A**	1.00	1.00	
CSPH*3612A**	1.02	1.02	
40QAC(Q)036–3	1.04	1.06	
FE4AN(B,F)003	1.02	0.98	
FE4AN(B,F)005	1.04	0.91	
FE4ANF002	1.02	0.98	
FE5ANB004	1.00	0.88	
FF1ENP030	1.00	1.00	
FF1ENP036	1.02	1.02	
FV4BN(B,F)003	1.03	0.98	
FV4BN(B,F)005	1.04	0.99	
FV4BNF002	1.02	0.98	
FX4CN(B,F)036	1.02	0.98	
FX4CNF030	1.00	0.96	
FY4ANF030	1.00	1.00	
FY4ANF036	1.02	1.02	
CAP**3014A**	1.00	0.96	58CV(A,X)070–12
CAP**3614A**	1.02	0.98	58CV(A,X)070–12
CNPH*3017A**	1.00	0.96	58CV(A,X)070–12
CNPH*3617A**	1.02	0.98	58CV(A,X)070–12
CNPV*3014A**	1.02	0.98	58CV(A,X)070–12
CSPH*3012A**	1.00	0.96	58CV(A,X)070–12
CSPH*3612A**	1.02	0.98	58CV(A,X)070–12
CAP**3017A**	1.00	0.96	58CV(A,X)090–16
CAP**3617A**	1.02	0.98	58CV(A,X)090–16
CNPH*3017A**	1.00	0.96	58CV(A,X)090–16
CNPH*3617A**	1.02	0.98	58CV(A,X)090–16
CNPV*3017A**	1.00	0.96	58CV(A,X)090–16
CNPV*3617A**	1.02	0.98	58CV(A,X)090–16
CSPH*3012A**	1.00	0.96	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3612A**	1.02	0.98	58CV(A,X)090–16
CAP**3621A**	1.02	0.98	58CV(A,X)110–20
CNPH*3017A**	1.00	0.96	58CV(A,X)110–20
CNPH*3617A**	1.02	0.98	58CV(A,X)110–20
CNPV*3621A**	1.02	0.98	58CV(A,X)110–20
CSPH*3012A**	1.00	0.96	58CV(A,X)110–20
CSPH*3612A**	1.02	0.98	58CV(A,X)110–20
CNPH*3017A**	1.00	0.96	58CV(A,X)135–22
CNPH*3617A**	1.02	0.98	58CV(A,X)135–22
CSPH*3012A**	1.00	0.96	58CV(A,X)135–22
CSPH*3612A**	1.02	0.98	58CV(A,X)135–22
CNPH*3017A**	1.00	0.96	58CV(A,X)155–22
CNPH*3617A**	1.02	0.98	58CV(A,X)155–22
CSPH*3012A**	1.00	0.96	58CV(A,X)155–22
CSPH*3612A**	1.02	0.98	58CV(A,X)155–22
CAP**3017A**	1.00	0.92	58MEB040–12
CAP**3617A**	1.02	0.94	58MEB040–12
CNPH*3017A**	1.00	0.92	58MEB040–12
CNPH*3617A**	1.02	0.94	58MEB040–12
CNPV*3017A**	1.00	0.92	58MEB040–12
CNPV*3617A**	1.02	0.94	58MEB040–12
CSPH*3012A**	1.00	0.92	58MEB040–12
CSPH*3612A**	1.02	0.94	58MEB040–12
CAP**3017A**	1.00	0.92	58MEB060–12
CAP**3617A**	1.02	0.94	58MEB060–12
CNPH*3017A**	1.00	0.92	58MEB060–12
CNPH*3617A**	1.02	0.94	58MEB060–12
CNPV*3017A**	1.00	0.92	58MEB060–12
CNPV*3617A**	1.02	0.94	58MEB060–12
CSPH*3012A**	1.00	0.92	58MEB060–12
CSPH*3612A**	1.02	0.94	58MEB060–12
CAP**3017A**	1.00	0.92	58MEB080–12
CAP**3617A**	1.02	0.94	58MEB080–12
CNPH*3017A**	1.00	0.92	58MEB080–12
CNPH*3617A**	1.02	0.94	58MEB080–12
CNPV*3017A**	1.00	0.92	58MEB080–12
CNPV*3617A**	1.02	0.94	58MEB080–12
CSPH*3012A**	1.00	0.92	58MEB080–12
CSPH*3612A**	1.02	0.94	58MEB080–12
CAP**3017A**	1.00	0.92	58MEB080–16
CAP**3617A**	1.02	0.94	58MEB080–16
CNPH*3017A**	1.00	0.92	58MEB080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*3617A**	1.02	0.94	58MEB080–16
CNPV*3017A**	1.00	0.92	58MEB080–16
CNPV*3617A**	1.02	0.94	58MEB080–16
CSPH*3012A**	1.00	0.92	58MEB080–16
CSPH*3612A**	1.02	0.94	58MEB080–16
CAP**3017A**	1.00	0.96	58MV(B,C)060–14
CAP**3617A**	1.02	0.98	58MV(B,C)060–14
CNPH*3017A**	1.00	0.96	58MV(B,C)060–14
CNPH*3617A**	1.02	0.98	58MV(B,C)060–14
CNPV*3017A**	1.00	0.96	58MV(B,C)060–14
CNPV*3617A**	1.02	0.98	58MV(B,C)060–14
CSPH*3012A**	1.00	0.96	58MV(B,C)060–14
CSPH*3612A**	1.02	0.98	58MV(B,C)060–14
CAP**3621A**	1.02	0.98	58MV(B,C)080–14
CNPH*3017A**	1.00	0.96	58MV(B,C)080–14
CNPH*3617A**	1.02	0.98	58MV(B,C)080–14
CNPV*3621A**	1.02	0.98	58MV(B,C)080–14
CSPH*3012A**	1.00	0.96	58MV(B,C)080–14
CSPH*3612A**	1.02	0.98	58MV(B,C)080–14
CAP**3621A**	1.02	0.98	58MV(B,C)080–20
CNPH*3017A**	1.00	0.96	58MV(B,C)080–20
CNPH*3617A**	1.02	0.98	58MV(B,C)080–20
CNPV*3621A**	1.02	0.98	58MV(B,C)080–20
CSPH*3012A**	1.00	0.96	58MV(B,C)080–20
CSPH*3612A**	1.02	0.98	58MV(B,C)080–20
CAP**3621A**	1.02	0.98	58MV(B,C)100–20
CNPH*3017A**	1.00	0.96	58MV(B,C)100–20
CNPH*3617A**	1.02	0.98	58MV(B,C)100–20
CNPV*3621A**	1.02	0.98	58MV(B,C)100–20
CSPH*3012A**	1.00	0.96	58MV(B,C)100–20
CSPH*3612A**	1.02	0.98	58MV(B,C)100–20
CNPH*3017A**	1.00	0.96	58MV(B,C)120–20
CNPH*3617A**	1.02	0.98	58MV(B,C)120–20
CSPH*3012A**	1.00	0.96	58MV(B,C)120–20
CSPH*3612A**	1.02	0.98	58MV(B,C)120–20
CNPH*3617A**	1.02	0.98	58MVB040–14
CSPH*3012A**	1.00	0.96	58MVB040–14
CSPH*3612A**	1.02	0.98	58MVB040–14
CAP**3017A**	1.00	0.96	58PH*070–16
CAP**3617A**	1.02	0.94	58PH*070–16
CNPH*3017A**	1.00	0.96	58PH*070–16
CNPH*3617A**	1.02	0.94	58PH*070–16

DETAILED COOLING CAPACITIES* (CONT.)

38HDR030 Outdoor Section With CNPV*3014A Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*3017A**	1.00	0.96	58PH*070–16
CNPV*3617A**	1.02	0.94	58PH*070–16
CSPH*3012A**	1.00	0.96	58PH*070–16
CSPH*3612A**	1.02	0.94	58PH*070–16
CAP**3621A**	1.02	0.94	58PH*090–16
CNPH*3017A**	1.00	0.96	58PH*090–16
CNPH*3617A**	1.02	0.94	58PH*090–16
CNPV*3621A**	1.02	0.94	58PH*090–16
CSPH*3012A**	1.00	0.96	58PH*090–16
CSPH*3612A**	1.02	0.94	58PH*090–16

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR036 Outdoor Section With CNPV*4221A** Indoor Section																			
1050	72 (22.2)	39.85	18.85	2.42	38.03	18.23	2.68	36.08	17.58	2.98	33.99	16.89	3.30	31.72	16.14	3.65	29.20	15.33	4.03
	67(19.4)	36.33	23.19	2.42	34.67	22.57	2.68	32.91	21.91	2.98	31.02	21.23	3.30	28.99	20.49	3.65	26.73	19.69	4.04
	62 (16.7)	33.23	27.51	2.42	31.75	26.88	2.68	30.20	26.20	2.98	28.60	28.45	3.30	27.06	27.06	3.65	25.34	25.34	4.03
	57 (13.9)	32.46	32.46	2.42	31.26	31.26	2.68	29.98	29.98	2.98	28.59	28.59	3.30	27.06	27.06	3.65	25.34	25.34	4.03
1200	72(22.2)	40.51	19.77	2.48	38.61	19.14	2.74	36.57	18.47	3.04	34.40	17.77	3.36	32.04	17.01	3.71	29.42	16.18	4.09
	67(19.4)	36.97	24.67	2.48	35.23	24.04	2.74	33.40	23.38	3.04	31.45	22.68	3.36	29.33	21.93	3.71	27.00	21.10	4.09
	62 (16.7)	34.01	29.52	2.48	32.53	32.23	2.74	31.11	31.11	3.04	29.61	29.61	3.36	27.97	27.97	3.71	26.12	26.12	4.09
	57 (13.9)	33.78	33.78	2.48	32.49	32.49	2.74	31.11	31.11	3.04	29.62	29.62	3.36	27.97	27.97	3.71	26.12	26.12	4.09
1350	72 (22.2)	40.99	20.64	2.54	39.02	19.99	2.80	36.91	19.31	3.09	34.67	18.60	3.42	32.24	17.83	3.77	29.54	16.99	4.15
	67 (19.4)	37.43	26.09	2.54	35.65	25.45	2.80	33.76	24.78	3.10	31.75	24.06	3.42	29.58	23.29	3.77	27.20	22.42	4.15
	62 (16.7)	34.86	34.86	2.54	33.49	33.49	2.80	32.02	32.02	3.10	30.44	30.44	3.42	28.70	28.70	3.77	26.73	26.73	4.15
	57(13.9)	34.86	34.86	2.54	33.49	33.49	2.80	32.03	32.03	3.10	30.44	30.44	3.42	28.70	28.70	3.77	26.73	26.73	4.15

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*4221A**	1.00	1.00	
40QAC(Q)036–3	0.96	0.92	
CAP**3614A**	0.98	0.98	
CAP**3617A**	0.99	0.99	
CAP**3621A**	0.99	0.99	
CAP**4221A**	1.00	1.00	
CAP**4224A**	1.00	1.00	
CNPF*3618A**	0.99	0.99	
CNPH*3617A**	0.99	0.99	
CNPH*4221A**	1.00	1.00	
CNPV*3617A**	0.99	0.99	
CNPV*3621A**	0.99	0.99	
CNPV*4217A**	0.99	0.99	
CSPH*3612A**	0.99	0.99	
CSPH*4212A**	1.00	1.00	
FE4AN(B,F)003	0.99	0.95	
FE4AN(B,F)005	1.00	0.88	
FE4ANB006	1.00	0.88	
FE4ANF002	0.99	0.95	
FE5ANB004	1.04	0.91	
FF1ENP036	0.99	0.99	
FV4BN(B,F)003	0.99	0.91	
FV4BN(B,F)005	1.02	0.93	
FV4BNB006	1.00	0.88	
FV4BNF002	0.99	0.95	
FX4CN(B,F)036	0.99	0.95	
FX4CN(B,F)042	1.00	0.96	
FY4ANF036	0.99	0.99	
FY4ANF042	1.00	1.00	
CAP**3614A**	0.98	0.93	58CV(A,X)070–12
CNPH*3617A**	0.99	0.95	58CV(A,X)070–12
CNPH*4221A**	1.00	0.96	58CV(A,X)070–12
CSPH*3612A**	0.99	0.95	58CV(A,X)070–12
CSPH*4212A**	1.00	0.96	58CV(A,X)070–12
CAP**3617A**	0.99	0.95	58CV(A,X)090–16
CNPH*3617A**	0.99	0.95	58CV(A,X)090–16
CNPH*4221A**	1.00	0.96	58CV(A,X)090–16
CNPV*3617A**	0.99	0.95	58CV(A,X)090–16
CNPV*4217A**	1.00	0.92	58CV(A,X)090–16
CSPH*3612A**	0.99	0.95	58CV(A,X)090–16
CSPH*4212A**	1.00	0.96	58CV(A,X)090–16
CAP**3621A**	0.99	0.95	58CV(A,X)110–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4221A**	1.00	0.96	58CV(A,X)110–20
CNPH*3617A**	0.99	0.95	58CV(A,X)110–20
CNPH*4221A**	1.00	0.96	58CV(A,X)110–20
CNPV*3621A**	0.99	0.95	58CV(A,X)110–20
CNPV*4221A**	1.00	0.96	58CV(A,X)110–20
CSPH*3612A**	0.99	0.95	58CV(A,X)110–20
CSPH*4212A**	1.00	0.96	58CV(A,X)110–20
CAP**4224A**	1.00	0.96	58CV(A,X)135–22
CNPH*3617A**	0.99	0.95	58CV(A,X)135–22
CNPH*4221A**	1.00	0.96	58CV(A,X)135–22
CSPH*3612A**	0.99	0.95	58CV(A,X)135–22
CSPH*4212A**	1.00	0.96	58CV(A,X)135–22
CAP**4224A**	1.00	0.96	58CV(A,X)155–22
CNPH*3617A**	0.99	0.95	58CV(A,X)155–22
CNPH*4221A**	1.00	0.96	58CV(A,X)155–22
CSPH*3612A**	0.99	0.95	58CV(A,X)155–22
CSPH*4212A**	1.00	0.96	58CV(A,X)155–22
CAP**3617A**	0.99	0.91	58MEB040–12
CNPH*3617A**	0.99	0.91	58MEB040–12
CNPH*4221A**	1.00	0.92	58MEB040–12
CNPV*3617A**	0.10	0.09	58MEB040–12
CNPV*4217A**	1.00	0.92	58MEB040–12
CSPH*3612A**	0.99	0.91	58MEB040–12
CSPH*4212A**	1.00	0.92	58MEB040–12
CAP**3617A**	0.99	0.91	58MEB060–12
CNPH*3617A**	0.99	0.91	58MEB060–12
CNPH*4221A**	1.02	0.93	58MEB060–12
CNPV*3617A**	0.99	0.91	58MEB060–12
CNPV*4217A**	1.00	0.92	58MEB060–12
CSPH*3612A**	0.99	0.91	58MEB060–12
CSPH*4212A**	1.00	0.92	58MEB060–12
CAP**3617A**	0.99	0.91	58MEB080–12
CNPH*3617A**	0.99	0.91	58MEB080–12
CNPH*4221A**	1.00	0.92	58MEB080–12
CNPV*3617A**	0.99	0.91	58MEB080–12
CNPV*4217A**	1.00	0.92	58MEB080–12
CSPH*3612A**	0.99	0.91	58MEB080–12
CSPH*4212A**	1.00	0.92	58MEB080–12
CAP**3617A**	0.99	0.91	58MEB080–16
CNPH*3617A**	0.99	0.91	58MEB080–16
CNPH*4221A**	1.00	0.92	58MEB080–16
CNPV*3617A**	0.99	0.91	58MEB080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4217A**	1.00	0.92	58MEB080–16
CSPH*3612A**	0.99	0.91	58MEB080–16
CSPH*4212A**	1.00	0.92	58MEB080–16
CAP**3621A**	0.99	0.91	58MEB100–20
CAP**4221A**	1.00	0.92	58MEB100–20
CNPH*3617A**	0.99	0.91	58MEB100–20
CNPH*4221A**	1.00	0.92	58MEB100–20
CNPV*3621A**	0.99	0.91	58MEB100–20
CNPV*4221A**	1.00	0.92	58MEB100–20
CSPH*3612A**	0.99	0.91	58MEB100–20
CSPH*4212A**	1.00	0.92	58MEB100–20
CAP**3617A**	0.99	0.95	58MV(B,C)060–14
CNPH*3617A**	0.99	0.95	58MV(B,C)060–14
CNPH*4221A**	1.00	0.96	58MV(B,C)060–14
CNPV*3617A**	0.99	0.95	58MV(B,C)060–14
CNPV*4217A**	1.00	0.92	58MV(B,C)060–14
CSPH*3612A**	0.99	0.95	58MV(B,C)060–14
CSPH*4212A**	1.00	0.96	58MV(B,C)060–14
CAP**3621A**	0.99	0.95	58MV(B,C)080–14
CAP**4221A**	1.00	0.96	58MV(B,C)080–14
CNPH*3617A**	0.99	0.95	58MV(B,C)080–14
CNPH*4221A**	1.00	0.96	58MV(B,C)080–14
CNPV*3621A**	0.99	0.95	58MV(B,C)080–14
CNPV*4221A**	1.00	0.96	58MV(B,C)080–14
CSPH*3612A**	0.99	0.95	58MV(B,C)080–14
CSPH*4212A**	1.00	0.96	58MV(B,C)080–14
CAP**3621A**	0.99	0.95	58MV(B,C)080–20
CAP**4221A**	1.00	0.96	58MV(B,C)080–20
CNPH*3617A**	0.99	0.95	58MV(B,C)080–20
CNPH*4221A**	1.00	0.96	58MV(B,C)080–20
CNPV*3621A**	0.99	0.95	58MV(B,C)080–20
CNPV*4221A**	1.00	0.96	58MV(B,C)080–20
CSPH*3612A**	0.99	0.95	58MV(B,C)080–20
CSPH*4212A**	1.00	0.96	58MV(B,C)080–20
CAP**3621A**	0.99	0.95	58MV(B,C)100–20
CAP**4221A**	1.00	0.96	58MV(B,C)100–20
CNPH*3617A**	0.99	0.95	58MV(B,C)100–20
CNPH*4221A**	1.00	0.96	58MV(B,C)100–20
CNPV*3621A**	0.99	0.95	58MV(B,C)100–20
CNPV*4221A**	1.00	0.96	58MV(B,C)100–20
CSPH*3612A**	0.99	0.95	58MV(B,C)100–20
CSPH*4212A**	1.00	0.96	58MV(B,C)100–20

DETAILED COOLING CAPACITIES* (CONT.)

