PUBLIC DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

FREEMAN STADIUM FACILITIES RENOVATION PROJECT
AT
CALIFORNIA STATE UNIVERSITY MONTEREY BAY

PREPARED BY:

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PREPARED FOR:

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Building 37
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July 2021

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A. BACKGROUND

1. **Project Title:** Freeman Stadium Facilities Renovation Project at California State University Monterey Bay

2. **Lead Agency:**

   The Board of Trustees of the California State University
   401 Golden Shore
   Long Beach, CA 90802

3. **Project Proponent Contact Information:**

   California State University Monterey Bay
   Facilities Management
   Marcel Forte, Associate Vice President for Facilities Management
   Building 37
   100 Campus Center
   Seaside, CA 93955
   mforte@csumb.edu, (831) 582-4796

4. **Project Location**: The proposed project would be located at 4113 2nd Avenue, Seaside, California, 93955, Assessor's Parcel Number (APN) 0311-0104-4000, on the California State University Monterey Bay (CSUMB) campus in Monterey County. Regional and local access to the project site would be provided by State Highway (Hwy) 1, which is located approximately 0.6 miles west of the project site, and Lightfighter Drive. Existing event parking areas for the proposed project would be located off Divarty Street, accessed by either 2nd Avenue and/or General Jim Moore Boulevard.

5. **Project Description**: The proposed project consists of the renovation of the existing Freeman Stadium. The renovation would comply with national and international standards for hosting National Collegiate Athletic Association (NCAA) and United Soccer League (USL) soccer games. The project proposes improvements to the existing Field House, athletic track and field, seating, and parking, as well as installing a new scoreboard, ticket box, lighting, telecommunications and other utilities, concession stands, and entrance.

6. **Acreage of Project Site**: The project site is approximately 5.7 acres.

7. **Land Use Designations**: The 2007 CSUMB Master Plan designates the project site as Athletics and Recreation.

8. **Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1**: In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), notification letters were distributed on May 25, 2021, to the Ohlone Indian Tribe and Torres Martinez Desert Cahuilla Indians.

9. **Date Prepared**: July 2021

10. **Prepared By**: Denise Duffy & Associates, Inc.

CHAPTER 1 PROJECT DESCRIPTION

1.1 INTRODUCTION

This Initial Study (IS) has been prepared to evaluate the potential environmental effects associated with the implementation of the Freeman Stadium Facilities Renovation Project at California State University Monterey Bay (project or proposed project) located in the City of Seaside (Seaside), within Monterey County, California (County). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 et. seq., and the state CEQA Guidelines, California Code of Regulations (CCR) §15000 et. seq.

An Initial Study is an informational document prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines §15063, subd. (a)). If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by, or agreed to by, the applicant mitigate the potentially significant effects to a less-than-significant level, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared instead of an EIR (CEQA Guidelines §15070, subd. (b)). The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This Initial Study conforms to the content requirements under CEQA Guidelines §§ 15063, 15070, and 15071.

The Board of Trustees of the California State University (CSU BOT) is the lead agency for the proposed project pursuant to CEQA Guidelines §15050(a). Per California Education Code Section 66606, the CSU BOT is the governing body and owner of the California State University Monterey Bay (CSUMB or University) campus, and has the authority to certify the IS/MND and approve the proposed project. CSUMB will act as the point of contact for the CEQA process.

This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. This Initial Study will be circulated for agency and public review during a 30-day public review period pursuant to CEQA Guidelines §15073. During the public review period, comments concerning the analysis contained in the Draft IS/MND should be sent to: Marcel Forte, Building 37, 100 Campus Center, Seaside, California, 93955; or via email at mforte@csumb.edu. Comments received on the Initial Study will be reviewed and considered as part of the deliberative process in accordance with CEQA Guidelines §15074.

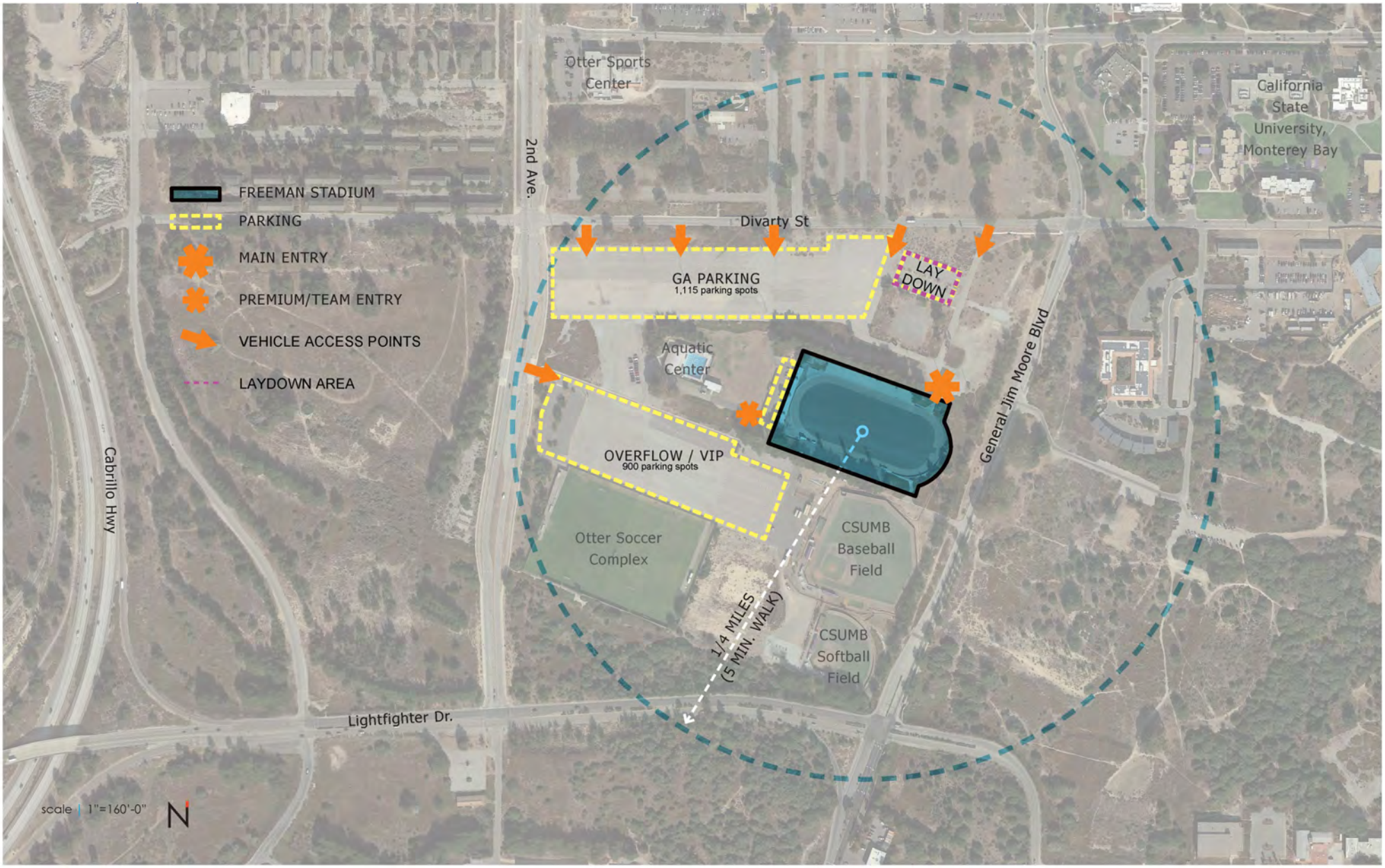
The following section is consistent with the requirements of CEQA Guidelines §15124 to the extent that it is applicable to the project. The following sections contain a detailed description of the project location, existing setting, project components and relevant project characteristics, and applicable regulatory requirements.

1.2 PROJECT LOCATION

The proposed project is located at 4113 2nd Avenue, Seaside, California, 93955, on the CSUMB campus in Monterey County (**Figure 1**). The proposed project site consists of the Freeman Stadium (approximately 5.7 acres) and associated parking areas located within APN 0311-0104-4000 (**Figure 2**). The 2007 CSUMB Master Plan (2007 Master Plan).

Title: Regional Map	Date 6/17/2021 Scale 1 in = 2,000 feet Project 2020-45	Monterey | San Jose **Denise Duffy and Associates, Inc.** Environmental Consultants Resource Planners 947 Cass Street, Suite 5 Monterey, CA 93940 (831) 373-4341	Figure 1

Path: D:\GIS\GIS_Projects\2020-45 CSUMB Facilities Agreement\Map Products\Fig 1 - Regional Map.mxd



Title: **Proposed Project Site**

Source: 2021 Google Imagery AMBAG

Date	5/25/2021
Scale	N/A
Project	2020-45

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Figure 2

Regional and local access to the project site is provided by State Hwy 1, which is located approximately 0.6 miles west of the project site, and Lightfighter Drive. Parking for the proposed project would be located off Divarty Street, accessed by 2nd Avenue and/or General Jim Moore Boulevard.

1.3 PROJECT DESCRIPTION

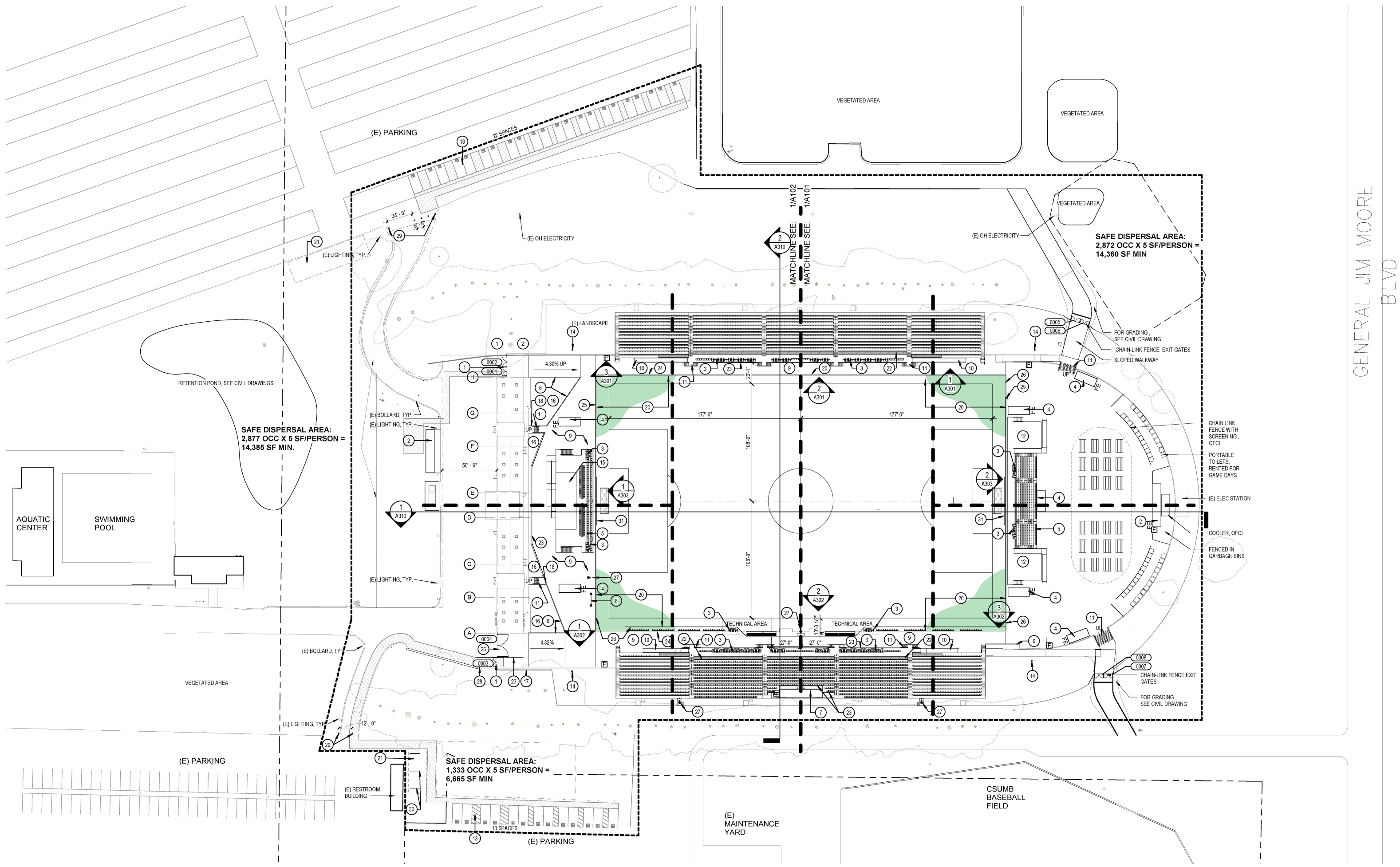
The Monterey Bay Football Club (MBFC) is proposing to renovate, utilize, and maintain the existing Freeman Stadium and Field House at CSUMB as a shared campus-USL facility under a 14-year facilities use agreement with the University. MBFC's intend to bring sports entertainment (soccer) to the Monterey Bay area. The proposed project would support CSUMB's educational efforts, including the overall success and well-being of CSUMB's student athletes. In addition, the project would support the mutual goal of the MBFC and campus to partner with communities across the greater Central Coast region in providing education, access, and opportunities for underserved youth through campus, clinics, scholarships, and academic and wellness programming.

The proposed project would involve the renovation of the existing and unused Freeman Stadium, which was constructed 70 years ago, at CSUMB to meet USL and NCAA requirements.[1] Historically, the Freeman Stadium was the home of the Fort Ord Warriors, a semi-professional football team comprising service members stationed at the former Fort Ord army base. The existing Field House is approximately 5,700 square feet (SF). Renovations to the existing Field House would require the demolition and disturbance of 2,000 SF of the facility's interior. Proposed improvements to the stadium facility would include renovations to the existing athletic track and field, stadium seating, east-end goal area, northeast entryway, and parking areas (**Figures 3** and **4**). Renovations would comply with the American Disabilities Act (ADA) and be designed to a minimum Leadership in Energy and Environmental Design (LEED) Silver equivalent. All project components will be consistent with the campus's 2007 Master Plan Guidelines and Environmental Impact Report Project Design Features.

The proposed stadium renovation would provide for:

- Hosting the USL team MBFC, consisting of:
    - Approximately 20 full-time MBFC staff using the Field House from 9:00 am-5:00 pm, Monday-Friday as office and training preparation space,
    - Approximately 10 months of training (practice) in the Field House and on the adjacent existing soccer fields, 4-5 days per week for 3-4 hours each day, with an estimated 32 players, coaches, and staff at each practice, and
    - Approximately 18 home matches per year, on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., staff, coaches, players) and 6,000 ticketed fan capacity.
- MBFC related camps and off-season activities (an anticipated six activities per year),
- Continued campus use with shared use of the Field House,
- New use of renovated playing field for academic courses and athletics programs when not in conflict with the MBFC schedule, and
- Campus-sponsored or invited community events, such as Spring Commencement, concerts, or other events.

1 Currently, only the field meets the NCAA criteria; the Field House design does not meet the NCAA criteria.



0' 20' 40' 80' 160'

SITE PLAN LEGEND

- OVERALL SCOPE OF WORK
- SAFE DISPERSAL AREA
- PERMANENTLY COVERED BLEACHER
- PROPERTY LINE
- F MANUAL PULL STATION

SHEET NOTES

1. STEEL ENTRY GATE
2. TEAM STORE - 8'X40'X8'-6" H CONTAINER
3. WHEELCHAIRS W/ COMPANION SEATS
4. CONCESSION - 8'X20'X8'-6" H CONTAINER
5. METAL BLEACHER WITH STAIRS AND RAMPS
6. CONCRETE CURB
7. PRESS BOX - 8'X40'X8'-6" H CONTAINER
8. SCOREBOARD
9. CONCRETE PAVEMENT
10. CONCRETE ACCESSIBLE RAMP
11. CONCRETE STAIR
12. METAL PARTY DECK
13. ACCESSIBLE PARKING SPACES
14. SPORTS LIGHTING
15. PAVILION TENT
16. BERM /LANDSCAPING
17. CHAIN-LINK FENCE
18. CONCRETE RETAINING WALL
19. SYNTHETIC TURF PLAYING FIELD
20. ADVERTISEMENT BANNER
21. BIKE AND E-SCOOTER PARKING
22. COVERED BLEACHERS
23. GUARDRAIL & HANDRAIL, GALVANIZED STEEL, PAINTED
24. TURFEDGE SLOT DRAIN
25. TURFEDGE CONCRETE CURB
26. FIRE LANE ACCESS GATE - MIN. 20'-0" WIDE
27. BROADCAST CAMERA LOCATION (NIC)
28. CONCRETE RETAINING WALL - SEE CIVIL DWGS
29. BOLLARD - SEE CIVIL DWGS
30. BIKE RACK, RELOCATED FORM FIELDHOUSE
31. SAFETY NET, SEE PF DRAWINGS

05-17 8:26:28 PM

GENERAL NOTES

1. FOR DETAILED INFORMATION, SEE SECTOR SHEETS A200A - A200F
2. FOR CODE ANALYSIS, SEE SHEET G002 AND G100
3. FOR ACCESSIBILITY INFORMATION, SEE SHEET G020
4. FOR FIRE APPARATUS ACCESS ROAD INFORMATION, SEE SHEET G021
5. FOR PHOTOMETRICS OF SAFE DISPERSAL AREAS, SEE ELECTRICAL DRAWINGS
6. FOR ELEVATIONS OF GRADES, SEE CIVIL DRAWINGS
7. FOR INFORMATION ON PLAYING FIELD, SEE PF DRAWINGS
8. METAL BLEACHERS AT GOAL SIDES, SCOREBOARD AND ALL CONTAINERS ARE DEFERRED SUBMITTALS, SEE ALSO G002
9. PORTABLE TOILETS ARE NOT IN SCOPE. TOILETS AND HANDWASH SINKS WILL BE LEASED AND PROVIDED ON GAME DAYS.
10. FOR SURFACE MATERIALS, SEE CIVIL DRAWINGS