38HDR036 Outdoor Section With CNPV*4221A Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4224A**	1.00	0.96	58MV(B,C)120–20
CNPH*3617A**	0.99	0.95	58MV(B,C)120–20
CNPH*4221A**	1.00	0.96	58MV(B,C)120–20
CSPH*3612A**	0.99	0.95	58MV(B,C)120–20
CSPH*4212A**	1.00	0.96	58MV(B,C)120–20
CAP**4224A**	1.00	0.96	58MVB040–14
CNPH*3617A**	0.99	0.95	58MVB040–14
CNPH*4221A**	1.00	0.96	58MVB040–14
CSPH*3612A**	0.99	0.95	58MVB040–14
CSPH*4212A**	1.00	0.96	58MVB040–14
CAP**3614A**	0.99	0.95	58PH*045–08
CNPH*3617A**	0.99	0.95	58PH*045–08
CNPH*4221A**	1.00	0.96	58PH*045–08
CSPH*3612A**	0.99	0.95	58PH*045–08
CSPH*4212A**	1.00	0.96	58PH*045–08
CAP**3617A**	0.99	0.95	58PH*070–16
CNPH*3617A**	0.99	0.95	58PH*070–16
CNPH*4221A**	1.00	0.96	58PH*070–16
CNPV*3617A**	0.99	0.95	58PH*070–16
CNPV*4217A**	1.00	0.92	58PH*070–16
CSPH*3612A**	0.99	0.95	58PH*070–16
CSPH*4212A**	1.00	0.96	58PH*070–16
CAP**3621A**	0.99	0.91	58PH*090–16
CAP**4221A**	1.00	0.92	58PH*090–16
CNPH*3617A**	0.99	0.91	58PH*090–16
CNPH*4221A**	1.00	0.92	58PH*090–16
CNPV*3621A**	0.99	0.91	58PH*090–16
CNPV*4221A**	1.00	0.92	58PH*090–16
CSPH*3612A**	0.99	0.91	58PH*090–16
CSPH*4212A**	1.00	0.92	58PH*090–16
CAP**3621A**	0.99	0.91	58PH*110–20
CAP**4221A**	1.02	0.93	58PH*110–20
CNPH*3617A**	0.99	0.91	58PH*110–20
CNPH*4221A**	1.02	0.93	58PH*110–20
CNPV*3621A**	0.99	0.91	58PH*110–20
CNPV*4221A**	1.00	0.92	58PH*110–20
CSPH*3612A**	0.99	0.91	58PH*110–20
CSPH*4212A**	1.00	0.92	58PH*110–20

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR048 Outdoor Section With CNPV*4821A** Indoor Section																			
1460	72 (22.2)	57.22	27.09	3.31	54.16	26.03	3.74	50.83	24.90	4.20	47.23	23.69	4.69	43.24	22.38	5.21	38.87	20.99	5.76
	67(19.4)	52.21	33.21	3.33	49.49	32.17	3.76	46.57	31.08	4.22	43.40	29.91	4.71	39.95	28.66	5.23	36.03	27.26	5.77
	62 (16.7)	47.74	39.31	3.35	45.37	38.29	3.78	42.88	37.19	4.23	40.25	39.91	4.72	37.64	37.64	5.23	34.63	34.63	5.78
	57 (13.9)	46.44	46.44	3.36	44.53	44.53	3.78	42.48	42.48	4.23	40.21	40.21	4.72	37.65	37.65	5.23	34.63	34.63	5.78
1650	72(22.2)	58.13	28.26	3.37	54.91	27.17	3.81	51.42	26.01	4.27	47.67	24.78	4.76	43.52	23.45	5.28	39.26	22.10	5.84
	67(19.4)	53.07	35.09	3.40	50.21	34.03	3.83	47.16	32.91	4.29	43.87	31.73	4.78	40.28	30.44	5.30	36.23	28.99	5.85
	62 (16.7)	48.75	41.89	3.42	46.32	40.79	3.85	43.85	43.85	4.30	41.42	41.42	4.79	38.64	38.64	5.31	35.37	35.37	5.85
	57 (13.9)	48.17	48.17	3.43	46.11	46.11	3.85	43.88	43.88	4.30	41.42	41.42	4.79	38.64	38.64	5.31	35.37	35.37	5.85
1850	72 (22.2)	58.83	29.41	3.45	55.48	28.31	3.88	51.86	27.12	4.35	47.97	25.87	4.84	43.73	24.52	5.36	39.89	23.26	5.92
	67 (19.4)	53.74	36.97	3.48	50.78	35.90	3.91	47.62	34.76	4.37	44.22	33.55	4.86	40.51	32.22	5.38	36.39	30.70	5.93
	62 (16.7)	49.74	44.35	3.50	47.48	47.48	3.92	45.09	45.09	4.38	42.44	42.44	4.87	39.46	39.46	5.38	35.96	35.96	5.93
	57(13.9)	49.69	49.69	3.50	47.49	47.49	3.92	45.09	45.09	4.38	42.45	42.45	4.87	39.46	39.46	5.38	35.97	35.97	5.93

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*4821A**	1.00	1.00	
40QAC048–3	0.97	0.93	
CAP**4817A**	0.99	0.99	
CAP**4821A**	1.00	1.00	
CAP**4824A**	1.00	1.00	
CAP**6021A**	1.01	1.01	
CAP**6024A**	1.01	1.01	
CNPF*4818A**	0.98	0.98	
CNPH*4821A**	1.00	1.00	
CNPH*6024A**	1.01	1.01	
CNPV*4824A**	1.00	1.00	
CNPV*6024A**	1.01	1.01	
CSPH*4812A**	1.00	1.00	
CSPH*6012A**	1.01	1.01	
FE4AN(B,F)005	1.00	0.96	
FE4ANB006	1.01	0.97	
FV4BN(B,F)005	1.00	0.96	
FV4BNB006	1.01	0.97	
FX4CN(B,F)048	1.00	0.96	
FX4CN(B,F)060	1.01	0.97	
FY4ANB060	1.01	1.01	
FY4ANF048	1.00	1.00	
CAP**4817A**	0.99	0.95	58CV(A,X)090–16
CNPH*4821A**	0.99	0.95	58CV(A,X)090–16
CNPH*6024A**	1.00	0.96	58CV(A,X)090–16
CSPH*4812A**	0.99	0.95	58CV(A,X)090–16
CSPH*6012A**	1.00	0.96	58CV(A,X)090–16
CAP**4821A**	0.99	0.95	58CV(A,X)110–20
CAP**6021A**	1.00	0.96	58CV(A,X)110–20
CNPH*4821A**	0.99	0.95	58CV(A,X)110–20
CNPH*6024A**	1.00	0.96	58CV(A,X)110–20
CNPV*4821A**	0.99	0.95	58CV(A,X)110–20
CSPH*4812A**	0.99	0.95	58CV(A,X)110–20
CSPH*6012A**	1.00	0.96	58CV(A,X)110–20
CAP**4824A**	0.99	0.95	58CV(A,X)135–22
CAP**6024A**	1.00	0.96	58CV(A,X)135–22
CNPH*4821A**	0.99	0.95	58CV(A,X)135–22
CNPH*6024A**	1.00	0.96	58CV(A,X)135–22
CNPV*4824A**	0.99	0.95	58CV(A,X)135–22
CNPV*6024A**	1.00	0.96	58CV(A,X)135–22
CSPH*4812A**	0.99	0.95	58CV(A,X)135–22
CSPH*6012A**	1.00	0.96	58CV(A,X)135–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	0.99	0.95	58CV(A,X)155–22
CAP**6024A**	1.00	0.96	58CV(A,X)155–22
CNPH*4821A**	0.99	0.95	58CV(A,X)155–22
CNPH*6024A**	1.00	0.96	58CV(A,X)155–22
CNPV*4824A**	0.99	0.95	58CV(A,X)155–22
CNPV*6024A**	1.00	0.96	58CV(A,X)155–22
CSPH*4812A**	0.99	0.95	58CV(A,X)155–22
CSPH*6012A**	1.00	0.96	58CV(A,X)155–22
CAP**4817A**	0.99	0.95	58MEB080–16
CNPH*4821A**	0.99	0.95	58MEB080–16
CNPH*6024A**	1.00	0.96	58MEB080–16
CSPH*4812A**	0.99	0.95	58MEB080–16
CSPH*6012A**	1.00	0.92	58MEB080–16
CAP**4821A**	0.99	0.95	58MEB100–20
CAP**6021A**	1.00	0.92	58MEB100–20
CNPH*4821A**	0.99	0.95	58MEB100–20
CNPH*6024A**	1.00	0.92	58MEB100–20
CNPV*4821A**	0.99	0.95	58MEB100–20
CSPH*4812A**	0.99	0.95	58MEB100–20
CSPH*6012A**	1.00	0.92	58MEB100–20
CAP**4824A**	0.99	0.95	58MEB120–20
CAP**6024A**	1.00	0.92	58MEB120–20
CNPH*4821A**	0.99	0.95	58MEB120–20
CNPH*6024A**	1.00	0.92	58MEB120–20
CNPV*4824A**	0.99	0.95	58MEB120–20
CNPV*6024A**	1.00	0.92	58MEB120–20
CSPH*4812A**	0.99	0.95	58MEB120–20
CSPH*6012A**	1.00	0.92	58MEB120–20
CAP**4821A**	0.98	0.94	58MV(B,C)080–20
CAP**6021A**	1.00	0.96	58MV(B,C)080–20
CNPH*4821A**	0.99	0.95	58MV(B,C)080–20
CNPH*6024A**	1.00	0.96	58MV(B,C)080–20
CNPV*4821A**	0.99	0.95	58MV(B,C)080–20
CSPH*4812A**	0.99	0.95	58MV(B,C)080–20
CSPH*6012A**	1.00	0.96	58MV(B,C)080–20
CAP**4821A**	0.99	0.95	58MV(B,C)100–20
CAP**6021A**	1.00	0.96	58MV(B,C)100–20
CNPH*4821A**	0.99	0.95	58MV(B,C)100–20
CNPH*6024A**	1.00	0.96	58MV(B,C)100–20
CNPV*4821A**	0.99	0.95	58MV(B,C)100–20
CSPH*4812A**	0.99	0.95	58MV(B,C)100–20
CSPH*6012A**	1.00	0.96	58MV(B,C)100–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	0.99	0.95	58MV(B,C)120–20
CAP**6024A**	1.00	0.96	58MV(B,C)120–20
CNPH*4821A**	0.99	0.95	58MV(B,C)120–20
CNPH*6024A**	1.00	0.96	58MV(B,C)120–20
CNPV*4824A**	0.99	0.95	58MV(B,C)120–20
CNPV*6024A**	1.00	0.96	58MV(B,C)120–20
CSPH*4812A**	0.99	0.95	58MV(B,C)120–20
CSPH*6012A**	1.00	0.96	58MV(B,C)120–20
CAP**4817A**	0.99	0.95	58PH*070–16
CAP**4821A**	0.99	0.95	58PH*090–16
CAP**6021A**	1.00	0.92	58PH*090–16
CNPH*4821A**	0.99	0.95	58PH*090–16
CNPH*6024A**	1.00	0.92	58PH*090–16
CNPV*4821A**	0.99	0.95	58PH*090–16
CSPH*4812A**	0.99	0.95	58PH*090–16
CSPH*6012A**	1.00	0.92	58PH*090–16
CAP**4821A**	0.99	0.95	58PH*110–20
CAP**6021A**	1.00	0.92	58PH*110–20
CNPH*4821A**	0.99	0.95	58PH*110–20
CNPH*6024A**	1.00	0.92	58PH*110–20
CNPV*4821A**	0.99	0.95	58PH*110–20
CSPH*4812A**	0.99	0.95	58PH*110–20
CSPH*6012A**	1.00	0.92	58PH*110–20
CAP**4824A**	0.99	0.95	58PH*135–20
CAP**6024A**	1.00	0.92	58PH*135–20
CNPH*4821A**	0.99	0.95	58PH*135–20
CNPH*6024A**	1.00	0.92	58PH*135–20
CNPV*4824A**	0.99	0.95	58PH*135–20
CNPV*6024A**	1.00	0.92	58PH*135–20
CSPH*4812A**	0.99	0.95	58PH*135–20
CSPH*6012A**	1.00	0.92	58PH*135–20

See notes on pg. 34

DETAILED COOLING CAPACITIES** (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR060 Outdoor Section With CNPV*6024A** Indoor Section																			
1750	72 (22.2)	68.88	33.36	4.20	65.13	32.05	4.64	60.97	30.62	5.12	56.47	29.10	5.64	51.66	27.52	6.20	46.31	25.80	6.80
	67(19.4)	63.28	41.18	4.15	59.98	39.91	4.59	56.34	38.52	5.08	52.38	37.05	5.60	48.00	35.44	6.17	43.23	33.69	6.77
	62 (16.7)	58.24	48.95	4.11	55.37	47.69	4.55	52.27	46.30	5.04	48.91	48.85	5.57	45.63	45.63	6.15	41.69	41.69	6.76
	57 (13.9)	56.77	56.77	4.09	54.45	54.45	4.54	51.86	51.86	5.03	48.95	48.95	5.57	45.63	45.63	6.15	41.69	41.69	6.76
2000	72(22.2)	69.89	34.93	4.31	65.94	33.59	4.75	61.58	32.12	5.23	56.96	30.59	5.74	52.01	29.02	6.31	47.30	27.45	6.92
	67(19.4)	64.28	43.75	4.26	60.81	42.45	4.70	57.00	41.04	5.18	52.88	39.53	5.71	48.32	37.86	6.27	43.82	36.17	6.88
	62 (16.7)	59.48	52.47	4.22	56.55	51.08	4.66	53.58	53.58	5.15	50.40	50.40	5.68	46.78	46.78	6.26	42.62	42.62	6.87
	57 (13.9)	58.96	58.96	4.21	56.42	56.42	4.66	53.58	53.58	5.15	50.40	50.40	5.68	46.78	46.78	6.26	42.60	42.60	6.87
2250	72 (22.2)	70.60	36.41	4.42	66.50	35.04	4.86	61.97	33.55	5.33	57.25	32.02	5.85	52.14	30.44	6.41	48.41	29.01	7.04
	67 (19.4)	65.01	46.21	4.37	61.41	44.89	4.81	57.46	43.44	5.29	53.20	41.88	5.81	48.56	40.17	6.37	44.28	38.42	6.99
	62 (16.7)	60.67	60.67	4.33	58.00	58.00	4.78	54.94	54.94	5.26	51.52	51.52	5.79	47.63	47.63	6.36	43.18	43.18	6.98
	57(13.9)	60.73	60.73	4.33	58.00	58.00	4.78	54.94	54.94	5.26	51.52	51.52	5.79	47.63	47.63	6.36	43.14	43.14	6.98

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*6024A**	1.00	1.00	
40QAC060–3	0.98	0.98	
CAP**6021A**	1.00	1.00	
CAP**6024A**	1.00	1.00	
CNPH*6024A**	1.00	1.00	
CSPH*6012A**	1.00	1.00	
FE4ANB006	1.01	1.01	
FV4BNB006	1.01	1.01	
FX4CN(B,F)060	1.01	1.01	
FY4ANB060	1.00	1.00	
CAP**6021A**	0.98	0.98	58CV(A,X)110–20
CNPH*6024A**	0.98	0.98	58CV(A,X)110–20
CSPH*6012A**	0.98	0.98	58CV(A,X)110–20
CAP**6024A**	0.98	0.98	58CV(A,X)135–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6024A**	0.98	0.98	58CV(A,X)135–22
CNPV*6024A**	0.98	0.98	58CV(A,X)135–22
CSPH*6012A**	0.98	0.98	58CV(A,X)135–22
CAP**6024A**	0.98	0.98	58CV(A,X)155–22
CNPH*6024A**	0.98	0.98	58CV(A,X)155–22
CNPV*6024A**	0.98	0.98	58CV(A,X)155–22
CSPH*6012A**	0.98	0.98	58CV(A,X)155–22
CNPH*6024A**	0.98	0.98	58MEB080–16
CSPH*6012A**	0.98	0.98	58MEB080–16
CAP**6021A**	0.98	0.98	58MEB100–20
CNPH*6024A**	0.98	0.98	58MEB100–20
CSPH*6012A**	0.98	0.98	58MEB100–20
CAP**6024A**	0.98	0.98	58MEB120–20
CNPH*6024A**	0.98	0.98	58MEB120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*6024A**	0.98	0.98	58MEB120–20
CSPH*6012A**	0.98	0.98	58MEB120–20
CSPH*6012A**	0.98	0.98	58MV(B,C)120–20
CAP**6021A**	0.98	0.98	58PH*090–16
CNPH*6024A**	0.98	0.98	58PH*090–16
CSPH*6012A**	0.98	0.98	58PH*090–16
CAP**6021A**	0.98	0.98	58PH*110–20
CNPH*6024A**	0.98	0.98	58PH*110–20
CSPH*6012A**	0.98	0.98	58PH*110–20
CAP**6024A**	0.98	0.98	58PH*135–20
CNPH*6024A**	0.98	0.98	58PH*135–20
CNPV*6024A**	0.98	0.98	58PH*135–20
CSPH*6012A**	0.98	0.98	58PH*135–20

NOTE: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

* Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per the latest edition of AHRI standard 210/240. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).
When the required data fall between the published data, interpolation may be performed.