Title: **Proposed Project Site Plan**

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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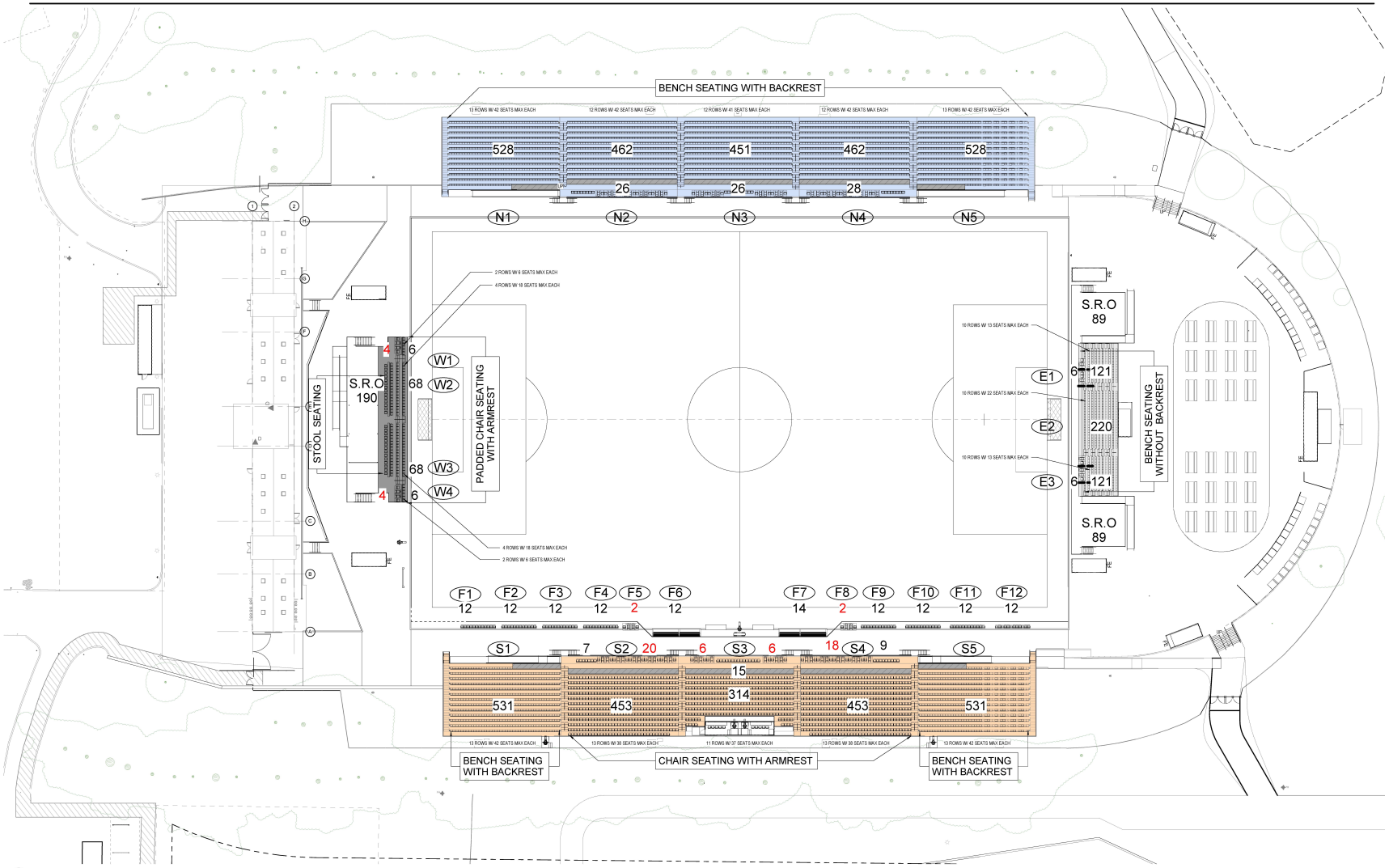
Figure 3



1 SEATING MANIFEST
3/64" = 1'-0"

SEATING SCHEDULE	
Seat Type	Count
EAST BLEACHER	
Riser Mount Bench - 15"	462
	462
ADA Position - 36" x 48"	6
ADA Companion Seats - 20"	6
	12
	474

FIELD SEATING	
Removable Seat - 20"	96
Player Seatings - 20"	26
	122
ADA Position - 36" x 48"	4
ADA Companion Seats - 20"	4
	8
	130

SEATING SCHEDULE	
Seat Type	Count
NORTH BLEACHER	
Riser Mount Bench - 18"	2431
Removable Seat - 20"	26
	2457
ADA Position - 36" x 48"	26
ADA Companion Seats - 20"	26
	52
	2509

SOUTH BLEACHER	
Tread Mount Chairback Seating - 20"	70
Riser Mount Chairback Seating - 20"	1150
Riser Mount Bench - 18"	1056
Removable Seat - 20"	31
	2307
ADA Position - 36" x 48"	25
ADA Companion Seats - 20"	25
	50
	2357

SEATING SCHEDULE	
Seat Type	Count
WEST BLEACHER	
Stool Seating	28
Riser Mount Chairback Seating - 20"	120
	148
ADA Position - 36" x 48"	4
ADA Companion Seats - 20"	4
	8
	156
Grand total: 5626	5626

LEGEND:

- FIELD SEATING
- NORTH BLEACHER
- SOUTH BLEACHER
- EAST BLEACHER
- WEST BLEACHER
- COVERED BLEACHER
- ACCESSIBLE WHEELCHAIR SPACES AND COMPANION SEATS
- SEMI-AMBULANT SEATS
- DESIGNATED SEATS

X — SEATING COUNT FOR ACCESSIBLE AND COMPANION SEATS
X — SEATING COUNT
ACCESSIBLE ROUTE
X — SEATING SECTION
S.R.O — STANDING ROOM ONLY

Title: # Proposed Seating Plan

Source: HOK, 2021

Date 4/23/2021
Scale N/A
Project 2020-45

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Figure 4

The proposed project would consist of the following improvements:

- interior renovation improvements to 2,000 SF of the existing 5,700 SF Field House building,
- installing 90,000 SF of synthetic turf atop the existing field,
- ADA-compliant pathways and ramps,
- upgrading approximately 5,626 stadium seats atop the existing concrete stands,
- approximately 7,600 SF of new metal structure bleacher seating at each end goal (approximately 622 new bleacher seats),
- a new 200 SF scoreboard,
- 3,000 SF of portable restroom facilities,
- 2,080 SF of shipping containers to house a new press box, new concession stands (including a 640-SF beer garden), a team store, and a ticket box office,
- replacing existing stadium light poles and installing new lighting,
- new lighted ADA-compliant walkways between the Field House/stadium and existing parking lots,
- stormwater and site drainage improvements,
- two new 8-inch potable water and wastewater pipelines (totaling approximately 800 linear feet),
- telecommunications improvements, and
- 145,000 SF of general site perimeter improvements along the main entry pathway and egress gates to the west and southeast of the Field House, including but not limited to:
    - minor improvements to the existing site fence,
    - hardscape improvements and minimal landscaping within the stadium footprint (most of the open space is either concrete or asphalt pathways or space for the food and store amenities, and turf for the child play area at the east end of the field), and
    - Accessible (ADA) striping within the existing parking lots
    - new permanent bike and scooter parking.

The following is a more detailed description of key proposed project elements.

OPERATION

As described above, the proposed stadium renovation would provide for the following operational activities:

- Hosting the USL team MBFC consisting of:
  - Approximately 20 full-time MBFC staff using the Field House from 9:00 am-5:00 pm, Monday-Friday as office and training preparation space,
  - Approximately 10 months of training (practice) in the Field House and on the adjacent existing soccer fields, 4-5 days per week for 3-4 hours each day, with an estimated 32 players, coaches, and staff at each practice, and
  - Approximately 18 home matches per year, on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., staff, coaches, players) and 6,000 ticketed fan capacity.
- MBFC related camps and off-season activities (approximately six activities per year),
- Continued campus use with shared use of the Field House,
- New use of renovated playing field for academic courses and athletics programs when not in conflict with the MBFC schedule, and
- Campus-sponsored or invited community events, such as Spring Commencement, concerts, or other events.

Use of the stadium would be shared between the MBFC and CSUMB. Advanced scheduling during the MBFC season (February – November) and special events would be determined in advance by CSUMB to accommodate MBFC games.

MBFC staff and professional players and CSUMB faculty, staff, and students would regularly use the Field House as the MBFC schedule permits. During the 300-day MBFC season (pre-season and season playoffs), the existing Field House would be in regular use by approximately 20 MBFC staff members working from 9:00 am-5:00 pm, Monday through Friday.

MBFC practices would be held at the adjacent existing soccer fields 4-5 days per week for approximately 3-4 hours/day, beginning around 10:00 am with an estimated 32 players, coaches, and staff at each practice.

MBFC would host approximately 18 home games per year. The games would be typically scheduled on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., ticket takers, concessions, security, parking, ushers, media, etc.), full-time home team personnel (32 staff, coaches, and players), full-time visiting team personnel (32 staff, coaches, and players), and 6,000 ticketed fan capacity. Average league attendance on non-playoff games is estimated to be 3,860 attendees (69 percent of its 6,000-spectator capacity).

CSUMB estimates its use of the renovated stadium to include 10 campus-coordinated events, ranging from Commencement to Convocation (considered a smaller event size) and concerts/community events (considered a larger event size), plus 30 small event attendance CSUMB Athletics games. Of the 10 campus-coordinated events, nine (9) are all existing campus activities and considered continued use. The single campus event (not yet existing) would consist of a campus/community event that would have a maximum total of 9,000 attendees (2,000 students, 500 staff/faculty, 6,500 community guests).

LIGHTING

The proposed project would require updated exterior lighting to align with the specifications and requirements of the NCAA and USL. Nighttime lighting is proposed for evening events, security, and safety during such events (i.e., games, concerts, etc.). All lighting will be Dark-Sky qualified, downward-facing and employ shades, utilize low glare, and low wattage bulbs, meet LEED lighting requirements, and employ other measures to protect surrounding land uses. The proposed project would install four new light poles to replace the existing light poles within the stadium (**Figure 5**). The lights operate approximately 25 hours per month (300 hours per year) and draw 118.44 KW and consume 2,960 Kwh/month. Each light pole would be 90 feet in height and have a light loss factor of 0.950, 646 Watts per luminaire and 18.1 Luminaries KW.

Temporary portable lighting would be provided in the parking areas during events. The lighting would be consistent with campus lighting policies.

NATURAL GAS, ELECTRICITY, AND TELECOMMUNICATIONS

The existing Field House is supplied with natural gas for heating and would require approximately 367,000 British Thermal Units per Hour (BTUh) of natural gas per hour during project operations. All other buildings would be updated to use electrical heat pumps. The existing power panel at the east end of the stadium would need to be upgraded to meet the electrical power needs of the improvements. Telecommunications (i.e., fiber optics) would be installed to connect the Field House and ticket box to existing utilities.

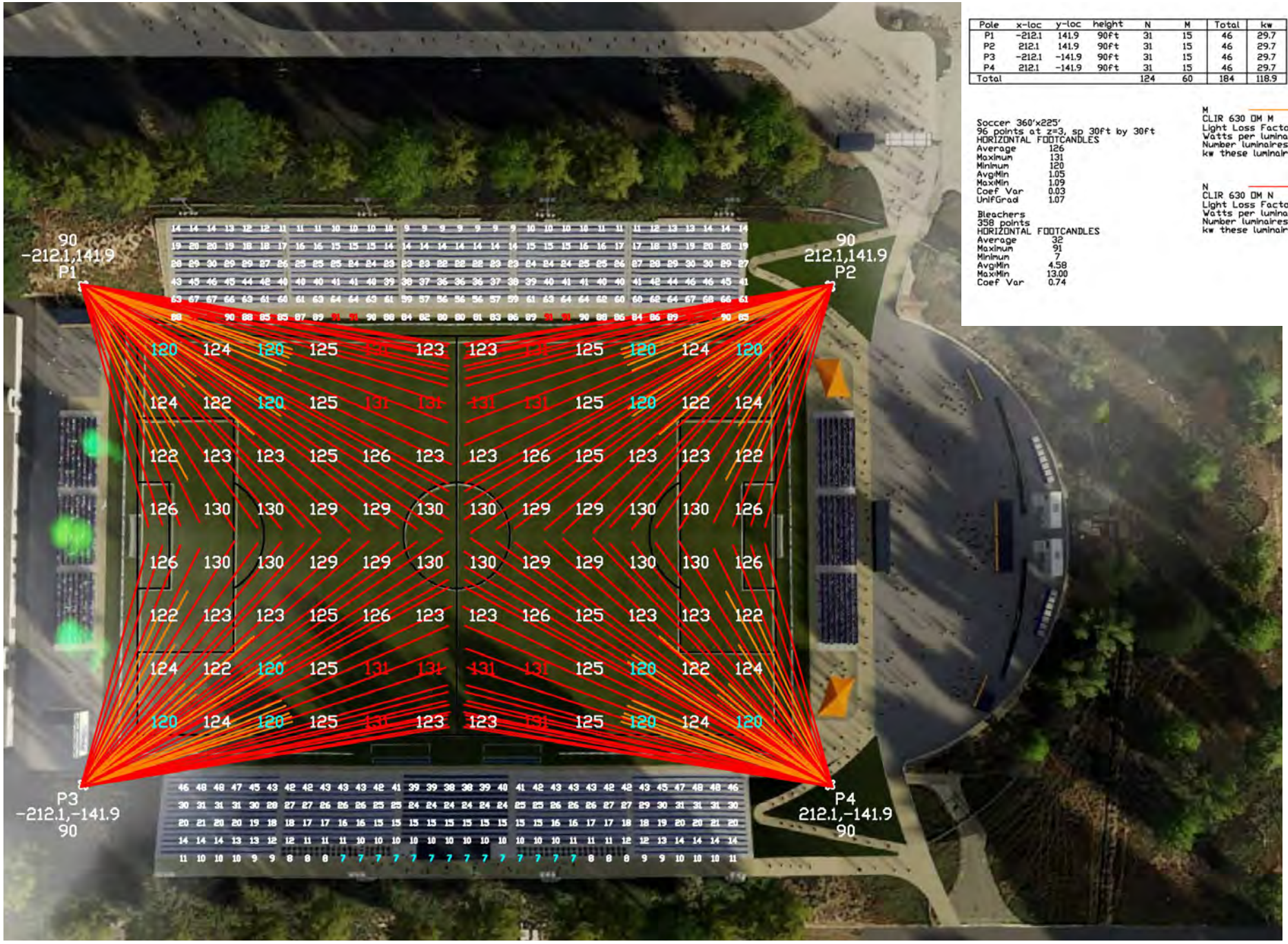
ACCESS AND PARKING

It is assumed that construction and operation site access would be accessed via the 2nd Avenue entryway at the west end of the property. Parking would be available on-site for construction and operation, and no construction of new temporary or permanent access roads would be required. The proposed project would utilize the three existing paved parking areas adjacent to the project site for construction and operational use. General admissions parking would utilize an existing lot to the northwest of the site. Overflow/VIP parking would utilize an existing lot to the southwest of the site. Parking for teams, buses, event staff, and facility staff would be located in the existing lot west of the Field House.

The proposed project would utilize existing campus lots around the stadium. CSUMB standard double-capacity short-term bike racks (LEED compliant) would be provided for bike parking spaces for a venue of this size. There would also be designated parking spaces for e-scooter parking alongside bicycle parking areas. CSUMB Main Campus permits will not be valid in event parking lots. To accommodate other modes of transportation by event attendees, bike parking/e-scooter parking would be provided. An existing public transit line runs along Divarty Street and would also be utilized for stadium access.

WATER SUPPLY

The project site (Field House and stadium) currently uses 0.17-acre feet of water per year (AFY) for the CSUMB athletic and event uses (please see discussion above). Potable water would be supplied by connecting to or utilizing existing water supply infrastructure on campus, specifically that already in place to supply the Field House. The proposed beer garden would require the construction of approximately 800 linear feet of new water pipe from the fieldhouse to connect to the existing water supply infrastructure; no other concessions would require potable water. The existing stadium field would be replaced with synthetic turf with sand rubber infill and would not require additional potable water. The proposed project would require approximately 1.2-AFY for more intensive use by the MBFC team and visiting teams of existing showers, water closets, urinals, lavatories, and service sinks, as well as the proposed beer garden. The campus will evaluate extending recycled water to the stadium in the future, however, for the time being the proposed project would use approximately 0.06 AFY to periodically rinse the turf field and stadium stands. During events, temporary or portable restrooms would be utilized, and water needs (e.g., hand washing stations at restrooms and the concession stand) would be supplied from a portable source.



Pole	x-loc	y-loc	height	N	M	Total	kw
P1	-212.1	141.9	90ft	31	15	46	29.7
P2	212.1	141.9	90ft	31	15	46	29.7
P3	-212.1	-141.9	90ft	31	15	46	29.7
P4	212.1	-141.9	90ft	31	15	46	29.7
Total				124	60	184	118.9

Soccer 360'x225'
96 points at z=3, sp 30ft by 30ft
HORIZONTAL FOOTCANDLES
Average 126
Maximum 131
Minimum 120
Avg:Min 1.05
Max:Min 1.09
Coef Var 0.03
UnifGrad 1.07

Bleachers
358 points
HORIZONTAL FOOTCANDLES
Average 32
Maximum 91
Minimum 7
Avg:Min 4.58
Max:Min 13.00
Coef Var 0.74

M
CLIR 630 DM M
Light Loss Factor = 0.950
Watts per luminaire = 646
Number luminaires used = 60
kw these luminaires = 38.8

N
CLIR 630 DM N
Light Loss Factor = 0.950
Watts per luminaire = 646
Number luminaires used = 124
kw these luminaires = 80.1

Title: # Proposed Project Lighting Plan

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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Figure 5

Fire suppression systems would feed both hydrant and Field House sprinkler systems. No new hydrants are proposed as part of the project. Existing sprinkler systems in the Field House would be modified to meet the new uses.

WASTEWATER

The proposed project would generate approximately 1.02 AFY of wastewater per year, resulting from operation of the facilities in the Field House and beer garden. The proposed restrooms would be portable and temporary and would not connect to the existing sanitary sewer system.

SOLID WASTE

Solid waste generated by operation of the proposed project would total approximately 0.25 tons per year. As part of the project, the campus would complete and submit a Construction Waste Management Plan, consistent and equivalent to LEED Silver accreditation requirements. All games and practices would have signed and color-coded waste receptacles (approved by and consistent with campus standards) that accept and divert waste streams (at a minimum compost, recycling, and waste).

DRAINAGE

All project stormwater run-off would be contained and managed adjacent to the site, as shown in **Figure 6**. Improvements to storm drainage facilities within the project site would be designed to align with the CSUMB Stormwater Master Plan. Low Impact Development (LID) measures would be utilized. All measures would have a natural appearance and not involve any deep fenced ponds or unsightly infrastructure.

CONSTRUCTION

Project construction activities would consist of renovating the existing Freeman Stadium at CSUMB to meet USL requirements, including improvements to the existing Field House, athletic track and field, stadium seating, east-end goal area, northeast entrance, and parking areas.

Specifically, construction activities would include replacement of the existing athletic track and field, stadium seating, renovation of the existing Field House, new exterior lighting, and improvements to meet ADA compliance. The project site is generally flat and would require minimal grading to facilitate the proposed improvements and construction of new permanent structures (**Figures 7**, **7a**, **7b**, and **7c**). Construction of the stadium renovations and Field House would result in approximately 1,530 cubic yards (CY) of cut and would not require any fill. Construction of the beer garden, which would require trenching for new 8-inch water and sanitary sewer lines, would result in approximately 29.6 CY of cut and would not require fill. Approximately 4.8 acres would be graded, but not more than 2 acres would be graded daily. All grading materials remaining would be recycled or disposed of at the appropriate facilities. Construction staging would occur on-site, directly north of the Freeman Stadium in a previously disturbed area (**Figure 2**). Construction activities would be limited to weekdays between the hours of 7 a.m.-4 p.m. and 8 a.m.-5 p.m. on the weekends, if needed.

Construction equipment would include, but would not be limited to, pickup trucks, cement trucks, vibratory hammers, generators, backhoe, excavator, graders, tractors/loaders, rollers, dozers, and crane. The extent of demolition activities would include the demolition of asphalt, concrete, and structures (**Figure 8**). Construction parking would be provided on-site in the existing paved campus parking lots and no separate construction access roads would be required. Access to the project site during construction would be provided via the 2nd Avenue entrance at the west end of the property. Construction waste and recycling will be separated and hauled offsite. Waste and recycling dumpster weight tags would be provided to CSUMB's construction project manager and compliant with the LEED Construction Waste Management Plan, and State waste and recycling requirements. Water for construction activities would require on average approximately 500 gallons per day over the construction period (approximately 240 calendar days).

TEMPORARY WATER POLLUTION CONTROL PLAN (EROSION AND SEDIMENT CONTROL PLAN)

1. ESTIMATED TOTAL DISTURBED AREA: 4.6 ACRES.
2. BEST MANAGEMENT PRACTICES (BMPs) (MATERIALS AND THEIR INSTALLATION) SHALL CONFORM TO ONE OF THE FOLLOWING:
   2.1. THE 2011 EDITION OF THE CALTRANS STORM WATER QUALITY HANDBOOK / CONSTRUCTION SITE BMP MANUAL. THE HANDBOOK MAY BE DOWNLOADED FOR FREE AT http://www.dot.ca.gov/hq/construc/stormwater/documents/SWPPP_Prep_ManualJune2011.pdf
   2.2. THE 2011 EDITION OF THE CALIFORNIA STORMWATER BMP HANDBOOK PROMULGATED BY THE CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA). THE HANDBOOK MAY BE DOWNLOADED FOR A FEE FROM THE CASQA WEBSITE AT http://www.cabmphandbooks.com/
3. THE BMPs SHOWN ON THIS WATER POLLUTION CONTROL PLAN SHALL BE ADJUSTED OR SUPPLEMENTED AS REQUIRED TO PROTECT WATER QUALITY AND/OR AS DIRECTED BY THE ENGINEER OR JURISDICTION HAVING AUTHORITY.
4. THIS PLAN IS INTENDED TO BE USED FOR INTERIM WATER POLLUTION CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING BMPs PRIOR TO, DURING, AND AFTER STORM EVENTS, AND SHALL PROMPTLY CORRECT ANY DEFICIENCIES NOTED.
6. ALL PAVED AREAS SHALL BE KEPT CLEAN OF SOIL AND DEBRIS. REGULAR STREET SWEEPING IS REQUIRED. ADDITIONAL STREET SWEEPING MAY BE REQUIRED BY THE ARCHITECT/ENGINEER OR JURISDICTION HAVING AUTHORITY.
7. REASONABLE CARE SHALL BE TAKEN WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. ANY MATERIAL THAT IS TO BE HAULED OFF-SITE SHALL BE COVERED. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.
8. KEEP ADDITIONAL EROSION AND SEDIMENT CONTROL SUPPLIES ON SITE IN CASE IMMEDIATE REPAIRS OR MODIFICATIONS ARE REQUIRED. THESE SUPPLIES MAY INCLUDE ADDITIONAL SLIT FENCING, FILTER FABRIC, HAY BALES, JUTE NETTING, BAGS AND TARPS.
9. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
10. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY FEDERAL, STATE, AND LOCAL AGENCY REQUIREMENTS.
11. PROVIDE TEMPORARY "EFFECTIVE SOIL COVER" ON ALL INACTIVE DISTURBED AREAS (AREAS WHICH HAVE NOT BEEN DISTURBED FOR AT LEAST 14 DAYS) PRIOR TO INSTALLATION OF FINAL LANDSCAPING, IF REQUIRED DUE TO PROJECT SCHEDULING.
12. PROVIDE WIND EROSION CONTROL AT ALL TIMES IN ACCORDANCE WITH BEST MANAGEMENT PRACTICE WE-1.
13. LIMIT THE USE OF PLASTIC MATERIALS WHEN MORE SUSTAINABLE, ENVIRONMENTALLY FRIENDLY ALTERNATIVES EXIST. WHERE PLASTIC MATERIALS ARE DEEMED NECESSARY, CONSIDER THE USE OF PLASTIC MATERIALS RESISTANT TO SOLAR DEGRADATION AND WHICH MAY BE RE-USED.
14. ESTABLISH AND MAINTAIN EFFECTIVE PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION AND SEDIMENT DISCHARGES FROM THE SITE.
   - PROVIDE SILT FENCE AT CONSTRUCTION SITE PERIMETER WHERE RUNOFF LEAVES THE CONSTRUCTION SITE.
   - PROVIDE INLET PROTECTION AT ALL DRAIN INLETS.

GENERAL REQUIREMENTS

ACTUAL GRADING SHALL BEGIN WITHIN 30 DAYS OF VEGETATION REMOVAL OR THE AREA SHALL BE PLANTED TO CONTROL EROSION. VEGETATION REMOVAL BETWEEN OCTOBER 15TH AND APRIL 15TH SHALL NOT PRECEDE SUBSEQUENT GRADING OR CONSTRUCTION ACTIVITIES BY MORE THAN 15 DAYS.

1. THE FOLLOWING PROVISIONS SHALL APPLY BETWEEN OCTOBER 1 AND APRIL 30.
   A. DISTURBED SURFACES NOT INVOLVED IN THE IMMEDIATE OPERATIONS MUST BE PROTECTED BY APPLYING STRAW MULCH AT 2000 LBS. PER ACRE AND ANCHORED BY TRACK-WALKING TO PREVENT MOVEMENT DURING WATER FLOW.
   B. RUNOFF FROM THE SITE SHALL BE DETAINED OR FILTERED BY BERMS, VEGETATED FILTER STRIPS AND/OR CATCH BASINS TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE. THESE DRAINAGE CONTROLS MUST BE MAINTAINED BY THE CONTRACTOR AS NECESSARY TO ACHIEVE THEIR PURPOSE THROUGHOUT THE LIFE OF THE PROJECT. SEE THIS SHEET FOR EROSION CONTROL PLAN AND EROSION CONTROL DETAILS.
   C. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH DAY'S WORK.
   D. THE BUILDING INSPECTOR SHALL STOP OPERATIONS DURING PERIODS OF INCLEMENT WEATHER IF HE DETERMINES THAT EROSION PROBLEMS ARE NOT BEING CONTROLLED ADEQUATELY.
   E. CUT AND FILL SLOPES SHALL BE PLANTED WITH AN SEED MIX APPROVED BY THE LANDSCAPE ARCHITECT. AMOUNT OF SEED AND FERTILIZER SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2. ALL SURFACES EXPOSED OR EXPECTED TO BE EXPOSED DURING GRADING ACTIVITIES SHALL BE PREPARED AND MAINTAINED THROUGH THE LENGTH OF THE ENTIRE PROJECT TO PROTECT AGAINST EROSION.
3. AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL COMPLETION, THE CONTRACTOR, WHEN HE OR HIS SUBCONTRACTORS ARE OPERATING EQUIPMENT ON THE SITE, SHALL PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE BY WATERING AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF THE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE BY DUST FROM HIS OR HER SUBCONTRACTOR.

OBSERVATION AND MAINTENANCE

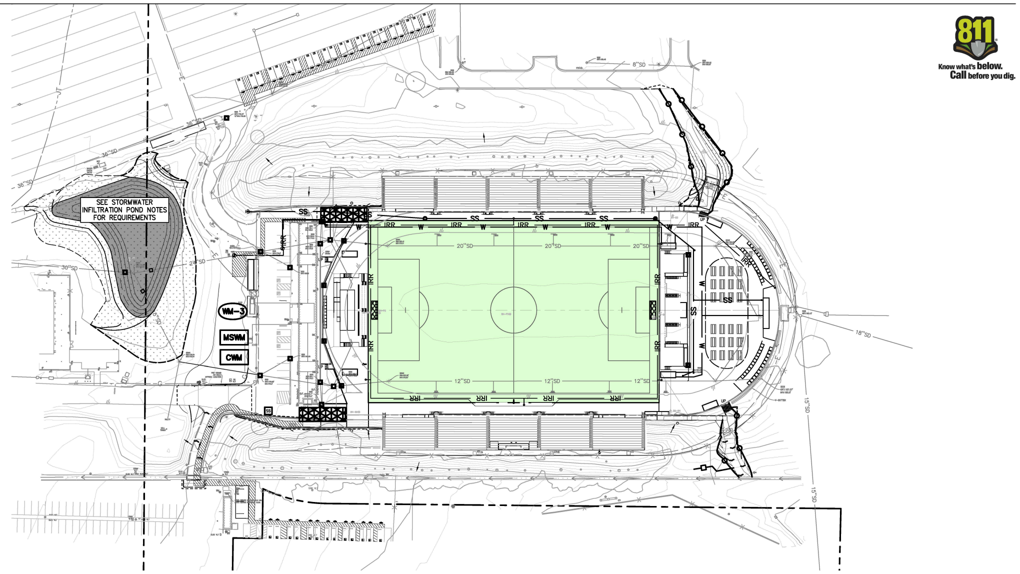
1. VISUALLY OBSERVE AND MAINTAIN BEST MANAGEMENT PRACTICES (BMPs) AS FOLLOWS:
   A. WEEKLY, AND
   B. WITHIN 48 HOURS PRIOR TO EACH STORM EVENT, AND
   C. WITHIN 48 HOURS AFTER EACH STORM EVENT.
   D. DAILY DURING STORM EVENTS
2. REPAIR DAMAGED BMPs WITHIN 48 HOURS OF OBSERVATION.
3. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL BMPs BEFORE SEDIMENT HAS ACCUMULATED TO A DEPTH OF ONE THIRD THE HEIGHT OF THE SEDIMENT BARRIER OR SUMP, IF NOT OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS OR BY THE BMP SUPPLIER OR MANUFACTURER.
4. TRASH AND DEBRIS SHALL BE REMOVED FROM BMPs DURING SCHEDULED INSPECTIONS.
5. REMOVED SEDIMENT SHALL BE PLACED AT AN APPROVED LOCATION AND IN SUCH A MANNER THAT IT WILL NOT ERODE, OR SHALL BE DISPOSED OF OFF-SITE.
6. REPAIR RILLS AND GULLIES BY RE-GRADING AND THEN TRACKWALKING PERPINDICULAR TO THE SLOPE. PROVIDE TEMPORARY SOIL COVER IF NECESSARY.

NON-STORM WATER DISCHARGES

1. NON-STORM WATER DISCHARGES INCLUDE A WIDE VARIETY OF SOURCES, INCLUDING IMPROPER DUMPING, SPILLS, OR LEAKAGE FROM STORAGE TANKS OR TRANSFER AREAS. NON-STORM WATER DISCHARGES MAY CONTRIBUTE SIGNIFICANT POLLUTANT LOADS TO RECEIVING WATERS, AND AS SUCH ARE PROHIBITED.
2. MEASURES TO CONTROL SPILLS, LEAKAGE, AND DUMPING, AND TO PREVENT ILLICIT CONNECTIONS DURING CONSTRUCTION, MUST BE TAKEN.
3. HOWEVER, CERTAIN NON-STORM WATER DISCHARGES MAY BE AUTHORIZED FOR THE COMPLETION OF CONSTRUCTION. AUTHORIZED NON-STORM WATER DISCHARGES MAY INCLUDE THOSE FROM DECHLORINATED POTABLE WATER SOURCES SUCH AS:
   - FIRE HYDRANT FLUSHING,
   - IRRIGATION OF VEGETATIVE EROSION CONTROL MEASURES,
   - PIPE FLUSHING AND TESTING,
   - WATER TO CONTROL DUST,
   - UNCONTAMINATED GROUND WATER FROM DEWATERING,
   - OTHER DISCHARGES NOT SUBJECT TO A SEPARATE GENERAL NPDES PERMIT ADOPTED BY A REGIONAL WATER BOARD.
4. THE DISCHARGE OF NON-STORM WATER IS AUTHORIZED UNDER THE FOLLOWING CONDITIONS:
   - THE DISCHARGE DOES NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD
   - THE DISCHARGE DOES NOT VIOLATE ANY OTHER PROVISION OF THE GENERAL PERMIT
   - THE DISCHARGE IS NOT PROHIBITED BY THE APPLICABLE BASIN PLAN
   - THE DISCHARGER HAS INCLUDED AND IMPLEMENTED SPECIFIC BMPS REQUIRED BY THE GENERAL PERMIT TO PREVENT OR REDUCE THE CONTACT OF THE NONSTORM WATER DISCHARGE WITH CONSTRUCTION MATERIALS OR EQUIPMENT
   - THE DISCHARGE DOES NOT CONTAIN TOXIC CONSTITUENTS IN TOXIC AMOUNTS OR (OTHER) SIGNIFICANT QUANTITIES OF POLLUTANTS
   - THE DISCHARGE IS MONITORED
5. IF ANY OF THE ABOVE CONDITIONS ARE NOT SATISFIED, THE DISCHARGE IS NOT AUTHORIZED.

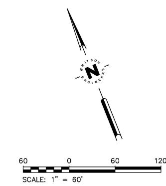
EMPLOYEE TRAINING

1. STORM WATER POLLUTION PREVENTION TRAINING SHALL BE PROVIDED AT THE BEGINNING OF CONSTRUCTION AND REGULARLY DURING CONSTRUCTION FOR ALL EMPLOYEES WORKING ON THE JOB SITE. TRAINING SHALL BE PROVIDED BY THE CONTRACTOR'S WATER POLLUTION CONTROL MANAGER. TOPICS SHALL INCLUDE, BUT ARE NOT LIMITED TO:
   - SPILL PREVENTION AND RESPONSE;
   - LOCATIONS AND FUNCTIONS OF SEDIMENT/EROSION CONTROL DEVICES;
   - GOOD HOUSEKEEPING;
   - FINES AND PENALTIES;
   - MATERIAL MANAGEMENT PRACTICES.



LEGEND

SYMBOL	CALTRANS BMP #	CALTRANS STD. PLAN	DESCRIPTION
	SS-9	–	EARTH DIKES, DRAINAGE SWALES AND LINED DITCHES
	SC-1, SC-5, SC-6	T51, T56, T60, T66	LINEAR SEDIMENT BARRIER: FIBER ROLLS, SILT FENCE, OR COMPOST SOCK (CONTRACTOR'S OPTION)
	SC-1	T51, T60	SILT FENCE
~~SC-7~~	SC-7	–	STREET SWEEPING
	SC-10	–	INLET PROTECTION
CWM	WM-8	T61, T62, T63, T64	CONCRETE WASTE MANAGEMENT (WASHOUT) AREA
	SS-3, SS-4, SS-5, SS-6, SS-7, SS-8	T59 –	SOIL STABILIZATION (PROVIDE ON ALL DISTURBED SOILS) TEMPORARY STABILIZATION PER CIVIL PLANS PERMANENT STABILIZATION PER LANDSCAPE DWGS
	TC-1, TC-3	T58	STABILIZED CONSTRUCTION ENTRANCE/EXIT OR TIRE WASH
MSWM	WM-1	–	MATERIAL STORAGE AND WASTE MANAGEMENT AREA
WM-3	WM-3	T53	TEMPORARY STOCKPILES
SS	WM-9	–	SANITARY FACILITIES
	–	–	DIRECTION OF DRAINAGE
	SC-6	T57	GRAVEL BAG CHECK DAM



STORMWATER INFILTRATION POND NOTES

CONSTRUCTION OBSERVATIONS:

THE ENGINEER OF RECORD (WHITSON ENGINEERS) WILL PROVIDE CONSTRUCTION OBSERVATIONS. THE CONSTRUCTION CONTRACTOR MUST COORDINATE THE POND CONSTRUCTION AND OBSERVATION SCHEDULE WITH THE ENGINEER TO ENSURE THE ENGINEER IS ABLE TO PROVIDE THE REQUIRED INSPECTIONS. THE FOLLOWING INSPECTIONS ARE ANTICIPATED:

1. POND EXCAVATION – MEASURE EXCAVATION AREA AND ELEVATION, AND OBSERVE SUBGRADE CONDITION
2. STRUCTURES – MEASURE STRUCTURE ELEVATIONS, AND OBSERVE ALL STRUCTURES, AND PIPES AND APPURTENANCES
3. FINISHED GRADE – MEASURE POND AREA AND GRADING, AND OBSERVE CONDITION
4. FINAL INSPECTION – OBSERVE CONDITION OF COMPLETED POND, INCLUDING SEEDING.

CONSTRUCTION SCHEDULING AND POLLUTION PROTECTION:

1. AS FIRST ORDER OF WORK, THE CONSTRUCTION CONTRACTOR MUST PROVIDE THE ENGINEER WITH A CONSTRUCTION SCHEDULE OUTLINING THE PROPOSED CONSTRUCTION SEQUENCE AND DEMONSTRATING COMPLIANCE WITH THESE SPECIFICATIONS. PROPER SCHEDULING IS THE PRIMARY METHOD USED TO PROTECT THE INFILTRATION POND FROM DAMAGE AND CONTAMINATION DURING CONSTRUCTION.
2. THE SCHEDULE SHALL SHOW A MAXIMUM OF 10 WORKING DAYS BETWEEN COMPLETION OF POND EXCAVATION, AND COMPLETION OF BIORETENTION SOIL AND MULCH INSTALLATION.
3. THE CONSTRUCTION CONTRACTOR MUST REQUEST AND OBTAIN THE ENGINEER'S APPROVAL PRIOR TO COMMENCING POND EXCAVATION.
4. POND EXCAVATION SHALL COMMENCE AFTER APRIL 15 AND THE POND SHALL BE COMPLETED (INCLUDING INSTALLATION OF MULCH, COBBLE, PLANTING AND IRRIGATION, AS APPLICABLE) PRIOR TO OCTOBER 15 OF THE SAME YEAR.
5. THE CONSTRUCTION CONTRACTOR SHALL DEPLOY TEMPORARY BMP's TO PREVENT LOOSE SOIL, SUCH AS FROM ADJACENT GRADING, STOCKPILES, OR TRENCH SPOILS, FROM ENTERING THE POND DURING CONSTRUCTION. DURING ACTIVE POND CONSTRUCTION THERE SHOULD BE A CLEAR AND LEVEL AREA AROUND THE POND, FREE OF SPOILS AND STOCKPILED SOIL. AFTER THE POND HAS BEEN BACKFILLED WITH BSM, TEMPORARY SILT FENCE OR TEMPORARY GEOTEXTILE COVER SHOULD BE PROVIDED TO AVOID CONTAMINATING THE BSM WITH SITE SOIL DURING CONSTRUCTION OF ADJACENT IMPROVEMENTS.
6. THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR POND MAINTENANCE DURING CONSTRUCTION UNTIL CONTRACT ACCEPTANCE. THIS INCLUDES REMOVAL OF SEDIMENT, TRASH AND DEBRIS WHICH ARE DEPOSITED IN THE PONDS DURING CONSTRUCTION.
7. IMMEDIATELY PRIOR TO CONTRACT ACCEPTANCE, THE CONSTRUCTION CONTRACTOR MUST REMOVE ALL TRASH, DEBRIS AND ACCUMULATED SEDIMENT FROM WITHIN THE POND, TO THE SATISFACTION OF THE ENGINEER. IF A SIGNIFICANT AMOUNT OF SEDIMENT ENTERED THE POND DURING CONSTRUCTION, THE ENGINEER MAY REQUIRE REMOVAL AND REPLACEMENT OF THE AFFECTED AREA OF MULCH, AND MAY ALSO REQUIRE REMOVAL AND REPLACEMENT OF ANY CONTAMINATED BSM.
8. THE PROJECT STORM WATER CONTROL PLAN (SWCP) AND OPERATION & MAINTENANCE PLAN (OMP) OUTLINE THE OPERATION AND MAINTENANCE REQUIREMENTS AFTER CONTRACT ACCEPTANCE.