** Total system kW is total of indoor and outdoor unit kilowatts.

CONDENSER ONLY RATINGS*

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.8)	65 (18.3)	75 (23.9)	85 (29.4)	95 (35)	105 (40.6)	115 (46.1)	125 (51.7)
38HDR018–31									
30 (–1.6)	TCG	16.20	15.30	14.30	13.40	12.40	11.40	10.30	9.20
	SDT	67.40	77.00	86.50	96.00	105.50	114.90	124.40	133.70
	KW	0.86	0.98	1.11	1.26	1.42	1.59	1.77	1.96
35 (1.7)	TCG	17.90	16.90	15.90	14.80	13.80	12.70	11.60	10.40
	SDT	68.50	78.00	87.50	97.00	106.40	115.80	125.20	134.50
	KW	0.86	0.98	1.11	1.26	1.42	1.59	1.78	1.98
40 (4.4)	TCG	19.70	18.60	17.50	16.40	15.20	14.10	12.90	11.60
	SDT	69.70	79.10	88.60	98.00	107.40	116.80	126.10	135.30
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	1.99
45 (7.2)	TCG	21.60	20.40	19.20	18.00	16.80	15.50	14.20	12.80
	SDT	70.90	80.30	89.70	99.00	108.40	117.70	127.00	136.10
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	2.00
50 (10)	TCG	23.60	22.30	21.10	19.70	18.40	17.00	15.60	14.10
	SDT	72.20	81.50	90.80	100.10	109.40	118.60	127.80	136.90
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	2.00
55 (12.8)	TCG	25.70	24.30	22.90	21.50	20.00	18.60	17.00	15.40
	SDT	73.50	82.70	92.00	101.20	110.40	119.60	128.70	137.70
	KW	0.85	0.97	1.10	1.25	1.42	1.60	1.79	2.00
38HDR024–32									
30 (–1.6)	TCG	22.10	20.90	19.60	18.30	16.90	15.50	14.00	12.40
	SDT	69.00	78.50	88.00	97.40	106.80	116.10	125.30	134.50
	KW	1.08	1.24	1.41	1.60	1.80	2.02	2.25	2.48
35 (1.7)	TCG	24.30	23.00	21.70	20.30	18.80	17.20	15.60	13.80
	SDT	70.30	79.80	89.20	98.60	107.90	117.10	126.30	135.40
	KW	1.09	1.24	1.42	1.61	1.82	2.04	2.28	2.52
40 (4.4)	TCG	26.80	25.30	23.90	22.30	20.70	19.00	17.20	15.30
	SDT	71.70	81.10	90.50	99.80	109.10	118.20	127.30	136.30
	KW	1.10	1.26	1.43	1.62	1.83	2.06	2.30	2.55
45 (7.2)	TCG	29.40	27.80	26.20	24.50	22.70	20.90	18.90	16.70
	SDT	73.20	82.60	91.90	101.10	110.20	119.30	128.30	137.10
	KW	1.11	1.27	1.44	1.64	1.85	2.08	2.32	2.57
50 (10)	TCG	32.10	30.40	28.60	26.80	24.80	22.70	20.50	18.10
	SDT	74.80	84.10	93.30	102.40	111.50	120.40	129.20	137.90
	KW	1.12	1.28	1.46	1.65	1.86	2.09	2.33	2.59
55 (12.8)	TCG	35.00	33.10	31.20	29.10	26.90	24.60	22.20	19.50
	SDT	76.40	85.60	94.70	103.80	112.70	121.50	130.20	138.60
	KW	1.13	1.29	1.47	1.66	1.88	2.10	2.35	2.60
38HDR030–31									
30 (–1.6)	TCG	26.20	24.70	23.20	21.70	20.10	18.40	16.80	15.30
	SDT	72.00	82.30	92.90	103.80	115.00	126.90	139.00	148.90
	KW	1.30	1.48	1.69	1.92	2.19	2.50	2.84	3.12
35 (1.7)	TCG	28.80	27.30	25.70	24.10	22.40	20.60	18.90	17.40
	SDT	73.10	83.50	94.00	104.80	116.10	127.70	139.50	149.30
	KW	1.30	1.49	1.69	1.93	2.21	2.52	2.86	3.15
40 (4.4)	TCG	31.70	30.10	28.40	26.60	24.80	23.00	21.20	19.60
	SDT	74.30	84.70	95.20	105.90	117.10	128.60	140.00	149.70
	KW	1.31	1.49	1.70	1.94	2.22	2.53	2.87	3.18
45 (7.2)	TCG	34.80	33.10	31.20	29.40	27.40	25.50	23.60	21.90
	SDT	75.60	85.90	96.40	107.10	118.10	129.40	140.60	150.10
	KW	1.31	1.50	1.71	1.95	2.22	2.54	2.88	3.19
50 (10)	TCG	38.20	36.20	34.30	32.30	30.30	28.20	26.20	24.40
	SDT	76.90	87.20	97.60	108.20	119.20	130.30	141.10	150.50
	KW	1.32	1.50	1.71	1.95	2.23	2.55	2.89	3.20
55 (12.8)	TCG	41.70	39.70	37.60	35.50	33.30	31.10	29.00	27.10
	SDT	78.30	88.50	98.90	109.40	120.20	131.20	141.80	150.90
	KW	1.32	1.51	1.72	1.96	2.24	2.55	2.89	3.20
38HDR036–31									
30 (–1.6)	TCG	30.10	28.50	26.80	25.10	23.30	21.50	19.60	17.60
	SDT	70.90	80.80	90.90	101.00	111.20	121.60	132.30	143.30
	KW	1.50	1.71	1.94	2.20	2.50	2.83	3.19	3.58
35 (1.7)	TCG	33.20	31.50	29.70	27.80	25.90	24.00	21.90	19.90
	SDT	72.00	82.00	92.00	102.10	112.30	122.80	133.30	143.80
	KW	1.50	1.71	1.95	2.21	2.52	2.85	3.21	3.60
40 (4.4)	TCG	36.50	34.60	32.70	30.70	28.70	26.60	24.40	22.30
	SDT	73.30	83.20	93.20	103.20	113.40	123.60	134.10	144.50
	KW	1.51	1.72	1.95	2.22	2.52	2.85	3.23	3.63
45 (7.2)	TCG	40.10	38.10	36.00	33.80	31.70	29.40	27.10	24.80
	SDT	74.60	84.40	94.40	104.50	113.80	124.50	135.20	145.30
	KW	1.51	1.72	1.96	2.23	2.51	2.86	3.26	3.65
50 (10)	TCG	43.90	41.70	39.50	37.10	34.90	32.40	30.00	27.60
	SDT	75.90	85.80	95.70	105.90	115.50	125.90	136.20	146.00
	KW	1.52	1.73	1.97	2.24	2.54	2.89	3.27	3.66
55 (12.8)	TCG	48.00	45.70	43.30	40.70	38.30	35.70	33.10	30.50
	SDT	77.40	87.10	97.00	107.10	116.70	126.80	137.00	146.70
	KW	1.53	1.74	1.98	2.25	2.55	2.89	3.28	3.66

See notes on page 38

CONDENSER ONLY RATINGS* CONTINUED

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.8)	65 (18.3)	75 (23.9)	85 (29.4)	95 (35)	105 (40.6)	115 (46.1)	125 (51.7)
38HDR048–32									
30 (–1.6)	TCG	48.40	45.50	42.50	39.50	36.20	32.90	30.60	28.10
	SDT	67.90	77.30	86.70	96.00	105.40	114.70	124.30	133.80
	KW	2.05	2.39	2.75	3.15	3.56	4.01	4.49	5.00
35 (1.7)	TCG	53.40	50.20	46.90	43.40	39.60	35.70	34.00	25.50
	SDT	69.10	78.40	87.80	97.00	106.20	115.40	125.10	133.00
	KW	2.02	2.37	2.74	3.14	3.56	4.01	4.51	4.99
40 (4.4)	TCG	58.70	55.10	51.40	47.50	43.10	38.30	33.00	27.10
	SDT	70.40	79.60	88.90	98.00	107.10	116.10	124.80	133.40
	KW	1.99	2.35	2.72	3.13	3.55	4.01	4.49	4.99
45 (7.2)	TCG	64.30	60.30	56.20	51.60	46.90	41.20	35.20	28.90
	SDT	71.80	80.90	90.00	99.10	108.10	116.80	125.40	133.80
	KW	1.96	2.32	2.70	3.11	3.54	4.00	4.48	4.99
50 (10)	TCG	70.30	65.80	61.10	55.80	50.40	44.20	37.30	34.60
	SDT	73.30	82.30	91.20	100.10	108.90	117.50	125.90	135.30
	KW	1.92	2.29	2.68	3.09	3.52	3.98	4.46	5.01
55 (12.8)	TCG	76.50	71.40	66.00	60.30	54.00	47.00	50.70	41.10
	SDT	74.80	83.60	92.50	101.20	109.80	118.20	129.40	137.00
	KW	1.88	2.25	2.64	3.06	3.49	3.95	4.57	5.05
38HDR060–32									
30 (–1.6)	TCG	59.30	55.30	50.90	46.20	40.40	37.90	33.80	30.30
	SDT	70.10	79.30	88.40	97.40	106.20	115.80	124.90	134.20
	KW	2.59	2.93	3.31	3.73	4.19	4.72	5.31	5.90
35 (1.7)	TCG	64.70	60.20	55.50	50.00	43.30	42.40	31.50	33.10
	SDT	71.40	80.50	89.50	98.40	106.90	116.90	124.20	134.90
	KW	2.62	2.97	3.34	3.76	4.21	4.76	5.25	5.93
40 (4.4)	TCG	69.90	65.30	60.10	53.80	55.90	47.40	31.70	35.60
	SDT	72.70	81.70	90.60	99.30	110.10	118.10	124.20	135.50
	KW	2.66	3.00	3.38	3.78	4.34	4.81	5.24	5.96
45 (7.2)	TCG	76.00	70.80	64.80	57.40	56.00	54.60	48.50	47.70
	SDT	74.10	83.00	91.80	100.20	110.00	119.90	128.60	138.80
	KW	2.71	3.04	3.40	3.80	4.32	4.89	5.43	6.08
50 (10)	TCG	82.20	76.70	69.30	70.90	61.80	58.60	30.50	52.10
	SDT	75.60	84.40	92.80	103.40	111.40	120.90	123.80	139.80
	KW	2.75	3.09	3.42	3.99	4.38	4.93	5.16	6.13
55 (12.8)	TCG	95.20	87.70	88.40	74.60	75.40	53.90	46.10	60.30
	SDT	78.80	87.10	97.50	104.30	114.70	119.50	127.70	141.70
	KW	2.85	3.13	3.74	3.95	4.56	4.78	5.33	6.25

* AHRI listing applies only to systems shown in Combination Ratings table.

KW – Outdoor Unit Kilowatts Only.

SDT – Saturated Temperature Leaving Compressor (°F)

SST – Saturated Temperature Entering Compressor (°F/°C)

TCG – Gross Cooling Capacity (1000 Btuh)

GUIDE SPECIFICATIONS
GENERAL

System Description

Outdoor-mounted, air-cooled, split-system air conditioner unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air horizontally as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

Quality Assurance

- — Unit will be rated in accordance with the latest edition of ARI Standard 210.
- — Unit will be certified for capacity and efficiency, and listed in the latest ARI directory.
- — Unit construction will comply with latest edition of ANSI/ ASHRAE and with NEC.
- — Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL approval.
- — Unit cabinet will be capable of withstanding Federal Test
  Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- — Air-cooled condenser coils will be leak tested and pressure tested
- — Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- — Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

- — U.S. and Canada only.

PRODUCTS

Equipment

- — Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A), and special features required prior to field start-up.

Unit Cabinet

- — Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

Fans

- — Condenser fan will be direct-drive propeller type, discharging air horizontally.
- — Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- — Fan blades will be statically and dynamically balanced.
- — Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- — Compressor will be hermetically sealed.
- — Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- — Condenser coil will be air cooled.
- — Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

Refrigeration Components

- — Refrigeration circuit components will include liquid-line front-seating shutoff valve with sweat connections, vapor-line front-seating shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, and compressor oil.
- — Unit will be equipped with high-pressure switch, low pressure switch and filter drier for Puron refrigerant.

Operating Characteristics

- — The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- — Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- — The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- — Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- — Nominal unit electrical characteristics will be _____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- — Unit electrical power will be single point connection.
- — Control circuit will be 24v.

Special Features

- — Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

SYSTEM DESIGN SUMMARY

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or 35 ft (10.7 m) vertical differential, consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
6. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
7. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
8. Do not apply capillary tube indoor coils to these units.
9. Factory-supplied filter drier must be installed.

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Printed in U.S.A. Edition Date: 06/09 **Catalog No: 38HDR–4PD**

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Replaces: 38HDR–3PD

Model CSSB-2
Construction Site Sound Blankets

eNoise Control
129 Penn St, Westfield, IN 46074
Phone 888.213.4711 Fax 317-774-1911

Product Features:



- Weatherproof
- Outdoor use/Sheds water
- 2” thick, quilted exterior rated facing
- Grommets for easy attachment to a fence
- STC-21, estimated 10-20 decibel reduction
- In-stock option for quick ship

eNoise Control’s Construction Site Sound Blankets are used to block noise on construction sites, drilling sites, compressor stations, and other outdoor noise sources. Our Model CSSB-2 consists of a UV resistant, heavy duty 10 ounce per square yard vinyl coated polyester (VCP) facing on both sides of a nominal 2” thick quilted fiberglass. Sound Blankets are constructed with grommets and sewn with Gore Tenara exterior grade thread for maximum longevity. The sound blankets can simply be zip-tied to your existing chain link perimeter fence, wood fence, jersey barrier fencing, or support framing.

Specification:



Supply weatherproof, exterior-rated quilted sound blankets for sound barrier and visual barrier at construction site perimeter. Material shall be nominal 2” thick, diamond stitched UV resistant 10 ounce per square yard vinyl coated polyester (VCP) faced both sides. Sewn using exterior-rated Gore Tenara thread. Grommets integrated into blankets for securing to job site fencing. Minimum STC-21 rating. Minimum NRC-0.75 rating. Secure blankets with no visual gaps at joints and tight to ground level, complying to manufacturers installation guidelines. Use Model CSSB-2, Construction Site Sound Blanket manufactured by eNoise Control, 129 Penn St, Westfield, IN 46074, 888.213.4711, info@enoisecontrol.com.

Technical Data:

Facing	UV resistant, weather proof VCP both sides
Thickness	Nominal 2.00” [1.5” post fabrication]
Standard Width	48”
Weight	0.50 lb-psf
Temperature Range	-40° to +180°F
Sound Data Summary	STC-21, NRC-0.75

SOUND ABSORPTION (ASTM C-423)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
.46	.94	.85	.64	.47	.33	.75

SOUND TRANSMISSION LOSS (ASTM E-90 & E-413)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	STC
9	14	19	21	27	34	21

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/15/2021
Case Description: San Pablo Self Storage Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential	Residential	65.0	55.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	70.0	0.0
Tractor	No	40	84.0		70.0	0.0
Dozer	No	40		81.7	70.0	0.0
Tractor	No	40	84.0		70.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Concrete Saw	86.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A						

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/16/2021
Case Description: San Pablo Self Storage Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential	Residential	65.0	55.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	140.0	0.0
Tractor	No	40	84.0		140.0	0.0
Dozer	No	40		81.7	140.0	0.0
Tractor	No	40	84.0		140.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA) Day Evening Night

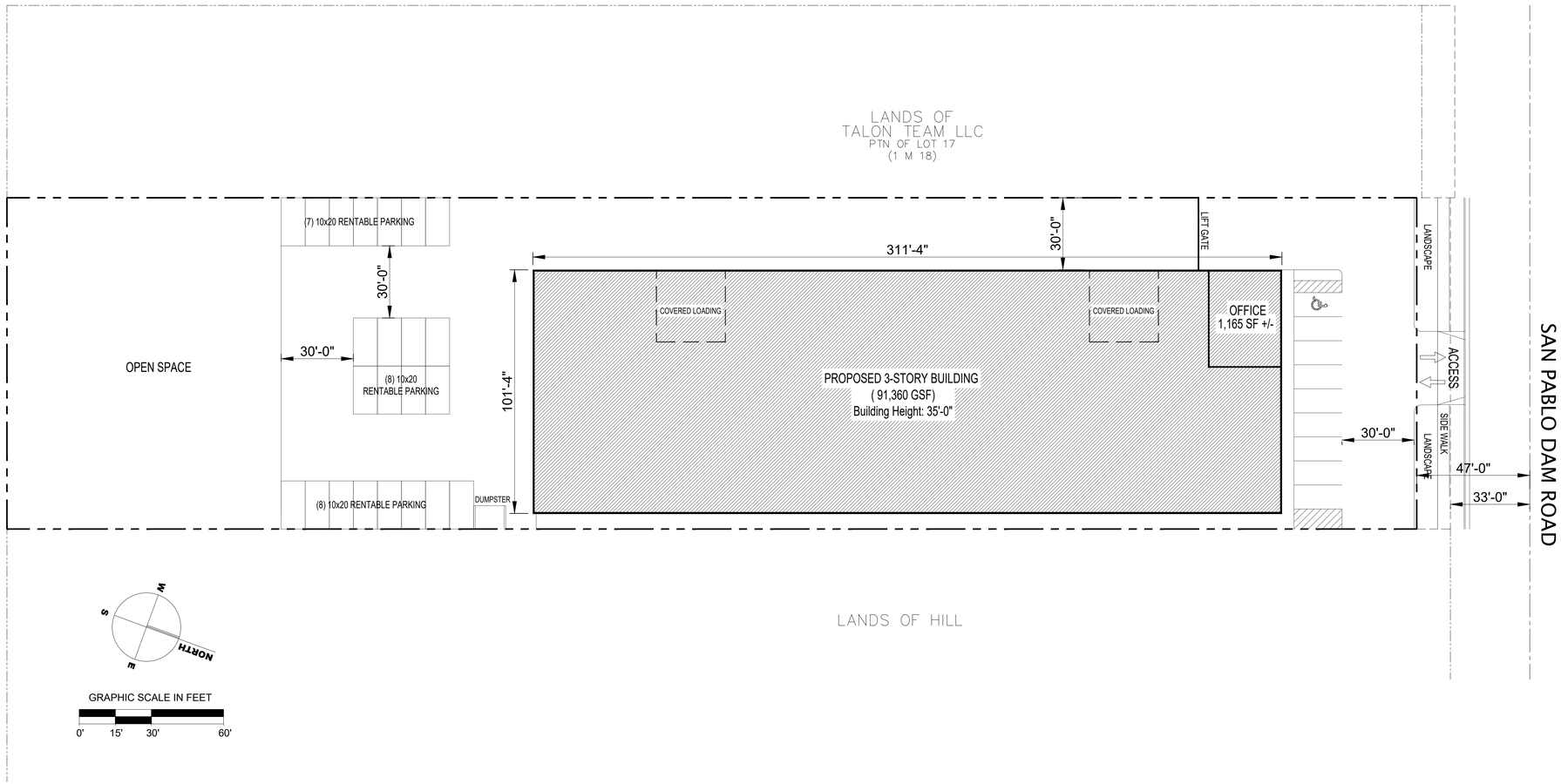
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw			80.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			75.1	71.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer			72.7	68.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			75.1	71.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total			80.6	77.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A									
Tractor			81.1	77.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A									
Dozer			78.7	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A									
Tractor			81.1	77.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A									
		Total	86.7	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A									

Appendix PLN

Project Design Plans

EXTRA SPACE STORAGE OF EL SOBRANTE, CA #1378



1 CONCEPTUAL SITE PLAN
N.T.S.

PROJECT ADDRESS: 3500 SAN PABLO DAM ROAD
EL SOBRANTE, CA 94803

PROJECT OWNER: EXTRA SPACE STORAGE
2795 E. COTTONWOOD PARKWAY, SUITE 400
SALT LAKE CITY, UT 84121

PROJECT CONTACT: DANNY MORRIS
EXTRA SPACE STORAGE
2795 E. COTTONWOOD PARKWAY, SUITE 400
SALT LAKE CITY, UT 84121
PH: 609-682-1870
E-MAIL: Dmorris@extraspace.com

PROJECT SCOPE OF WORK:

EXTERIOR:

- NEW 3-STORY BUILDING (91,360 GSF)
- NEW RV PARKING ON BACK SIDE OF THE PROPERTY

INTERIOR:

- NEW UNIT MIX (+/- 67,755 NRSF @ 74 % EFF.)
- NEW OFFICE LOCATED ON NORTH WEST CORNER OF BUILDING

SHEET INDEX

A1 COVER SHEET AND SITE PLAN
A2 PROPOSED FLOOR PLANS
A3 PROPOSED FLOOR PLANS
A4 PROPOSED FLOOR PLANS
A5 ELEVATIONS
A6 RENDERINGS



VICINITY MAP
N.T.S.

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SHEET TITLE:
PRELIMINARY CONCEPTUAL SITE PLAN

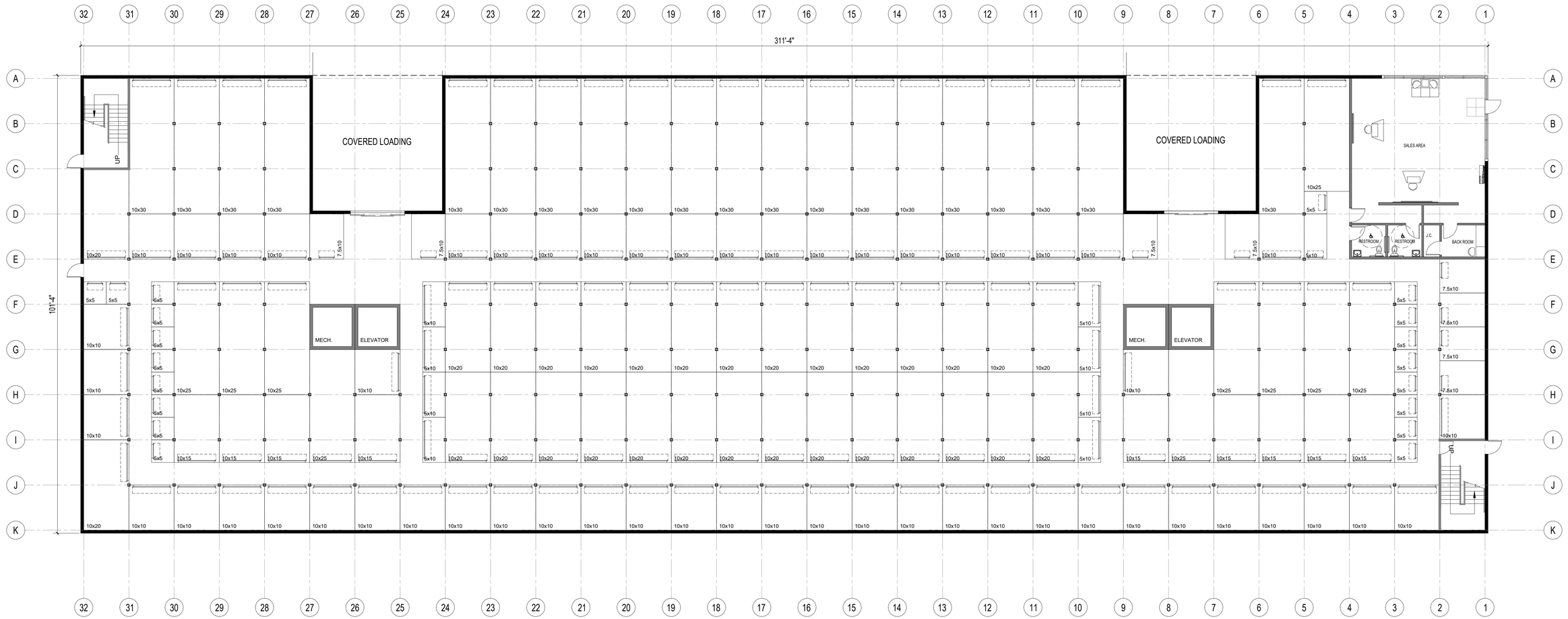
PROJECT LOCATION:
EXTRA SPACE STORAGE #1378
3500 SAN PABLO DAM ROAD
EL SOBRANTE, CA 94803

EST-1977 Extra Space Storage®

EXTRA SPACE STORAGE, Inc.. CORPORATE OFFICE
2795 East Cottonwood Parkway, Suite 400
Salt Lake City, Utah 84121

DATE
10/06/20

SHEET NUMBER
A-01



1 FIRST LEVEL FLOOR PLAN
3/32" = 1'-0"

UNIT MIX DATA

UNIT	DOWN OUT	C.C. DOWN OUT	DOWN IN	C.C. DOWN IN	UP IN	C.C. UP IN	TOTAL	% of UNITS	NET SQ.FT.
5x5	0	0	0	19	0	107	126	17	3,150
5x7	0	0	0	0	0	17	17	2	595
5x10	0	0	0	9	0	185	194	26	9,700
5x12	0	0	0	0	0	3	3	0	180
5x15	0	0	0	0	0	1	1	0	75
7x7	0	0	0	0	0	1	1	0	49
7x12	0	0	0	0	0	2	2	0	168
7x12.5	0	0	0	0	0	1	1	0	88
7.5x10	0	0	0	8	0	84	92	12	6,900
10x10	0	0	0	55	0	80	135	18	13,500
10x15	0	0	0	9	0	114	123	16	18,450
10x20	0	0	0	30	0	2	32	4	6,400
10x25	1	0	0	9	0	0	10	1	2,500
10x30	20	0	0	0	0	0	20	3	6,000
	21	0	0	139	0	597	757	100	67,755

NET RENTABLE 67,755
AVG. UNIT SIZE 90

2 UNIT MIX SCHEDULE
NTS

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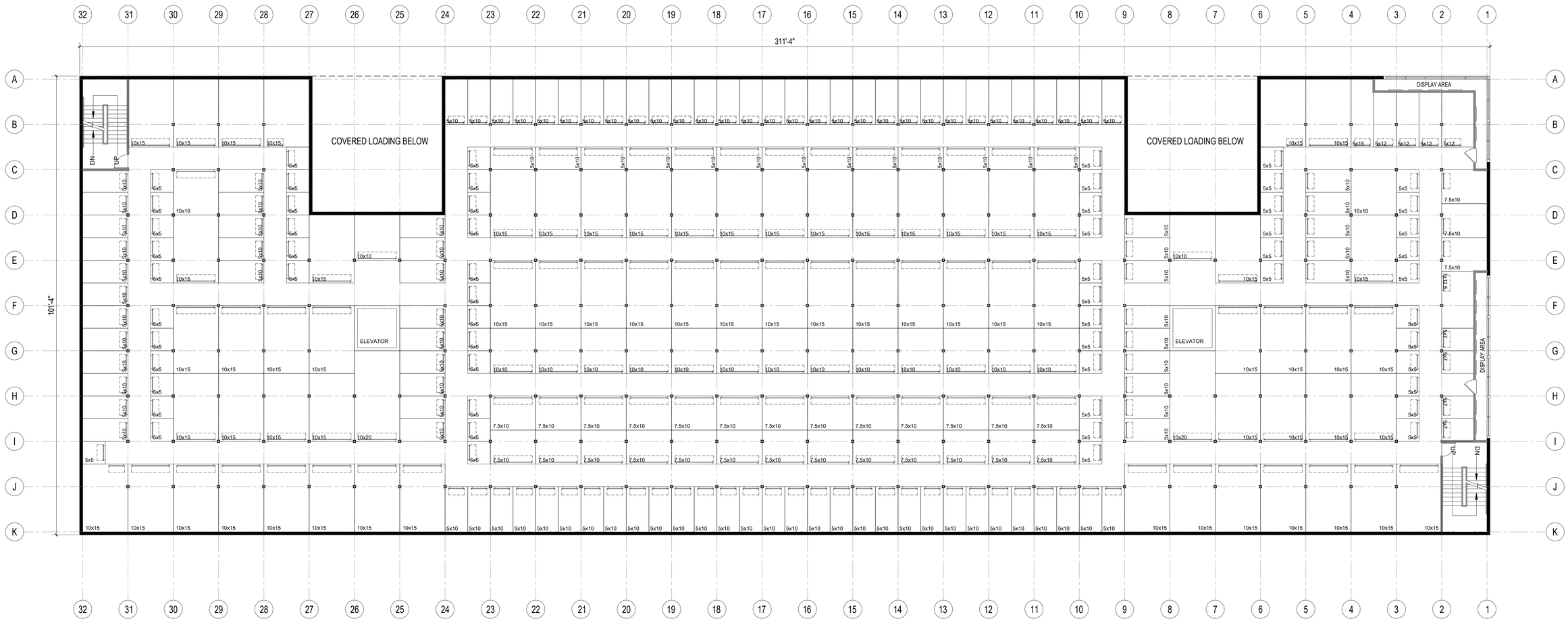
SHEET TITLE:
FLOOR PLANS

PROJECT LOCATION:
EXTRA SPACE STORAGE #1378
3500 SAN PABLO DAM ROAD
EL SOBRANTE, CA 94803

EST-1977 Extra Space Storage®
EXTRA SPACE STORAGE, Inc.. CORPORATE OFFICE
2795 East Cottonwood Parkway, Suite 400
Salt Lake City, Utah 84121

DATE
10/06/20

SHEET NUMBER
A-02



1 SECOND LEVEL FLOOR PLAN
3/32" = 1'-0"

NORTH

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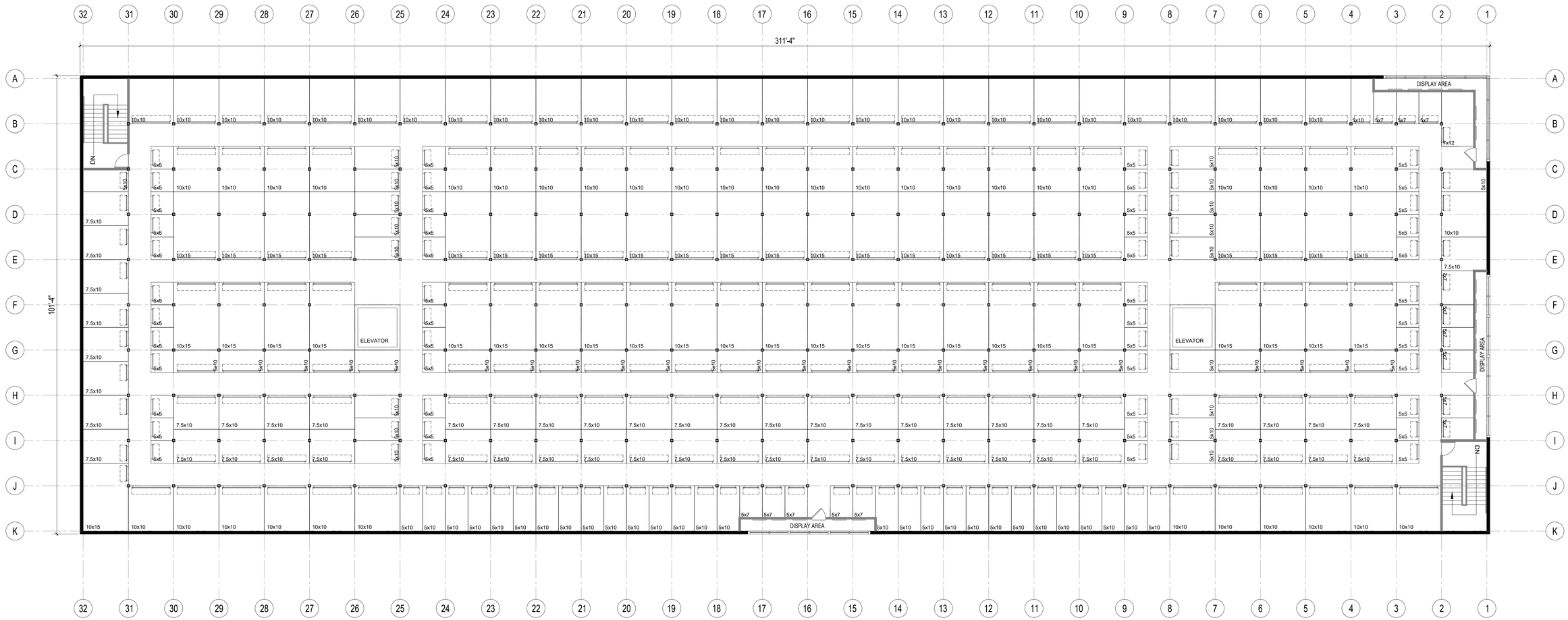
SHEET TITLE:
FLOOR PLANS

PROJECT LOCATION:
EXTRA SPACE STORAGE #1378
3500 SAN PABLO DAM ROAD
EL SOBRANTE, CA 94803

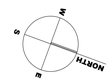
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DATE
10/06/20

SHEET NUMBER
A-03



1 THIRD LEVEL FLOOR PLAN
3/32" = 1'-0"



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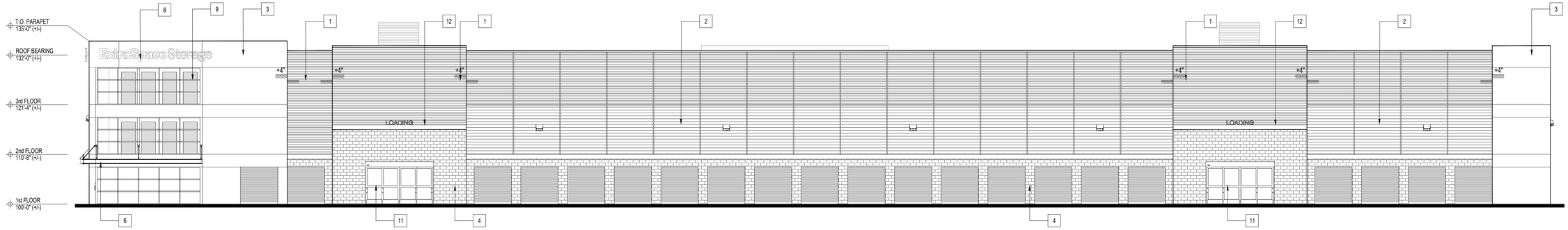
SHEET TITLE:
FLOOR PLANS

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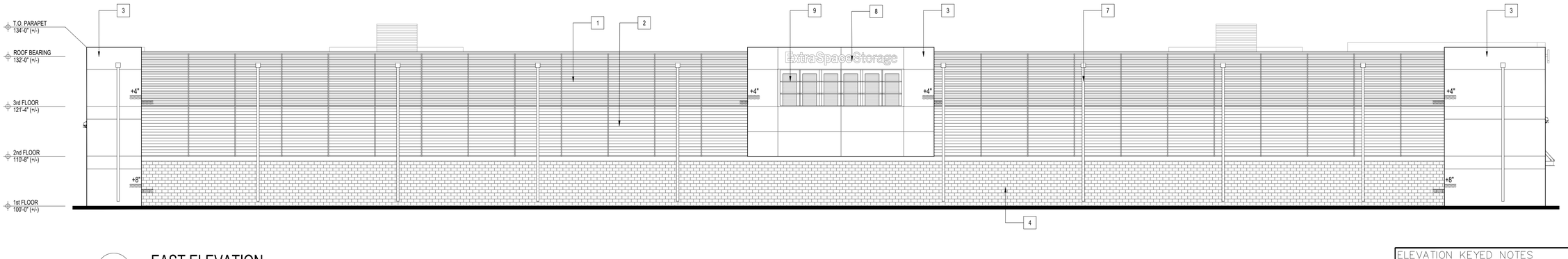
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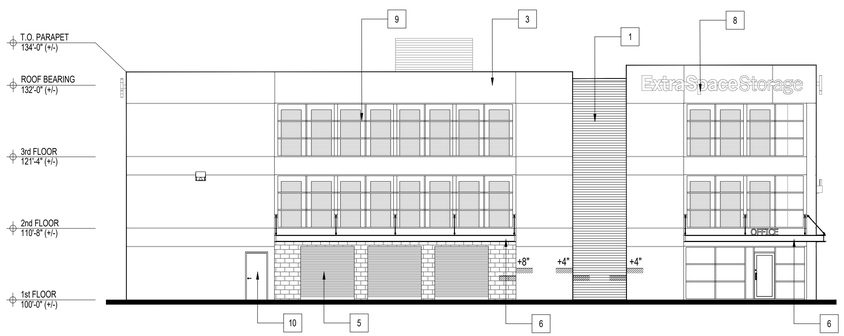
SHEET NUMBER
A-04