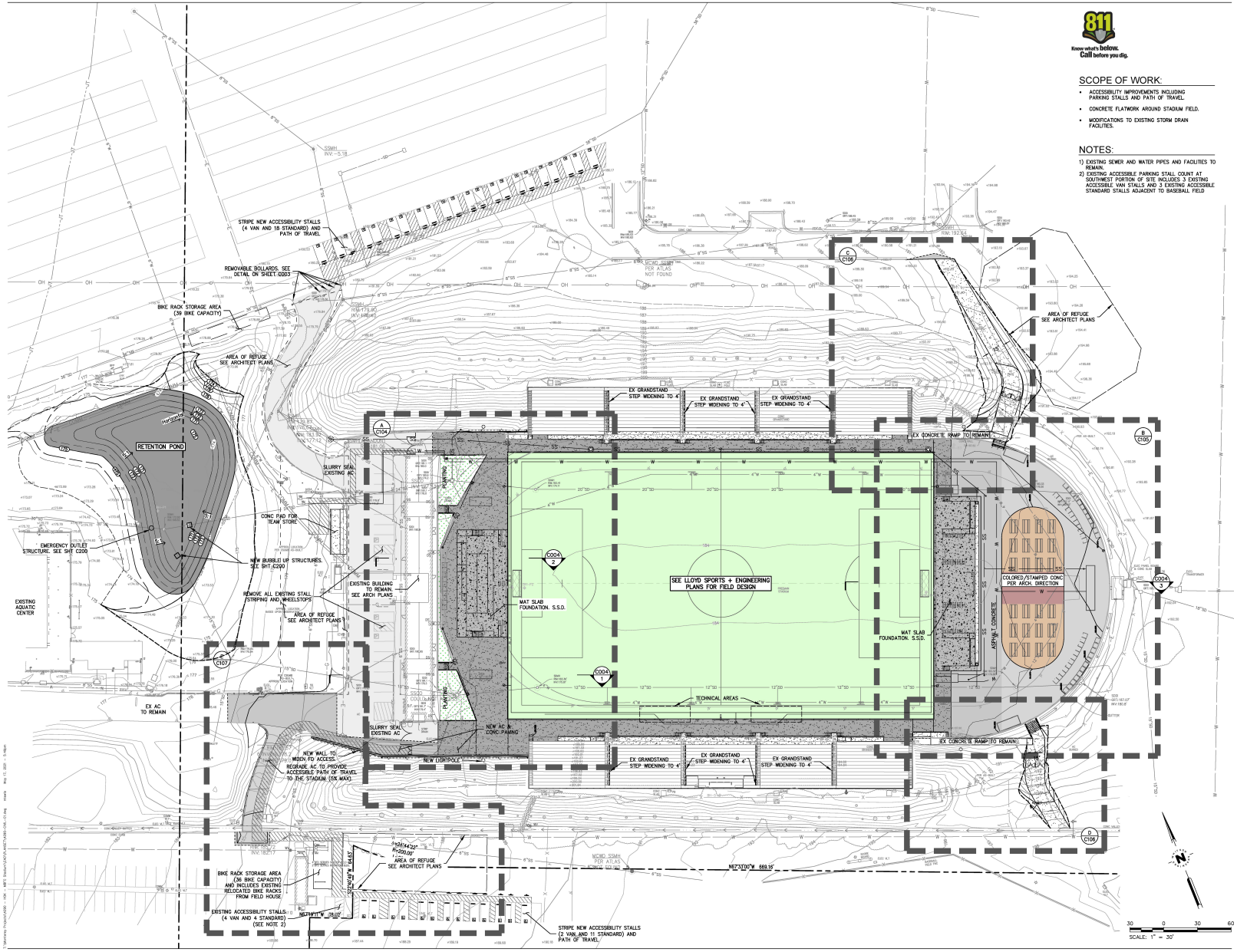
Title: **Erosion and Drainage Plan**

Source: HOK, 2021

Date	5/18/2021
Scale	N/A
Project	2020-45

Monterey | San Jose
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure 6



Title: # Grading Plan

Source: HOK, 2021

Date	6/15/2021
Scale	N/A
Project	2020-45

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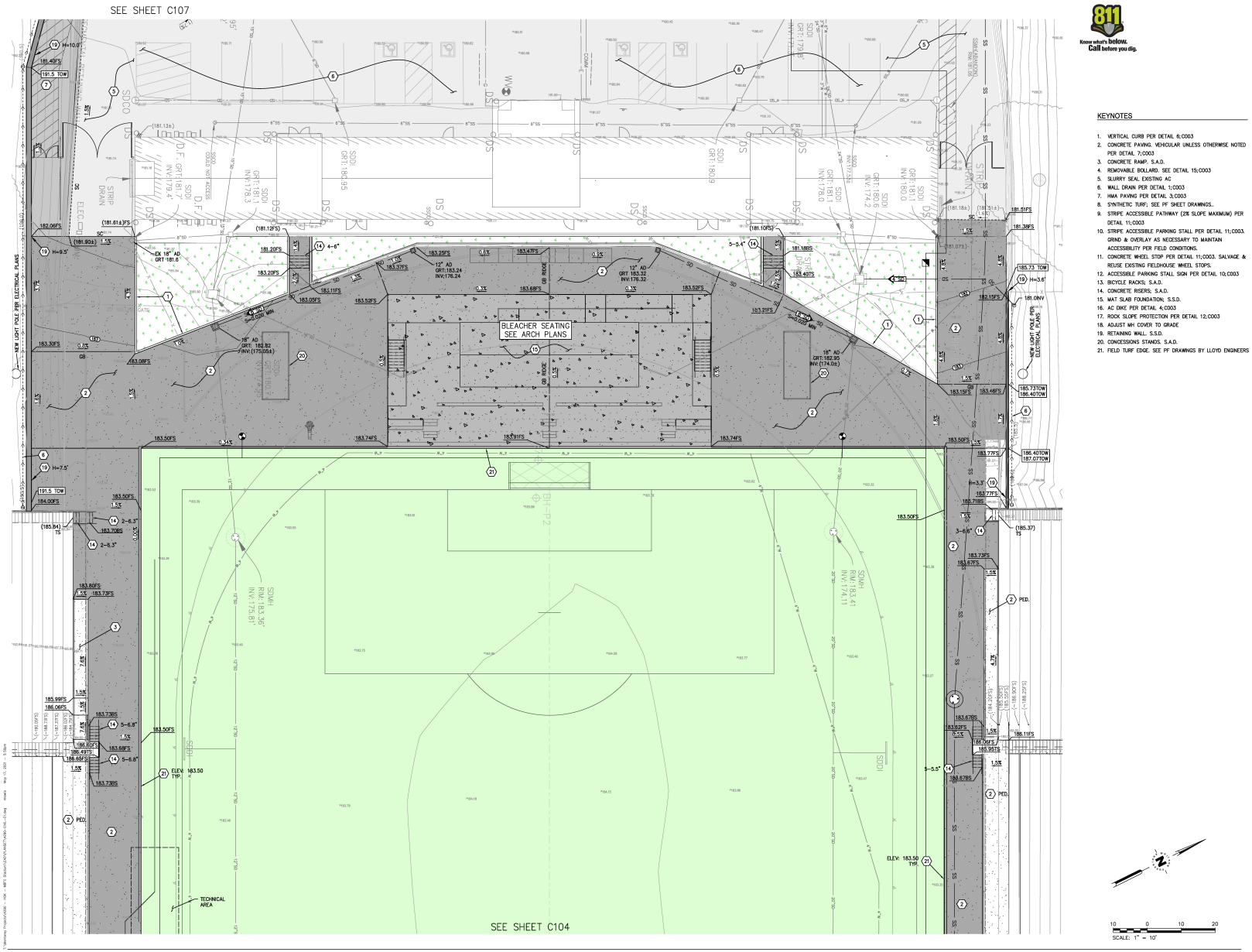
Figure 7



811 Know what's below. Call before you dig.

KEYNOTES

1. VERTICAL CURB PER DETAIL 6;C003
2. CONCRETE PAVING. VEHICULAR UNLESS OTHERWISE NOTED PER DETAIL 7;C003
3. CONCRETE RAMP. S.A.D.
4. REMOVABLE BOLLARD. SEE DETAIL 15;C003
5. SLURRY SEAL EXISTING AC
6. WALL DRAIN PER DETAIL 1;C003
7. HMA PAVING PER DETAIL 3;C003
8. SYNTHETIC TURF; SEE PF SHEET DRAWINGS..
9. STRIPE ACCESSIBLE PATHWAY (2% SLOPE MAXIMUM) PER DETAIL 11;C003
10. STRIPE ACCESSIBLE PARKING STALL PER DETAIL 11;C003. GRIND & OVERLAY AS NECESSARY TO MAINTAIN ACCESSIBILITY PER FIELD CONDITIONS.
11. CONCRETE WHEEL STOP PER DETAIL 11;C003. SALVAGE & REUSE EXISTING FIELDHOUSE WHEEL STOPS.
12. ACCESSIBLE PARKING STALL SIGN PER DETAIL 10;C003
13. BICYCLE RACKS; S.A.D.
14. CONCRETE RISERS; S.A.D.
15. MAT SLAB FOUNDATION; S.S.D.
16. AC DIKE PER DETAIL 4;C003
17. ROCK SLOPE PROTECTION PER DETAIL 12;C003
18. ADJUST MH COVER TO GRADE
19. RETAINING WALL. S.S.D.
20. CONCESSIONS STANDS. S.A.D.
21. FIELD TURF EDGE. SEE PF DRAWINGS BY LLOYD ENGINEERS

Title: # Grading Plan - West Section

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
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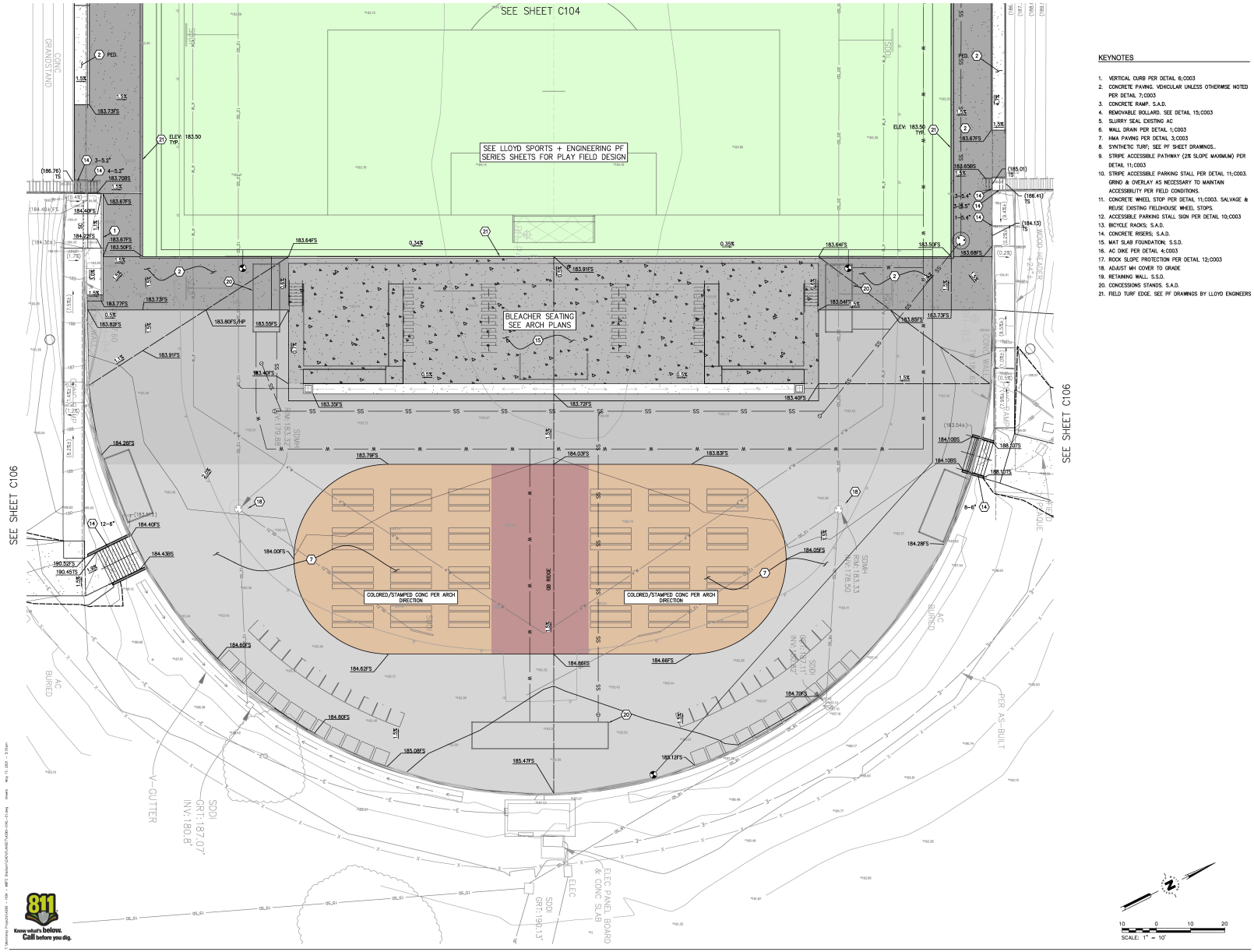
Figure 7a



Title: # Grading Plan - East Section

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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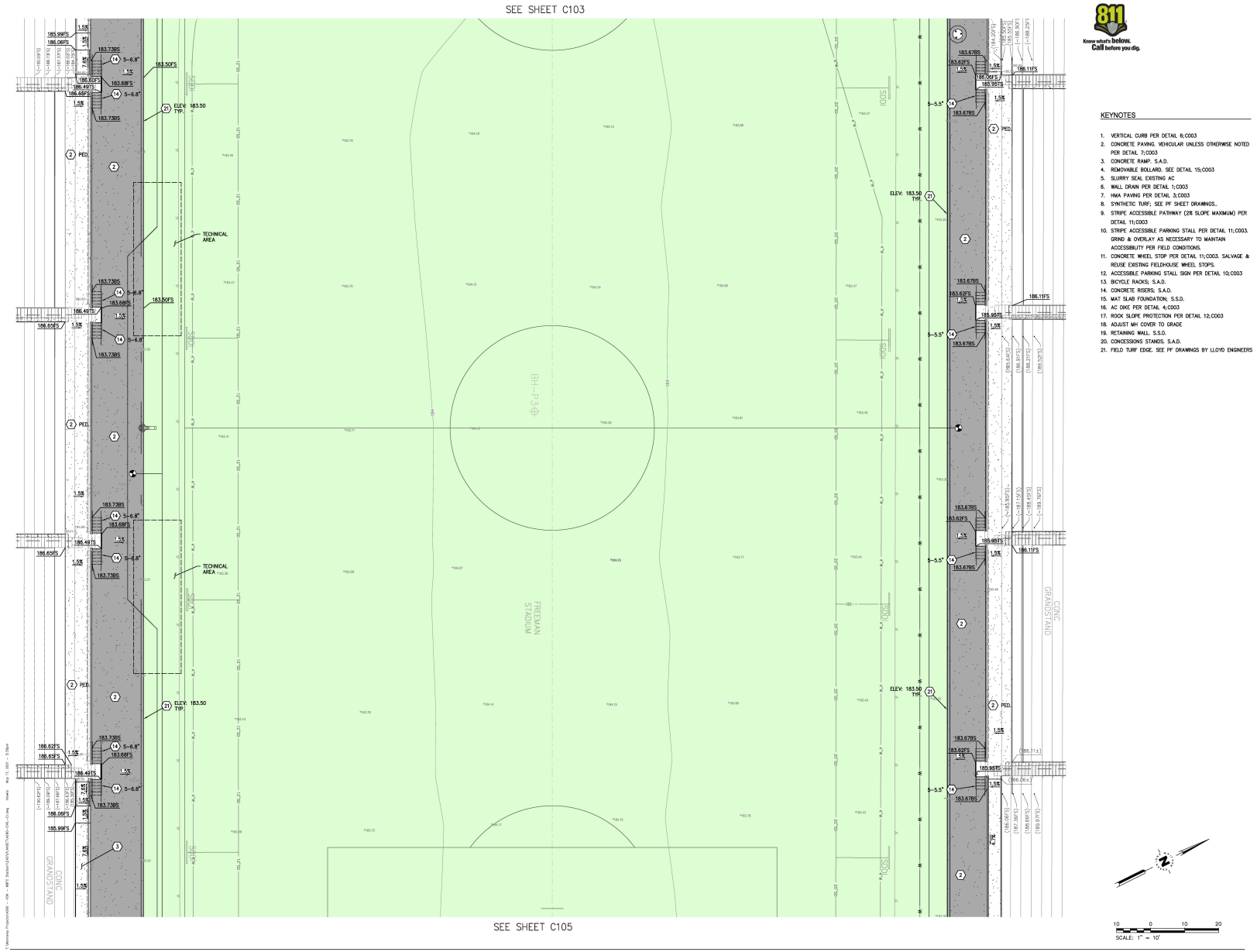
Figure
7b



Title: # Grading Plan - Center Section

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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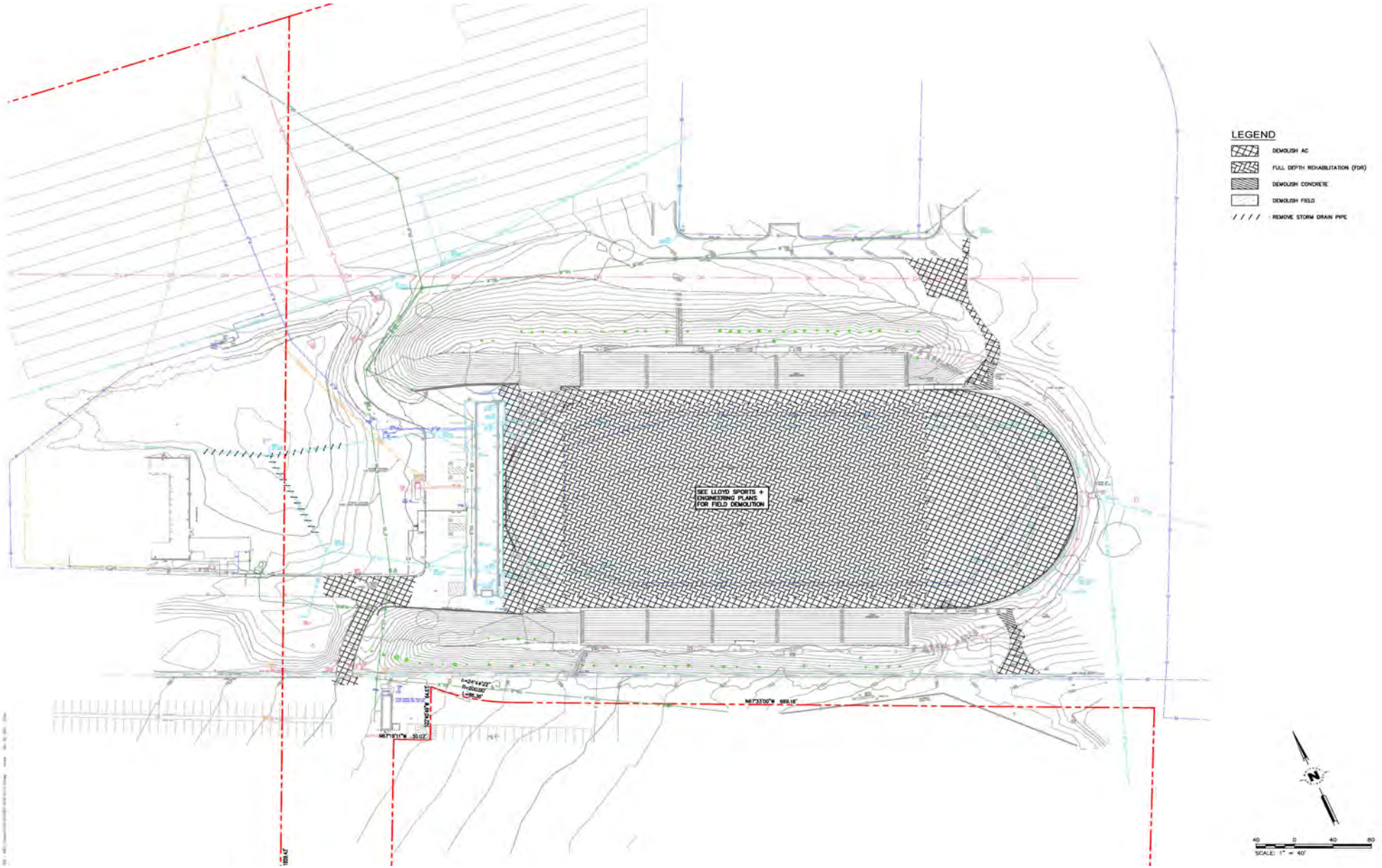
Figure
7c



Site Demolition Plan

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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Figure
8

The construction contractor would connect to the existing hydrant and meter construction water use through the Marina Coast Water District (MCWD).