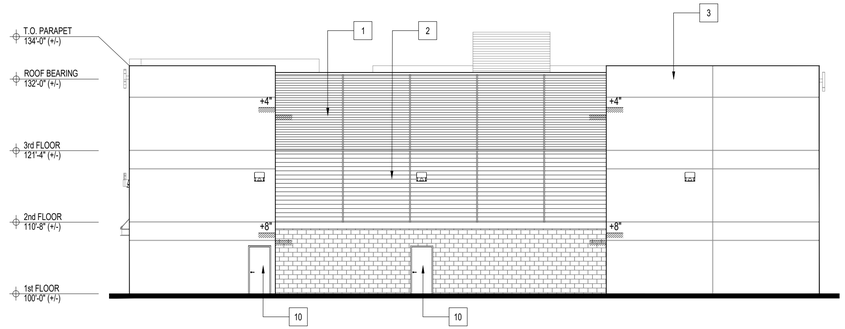
1 WEST ELEVATION
3/32" = 1'-0"



2 EAST ELEVATION
3/32" = 1'-0"



3 NORTH ELEVATION
3/32" = 1'-0"



4 SOUTH ELEVATION
3/32" = 1'-0"

ELEVATION KEYED NOTES

1. 4" BOX RIB CORRUGATED METAL PANEL
2. 8" BOX RIB CORRUGATED METAL PANEL
3. STUCCO FINISH
4. INTEGRAL COLOR CMU BLOCK
5. 8'X8' METAL FAUX DOOR PER ESS STANDARDS MANUAL 2020
6. METAL CANOPY PER ESS STANDARDS MANUAL 2020
7. DOWNSPOUTS. COLOR: SEE RENDERING
8. STACKED CHANNEL LETTER SIGN PER ESS STANDARDS.
9. STOREFRONT WITH FAUX DOORS BEHIND GLASS
10. METAL EGRESS DOOR PER ESS STANDARDS MANUAL 2020
11. DURA GUARD 2000 SERIES BI-PARTING LOADING DOOR. SEE ESS 2020 MANUAL
12. 1'-0"D x 1'-0"H. METAL EYEBROW WITH MOUNTED LOADING SIGN

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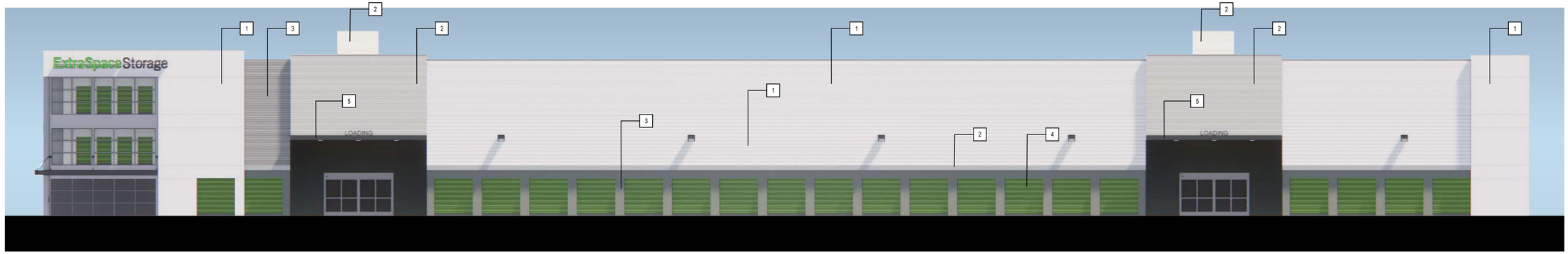
SHEET TITLE:
PROPOSED BUILDING ELEVATIONS

PROJECT LOCATION:
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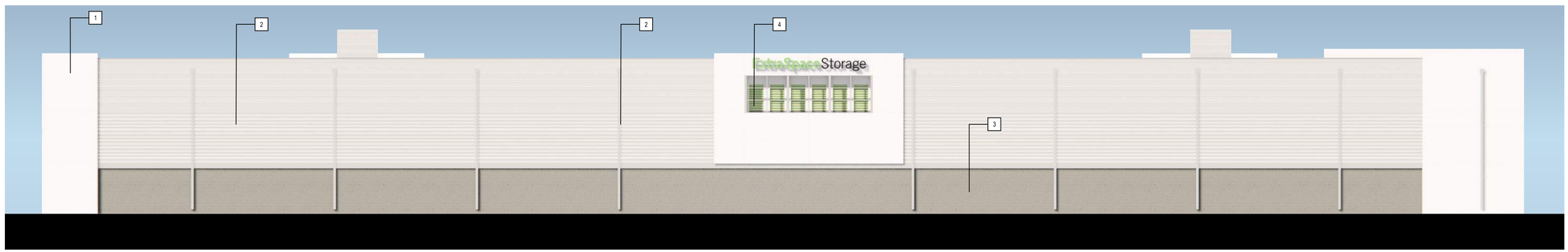
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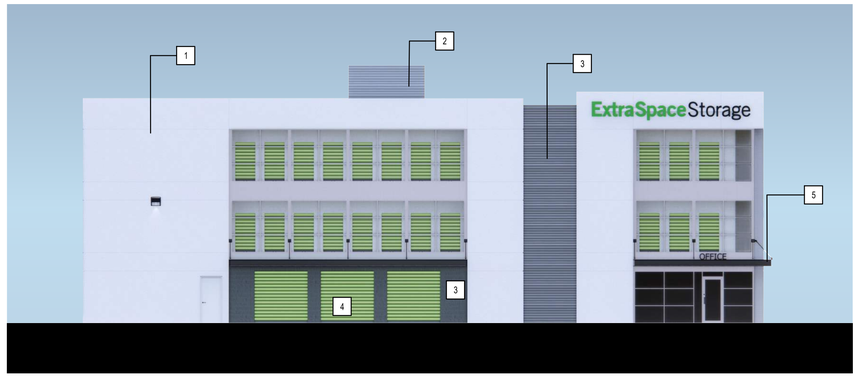
SHEET NUMBER
A-05



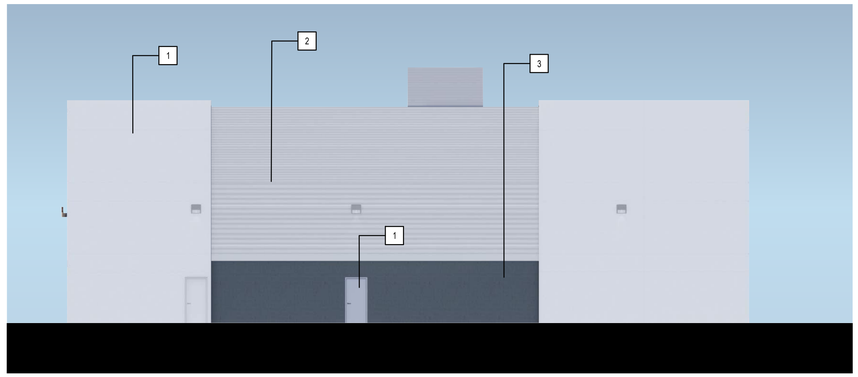
1 WEST ELEVATION



2 EAST ELEVATION



3 NORTH ELEVATION



4 SOUTH ELEVATION

E.S.S. COLOR PALETTE

1	SW 7063 NEBULOUS WHITE
2	SW 7065 ARGOS
3	SW 7067 CITYSCAPE
4	EXR WASABI GREEN
5	SW 7069 IRON ORE

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SHEET TITLE:
RENDERED ELEVATIONS

PROJECT LOCATION:
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OFFICE VIEW



FRONT VIEW



TYPICAL LOADING BAY

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SHEET TITLE:
RENDERINGS

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Site Context Plan

0 20 60 Feet

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Planning Submittal - June 01, 2021

02.1

Sheet Index

Sheet #	Title	Issue Date
A-1.1	Site Context Plan	Planning Submittal - June 01, 2021
A-1.2	Site Plan	Planning Submittal - June 01, 2021
LC-1	Landscape Concept	Planning Submittal - June 01, 2021
A-2.1	Ground Floor Plan	Planning Submittal - June 01, 2021
A-2.2	Second & Third Floor Plans	Planning Submittal - June 01, 2021
A-2.3	Roof Plan	Planning Submittal - June 01, 2021
A-3.1	Exterior Elevations	Planning Submittal - June 01, 2021
A-4.1	Existing Site Photos	Planning Submittal - June 01, 2021
A-4.2	Existing Site Photos	Planning Submittal - June 01, 2021
A-4.3	Proposed Project Views	Planning Submittal - June 01, 2021
A-5.1	Exterior Colors & Material Board	Planning Submittal - June 01, 2021

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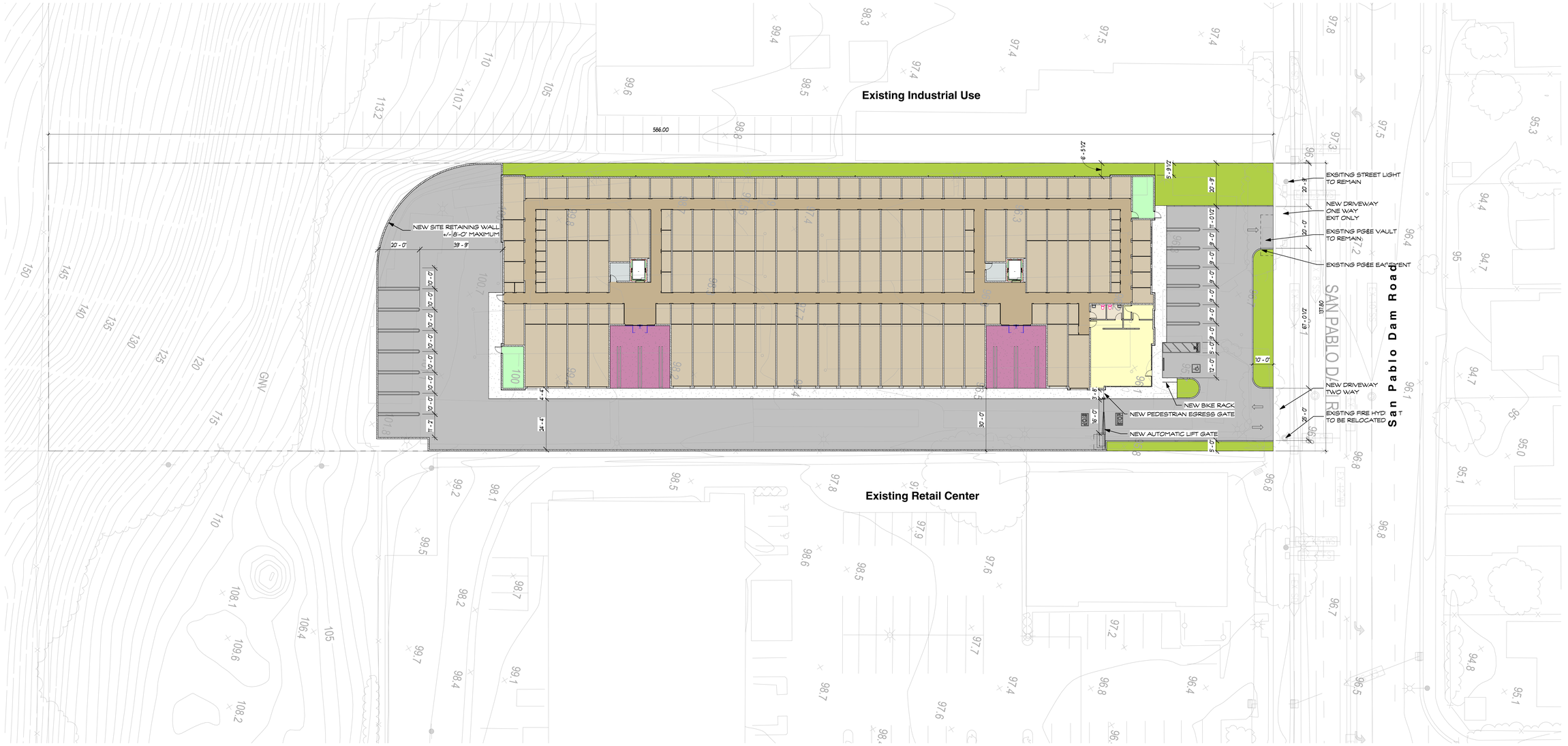
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A-1.1



Site Statistics

	Provided		Allowed	
Total Site Area	80,751 s.f.			
Floor Area Ratio	4,035 s.f.	0.05	1.50	121,126 s.f.
Building Coverage:	29,881 s.f.	37.00%	48,450	60%
Paving Coverage:	23,870 s.f.	29.56%	No Requirememt	
Landscape Coverage	56,881 s.f.	70.44%	No Requirememt	

Parking Analysis

Parking Required

Self-Storage	1 spaces/1,000 s.f.	92 spaces required
1 space/employee		0 spaces required
Total		92 spaces required
10% transit promimity reduction		9 space reduction
Total Required:		**82 spaces required**

Parking...	Parking Reduction...	
	Full Size Customer Parking	14 spaces provided
	Loading Spaces	4 spaces provided
	Disabled Access	1 space provided
Total Provided:		19 spaces provided
Bicycle Parking...	5% Vehicle Spaces 2 spaces minimum	2 spaces required.

Building Areas

	Covered Loading	Stairs & Elevators	Mech & Elec	Storage Corridors	Display	Covered Loading	Int Access Storage	CBC Total	Exterior Walls	Gross Total
Ground Floor	1,720	552	162	4,321	0	1,720	21,440	29,915	1,686	31,601
Second Floor	0	552	0	6,375	167		20,865	27,959	1,150	29,109
Third Floor	0	552	0	7,205	242		21,653	29,652	1,199	30,851
Subtotal	1,720	1,656	162	17,901	409	1,720	63,958	87,526	4,035	91,560

Site Plan

0 20 60 Feet

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Planning Submittal - June 01, 2021

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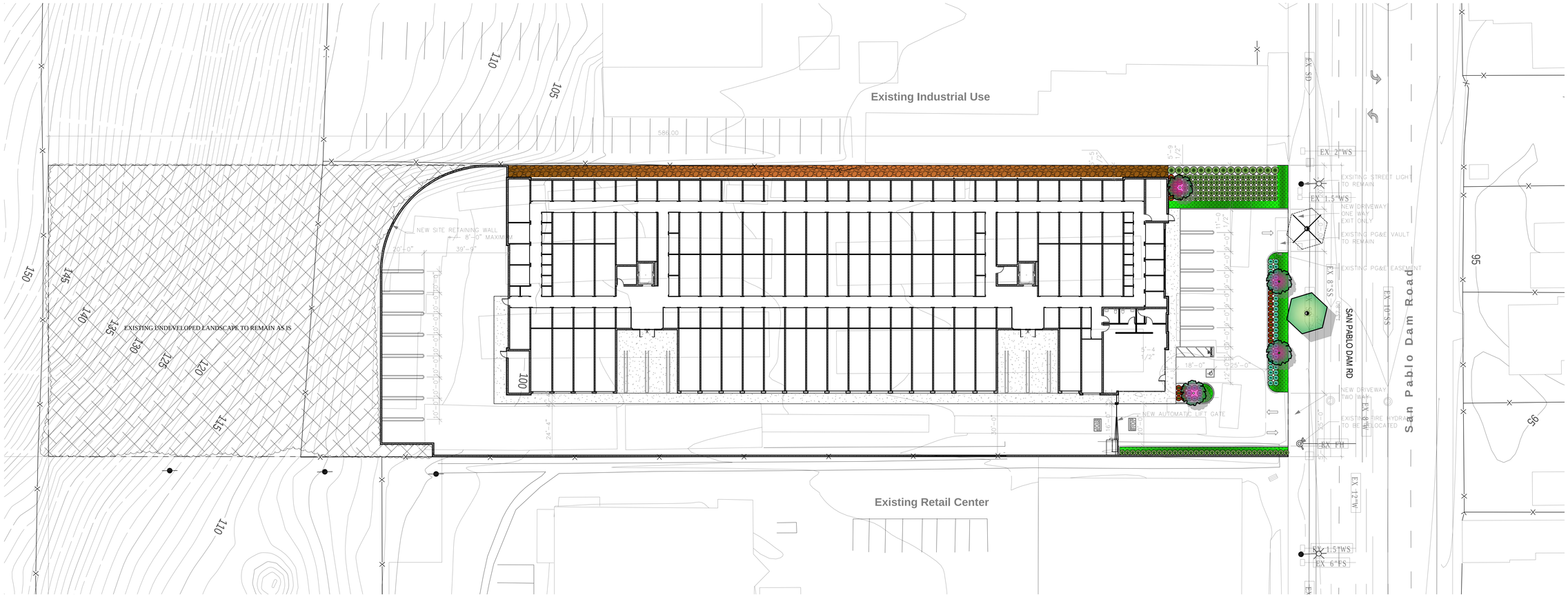
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A-1.2



PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WATER USE
	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY EASTERN REDBUD	24" BOX	4	MODERATE
	TILIA TOMENTOSA 'GREEN MOUNTAIN' EXISTING STREET TREE TO BE REMOVED (ZONE 5)	SILVER LINDEN	EXISTING TO BE REMOVED	1	LOW
	TILIA TOMENTOSA 'GREEN MOUNTAIN' STREET TREE REPLACEMENT (ZONE 5)	SILVER LINDEN	24" BOX	1	LOW

LANDSCAPE NOTES

- All LANDSCAPE AREAS TO BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM.
- LANDSCAPING IS TO CONFORM TO ALL APPLICABLE CODES & ORDINANCES.
- PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL ON-SITE LANDSCAPING AS SHOWN.