Construction employees at the construction site would range between one (1) and twenty-five (25) employees per day. Construction would take place over approximately eight (8) months (approximately 240 calendar days) beginning on or around September 1, 2021, depending on weather and local permitting processes, and would be completed as early as May 2022.

1.4 PROJECT GOALS AND OBJECTIVES

The primary goals of the proposed project are to renovate and improve the existing facilities to align with stadium facilities requirements set forth by both the USL and the NCAA and in turn, provide a code compliant and usable stadium for CSUMB. A usable stadium would further allow the University to fulfill its educational mission. It would provide expanded academic opportunities in the form of student research, particularly with programs such as kinesiology, exercise science and sports performance, sports medicine, physical therapy, and mental health. The proposed project supports the development of CSUMB's student-athletes by providing improved facilities for their use. The proposed project also provides an opportunity to share its new facilities with and increase engagement with its Central Coast community through soccer. The project's key objectives from the project applicant are as follows:

- To update and utilize existing university facilities.
- To build a space that will foster relationships between CSUMB and the surrounding communities.
- To increase opportunities for athletics in the Monterey region.
- To provide student research opportunities.
- To create an event space that can drive economic growth and opportunity.

1.5 PROJECT APPROVALS AND PERMITS

This IS/MND is an informational document for both lead agency decision-makers and the public. The CSU BOT is the Lead Agency responsible for adoption of this IS/MND and Mitigation Monitoring and Reporting Program (MMRP) and approval of the proposed project. It is anticipated that the proposed project would require permits and approvals from the following agencies.

REGIONAL AND STATE AGENCIES

- Regional Water Quality Control Board, National Pollution Discharge Elimination System (NPDES) General Storm Water Permit and Notification, including Construction Storm Water Pollution Prevention Plan (SWPPP)
- Monterey Bay Air Resources District, Demolition Permit

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CHAPTER 2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in the following chapter, **Chapter 4. Initial Study Environmental Checklist**.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards/Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☒ Transportation/Traffic	☒ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

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CHAPTER 3 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Marcel Forte (Jul 7, 2021 16:11 PDT)

Signature

07/07/2021

date

Marcel Forte

Printed Name

California State University Monterey Bay

for

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CHAPTER 4 INITIAL STUDY ENVIRONMENTAL CHECKLIST

The following chapter assesses the environmental consequences associated with the proposed project. Mitigation measures, where appropriate, are identified to address potential impacts.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).

2. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate information sources for potential impacts (e.g., general plans, zoning ordinances) into the checklist references. Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

4.1 AESTHETICS

ENVIRONMENTAL SETTING

The proposed project site is located at the existing Freeman Stadium on the CSUMB campus, at 4113 2nd Avenue, Seaside, California 93955. Visual resources in the project vicinity, as discussed in the 2007 CSUMB Master Plan (MP), include the Monterey Peninsula, Monterey Bay, ridgelines and canyons of the Santa Lucia Range, and agricultural fields of the Salinas Valley. The project site is located in the western-most portion of the campus in a developed area and does not contain any scenic viewsheds, nor is the proposed project site located near, or visible from, any designated scenic highways. Photos of the project site are shown in **Figures 9a-9c**. Proposed site elevations are shown in **Figures 10a-10c**.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	11, 21
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	2, 11, 21
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐	11, 21
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	11, 21

EXPLANATION:

a-b) **No Impact.** The proposed project consists of renovations to the existing Freeman Stadium. The CSUMB 2007 Master Plan does not identify the proposed project site or immediate vicinity as containing any scenic vistas or viewsheds. Furthermore, the proposed project would align with the policies to protect aesthetic resources identified in the 2007 Master Plan. Therefore, no impacts to scenic vistas would occur as a result of the proposed project.

Proposed project site looking north from VIP parking.

Proposed project site looking west.

Proposed project site looking at main entrance looking east.

Title: Site Photos

Source: Denise Duffy & Associates, May 2021

Date May 2021
Scale N/A
Project 2020-48

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Denise Duffy and Associates, Inc.
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Figure 9a

Interior project site looking north.

Interior project site looking northeast.

Proposed project site looking south from General Admission parking.

Title: Site Photos

Source: Denise Duffy & Associates, May 2021

Date May 2021
Scale N/A
Project 2020-48

Monterey | San Jose
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Figure 9b

Interior project site looking east.

Interior project site looking southeast.

Interior project site looking south.

Title: Site Photos

Source: Denise Duffy & Associates, May 2021

Date May 2021
Scale N/A
Project 2020-48

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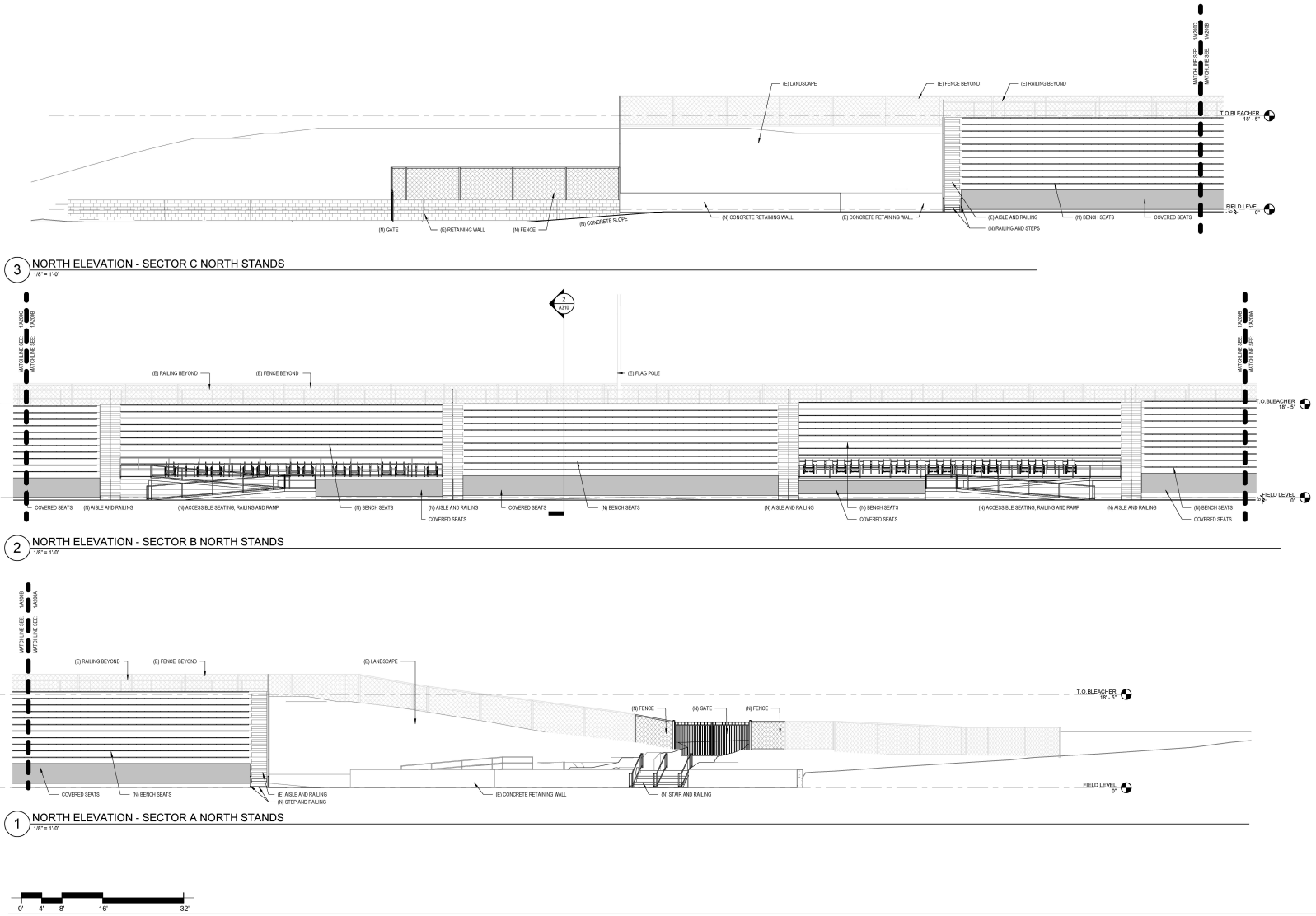
Figure 9c



Title: # Site Elevations - North

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

Monterey | San Jose
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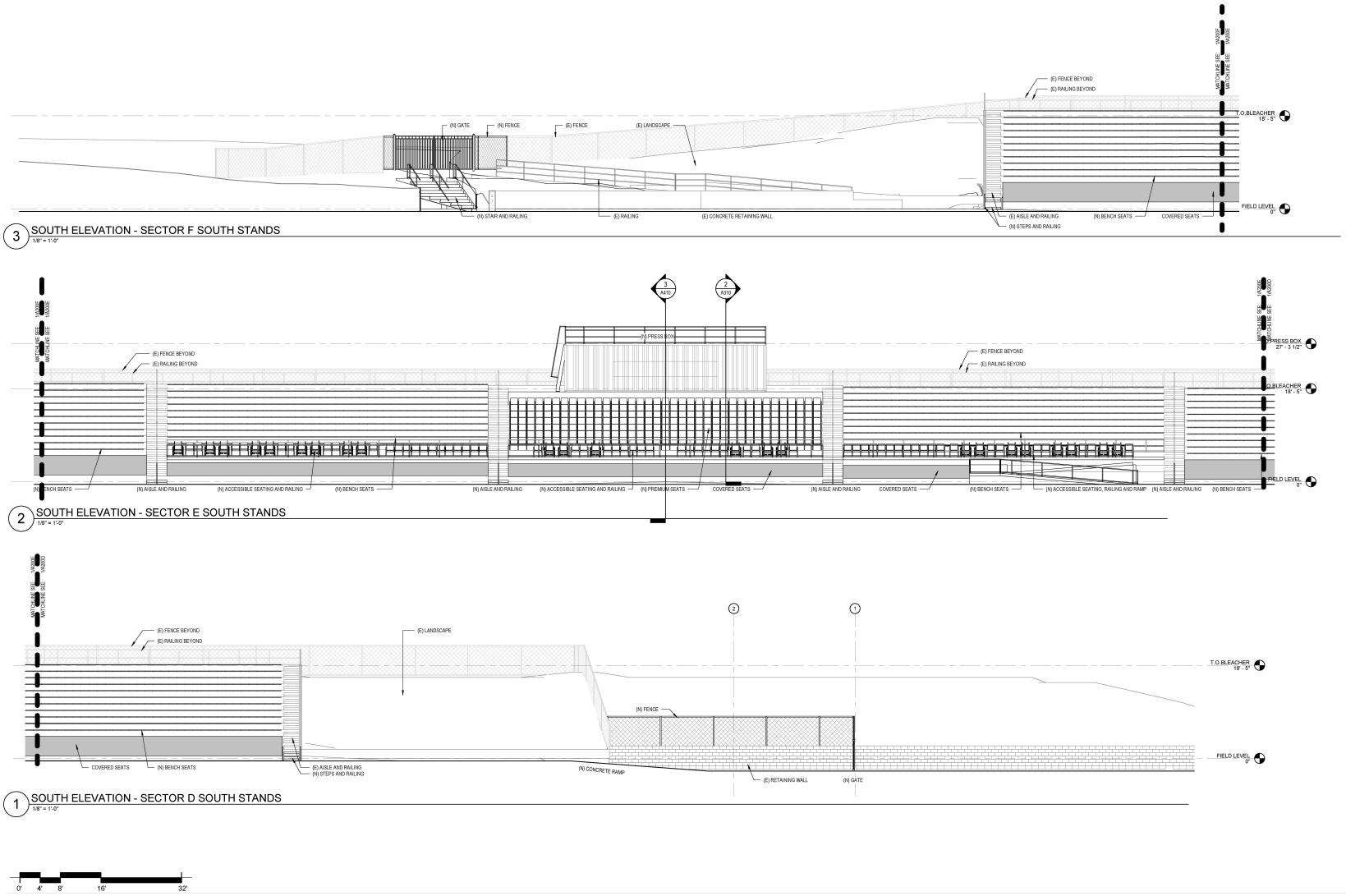
Figure 10a



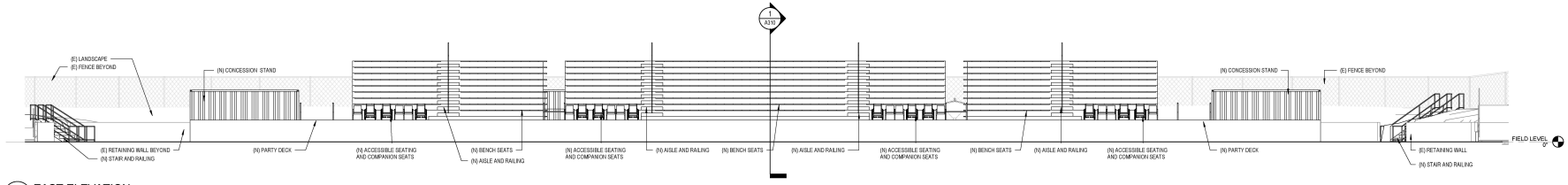
Title: # Site Elevations - South

Source: HOK, 2021

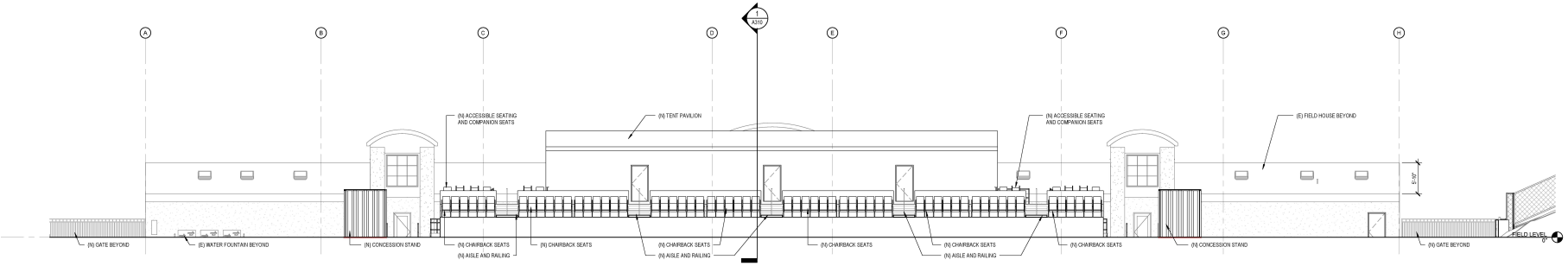
Date 5/18/2021
Scale N/A
Project 2020-45

Monterey | San Jose
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure 10b



2 EAST ELEVATION
1/8" = 1'-0"



1 WEST ELEVATION
1/8" = 1'-0"

0' 4' 8' 16' 32'

Title: **Site Elevations - West - East**

Source: HOK, 2021

Date 5/18/2021
Scale N/A
Project 2020-45

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Figure
10c

Although portions of Highway 1 in the Monterey region are designated as scenic, the section of Highway 1 west of the project site has not been designated as a scenic highway. Additionally, the site is not visible from the highway. Therefore, the proposed project would have no impact on scenic resources visible from a designated scenic highway.

c) **Less-than-Significant Impact**. The proposed project is located in a developed, urbanized area on the CSUMB campus. Construction activities would temporarily alter the visual character of the proposed project site; however, the presence of construction equipment and activities would be temporary, and the site would be restored to pre-project conditions consistent with the proposed project plan. Therefore, the short-term visual impacts that would result from construction activities would be less-than-significant.

The Freeman Stadium and Field House are remnant military structures that have deteriorated over the years and not been updated in many years (**Figures 9a-9c**). The existing conditions of the Freeman Stadium and Field House are such that the proposed renovations would improve and enhance the overall visual character of the facilities and site. Three cypress trees are proposed for removal as part of the project. Trees will be replaced at a 2:1 ratio per the requirements of the CSUMB Tree Restoration Program.

The proposed improvements would align with the CSUMB 2007 Master Plan Campus Framework Policies, which aim to create a distinct sense of place, integrate the natural and built environment, design building environments that support social interaction, use the natural landscape and site contours to establish drainage corridors to handle on-site drainage, develop visually separate clusters of facilities and connections to all facilities in the West Campus Recreation Complex, and use a consistent palette of materials across the campus in accordance with campus design guidelines. The proposed project would maintain athletic use of the site and is consistent with the Athletic and Recreation land use designation in the 2007 Master Plan. The proposed project would not conflict with any approved and proposed master plan policies governing scenic quality and would be designed and developed consistent with these policies. Therefore, the proposed project would have a less-than-significant impact to the visual character and quality of the site.

d) **Less-than-Significant Impact**. Construction of the proposed project would require demolition and renovation of a 2,000-SF portion of the existing Field House interior and would also include proposed improvements to the existing track and field, stadium seating, east-end goal area, northeast entryway, and parking areas. Construction activities would be limited to weekdays between the hours of 7 a.m. to 4 p.m. and 8 a.m. to 5 p.m. on the weekends, as needed. While some exterior construction lighting may be required during the dawn and dusk portions of the day, it would occur over a short duration and temporary. No nighttime construction is proposed and, therefore, no nighttime lighting would be required.

The proposed project site is located in an urbanized, developed area. While the project site is isolated from the campus core and majority of campus buildings, the project site and surrounding vicinity are currently exposed to urban nighttime lighting. Existing artificial light sources found on-site and in the surrounding area include interior and exterior lighting at the Field House, security and high mast field lighting associated with the adjacent baseball and soccer fields and outdoor aquatic center, street, and walkway lighting, and illuminated automobile headlights.