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WATER USE
	CALLISTEMON 'LITTLE JOHN'	DWARF BOTTLE BRUSH	5 GAL	29	LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	122	LOW
	SALVIA 'BEE'S BLISS'	BEES BLISS SAGE	5 GAL	46	LOW
	WESTRINGIA 'WYNYABBIE GEM'	COAST ROSEMARY	5 GAL	15	LOW
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL	@ 18" OC	LOW
	3" DEEP LAYER OF COURSE AGGREGATE OVER FILTER FABRIC				

California Water Efficient Landscape Worksheet (CONCEPTUAL)

Reference Evapotranspiration (ET_o)			35.8	Project Type		Non-Residential	0.45
Hydrozone # / Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[d]
Regular Landscape Areas							
low water use	0.3	Drip	0.81	0.37	2223	823	18275
Medium water use	0.5	Drip	0.81	0.62	100	62	1370
			0.75	0.00		0	0
			0.75	0.00		0	0
			0.75	0.00		0	0
				Totals	2323	885	19645
Special Landscape Areas							
				1		0	0
				1		0	0
				1		0	0
				1		0	0
				Totals	0	0	0
						ETWU Total	19645
						Maximum Allowed Water Allowance (MAWA)[e]	23203

Landscape Concept

0 20 60 Feet

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May 17, 2021
2011

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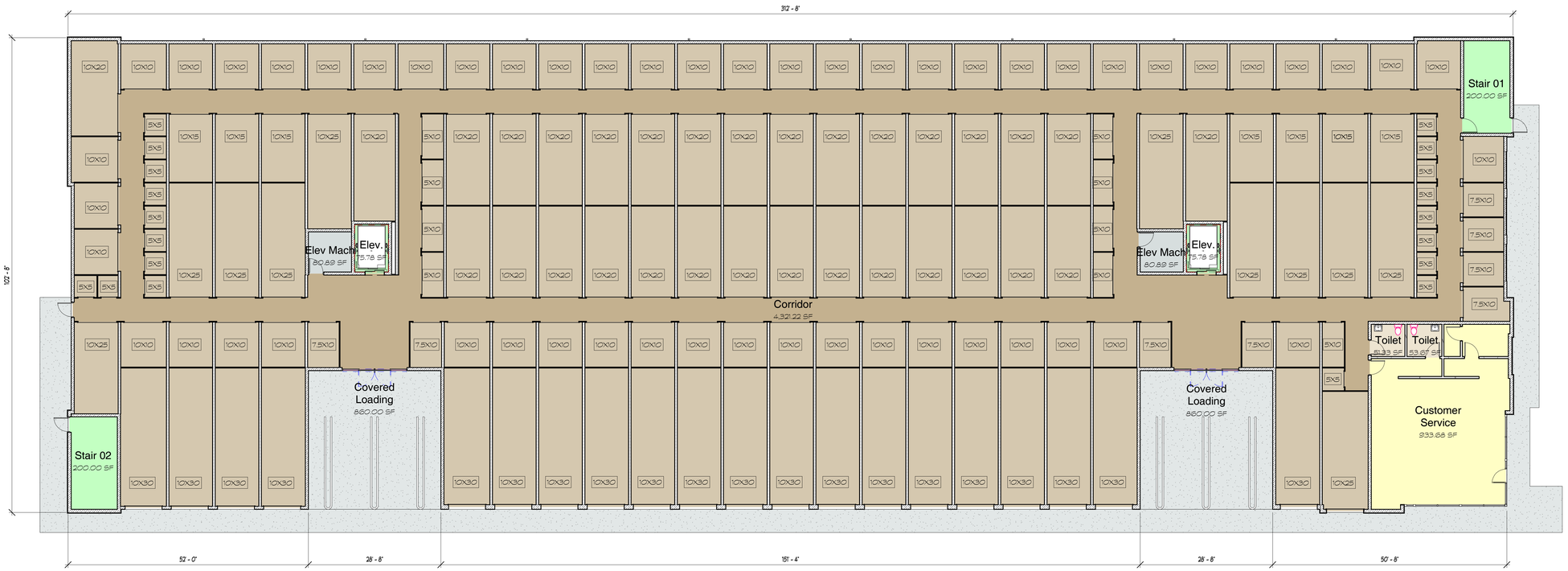
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LC-1



Key to Building Spaces

- 5X5
- 5X10
- 7.5X10
- 10X10
- 10X15
- 10X20
- 10X25
- 10X30
- Customer Service
- Corridor
- Covered Loading
- Elev Mach
- Elev.
- Stair 01
- Stair 02
- Toilet

Ground Floor Plan

0 10.66 32 Feet

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Planning Submittal - June 01, 2021
02.1

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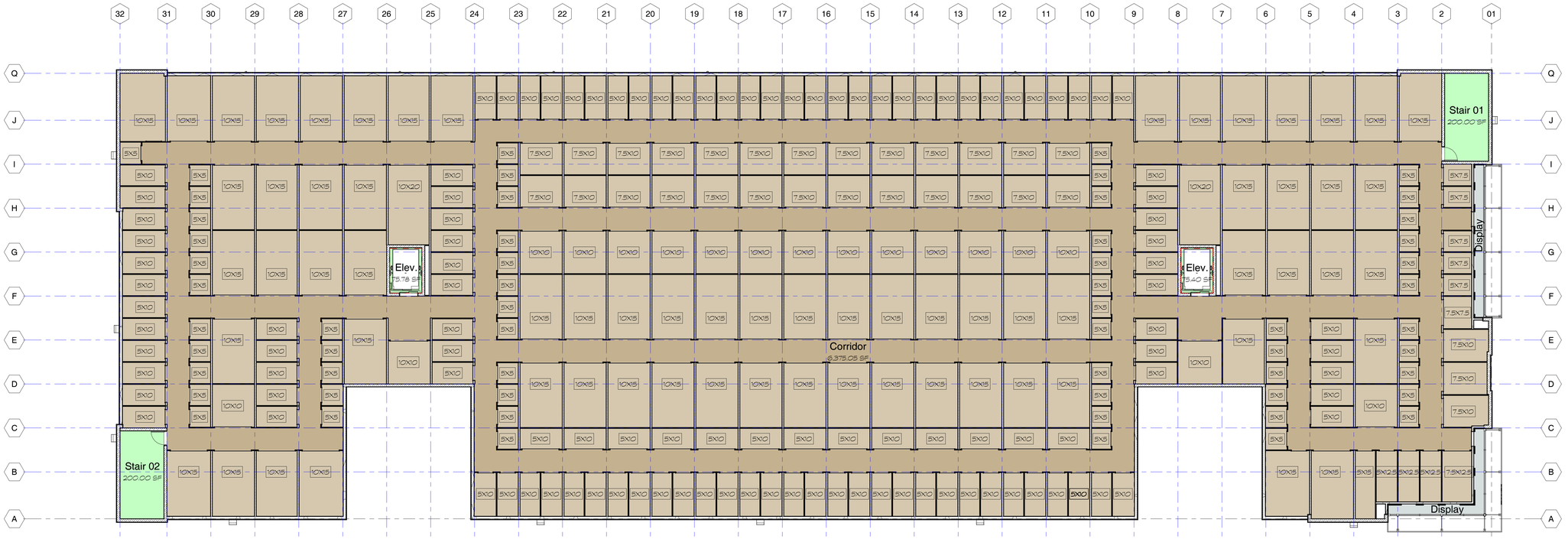
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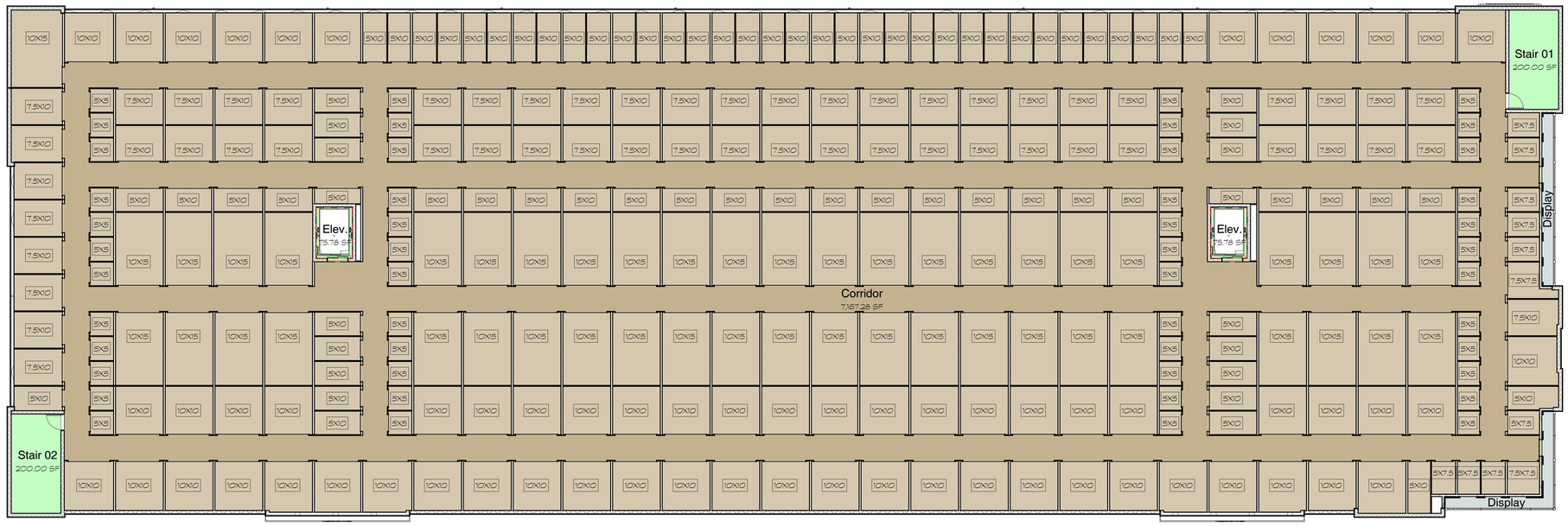
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A-2.1



Second Floor Plan



Third Floor Plan

Key to Building Spaces

- 5X5
- 5X7.5
- 5X10
- 7.5X7.5
- 7.5X10
- 10X10
- 10X15
- Corridor
- Display
- Elev.
- Stair 01
- Stair 02

Second & Third Floor Plans

0 10.66 32 Feet

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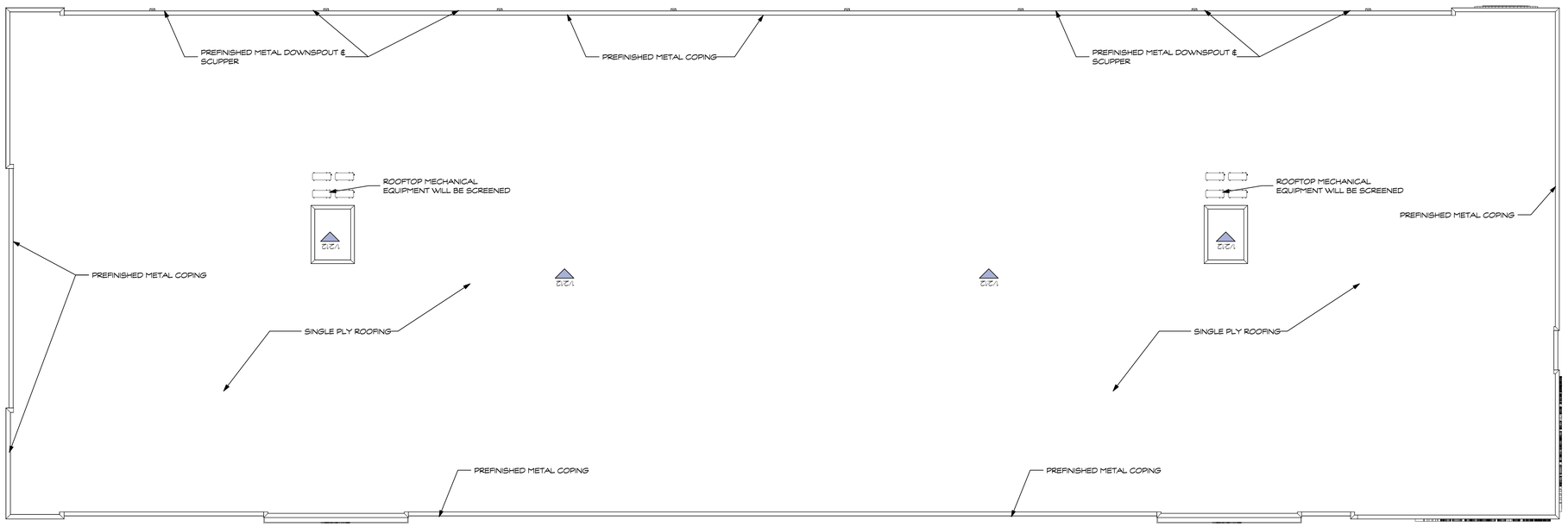
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A-2.2



Roof Plan

Roof Plan

0 10.66 32 Feet

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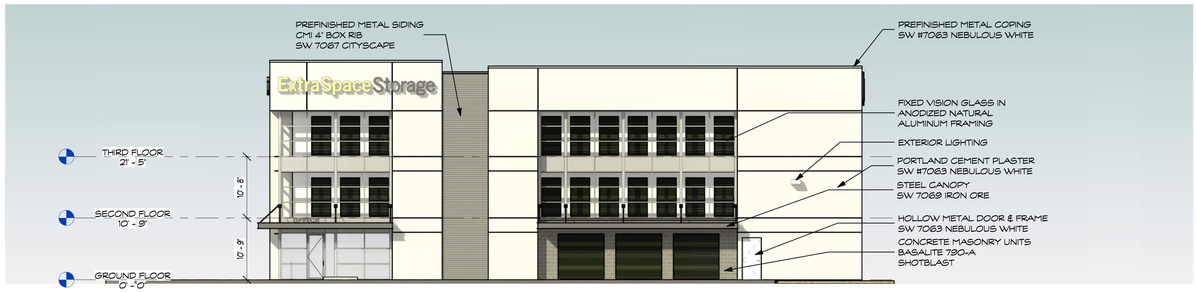
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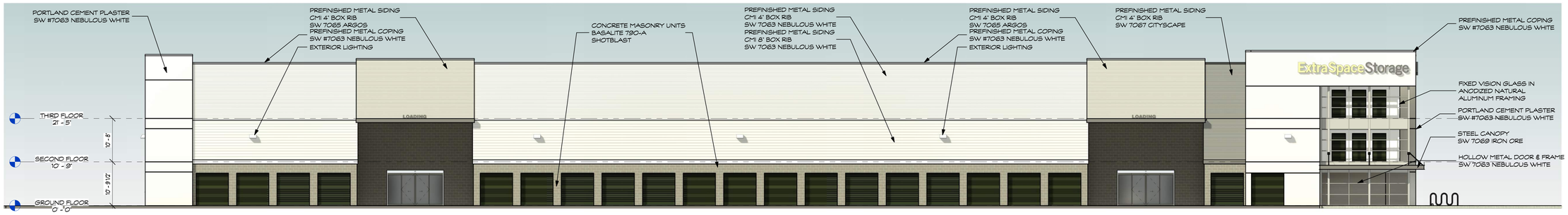
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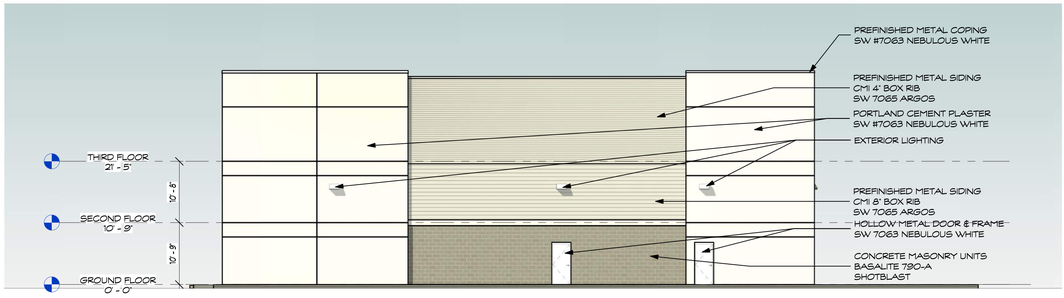
A-2.3



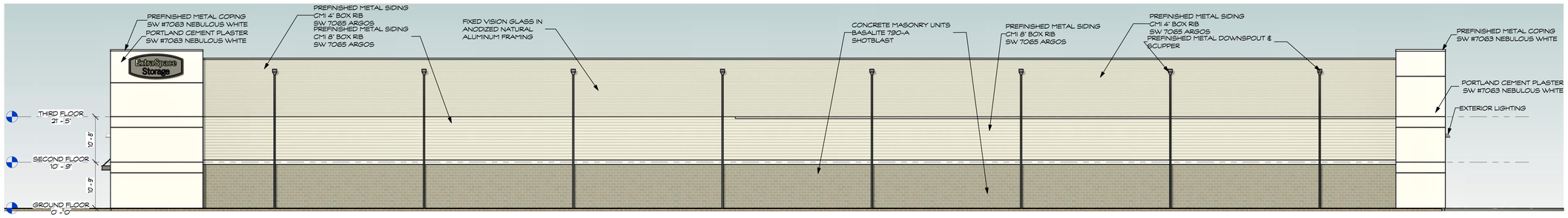
North Elevation (San Pablo Dam Road)



East Elevation



South Elevation



West Elevation

Exterior Elevations

0 10.66 32 Feet

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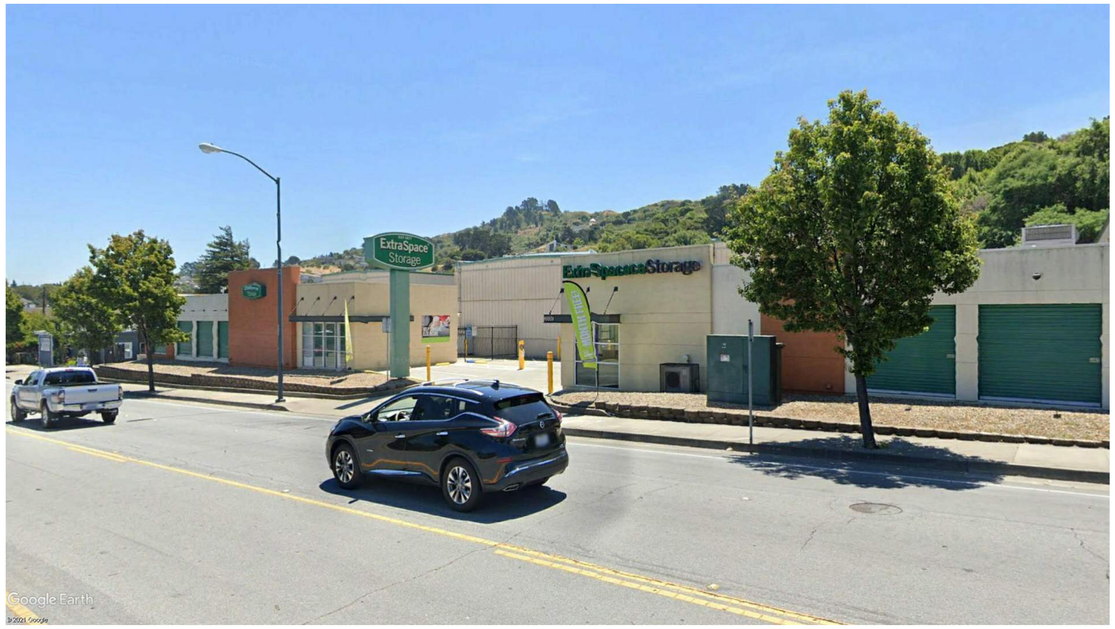
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A-3.1



From San Pablo Dam Road Looking Northeast
Photo Taken: July, 2019



From San Pablo Dam Road Looking Southwest
Photo Taken: July, 2019



From San Pablo Dam Road Looking Northeast
Photo Taken: July, 2019



From San Pablo Dam Road Looking Southwest
Photo Taken: July, 2019

Existing Site Photos

Planning Submittal - June 01, 2021
2011

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From San Pablo Dam Road Looking Northeast
Photo Taken: July, 2019



From San Pablo Dam Road Looking Southwest
Photo Taken: July, 2019



From San Pablo Dam Road Looking Southwest
Photo Taken: July, 2019



From San Pablo Dam Road Looking Southwest
Photo Taken: July, 2019

Existing Site Photos

Taken May, 2019

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From San Pablo Dam Road Looking Southwest



From San Pablo Dam Road Looking Northeast

Proposed Project Views

Planning Submittal - June 01, 2021
2011

An Expansion of a Self-Storage Facility for:

Extra Space Storage

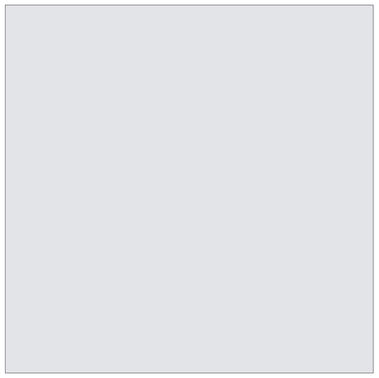
3516 San Pablo Dam Road
San Pablo, CA 94803

James Goodman ARCHITECTURE
An Architectural Corporation • Member American Institute of Architects
www.jgaia.com information@jgaia.com 949.493.0740

John Bennett - Extra Space Storage
Kier & Wright - Civil Engineering
Emerald Design - Landscape Architecture



Aluminum Picket Fencing
Sherwin Williams 6258 Tricorn Black



Portland Cement Plaster
Sherwin Williams 7063 Nebulous White



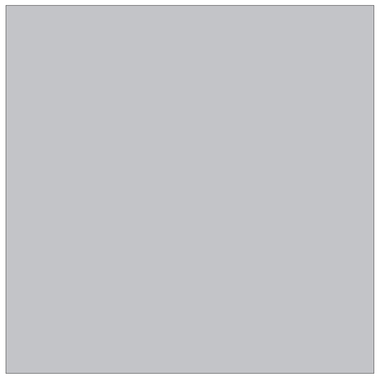
Masonry Walls
Basalite 790-A Shotblast



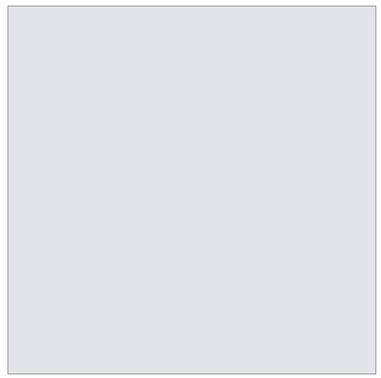
Prefinished 4" Box Rib Metal Siding
Sherwin Williams 7067 Cityscape



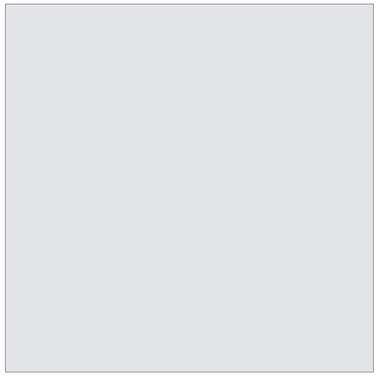
Prefinshed Steel Canopy
Sherwin Williams 7069 Iron Ore



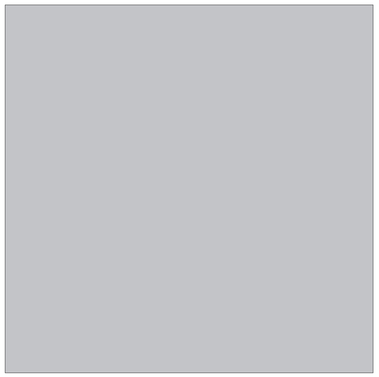
Prefinshed 4" Box Rib Metal Siding
Sherwin Williams 7065 Argos



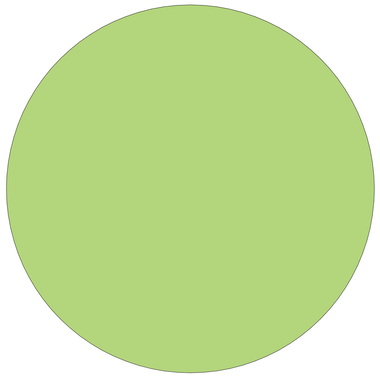
Prefinshed 8" Box Rib Metal Siding
Sherwin Williams 7063 Nebulous White



Prefinshed Metal Doors & Coping
Sherwin Williams 7063 Nebulous White



Prefinshed Metal Window Trim & Band
Sherwin Williams 7065 Argos



Janus Prefinished Roll-Up Doors
EXR Wasabi Green



Aluminum Storefront
Anodized Natural Aluminum

Exterior Colors & Materials

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ExtraSpace Storage

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John Bennett - Extra Space Storage
Kier & Wright - Civil Engineering
Emerald Design - Landscape Architecture

The Orin Group, LLC.

10 Northwest Avenue, Suite 200, Tallmadge, OH 44278
Phone 330-630-3937 Fax 866-486-2388, www.theoringroup.com

ALTA/ACSM Land Title Survey

FOR
ES-ORIN PROJECT
PENTAGON PORTFOLIO
3516 SAN PABLO DAM ROAD, SAN PABLO, CA

TO: EXTRA SPACE STORAGE LLC; CHICAGO TITLE INSURANCE COMPANY; AND THE ORIN GROUP, LLC

I HEREBY CERTIFY THAT ON THE 29TH DAY OF NOVEMBER, 2006:

(I) THIS SURVEY WAS MADE ON THE GROUND AND CORRECTLY SHOWS THE PHYSICAL STATUS OF THE PROPERTY, INCLUDING (I) THE BOUNDARIES AND AREAS OF THE PROPERTY AND THE LOCATION OF BUILDINGS AND IMPROVEMENTS THEREOF (IF ANY) AND THE DISTANCE THEREFROM TO THE NEAREST FACING EXTERIOR PROPERTY LINES OF THE SUBJECT PROPERTY (II) THE LOCATION OF ALL RIGHTS-OF-WAY, EASEMENTS AND ANY OTHER MATTERS OF RECORD, DESCRIBED ON THE SCHEDULE B-II TO THE POLICY OF TITLE INSURANCE (NO. 06-39109932-A-CR) ISSUED BY CHICAGO TITLE INSURANCE COMPANY, OR WHICH ARE VISIBLE ON THE GROUND AFFECTING THE PROPERTY; (III) THE LOCATION OF ALL VISIBLE UTILITY LINES SERVING THE PROPERTY; (IV) THE LOCATION OF ANY EXTERIOR PARKING AREAS ON THE PROPERTY, WHICH CONTAINS REGULAR PARKING SPACES AND HANDICAP PARKING SPACES; AND (V) ALL ABUTTING DEDICATED PUBLIC STREETS PROVIDING ACCESS TO THE PROPERTY TOGETHER WITH THE WIDTH AND NAME THEREOF;

(II) EXCEPT AS SHOWN ON THE SURVEY, THERE ARE NO (I) ENCROACHMENTS UPON THE PROPERTY BY IMPROVEMENTS ON ADJACENT PROPERTY, (II) ENCROACHMENTS ON ADJACENT PROPERTY, STREETS OR ALLEYS BY ANY IMPROVEMENTS ON THE PROPERTY, (III) PARTY WALLS, OR (IV) OTHER OVERLAPS, CONFLICTS OR PROTRUSIONS;

(III) ADEQUATE INGRESS TO AND EGRESS FROM THE PROPERTY IS PROVIDED BY SAN PABLO DAM ROAD, THE SAME BEING PAVED, DEDICATED PUBLIC RIGHT-OF-WAY;

(IV) ALL REQUIRED BUILDING SET BACK LINES ON THE PROPERTY ARE LOCATED AS SHOWN HEREON;

(V) ALL ZONING, USE AND DENSITY CLASSIFICATIONS AFFECTING THE PROPERTY ARE CORRECTLY SHOWN HEREON;

(VI) NO PART OF THE PROPERTY LIES WITHIN ANY DESIGNATED SPECIAL FLOOD HAZARD AREA AS SHOWN ON THE MOST RECENT FLOOD HAZARD BOUNDARY MAPS PREPARED BY THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT OR AS DESIGNATED BY EITHER THE FEDERAL EMERGENCY MANAGEMENT ADMINISTRATION OR THE FLOOD INSURANCE ADMINISTRATION OR A STATEMENT INDICATING THE FLOOD ZONE CLASSIFICATION AND MAP REFERENCE; AND

(VII) THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005, AND INCLUDES ITEMS 2, 3, 4, 5, 6, 7A, 7B1, 7C, 8, 9, 10, 11A, 13, 14, 16, 17, AND 18 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN;

(VIII) A CALCULATION OF LAND AREA, EXPRESSED IN SQUARE FEET AND ACREAGE, AS CALCULATED BY SURVEYOR. SURVEYOR SHALL NOTE ANY DISCREPANCY OF HIS CALCULATION AND THAT IN A CLIENT PROVIDED LEGAL DESCRIPTION.

DIRK C. SLOOTEN
REGISTERED LAND SURVEYOR NO. LS5342
IN THE STATE OF CALIFORNIA
DATE OF SURVEY 11-29-2006
DATE OF FIRST REVISION 01-18-2007
DATE OF LAST REVISION 01-24-2007
REF: 20060290-013 PART 2

Legal Description

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN PABLO, COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PORTION OF LOT 17, MAP OF NORTH RICHMOND, FILED APRIL 6, 1908, IN MAP BOOK 1, PAGE 18, CONTRA COSTA COUNTY RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING ON THE SOUTHERLY LINE OF ROAD NO. 7, AT THE NORTHEAST CORNER OF LOT 17, THENCE FROM SAID POINT OF BEGINNING, SOUTH 76°50 WEST, ALONG THE SOUTHERLY LINE OF ROAD 7, 217.80 FEET; THENCE SOUTH 13°10' EAST, 600 FEET TO THE SOUTHERLY LINE OF SAID LOT 17, DISTANT THEREON SOUTH 76°50' WEST, 217.80 FEET FROM THE SOUTHEAST CORNER OF SAID LOT; THENCE NORTH [SOUTH - PROBABLE TYPO] 76°50' EAST, ALONG SAID LINE, 217.80 FEET TO THE SOUTHEAST CORNER OF SAID LOT 17; THENCE NORTH 13°10' WEST, ALONG THE EAST LINE OF SAID LOT 17, 600 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:
1- THE INTEREST CONVEYED TO CONTRA COSTA COUNTY BY DEED RECORDED SEPTEMBER 14, 1955, BOOK 2609, OFFICIAL RECORDS, PAGE 441.

2- THAT PORTION THEREOF DESCRIBED IN THE DEED TO DAVID W. EDMUNDS, ET UX , RECORDED SEPTEMBER 14, 1960, BOOK 3702, PAGE 43, OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

PORTION OF LOT 17, MAP OF NORTH RICHMOND, FILED IN APRIL 6, 1908, MAP BOOK 1, PAGE 18 CONTRA COSTA COUNTY RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING ON THE SOUTH LINE OF ROAD NO. 7, AS DESIGNATED ON SAID MAP, AT THE WEST LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED FROM JOSEPH S. DAVIS, ET UX, TO LOUIS A. FILLICE, RECORDED JANUARY 9, 1953, IN VOLUME 2053 OF OFFICIAL RECORDS, AT PAGE 390; THENCE FROM SAID POINT OF BEGINNING, NORTH 76°50' EAST, ALONG SAID SOUTH LINE, 80 FEET; THENCE SOUTH 13°10' EAST, 600 FEET TO THE SOUTH LINE OF SAID LOT 17, DISTANCE THEREON NORTH 76°50' EAST, 80 FEET FROM THE WEST LINE OF FILLICE PARCEL (2053 OR 390); THENCE SOUTH 76°50' WEST, ALONG SAID SOUTH LINE 80 FEET TO THE WEST LINE OF SAID FILLICE PARCEL (2053 OR 390) ; THENCE NORTH 13°10' WEST, ALONG SAID WEST LINE, 600 FEET TO THE POINT OF BEGINNING.

APN: 420-130-008

THE PROPERTY HEREON DESCRIBED IS THE SAME AS THE PROPERTY AS DESCRIBED IN THE PRELIMINARY TITLE REPORT ISSUED BY CHICAGO TITLE COMPANY, TITLE NO. 06-39109932-A-CR, DATED DECEMBER 29 2006 AT 5:00 P.M.

Legend of Symbols & Abbreviations

AC	ASPHALT	PIV	POST INDICATOR VALVE
APN	ASSESSOR PARCEL NUMBER	PLTR	PLANTER
BFP	BACK FLOW PREVENTOR	PP	POWER POLE
	BOLLARD	PL	PROPERTY LINE
BLDG	BUILDING	SQ. FT.	SQUARE FEET
BSL	BUILDING SETBACK LINE	SL	STREET LIGHT
CB	CATCH BASIN	SLB	STREET LIGHT BOX
	CENTERLINE	SDMH	STORM DRAIN MANHOLE
CONC	CONCRETE	SSCO	SANITARY SEWER CLEANOUT
CP	CONCRETE PAD	SSMH	SANITARY SEWER MANHOLE
DCV	DOUBLE CHECK VALVE	TEL	TELEPHONE
DWY	DRIVEWAY	TIE	DISTANCE FROM BUILDING TO ℄
EB	ELECTRICAL BOX	TRANS	TRANSFORMER
EC	ELECTRICAL CABINET	TSB	TRAFFIC SIGNAL BOX
EV	ELECTRICAL VAULT	VT	VAULT
FC	FACE OF CURB	WM	WATER METER
F	FIRE DEPARTMENT CONNECTION	WV	WATER VALVE
FH	FIRE HYDRANT	YL	YARD LIGHT
GM	GAS METER	Ⓐ	DENOTES ENCROACHMENTS
KP	KEY PAD	①	CORRESPONDS TO SCHEDULE B
MH	MANHOLE		
MSU	MOBILE STORAGE UNIT		

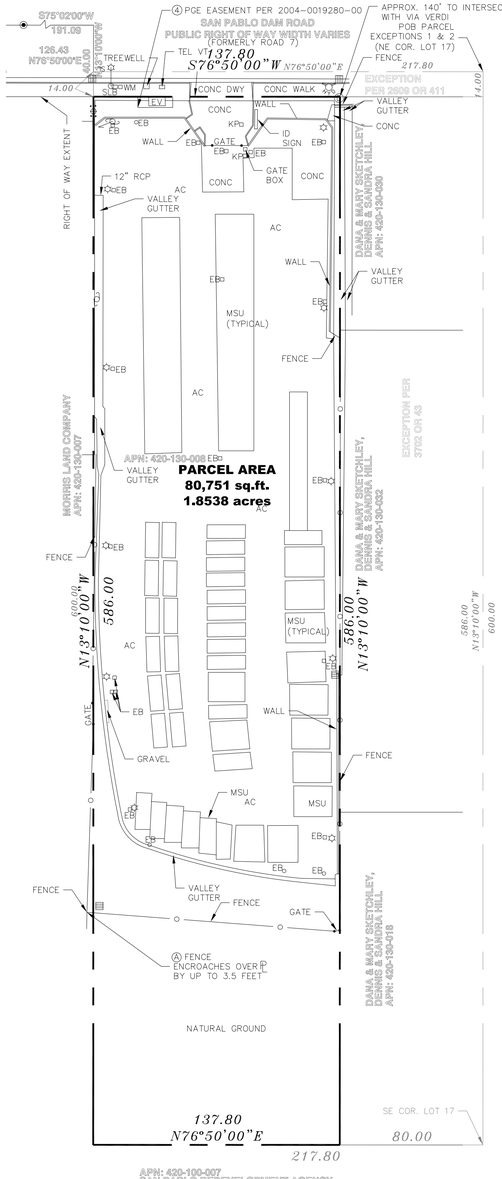
Encroachment Statement

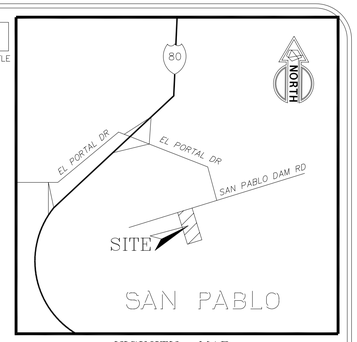
* THIS IS A LISTING OF OBSERVED IMPROVEMENTS THAT CROSS PROPERTY LINES, STATEMENT OF OWNERSHIP OR POSSESSION IS NOT THE INTENT OF THIS LISTING.
Ⓐ FENCE ENCROACHES OVER ℄ APPROXIMATELY 3.5 FEET

Notes Corresponding to Schedule B

TITLE ITEMS PER SCHEDULE "B" OF THE PRELIMINARY TITLE REPORT ISSUED BY CHICAGO TITLE COMPANY ORDER NO. 06-39109932-A-CR DATED DECEMBER 29, 2006 AT 5:00 PM

④ PG&E EASEMENT PER INST. NO. 2004-19280 (PLOTTED, AFFECTS SUBJECT PARCEL)





VICINITY MAP
NOT TO SCALE

General Notes

OBSERVED NO DISCERNIBLE EVIDENCE OF BUILDING ADDRESSES ON SUBJECT PROPERTY.