The proposed project includes improvements to stadium lighting to align with the specifications and requirements of the NCAA and USL. Nighttime lighting is proposed for security, and safety during evening events. In May 2021, Exp Engineering Inc., conducted a photometric analysis (**Appendix A**) for the operation of the proposed project. The analysis assessed the potential impacts of the new high-mast lighting on the surrounding areas. As discussed in **Chapter 1, Project Description**, the proposed project would include replacing the existing lighting fixtures with four (4) new 90' tall high-mast poles,

each containing 46 LED floodlights aimed at the field surface. The luminaries would be aimed at various positions on the playing field with the furthest and shallowest aiming angle being 65 degrees to the center of the field and the closest and steepest aiming angle being roughly 20 degrees (**Figure 5**). The proposed luminaries would have glare shields on the front of the fixture to mitigate direct view of the LEDs. Additional lower-level, pedestrian-scale luminaires would also be added as part of the renovation and temporary parking lot flood light towers would be employed during evening events. While these other sources would add to the illumination surrounding the stadium at night, their contribution would not be visible to the surrounding community, and, therefore, were not considered in any of the calculations of the lighting analysis.

The photometric analysis found that the closest building to the proposed project site is the Veteran's Administration building, a medical office complex located to the northeast and roughly 580 feet from the closest light tower. However, this complex is no longer in operation. The closest campus residences are approximately 1,800 feet northeast of the site, and the site is not visible from this location due to topography and vegetation. The closest off-campus residential community view of the complex is located roughly 0.51 miles south and the view is obstructed by dense tree canopy. Furthermore, views from of the proposed project site from Highway 1, located west of the site, are obscured by groves of trees. The stadium itself is positioned several feet below grade, with the new high-mast poles mounting at the lower field level, the new poles would be the same height as the existing poles around the adjacent baseball field to the south and soccer fields to the southwest.

The installation of the new poles would be energy-efficient, Dark-Sky compliant with a fixed tilt based upon their calculated aiming angles. The location of the poles would be at the corners of the perimeters of the field to focus light directly on the field and away from neighboring receptors. Additionally, the field lighting would be turned on at full output at dusk when needed for practice and games and would be switch off after the events with exact times being determined by the duration of the usage. The proposed lighting would be downward facing, consistent with CSUMB 2007 Master Plan Campus Lighting Plan, which states that the "*primary goal of most exterior lighting is functional: to provide adequate light for safety and security*." In addition, the proposed lighting plan would be reviewed by Campus Police Department to ensure it meets safety concerns.

Lighting of the proposed project would also align with the guidelines in CSU Outdoor Lighting Design Guide. This guide provides the CSU campuses with guidance for outdoor lighting design in order to provide a comfortable nighttime environment, maximize energy efficiency, and improve campus aesthetics. The guide contains CSU lighting design goals and strategies, lighting control strategies and methods throughout the campuses, and preferred lamp types identified for energy efficiency and ease of maintenance. The guide includes goals pertaining to compliance with local codes, assurance of good nighttime visibility, low maintenance of lighting, energy efficiency, reduced light pollution, and integration into the overall campus aesthetic. Sports field lighting is not specifically addressed in this document. Lighting design strategies are provided in the guide to aid in implementation of established lighting goals. Lighting design strategies are orientated toward creating vertical surface brightness, enhancing navigation, minimizing glare, maintaining lighting uniformity, and provide appropriate lighting levels. The proposed lighting and operational schedule would ensure that the field is illuminated as efficiently as possible, and that campus uniformity is maintained in the project vicinity.

Regulations and restrictions with respect to lighting on the CSUMB campus are not strictly defined within campus development and planning documents. The 2007 Master Plan focuses on better efficiency of all lighting throughout the university and should meet safety and security standards. When possible, outdoor lighting should be controlled by automatic timers and the use of LED sources mandatory. The 2007 MP does not identify strict lighting restrictions or regulations and does not have any specific lighting requirements for sports fields. The proposed lighting and shielding treatment and

operational schedule would ensure that the field is being illuminated as efficiently as possible and that public safety is maintained during nighttime hours, respectively.

Due to the lack of specific guidance for sports field lighting from the applicable CSU and Master Plan lighting guidelines, the City of Seaside's Outdoor Lighting ordinance was reviewed (City of Seaside Municipal Code Section 17.30.070). Although CSUMB is not subject to the City's ordinances or regulations, the City's Municipal Code was reviewed to provide parameters for the analysis of light impacts. While the City's Municipal Code does not contain significance thresholds specifically for sports field lighting, there are several regulations and restrictions for development of outdoors lighting that can be useful in the evaluation of the lighting impacts associated with the project.

The City's Municipal Code states that outdoor lighting shall utilize energy-efficient (high pressure sodium, low pressure sodium, hard-wired compact fluorescent, LED, or other lighting technology that is of equal or greater energy efficiency) fixtures and lamps. It further states that all lighting fixtures shall be properly directed, recessed, and fully shielded (e.g., downward, and away from adjoining properties) to reduce light bleed and glare onto adjacent properties by ensuring that the light source is not visible from off the site and confining glare and reflections within the site to the maximum extent feasible. The design of the field lighting for the proposed project takes into account all available methods for reducing light spillover and glare. The field lighting poles would be arranged to focus the light directly on the field. The luminaries in this system would have a fixed downward angle to prohibit upward spill of the light and the fixtures faces would be shielded with a 20-inch-long shield making the system Dark-Sky compliant.

As discussed above, the closest campus residences are more than 1,800 feet northeast of the site, while the closest off-campus residential neighborhood is located approximately 0.51 miles from the site. In addition, the proposed residential areas within the approved Campus Town Specific Plan Project, located south of Lightfighter Drive in the City of Seaside, are located over 950 feet from the nearest lighting pole. The lighting analysis found that at 250 feet from the pole locations, there would be little to no spillover light. Therefore, the majority of the light would be directed to the field and would be shielded from all surrounding sensitive receptors.

The City's Municipal Code also states that, to the extent applicable, outdoor lighting should be in compliance with the California Energy Code and Green Building Regulations (CALGreen). CALGreen stipulates that all luminaries must meet the mandated BUG (Backlight/Uplight/Glare) ratings per their designated lighting zone unless otherwise exempt; lighting for sports and athletic fields is exempt. However, despite being exempt, the lighting analysis show that the design does not produce any direct illumination at 120 feet or above the ground.

Therefore, the proposed project would be in compliance with applicable outdoor lighting guidelines and policies, would result in minimal spillover, and would not significantly increase the light and glare in the area or create a new source of substantial light or glare in the area that would affect sensitive receptors. Therefore, impacts would be less than significant.

4.2 AGRICULTURAL AND FOREST RESOURCES

ENVIRONMENTAL SETTING

The proposed project is located in an urbanized area on the CSUMB campus. The project site and surrounding area is previously disturbed and contains non-native ruderal grassland, iceplant, native and horticultural trees and scrubs, and paved and developed areas. There are no significant agricultural or forest resources within or adjacent to the project site. The 2007 Master Plan designates the project site as Athletics and Recreational.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
II. AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	9, 11, 20, 22
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	9, 11, 20, 22
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	9, 11, 20, 22
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	9, 11, 20, 22
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒	9, 11, 20, 22

EXPLANATION:

a-e) **No Impact**. The proposed project is not located near existing or historical agricultural areas, or on land zoned for agricultural use or land under Williamson Act contract. No areas of prime farmland, unique farmland, or farmland of statewide importance would be affected. Additionally, the proposed project does not conflict with existing zoning for, or cause the need for rezoning of, forest land. The proposed project would not result in conversion of agricultural or forest land. Therefore, no impacts to agricultural or forest resources would result from the proposed project.

4.3 AIR QUALITY

ENVIRONMENTAL SETTING

The proposed project is located in the North Central Coast Air Basin (NCCAB). The Monterey Bay Air Resources District (MBARD or District) is one of 35 air districts established to protect air quality in California. MBARD's jurisdiction is the NCCAB, which is comprised of Monterey, Santa Cruz, and San Benito counties. Air quality, and the dispersion of air pollution is determined and influenced by natural factors such as topography, meteorology, and climate, and coupled with atmospheric stability. The project site is located on the western portion of CSUMB's campus which is located on a coastal plain at the southern edge of the Monterey Bay. This region is generally well ventilated by persistent sea breezes. Year-round marine airflow maintains good air quality. Temperatures are generally mild, with little winter fronts, and summer temperatures rarely exceeding 80 degrees Fahrenheit.

REGULATORY SETTING

The Federal Clean Air Act (CAA) authorized the establishment of federal air quality standards and set deadlines for their attainment. The Federal Environmental Protection Agency (EPA) provides the designations for National standards, while the California Air Resources Board (CARB) coordinates and oversees both state and federal air pollution control programs in California. Regulatory authority within the regional air basins is provided by the local air pollution control agency.

Ambient air quality designations are typically defined by regional air basins, but in some cases, designations are made at the county level. Designations are categorized as follows:

- **Attainment** – Air quality in the area meets the standard.
- **Nonattainment** – Air quality in the area fails to the applicable standard.
- **Unclassified** – Insufficient data to designate area, or designations have yet to be made.
- **Attainment/Unclassified** - An EPA designation which, in terms of planning implications, is essentially the same as Attainment.

Current State and National designations for the NCCAB are shown below:

Table 1. North Central Coast Air Basin Attainment Status –2017

Pollutant	State Standards [1]	National Standards
Ozone (O_3)	**Nonattainment**	Attainment
Inhalable Particulates (PM_{10})	**Nonattainment**	Attainment
Fine Particulates ($PM_{2.5}$)	Attainment	Attainment
Carbon Monoxide (CO)	Monterey Co. – Attainment San Benito Co. – Unclassified Santa Cruz Co. – Unclassified	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Attainment	Attainment

Notes:

1) The design value is a statistic based on the monitored concentrations that can be compared with the corresponding standard. The standard is violated if the design value exceeds the standard. Design values are computed on a site-by-site basis. Air District design value is the highest design value at any individual monitoring site.

2) U.S. EPA lowered the national 8hour ozone standard from 0.075 to 0.070 PPM (or 70 ppb) in October 2015.

3) U.S. EPA tightened the national 24-hour $PM_{2.5}$ standard from 65 to 35 $\mu g/m^3$ in 2006. On January 9, 2013, U.S. EPA issued a final rule to determine that the Air District attains the 24-hour $PM_{2.5}$ national standard. This U.S. EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Air District attains the standard. Despite the U.S. EPA action, the Air District will continue to de designated as a non-attainment for the national 24-hour $PM_{2.5}$ standard until the Air District submits a redesignation request and a maintenance plan to U.S. EPA, and U.S. EPA approves the proposed redesignation.

Source: MBARD Air Quality Management Plan, 2017. Air Quality Management Plan (mbard.org)

The MBARD is in attainment or unclassified status for national standards and no national attainment plans apply to the region. The NCCAB is a nonattainment area for the State Ambient Air Quality Standards for both ozone and inhalable particulate matter (PM_{10}). MBARD adopted its first Attainment Plan for ozone in 1991. The Air Quality Management Plan for the Monterey Bay Area (AQMP) was the first plan prepared in response to the California Clean Air Act of 1988 that established specific planning requirements to meet the ozone standard. The California Clean Air Act requires that the AQMP be updated every three years. The most recent update (MBARD 2011-2015 AQMP) occurred in 2017. The AQMP addresses only attainment of the State ozone standard. Attainment of the State PM_{10} standard is addressed in the District's plan "Senate Bill 656 Implementation Plan," which was adopted in December 2005. Maintenance of the National eight-hour standard for ozone is addressed in the District's "Federal Maintenance Plan for the Monterey Bay Region," which was adopted in March 2007. The MBARD does not have thresholds for the ozone precursors nitrogen oxide and reactive organic gas for construction projects less than one year because this is accounted for in their emission inventories. The MBARD has established a daily emissions threshold for PM_{10} for construction projects of 82 pounds per day.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	2, 4, 15
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐	15, 20, 21, 29, 30
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	15, 20, 21, 29, 30
d) Result in substantial emissions (such as odors or rust) adversely affecting a substantial number of people?	☐	☐	☒	☐	15, 20, 21, 29, 30

EXPLANATION:

a) **No Impact.** CEQA Guidelines §15125(b) requires that a project is evaluated for consistency with applicable regional plans, including the AQMP. As stated above, the MBARD has developed and implemented several plans to address exceedance of state air quality standards, including the MBARD 2012-2015 AQMP. The MBARD is required to update their AQMP once every three years; the most recent update was approved in March 2017. This plan addresses attainment of the state ozone standard and federal air quality standard. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments (AMBAG) and other indicators.

The proposed project would not result in a substantial increase in employment, nor would the proposed project result in increased population growth. The proposed project would be consistent with the MBARD 2012-2015 AQMP. In addition, as noted in Response b, below, the proposed project would not result in a significant increase in emissions. For these reasons, implementation of the proposed project is not anticipated to result in a substantial increase in either direct or indirect emissions that would conflict with or obstruct implementation of the AQMP; this impact would be less than significant.

b) **Less-than-Significant Impact.** Under the Federal CCA, the NCCAB is designated for attainment status, as shown above in **Table 1**. Temporary impacts to air quality may occur from the generation of air pollutant emissions during construction. Heavy equipment operations and construction-related vehicle traffic would be the primary emissions sources at the proposed project site. Vehicles and heavy equipment that may be required for construction include, but are not limited to, pickup trucks, cement trucks, vibratory hammers, generators, backhoe, excavator, graders, tractors/loaders, rollers, dozers, and crane. These sources would not operate continuously, thereby causing intermittent emissions. Construction of the proposed project may also require worker commute trips.

These sources have the potential to generate a small amount of fugitive particles and diesel exhaust that could result in an increase in criteria pollutants during construction activities and could also contribute to the existing nonattainment status of the NCCAB for ozone and inhalable particulates. As stated in the District's 2008 CEQA Air Quality Guidelines (Section 5.3), emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Emissions of concern related to construction activities are PM_{10} and ozone.

Project construction is proposed to occur over a duration of approximately 240 calendar days starting in September 2021. Construction would result in approximately 1,560 CY of cut and would not require any fill. Per the District's 2008 CEQA Guidelines, Table 5-2, a construction site with earthmoving (e.g., grading, excavation) of less than 2.2 acres per day is assumed to be below the 82 lb/day threshold of significance for PM_{10}. Earthmoving on construction sites associated with the proposed project will not exceed this 2.2 acres per day threshold, and, therefore, air quality impacts would be less-than-significant. Additionally, Table 5-3 of the 2008 CEQA Air Quality Guidelines sets thresholds for criteria pollutants of concern for operational impacts.

Ambient Air Quality & Noise Consulting conducted an air quality quantification analysis in May 2021 to evaluate the construction and operational air quality impacts of the proposed project (**Appendix B**). Emissions were quantified using the California Emission Estimator Model (CalEEMod), version 2016.3.2 to assess the short-term construction emissions which include demolition, site preparation, grading, building construction, paving, and architectural coating. The calculation utilized standard assumptions regarding construction equipment and evaluate emissions with the presence and absence of fugitive dust control measures. Long-term operation emissions were calculated using CalEEMod and the 2019 Building Energy Efficiency Standards – Title 24. Operational emissions were quantified for the initial operation year of 2023.

Short-Term Construction Criteria Air Pollutants

Construction activities (e.g., excavation, grading, on-site vehicles) which directly generate 82 pounds per day or more of PM_{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors. If ambient air quality in the proposed project area already exceeds the State AAQS, a project would contribute substantially to this violation if it would emit 82 pounds per day or more. The emissions quantification analysis found that without fugitive dust-control measures, the proposed project would generate a maximum of 3.25 lbs/day of PM_{10}. The emissions quantification analysis found that with fugitive dust-control measures and the use of tier 3 off-road equipment the proposed project would generate a maximum of 1.82 lbs/day of PM_{10}. Therefore, construction activities associated with the proposed project would not have a significant impact on air quality. In addition, construction at the project site would implement standard construction Best Management Practices (BMPs) related to dust suppression, which would include: 1) watering active construction areas; 2) prohibiting grading activities during periods of high wind (over 15 mph); 3) covering trucks hauling soil; and 4) covering exposed stockpiles. The implementation of BMPs would further ensure that potential construction-related emissions would be minimized. Since the proposed project is under the threshold for construction air quality impacts, this impact would be less than significant.

Long-Term Operation Criteria Air Pollutants

According to the District's 2008 CEQA Air Quality Guidelines (Table 5-3), Thresholds of Significance for Criteria Pollutants of Concern Operational Impacts, a project would violate an air quality standard and/or contribute to an existing or projected violation if it would emit (from all sources, including exhaust and fugitive dust) more than:

- 137 pounds per day (lbs/day) of reactive organic gases (ROG)
- 137 lbs/day of oxides of nitrogen (NOx)
- 82 lbs/day of respirable particulate matter (PM_{10})
- 55 lbs/day of fine particulate matter ($PM_{2.5}$)
- 150 lbs/day of sulfur dioxide (SO_2)
- 550 lbs/day carbon monoxide (CO)

The proposed project would result in annual operational emissions of approximately 1.59 lbs/day of ROG, 2.85 lbs/day of NO_x, 1.59 lbs/day of PM_{10}, 0.44 lbs/day of $PM_{2.5}$, 0.02 lbs/day of SO_2, and 7.12 lbs/day of CO. These emissions are well below the District's significance thresholds. Therefore, the operation of the proposed project would have a less-than-significant impact on air quality.

c) **Less-than-Significant Impact.** A "sensitive receptor" is generally defined as: any residence including private homes, condominiums, apartments, or living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. Sensitive receptors in the vicinity consist of campus residences located approximately 1,800 feet from the project site. The MBARD's 2008 CEQA Air Quality Guidelines state that a project would have a significant impact to sensitive receptors if it would cause a violation of any CO, PM_{10}, or toxic air contaminant standards at an existing or reasonably foreseeable sensitive receptor.