OBSERVED NO DISCERNIBLE EVIDENCE OF SITE BEING USED AS A CEMETERY OR BURIAL GROUND.

OBSERVED NO DISCERNIBLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS

OBSERVED NO DISCERNIBLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIR.

OBSERVED NO DISCERNIBLE EVIDENCE OF SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

THE EXISTENCE AND LOCATION OF ALL UTILITIES, PIPES, POLES, AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY OBSERVED EVIDENCE ONLY. THE POINT OF ENTRY ON SAID UTILITIES CANNOT BE DETERMINED. NO UTILITY PLANS WERE PROVIDED BY THE CLIENT.

ALL FIELD MEASUREMENTS MATCHED RECORD DIMENSIONS WITHIN THE PRECISION REQUIREMENTS OF ALTA/ACSM SPECIFICATIONS UNLESS OTHERWISE SHOWN.

THIS SURVEY HAS BEEN PREPARED FOR TITLE INSURANCE PURPOSES ONLY. THIS SURVEY MAY NOT CONTAIN SUFFICIENT DETAIL FOR DESIGN PURPOSES. THE BOUNDARY DATA AND TITLE MATTERS AS SHOWN HEREON HAVE BEEN DEVELOPED FROM THE REFERENCED TITLE REPORT.

UNLESS THIS PLAN HAS THE SEAL AND SIGNATURE OF THE SURVEYOR AND/OR ENGINEER RESPONSIBLE FOR ITS PREPARATION, THIS IS NOT AN AUTHENTIC COPY OF THE ORIGINAL SURVEY AND SHALL NOT BE DEEMED RELIABLE.

SURVEY PERFORMED BY:

SLOOTEN CONSULTING INC.
SURVEYING & ENGINEERING
E-MAIL: OFFICE@SLOOTEN.COM
4740 NORTHGATE BLVD., SUITE 115 (916)641-7570
SACRAMENTO, CA 95834 (FAX)641-7572

PARKING SUMMARY
REGULAR PARKING SPACE: 0
HANDICAPPED PARKING SPACES: 0

BASIS OF BEARINGS
THE SOUTHERLY RIGHT OF WAY LINE OF SAN PABLO DAM ROAD, N75°02'00"E, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN BOOK 19 OF PARCEL MAPS, PAGE 13, RECORDS OF CONTRA COSTA COUNTY WAS USED AS THE BASIS OF BEARINGS.

FLOOD NOTE: By graphic plotting only, this property is in Zone(s) C of the Flood Insurance Rate Map,Community Panel No. 060036-0001-E which bears an effective date of 04/16/2004 and is not in a Special Flood Hazard Area.

GRAPHIC SCALE

40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

ZONING INFORMATION
THE ZONING INFORMATION WAS PROVIDED BY
THE CITY OF SAN PABLO PLANNING DEPARTMENT
13831 SAN PABLO AVE
SAN PABLO, CA 94806
TEL: (510) 215-3030
WWW.CI.SAN-PABLO.CA.US

ZONE C-1, LIGHT COMMERCIAL
SETBACKS
FRONT 0'
SIDE 0', 10' IF ADJ TO RESIDENTIAL ZONE
REAR 0', 10' IF ADJ TO RESIDENTIAL ZONE
HEIGHT 40'
FAR: OFFICE: 0.75, NON-OFFICE 0.4
PARKING STORAGE-PERSONAL: 1/1,000 SQ. FT. + 1/EMPLOYEE

*ZONING AND RESTRICTIONS SHOWN HEREON WERE OBTAINED BY A GENERAL REQUEST AT THE PUBLIC COUNTER OF THE ABOVE NAMED DEPARTMENT. NO REPRESENTATION IS MADE FOR THE ACCURACY OR COMPLETENESS OF SAID THIRD PARTY INFORMATION. THIS FIRM IS NOT AN EXPERT IN THE INTERPRETATION OF COMPLEX ZONING ORDINANCES, COMPLIANCE IS BEYOND THE SCOPE OF THIS SURVEY. ANY USER OF SAID INFORMATION IS URGED TO CONTACT THE LOCAL AGENCY DIRECTLY.

Z:\Land Projects 3\PROJ73\7327-01\dwg\7327-01 ALTA.dwg, 20060240-013 part 2, 1/24/2007 8:47:05 AM

EXTRA SPACE STORAGE
3516 SAN PABLO DAM ROAD
BRIEF PROJECT DESCRIPTION

Extra Space of San Pablo LLC (DBA Extra Space Storage) proposes an expansion of its existing personal storage facility located at 3516 San Pablo Dam Road, an approximately 80,751 square-foot lot ("Project Site"). In connection with the proposed expansion, Extra Space Storage will demolish all existing improvements and construct a new three-story personal storage building and related site improvements.

The Project Site has a zoning designation of CMU – Commercial Mixed-Use District and approximately 137 feet of frontage along San Pablo Dam Road and depth of approximately 586 feet. Extra Space Storage proposes the construction of a new three-story, approximately 91,560 square-foot (gross) self-storage building, 19 off-street vehicle parking spaces and two bicycle parking spaces. Vehicular access will be from two new driveways along San Pablo Dam Road—one two-way driveway at the northeast side of the Project Site and one one-way (egress) driveway at the northwest side. Eight vehicle parking spaces and all bicycle parking spaces will be located at the front of the building while most of the remaining vehicle parking spaces will be located in the rear, accessible through a controlled-access gate. Four parking spaces are proposed within two covered loading areas located at the east side of the proposed building, on the ground floor.

At the northeast corner of the building on the ground floor will be a retail space and customer service office with pedestrian access directly from San Pablo Dam Road. The space will offer for retail sale moving and packaging supplies and will serve as the management office for the property.

Landscaping is proposed along most of the westerly boundary of the Project Site, along portions of the San Pablo Dam Road frontage that are not utilized for curb cuts and, along the northeast side of the Project Site.

We expect the hours of operation for the controlled-access gate to be 6:00 a.m. to 10:00 p.m., seven days a week and the hours of operation for the retail space and customer service office to be:
Monday through Friday: 9:30 a.m. to 6:00 p.m.
Saturday: 9:00 a.m. to 5:30 p.m.
Sunday: Closed.

Our initial assessment is that required discretionary approvals will include a Conditional Use Permit to allow the expansion of a nonconforming use, Major Design Review and a Use Permit for relief from the minimum off-street parking requirements—and, the appropriate CEQA clearance.

Appendix TRA

Traffic Analysis Report

September 20, 2021

Ms. Leslie Trejo
Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, CA 94612

Transportation Analysis for the Extra Space Storage Development at 3516 San Pablo Dam Road in San Pablo

Dear Ms. Trejo;

As requested, W-Trans has prepared a transportation analysis for the proposed modifications to the existing Extra Space Storage development at 3516 San Pablo Dam Road in San Pablo, CA. The purpose of this letter is to document the trip generation potential and preliminary Vehicle Miles Traveled assessment for the proposed development.

Project Description

The project as proposed includes the demolition of the existing 21,530 square foot personal storage facility and the construction of a new 91,560 square foot personal storage facility comprised of approximately 757 storage units and a 1,200 square foot retail space within one three-story structure. The personal storage facility would be served by 19 off-street parking spaces and two bicycle parking spaces. The project site is located at the existing Extra Space Storage facility adjacent to the Plaza Sobrante Shopping Center to the east and the Falcon Critical Care Transport service to the west.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017. A review of available land use descriptions contained in the ITE manual identified the rates most closely aligned with the existing and proposed uses would be "Mini-Warehouse" (ITE LU 151) and "Shopping Center" (ITE LU 820). The standard rates for "Mini-Warehouse" includes all vehicle trips related to the operation of a personal storage facility for the maintenance, office operations and other services. The project is not anticipated to generate any internal capture trip, pass-by trip credits or trip reductions resulting from nearby land use or transportation options.

The expected trip generation potential for the proposed project is indicated in Table 1. The proposed project is expected to generate an average of 150 net-new trips per day, including eight trips during the a.m. peak hour and 17 trips during the p.m. peak hour; these new trips represent the increase in traffic associated with the project.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing											
Mini-Warehouse	*-21.530 ksf*	*1.51*	*-33*	*0.1*	*-2*	*-1*	*-1*	*0.17*	*-4*	*-2*	*-2*
Proposed											
Mini-Warehouse	*91.560 ksf*	*1.51*	*138*	*0.10*	*9*	*5*	*4*	*0.17*	*16*	*7*	*9*
Retail	*1.200 ksf*	*37.75*	*45*	*0.94*	*1*	*1*	*0*	*3.81*	*5*	*2*	*3*
Total			**150**		**8**	**5**	**3**		**17**	**7**	**10**

Note: ksf = 1,000 square feet

Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied for determining environmental traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining potential environmental impacts. Because the City of San Pablo has not yet adopted a standard of significance for evaluating VMT, guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018, as well as recommendations provided by the Contra Costa Transportation Authority (CCTA) in the Technical Memorandum titled "*VMT Analysis Methodology for Land Use Projects in Contra Costa, GMTF Review Draft*", dated July 9, 2020 were used. Guidance provided in these documents suggests that development projects consisting of multiple land uses should evaluate each land use separately. This guidance also suggests that a personal storage facility may be considered local serving as the demand for personal storage services in the area are constant and the addition of a new personal storage site would redistribute existing personal storage-based trips within the City instead of creating new trips. For the purpose of this study, a quantitative approach was developed to evaluate the potential change in project-related VMT for the personal storage land use. This method is summarized in these following steps.

1. Determine the average personal storage trip length in the immediate area by measuring the distance between existing personal storage facilities and a common point near the geographic center of San Pablo (in this case City Hall was used as the common point and geographic center of the City).

2. Measure the trip length from the project site to the common point (San Pablo City Hall).

3. If the project trip length is less than the average personal storage trip length for existing personal storage facilities, then the project may be presumed to reduce the average distance traveled for this type of use and is considered to have a less-than-significant VMT impact.

There are currently nine similar personal storage facilities in the study area vicinity within a three-mile radius of San Pablo City Hall (excluding the existing facility at the project site). The average distance between these facilities and the San Pablo City Hall is 1.9 miles. It is noted that the planned and not yet constructed facility at 2600 Moraga Road is included as part of this calculation. The distance between the project site and City Hall is 1.6 miles. Therefore, the project is presumed to have a less-than-significant VMT impact because the length of travel from the common reference point to the project site is less than the average distance to other existing similar personal storage facilities. A list of existing personal storage facilities in San Pablo along with the corresponding distances between each location and the San Pablo City Hall are provided in Table 2. A map illustrating the locations of each facility relative to the project site and the geographic common point (San Pablo City Hall) is included in the enclosure.

Table 2 – Vehicle Miles Traveled (VMT) Estimate			
Site No.	**Name**	**Address, City**	**Distance to City Hall (Miles)**
1.	Public Storage	398 Carlson Blvd, Richmond	2.9
2.	Budget Self Storage	3445 Collins Ave, Richmond	2.1
3.	Security Public Storage	801 Madeline Rd, Richmond	2.9
4.	Extra Space Storage	4031 Lakeside Dr, Richmond	2.7
5.	Public Storage	3255 San Pablo Dam Rd, San Pablo	1.4
6.	Security Public Storage	3415 San Pablo Dam Rd, San Pablo	1.7
7.	Public Storage	14820 San Pablo Ave, San Pablo	1.1
8.	San Pablo Mini Storage	5310 Riverside Ave, San Pablo	0.9
9.	Planned Facility	2600 Moraga Road, San Pablo	1.3
Average (All sites within 3 miles of City Hall)			**1.9**
	Project	3516 San Pablo Dam Road, San Pablo	1.6

OPR guidance recommends the use of screening thresholds to quickly identify when a retail project should be expected to cause a less-than-significant impact without conducting a detailed study. The guidance states that projects consisting of 50,000 square feet (or less) of retail space can be considered local-serving and presumed to have a less-than-significant transportation impact on VMT since these kinds of land uses tend to shorten trips and reduce VMT as adding retail opportunities would improve retail destination proximity. Therefore, the retail component of this project would satisfy the screening criteria since it consists of considerably less than 50,000 square feet of retail. The City of San Pablo, as the lead agency, may at their discretion choose to identify this project as having a less-than-significant impact based on these factors and the recommended guidance from the OPR.

Conclusions and Recommendations

- The proposed project is expected to generate an average of 150 net additional trips per day, including eight trips during the weekday a.m. peak hour and 17 during the p.m. peak hour.

- The proposed project would be presumed to have a less-than-significant transportation impact on vehicle miles traveled.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Kenneth Jeong, PE
Traffic Engineer

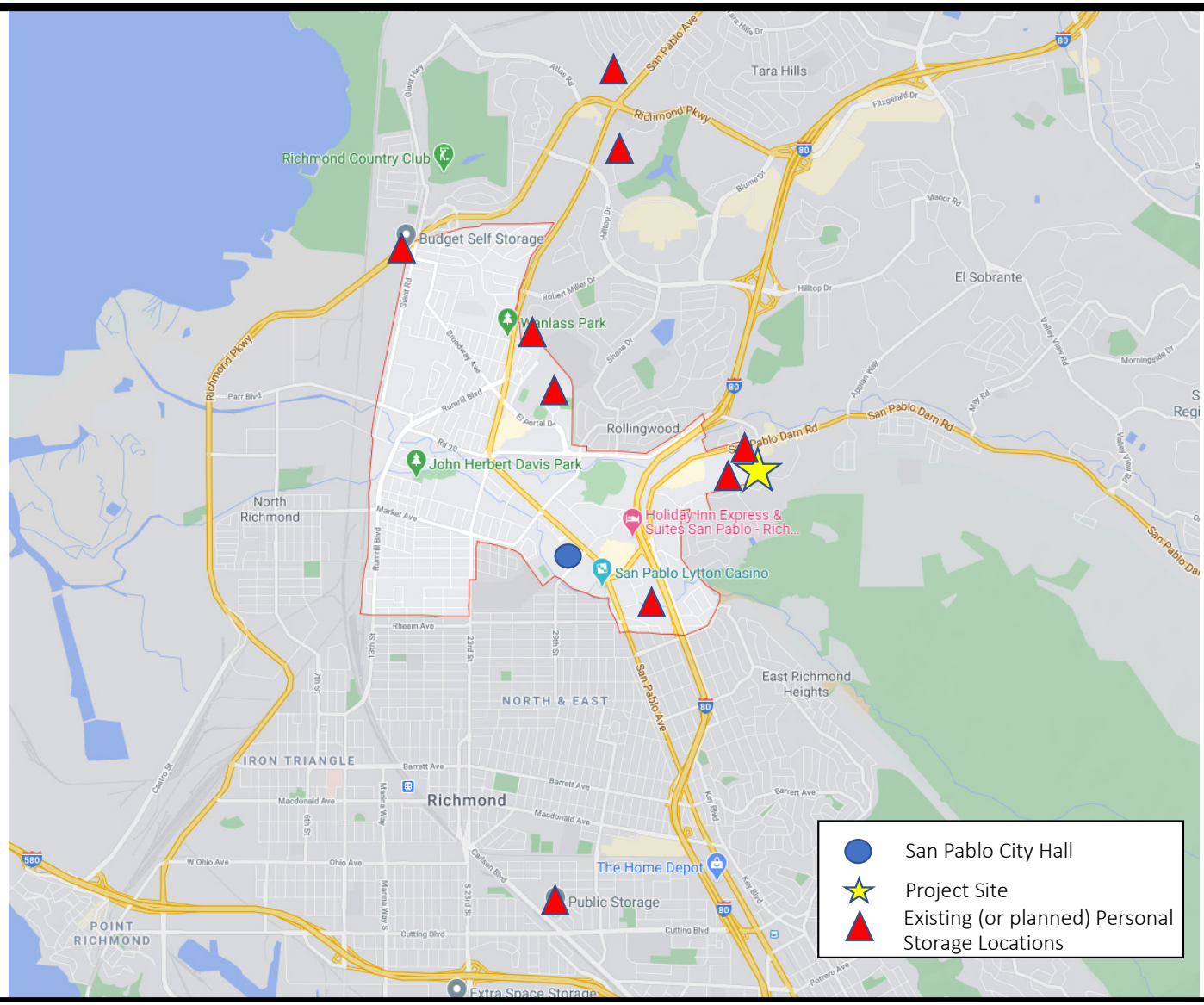


Mark Spencer, PE
Senior Principal

MES/kbj/SPA014.L1

Enclosures: Map of Existing Personal Storage Facilities

Personal Storage Locations within 3 miles of the San Pablo City Hall



NORTH