As stated above in **Response b)**, the proposed project would implement standard air quality BMPs and emissions of criteria pollutants resulting from construction and operation of the proposed project are below applicable MBARD thresholds of significance. The proposed project would not exceed any MBARD thresholds, including CO and PM_{10}. Compliance with applicable MBARD regulations also include, but are not limited to, Rule 402,[2] which would minimize potential nuisance impacts to occupants of nearby land uses. For these reasons, construction activities would be considered to have a less-than-significant air quality impact on sensitive receptors. Additionally, implementation of the proposed project would not result in the installation of any major stationary or mobile sources of emissions. Operational activities of the project would have a less-than-significant impact to nearby receptors as emissions are below applicable thresholds. Therefore, implementation of the proposed project would have a less-than-significant air quality impact on sensitive receptors.

d) **Less-than-Significant Impact.** According to the District's CEQA Air Quality Guidelines, odors represent emissions of one or more pollutants that are a nuisance to healthy persons and may trigger asthma episodes in people with sensitive airways. Pollutants associated with objectionable odors include sulfur compounds and methane. Typical sources of odor include landfills, rendering plants, chemical plants, agricultural uses, wastewater treatment plants, and refineries. Construction activities may generate odors that could be objectionable to some persons. However, the odors potentially generated by the construction activities would be short-term and temporary, and would not cause a violation of any CO, PM_{10}, or toxic air contaminant standards. The proposed project is located on the CSUMB campus, the nearest sensitive receptor is the campus residences located approximately 1,800

2 MBARD Rule 402 "Nuisance" states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

feet from the project site. Standard construction BMPs would be implemented to reduce temporary exposure to construction odors. The proposed project would not include any stationary or mobile sources of emissions that would emit odors typically considered as a nuisance. Therefore, this would

BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

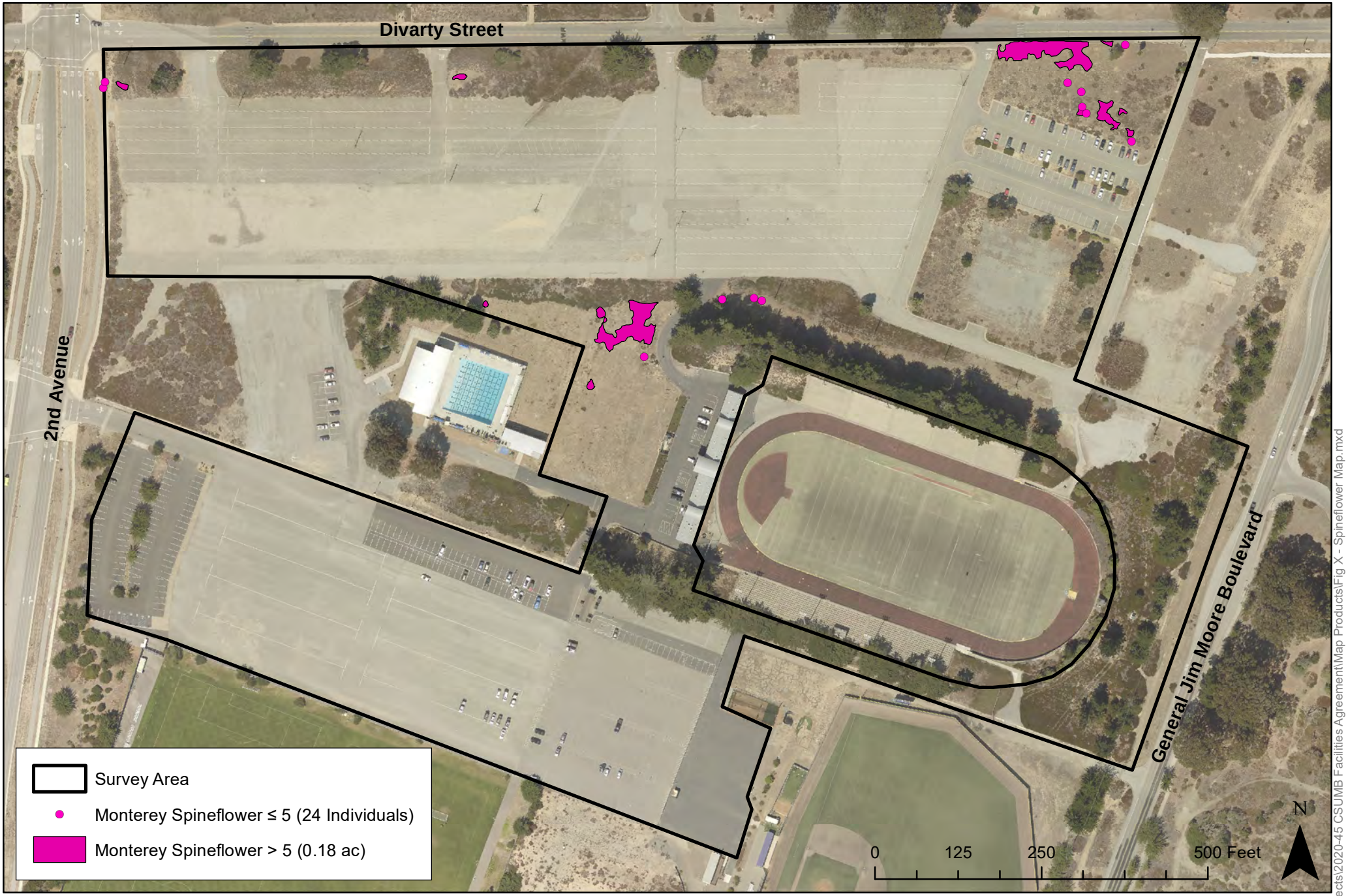
Introduction

Reconnaissance-level biological and focused rare plant surveys were conducted on June 2, 2021, by DD&A Associate Environmental Scientists Liz Camilo and John Wandke. The survey area was defined as all areas that have the potential to be impacted during construction and operation of the proposed project (**Figure 11**). Botanical survey methods included walking the survey area and using aerial maps to identify general vegetation types and potential sensitive vegetation types and conducting focused surveys for special-status plant species.

The project site was surveyed for botanical resources following the applicable guidelines outlined in: *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (U.S. Fish and Wildlife Service [USFWS], 2000), *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018), and *CNPS Botanical Survey Guidelines* (CNPS, 2001). Concurrently, reconnaissance-level wildlife habitat surveys were conducted to identify suitable habitat and observe any special-status wildlife species. Available reference materials were reviewed prior to conducting the field survey. The primary literature and data sources reviewed in order to determine the occurrence or potential for occurrence of special-status species at the project site are as follows:

- Current agency status information from USFWS and CDFW for species listed, proposed for listing, or candidates for listing as threatened or endangered under ESA or CESA, and those considered CDFW "species of special concern," including:
    - CNDDB occurrences reports from the Marina 7.5-minute quadrangle and the six surrounding quadrangles, including Monterey, Moss Landing, Prunedale, Salinas, Seaside, and Spreckels (CDFW, 2021); and
    - USFWS IPaC Resource List (USFWS, 2021)
- CDFW's Special Animals List (CDFW, 2018).
- The CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2021).
- The *Flora and Fauna Baseline Study of Fort Ord* (U.S. Army Corps of Engineers [ACOE], 1992); and
- The *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (HMP) (ACOE, 1997).

Data collected during the literature review and surveys were used to assess the environmental conditions of the project site and its surroundings, evaluate potential project impacts, and provide a basis for developing the mitigation measures to avoid and minimize potentially significant impacts to biological resources.



Title: Monterey Spineflower Occurrences within the Project Site

Date: 6/17/2021

Scale: 1 in = 200 feet

Project: 2020-45

Monterey | San Jose
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
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Figure 11

Path: D:\GIS\GIS_Projects\2020-45 CSUMB Facilities Agreement\Map Products\Fig X - Spineflower Map.mxd

The project site has been previously disturbed from past military uses and on-going campus uses and consists primarily of existing infrastructure and campus facilities (i.e., Freeman Stadium) with some vegetated areas. Directly adjacent to the stadium, trees line the northern and southern boundaries and shrubs line the eastern boundary. More specifically, the trees species present primarily include Monterey cypress (*Hesperocyparis macrocarpa*); however, coast live oak (*Quercus agrifolia*), Monterey pine (*Pinus radiata*), and eucalyptus (*Eucalyptus* sp.) also occur. Vegetated areas that are not either paved with concrete or asphalt are dominated by iceplant (*Carpobrotus edulis*) and non-native grasses and forbs, including ripgut brome (*Bromus diandrus*), rattail fescue (*Vulpia myuros*), and erodium (*Erodium* sp.).

Applicable Federal, State, Regional and Local Regulations

Special-Status Species

Special-status species are those plants and animals that have been formally listed or proposed for listing as Endangered or Threatened or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of Rare or Endangered under CEQA Section 15380 are also considered special-status species. Animals on the California Department of Fish and Wildlife's (CDFW) list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations in the CNDDB on their "Special Animals" list. The CDFW considers the taxa on this list to be those of greatest conservation need, regardless of their legal or protection status. Plants listed as rare under the California Native Plant Protection Act (CNPPA) or included in California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR; formerly known as CNPS Lists) 1A, 1B, 2A, and 2B, are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and CEQA Guidelines Section 15380. In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by CDFW are considered special-status plant species.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state laws and regulations. The Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3513 prohibit killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Birds of prey are protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." In addition, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline are also considered special-status animal species.

CSUMB Tree Restoration Program

CSUMB has established a tree restoration program for impacts to coast live oak and other trees resulting from projects that occur on campus. This program requires that for every removed tree that is four inches or greater in diameter breast height (dbh), two coast live oak trees would be replanted, and assumed to survive, in the identified restoration area on campus. In some cases, more than two trees would need to be planted to achieve this survival rate. The implementation of this program is required for all projects that would result in impacts to trees of four inches in dbh or greater.

Fort Ord Habitat Management Plan

The U.S. Army's decision to close and dispose of the Fort Ord military base was considered a major federal action that could affect listed species under the ESA. In 1993, a Biological Opinion (BO) on the disposal and reuse of former Fort Ord requiring that a Habitat Management Plan (HMP) be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species. The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss associated with the disposal and reuse of former Fort Ord.

The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at former Fort Ord; parcels are designated as "development with no restrictions," "habitat reserves with management requirements," "habitat corridors," or "habitat reserves with development restrictions." The HMP sets the standards to assure the long-term viability of the former Fort Ord's biological resources in the context of base reuse so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. This plan has been approved by USFWS; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and through deed covenants.

The project site is located within designated "development" parcels. Parcels designated as "development" have no habitat management requirements or development restrictions. However, the 2017 Programmatic BO and HMP require the identification of sensitive botanical resources within the development parcels that may be salvaged for use in restoration activities in reserve areas. In addition, the HMP requires that land recipients prepare and implement Resource Management Plans (RMP) and Borderland Management Plans (BLMP) for specified parcels within their respective jurisdictions.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
IV. BIOLOGICAL RESOURCES. Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	6, 9, 12, 13,14, 21, 23, 24, 41,42, 43, 44
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒	6, 9, 12, 13,14, 21, 23, 24, 41,42, 43, 44
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	6, 9, 12, 13,14, 21, 23, 24 39,40, 41, 42
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐	6, 9, 12, 13,14, 21, 23, 24 39,40, 41, 42
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	6, 9, 12, 13,14, 21, 23, 24 39,40, 41, 42
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐	6, 9, 12, 13,14, 21, 23, 24 39,40, 41, 42

EXPLANATION:

a) **Less-than-Significant Impact with Mitigation**. Developed areas within the project site include paved roads, sidewalks, buildings, and parking lots. Little to no vegetation is present within developed areas and they are considered to have little biological value. No special-status species were observed within developed areas during 2021 biological surveys conducted at the project site, and none are expected to occur due to lack of suitable habitat.

Where the project site is not developed, the vegetated areas within the project site can be classified as ruderal vegetation. Ruderal vegetation is considered to have low biological value as it is generally dominated by non-native plant species and consists of relatively low-quality habitat from a wildlife perspective. However, common wildlife species which do well in urbanized and disturbed areas, such as the American crow (*Corvus brachyrhynchos*), California ground squirrel (*Otospermophilus beecheyi*), striped skunk (*Mephitis mephitis*), western scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), and coast range fence lizard (*Sceloporus occidentalis bocourtii*) may forage within this vegetation type.

As discussed above, botanical surveys for special-status plant species were conducted within the project site. Monterey spineflower is a federally threatened species, CNPS CRPR 1B, and HMP species and was identified within the portions of the ruderal habitat (**Figure 11**). Monterey spineflower is a small, prostrate annual herb in the Polygonaceae family that blooms from April to June. It typically occurs on open sandy or gravelly soils on relic dunes in coastal dune, coastal scrub, and maritime chaparral habitats. During the survey, approximately 0.18 acres of Monterey spineflower and 24 individuals were observed and mapped within the project site (**Figure 11**). Implementation of the proposed project could result in impacts to this species. Specifically, the proposed drainage basin is located in an area that could directly impact Monterey spineflower populations and individuals. No other project elements are located in areas that would impact Monterey spineflower. In addition, construction activities could result in impacts if construction personnel and equipment do not stay within the limits of construction and disturb Monterey spineflower occurrences.

As described above, parcels designated as "development" have no development restrictions or habitat management requirements. However, the 2017 Programmatic BO and HMP require the identification of sensitive botanical resources within these parcels that may be salvaged for use in restoration activities in habitat reserve areas. Within all parcels, the HMP recommends preservation of native vegetation and HMP species habitat outside of areas identified for development. Impacts to HMP species, including Monterey spineflower, and habitats occurring within the designated development parcels were anticipated and mitigated through the establishment of habitat reserves and corridors and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord.

With the designated habitat reserves and corridors and habitat management requirements of the HMP in place, the loss of HMP species is not expected to jeopardize the long-term viability of these species and their populations on the former Fort Ord (USFWS, 1993). This is such because the recipients of disposed land with development restrictions or habitat management requirements under the HMP are obligated to implement those specific measures through the HMP and deed covenants. The proposed project is:

1. Located within designated "development" parcels.

2. Required to implement the HMP and BO; and

3. Would not result in any additional impacts to HMP species and habitats beyond those anticipated in the HMP.

CSUMB is required to implement HMP requirements in accordance with the deed covenants that apply to the project site. The HMP and 2017 Programmatic BO require the identification of sensitive biological resources within development parcels that may be salvaged for use in restoration activities in habitat reserve areas. In addition, the HMP requires that land recipients prepare and implement RMPs and BLMPs for specified parcels within their respective jurisdictions. While the proposed project would occur in designated development parcels, CSUMB is required to have an approved BLMP for the specified parcels in their jurisdiction in order to be considered in compliance with the HMP. If CSUMB is in compliance with the HMP and 2017 Programmatic BO, impacts to Monterey spineflower associated with the proposed project would be less than significant and no additional mitigation measures for this HMP species would be required. However, if CSUMB is not in compliance with the HMP and 2017 Programmatic BO, then impacts to HMP species would be potentially significant and additional mitigation measures would be required. CSUMB is currently preparing their BMLP and anticipate approval by the Service at the end of 2021, which would comply with the requirements of the HMP. However, it is unlikely that CSUMB's BMLP would be approved prior to construction and disturbance of the Monterey spineflower populations within the project site. Therefore, this would be a potentially significant impact that can be reduced to a less-than-significant level with the implementation of **Mitigation Measures BIO-1** and **BIO-2** identified below.

Three cypress trees would be removed as part of the proposed project. Construction, and construction-related disturbance adjacent to potential nesting habitat (i.e., trees) during the avian nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment within the site and immediately adjacent areas. This would be a potentially significant impact that can be reduced to a less-than-significant level with the implementation of **Mitigation Measures BIO-2** and **BIO-3** identified below.

MITIGATION

BIO-1 Occurrences of Monterey spineflower shall be avoided to the greatest extent feasible. CSUMB will coordinate with the applicant to determine if it is feasible to design the detention basin to avoid Monterey spineflower. Individuals or populations that will not be impacted by the project shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing and/or flagging. Prior to ground-disturbing activities (e.g., vegetation removal, grading, excavation), a biological monitor will supervise the installation of protective fencing/flagging by the contractor and monitor at least once per week until construction is complete to ensure that the protective fencing/flagging remains intact.

If avoidance of the Monterey spineflower occurrences is not feasible, the impacted area shall be quantified during final design and Monterey spineflower shall be replaced at a 1:1 ratio for the acreage or individuals impacted and a Restoration Plan shall be prepared by a qualified biologist and implemented. The plan shall include, but is not limited to, the following:

- A description of the baseline conditions of the habitats within the impacted area, including the presence of Monterey spineflower, its location, and density.
- A detailed description of on-site and/or off-site restoration areas, salvage of seed and/or soil bank and/or plant salvage, seeding and planting specifications, which may include but is not limited to, an increased planting ratio to ensure the 1:1 ratio.
- Procedures to control and/or eliminate non-native invasive species within the restoration area(s); and

- A monitoring program that describes annual monitoring efforts which incorporate success criteria and contingency plans if success criteria are not met.

BIO-2 The following best management practices will be implemented during all identified phases of construction (i.e., pre-, during, and post-) to reduce impacts to special-status plant species:

- A qualified biologist will conduct an Employee Education Program for the construction crew prior to the initiation of any construction activities. The qualified biologist will meet with the construction crew at the onset of construction at the project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review project boundaries; 2) how a biological monitor will examine the area and agree upon a method which will ensure the safety of the monitor during such activities, 3) the special-status species that may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded by the USFWS and CDFW; and 6) the proper procedures if a special-status species is encountered within the project site.

- Protective fencing shall be placed prior to and during construction to keep construction equipment and personnel from impacting vegetation outside of work limits. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.

- Trees and vegetation not planned for removal or trimming shall be protected prior to and during construction to the maximum extent possible through the use of exclusionary fencing, such as hay bales for herbaceous and shrubby vegetation, and protective wood barriers for trees. Only certified weed-free straw shall be used, to avoid the introduction of non-native, invasive species. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.

- Grading, excavating, and other activities that involve substantial soil disturbance will be planned and implemented in consultation with a qualified hydrologist, engineer, or erosion control specialist, and will utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation adjacent to the project site (pre-, during, and post-construction).

- Following construction, disturbed areas will be restored to pre-project contours to the maximum extent possible and revegetated using locally occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist.

- To protect against spills and fluids leaking from equipment, the project proponent shall require that the construction contractor maintains an on-site spill plan and on-site spill containment measures that can be easily accessed.

- No firearms will be allowed on the project site at any time.

- All food-related and other trash will be disposed of in closed containers and removed from the project area at least once a week during the construction period, or more

often if trash is attracting avian or mammalian predators. Construction personnel will not feed or otherwise attract wildlife to the area.

BIO-3 Activities that may directly affect (e.g., tree removal) or indirectly affect (e.g., noise/ground disturbance) nesting raptors or other protected avian species shall be timed to avoid the breeding season. Specifically, any grading and excavation with heavy machinery and vegetation removal within 300 feet of suitable nesting habitat (i.e., trees within and adjacent to the project site) shall be scheduled during the non-breeding season (September 16 through January 31).

If avoidance of the non-breeding season is not possible, a qualified biologist shall conduct a pre-construction survey for nesting raptors or other protected avian species within 300 feet of the proposed construction activities. The survey shall be conducted no more than 14 days prior to the initiation of construction and submitted to CSUMB's Facilities Management Department. If raptor or other bird nests are identified within or immediately adjacent to the project site during the pre-construction surveys, the qualified biologist shall notify the project applicant and/or contractor and an appropriate no-disturbance buffer shall be imposed within which no construction activities or disturbance shall take place (generally 300 feet in all directions for raptors; other avian species may have species-specific requirements) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

b-c) **No Impact**. No aquatic resources or other sensitive habitats were identified within or adjacent to the proposed project site. Therefore, no impact would occur to sensitive habitats.

d) **Less-than-Significant Impact.** The proposed project construction may result in temporary impacts to wildlife species that may utilize the site. Potential impacts may include and would be limited to, noise, vibration, and dust associated with construction activities that may discourage wildlife utilization during construction. However, it is likely that wildlife would avoid the area during construction and easily avoid the disturbance.

The wildlife species occurring within the vicinity of the proposed project are well-adapted to urbanized and disturbed areas, and the minimal effects of the proposed project would be offset by regional availability of alternative similar habitats. In addition, the proposed project site is not located within a migratory corridor and is not a nursery site. Therefore, the proposed project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Therefore, potential impacts to wildlife movement would be less-than-significant.

e) **Less-than-Significant Impact with Mitigation.** The proposed project does involve the removal of three cypress trees. Therefore, the project would be subject to CSUMB's Tree Restoration Program. This program requires that for every removed tree that is four inches or greater in dbh, two coast live oak trees would be replanted, and assumed to survive, in the identified restoration area on campus. In some cases, more than two trees would need to be planted to achieve this survival rate. The implementation of this program is required for all projects that would result in impacts to trees of four inches in dbh or greater. The proposed project would not conflict with policies pertaining to the protection and preservation of biological resources. Implementation of **Mitigation Measure BIO-4** would ensure that CSUMB's Tree Restoration Program is implemented and reduce potential impacts to less-than-significant.

BIO-4 In accordance with CSUMB's Tree Restoration Program, a minimum of six coast live oak trees (2:1 ratio for the three trees proposed for removal) shall be replanted within the

identified campus restoration area. The replanting specifications shall be identified in final project plans.

f) **Less- than-Significant Impact.** The project site is not located within an approved HCP or NCCP area. However, the project site is located within the Fort Ord HMP boundaries and is designated for development (with no restrictions). As described above, the proposed project is consistent with the approved HMP. This would be a less-than-significant impact and no mitigation is required.

4.5 CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Archaeological Resources

Evidence from coastal areas of Monterey County suggests settlement by at least 5,000 B.C. and possibly earlier. The former Fort Ord is located within lands historically occupied by the Rumsen Indians. This group which may have numbered only 800 individuals before Euro-American contact inhabited the southern half of Monterey Bay, the Monterey Peninsula, Carmel Bay and some of Carmel Valley, and the coastal area south to Big Sur. The Rumsen belonged to a branch of the Costanoan (or Ohlone) language family. Their sociopolitical organization was based on the tribelet, each of which consisted of a primary village and several satellite settlements.

European contact began with the arrival of Spanish explorers in the 16th Century. However, it was not until 1770 that the Portola expedition arrived in Monterey Bay and established the first mission and Royal Presidio. In 1771, the Mission was moved to the Carmel Valley, five miles to the south adjacent to arable land. With the Mission, a period of intense Native American conversion to Catholicism was initiated. By 1778, most of the Rumsen and Esselen Indians in Carmel and Monterey were baptized and settled around the Mission to farm church lands. This resettlement marks the beginning of the disintegration of Native American traditional lifeways in this area.

In 1820, Mexico gained independence from Spain, and a period of secularization ensued. The remaining Indian groups were employed as ranch hands and domestic servants, and by 1840, the Mission was in a state of ruin. Many Indians returned to pre-Spanish food collecting and hunting practices. Some hunted livestock instead of native elk or antelope and were punished severely as livestock thieves. Whole tribelets disappeared from this interaction. With the arrival of Anglo settlers, this process was accelerated as competition for land increased. By the turn of the century, vestigial Indian communities disappeared, and by 1935 the Ohlone language was extinct.

According to the Fort Ord Reuse Plan, the areas of greatest archeological sensitivity at the former Fort Ord include all terraces and benches adjacent to the Salinas River and El Toro Creek, the peripheries of the wet cycle lakes, areas adjacent to streams in the Bureau of Land Management lands, and the coastal beaches. The proposed project is not located in any of these areas of high archaeological resource sensitivity.

Historic Resources

In 1917, Fort Ord Military Base established a cavalry post in Seaside. Although the base was decommissioned in 1994, the area still possesses structures that are considered of historical significance. Specifically, a number of structures in the East Garrison area remain and are considered properties eligible for the National Register. According to the Record of Decision for the Acquisition of the CSUMB campus, there are no historic sites on campus that are eligible or potentially eligible for listing in the National Register. The historic former Fort Ord sites are located outside the property boundaries of the campus.

The National Register is the nation's master inventory of known historic resources, and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Resources (e.g., structures, sites, buildings, historic districts, and objects) over 50 years of age can be listed on the National Register. In addition, properties under 50 years of age that are of exceptional importance or are contributors to an historic district can also be included on the National Register.

The proposed project sites do not contain any historic resources eligible for listing in the National Register.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
V. CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5?	☐	☐	☐	☒	23, 34, 35
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐	23, 34, 35
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	23

EXPLANATION:

a) **No Impact**. Section 15064.5 of the CEQA Guidelines states that a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. A historical resource includes a resource listed in or determined to be eligible by the State Historical Resource Commission, a resource included in a local register of historical resources, and object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant. The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, or not included in a local register of historical resources, does not preclude a lead agency from determining that the resource may be an historical resource.

Freeman Stadium is collocated with other outdoor campus athletic facilities northeast of the Otter Sports Complex. The campus Aquatic Center is located to the west and the Baseball Field, Softball Field, and Soccer Field are located to the south and southeast.

Freeman Stadium and the associated Field House were constructed c. 1952 and therefore exceeds 50 years of age. Therefore, in June 2021, an intensive-level survey of the stadium historic site evaluation was completed by qualified architectural historians with Dudek who meet the applicable U.S. Secretary of the Interior's Standards. Survey findings were recorded on California Department of Parks and Recreation (DPR) Form 523A (Building, Structure, and Object Record) (see **Appendix C**). Survey findings are summarized below.

Fort Ord Historic Context

Fort Ord, located on the Monterey Peninsula, was established in 1917 under the name Fort Gigling for the training of field artillery and cavalry troops stationed at the nearby Presidio of Monterey. No formal buildings were erected until the late 1930s when administrative buildings, barracks, mess halls, tent pads, and a sewage treatment plant were constructed. The reservation was renamed Camp Ord in 1939 and Fort Ord in 1940. In 1940, contracts were awarded to construct 564 buildings and structures on the property and two rail spurs from Southern Pacific lines were extended into the property.

The original camp encompassed 3,777 acres; by 1941, it had grown to 28,514 acres of land and housed 27,000 men. Fort Ord trained soldiers in preparation for war during World War I, World War II, the Korean War, and the Vietnam War. During World War II, Fort Ord began training for amphibious warfare in the Pacific theater; with access to the beaches in Monterey Bay, it became home to the amphibious training unit 18th Armored Group. In 1957, Fort Ord was designated as a U.S. Army Training Center for infantry and the 7th Infantry Division made its home at Fort Ord in 1975. In 1983, the 7th Infantry became a light infantry division able to deploy anywhere in the world within 48 hours.

As the Cold War came to an end, the United States sought to increase the efficiency of the Department of Defense and Vice President Cheney announced proposals for defense installation realignment and closure, or BRAC, including the downsizing of Fort Ord and preparations for the transfer of ownership. The closure of Fort Ord was announced in April 1991; the property was divided, with a portion retained by the Army, a portion kept as a nature preserve, and a portion set aside to establish CSUMB. The campus opened in 1996.

Freeman Stadium Historic Context

In January 1949, the Army prepared plans and specifications for a new football and track stadium on the site of the base's existing amphitheater, just north of the parade grounds. The proposal to develop a stadium at Fort Ord was met with criticism in light of a recent federal freeze on new government construction to aid the Korean War effort. However, the Army argued that the stadium was planned before the war and moreover would be constructed of non-critical materials: "concrete steel blocks" and concrete slab flooring. To preserve copper, steel water pipes and cast-iron conduits were proposed. Ultimately, the ban on unnecessary building was ignored, citing the need for recreational facilities to boost morale and because the growth of Fort Ord was straining recreational facilities in the Monterey-Salinas area". The stadium was considered a necessary facility to "keep pace with the growth of the tent-soldier population" and the athletics field would help to reinforce the Army's rigorous training program. Construction was set to begin soon after the contract was awarded and was planned to be completed by September of 1951.

The first football team at Fort Ord, the Presidio Dons, was organized in 1940. The team held practices at nearby fields and played other branches of the military. After the new stadium was constructed in 1951, the team's name changed to the Warriors and games were also played against college teams. By November 1953, Fort Ord's semi-professional football team was playing games in the newly completed stadium, which was accordingly named "Warriors Stadium". During the 1953 season, the Warriors played both the Los Angeles Rams and the San Francisco 49ers. The team was sufficiently well respected that, in the 1950s, college football coaches visited Fort Ord at the end of the season to recruit players. The Warriors were the top-ranked service team in the country by the mid-1950s and continued to play into the 1960s.

Freeman Stadium - Current Conditions

After Fort Ord closed and the site of CSUMB was acquired, the stadium became part of the newly established campus. The track and field were apparently used for athletic activities after the transition but eventually the field was paved, and the site has only been used as an occasional outdoor auditorium.

Freeman Stadium today comprises the following components, which are depicted in photographs included in the DPR Form 523A in **Appendix C**: the field, track, bleachers, electrical building, and Field House. Freeman Stadium field is oval and has been paved and painted. A paved track encircles the field, although track markings are no longer delineated on the pavement. Stepped bleachers constructed of board-formed concrete flank the track and field on the north and south sides and are set into low embankments or berms that enclose the stadium. The electrical building, a small, windowless building constructed of CMU atop a concrete foundation, is sited on a berm west of the track. A chain-link fence encloses the field, track, and bleachers, with gates on the west near the Field House and on the east side of the field for ADA accessibility. Deciduous and evergreen trees and shrubs are planted behind the bleachers and along the chain-link fence.

The two-story Field House sits at the west end of the field and track. The building is rectangular in plan with a side-gable standing seam metal roof punctuated by skylights and three two-story barrel-roofed sections. The building is clad in stucco fiber cement siding and sits on a concrete foundation. The building's west façade incorporates side-sliding vinyl windows at irregular intervals and, in the barrel roofed gable ends, fixed, multi-lite windows with metal frames.

National Register of Historic Places/California Register of Historical Resource Criteria

Dudek architectural historians concluded that Freeman Stadium and the Field House are not eligible for listing on the National Register of Historic Places or the California Register of Historical Resource per Criterion A/1 (Association with events that have made a significant contribution to the broad patterns of our history) because they were constructed after the core construction period of the base and were not included in original base plans. Nationwide interest in sports and recreation at the time of their construction resulted in numerous improvements to recreation facilities on army bases across the country and therefore Freeman Stadium and the Field House are not unique.

Dudek concluded that Freeman Stadium and the Field House are not eligible per Criterion B/2 (Association with the lives of persons significant in our past) because eligible properties must be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Archival research indicates that no single person was shown to be influential or directly associated with the stadium.

Dudek concluded that Freeman Stadium and the Field House are not eligible per Criterion C/3 (Embodiment of the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction) because none of the research identified a significant architect for Freeman Stadium and therefore no master architect is associated with the design. Instead, the original design for the stadium, bleachers, and Field House was prepared by architects and/or engineers employed by the Fort Ord Engineering Office. The DPR Form 523A provided in **Appendix C** further notes that stadiums are a ubiquitous type of recreational facility and archival research did not identify the stadium as distinctive in its type, period, and method of construction. There is no artistic value to the present paved track or paved field and the concrete stadium bleachers are of a simple, utilitarian design. Moreover, the field and track have been altered beyond recognition with numerous additions and replacement of original materials, including new surfacing on the track and the paving and surfacing of the field. Likewise, the Field House has

undergone numerous extensive alterations, including substantial changes to the plan, exterior cladding, and fenestration.

Dudek concluded that Freeman Stadium and the Field House are not eligible per Criterion D/4 (Yields, or may be likely to yield, information important in prehistory or history) as there is no evidence suggesting they have this potential.

Dudek also concluded that Freeman Stadium and the Field House are not eligible for designation as a California Historic Landmark as it is not the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California); associated with an individual or group having a profound influence on the history of California; or a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.

Finally, for the same reasons the facilities do not rise to the level of significance required for federal or state designation per eligibility criteria discussed above, the property does not rise to the level of significance required for local designation on an individual level or as a component of a historic district.

Based on Dudek's significance evaluation and in consideration of national and state eligibility criteria, Freeman Stadium and the Field House have been determined not eligible for listing in the NRHP or the CRHR. Accordingly, the proposed project would have no impact on historic resources.

b) **Less-than-Significant Impact with Mitigation**. The construction of the proposed project would primarily occur within the existing developed and previously disturbed area of the site. The proposed project site is not identified as an area of archaeological resource sensitivity in the Fort Ord Reuse Plan EIR, and there are no known archaeological resources on the proposed project site. Furthermore, the proposed project site is not identified as existing in an area of archeological sensitivity per the County's GIS database. The proposed project would not impact any known archaeological resources or sites. However, as with all ground-disturbing activities, construction activities associated with the proposed project may result in impacts to unknown archaeological resources or sites. This would be a potentially significant impact that can be reduced to a less-than-significant level with the implementation of **Mitigation Measure CR-1** identified below.

MITIGATION

CR-1 Prior to the initiation of ground-disturbing activities, the contractor and/or project applicant shall inform all supervisory personnel and all contractors whose activities may have subsurface soil impacts of the potential for discovering archaeological resources.

If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resource(s) shall be halted and the project applicant shall immediately notify the CSUMB Facilities Management Department of the discovery. A qualified archaeologist shall be consulted to assess the significance of the find(s) according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the County and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered at the site shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. Appropriate mitigation may include no action, avoidance of the resource, and/or potential data recovery. Ground disturbance in the zone of suspended activity shall not commence without authorization from the archaeologist. Work may proceed on other parts of the site outside the 50-foot area while mitigation is being carried out.

c) **Less-than-Significant Impact with Mitigation**. Implementation of the proposed project would not impact any known human remains. Though unlikely, construction activities associated with the proposed project may result in impacts to human remains. This would be a potentially significant impact that can be reduced to a less-than-significant level with the implementation of **Mitigation Measure CR-2** identified below.

MITIGATION

CR-2 Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, PRC Section 5097398, and CEQA Guidelines Section 15064.5(e). According to the provisions of CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Monterey County Coroner shall be notified immediately. The coroner shall then determine whether the remains are Native America. If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendent (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the site secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner of the descendant may request mediation by the NAHC.

4.6 ENERGY

ENVIRONMENTAL SETTING

The proposed project would utilize existing infrastructure and service connections for energy use. CSUMB owns a medium-voltage electricity distribution system that extends to every building on campus. Electricity is procured both from a 1.0 MW solar tracking PV generation facility owned by SunEdison, and from Pacific Gas & Electric (PG&E).

Guiding Policies

The California State University system has established several policies to guide campuses towards sustainable campus development, including but not limited to, energy efficiency. These include Executive Order 987, 2007 Second Nature Climate Commitment, 2013 Climate Action Plan, and the Green Building Standards, which define energy goals and policies for on-going and future campus expansion.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
VI. ENERGY. Would the project:					
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐	16, 23
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐	16, 23, 34

EXPLANATION:

a) **Less Than Significant Impact.**

Construction Energy Use. Construction of the proposed project would consist of renovating the existing Freeman Stadium at CSUMB, and would include improvements to the existing field house, athletic track and field, stadium seating, east-end goal area, northeast entryway, and parking areas. Construction would take place over approximately eight months (240 calendar days), beginning as early as September of 2021 and anticipated to be completed by May 2022. The construction of the proposed project would require energy for the manufacture and transportation of renovation materials, preparation of the site (e.g., demolition and grading), and the actual construction of the renovations. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for this task. The construction energy use has not been determined at this time. However, the proposed project would not cause inefficient, wasteful, or unnecessary consumption of energy as the construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. Energy use required to complete construction would be limited and short-term. Therefore, energy use during construction would be less than significant.

Operational Energy Use. Energy use for the proposed project would connect to existing infrastructure or be improved by the installation of energy efficient mechanisms. More specifically, the existing Field house would be connected to the existing natural gas for heating and would require 367,000 BTUh during project operations. Lighting would only be necessary for practice, games, or events. As a result, operation of the proposed project would not result in a substantial environmental impact on energy resources.

Based on the discussion above, the proposed project would not result in potentially significant environmental impacts, during construction or operation, due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use. Furthermore, the construction and operation of the proposed project would align with energy policies defined by the California State University (CSU) Executive Order No. 987, which defines energy conservation goals and sustainable building practices for CSU's. The proposed project will also meet CSU Title 24 Building Energy Efficiency Standards. Therefore, impacts to energy use would be less than significant.

b) **Less-than-Significant Impact.** As stated above, the construction and operation of the proposed project would have a less-than-significant impact on energy. Similarly, the proposed project would not

conflict with local, regional, or state plans for energy efficiency. Rather, the proposed project would connect to existing energy infrastructure, which as discussed above under Environmental Setting, is both renewable and purchases energy. Additionally, CSUMB's 2007 Master Plan policies for utilities and infrastructure ensure that new buildings maximize energy efficiency (UI 2.4). Therefore, this would be a less-than-significant impact.

4.7 GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

Regional and Site Geology

The site is located approximately one mile inland (east) of Monterey Bay, within the Coast Ranges Geomorphic Province of Central California, which generally consists of two core complexes: the Franciscan Formation and the Salinian Block. The Salinian Block, which underlies the proposed project region, consists of an elongated north-northwest-trending crustal block of granitic and metamorphic rock. This block was formed during the collision of the North American and Pacific tectonic plates.

According to the CSUMB 2007 Master Plan EIR, locally, the CSUMB site is geomorphically characterized by bar and swale landforms of perennial, vegetation-stabilized dunes, which represent older coastal dune sand. The dunes range in thickness up to 90 feet below the campus area. Borings taken during the geotechnical investigation encountered silty sand and poorly graded sand with silt. This sand overlies the Paso Robles Formation which consists of soft clastic sediments. Granitic metamorphic basement rocks of the Salinas Core complex underlie the Paso Robles Formation.

Faulting and Seismicity

According to the California Geologic Survey (CGS), the site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest zoned active faults are the Monterey Bay fault zone and the Reliz-King City fault which are about five kilometers west and east of the proposed project site, respectively. Ground-shaking is the primary seismic hazard at the CSUMB campus. The U.S. Geological Survey (USGS) identifies several other faults within the site vicinity. Thus, the potential for surface fault rupture at the site is considered to be very low. **Table 2** below identifies the significant faults in the area and their corresponding parameters.

Table 2. Fault Zones in the Project Vicinity

Fault Name	Distance (miles)	Distance (km.)	Direction	Rupture Length (km)	Mw Max.*
Reliz-King City	3.1	~5	Southeast	88	7.25
Monterey Bay – Fault Zone	3.7	6	Northwest	40	6.75
Tularcitos*	4.9	8	Northeast	54	7
San Gregorio	14.2	23	Southwest	156	7.5
Palo Colorado	18.01	29	Southwest	38	6.75
San Andres – 1906 Segment	19.26	31	Northeast	>450	8

*Tularcitos Fault contains three (3) segments: Navy segment, Tularcitos segment, Navy & Tularcitos segments. The Rupture length used within this table is the Navy & Tularcitos segments.

Sources: CSUMB 2007 Master Plan DEIR. USGS. *U.S. Quaternary Faults Map*. Available online at: U.S. Quaternary Faults (arcgis.com).

Liquefaction Potential and Dynamic Compaction

Soil liquefaction is a condition where saturated, predominantly granular soils undergo a substantial loss of strength and potential deformation. Soils most susceptible to liquefaction are saturated, loose, clean, uniformly graded, fine sand deposits.

Materials that underlie the CSUMB campus are considered to have a low susceptibility to liquefaction, except where ground water is within ten feet of the ground surface. At locations where ground water is within ten feet of the ground surface, which are not likely to be common in the proposed campus area, the susceptibility to liquefaction is considered moderate. In general, groundwater is not expected to be present in appreciable quantities in the sand dune deposits. Localized concentrations of perched water may be present at random locations and depths.

Another type of seismically induced ground failure that can occur as a result of seismic shaking is dynamic compaction or seismic settlement. Such phenomena typically occur in unsaturated, loose granular material or uncompacted fill soils.

Near surface coarse grained soils were typically medium dense to very dense overlying decomposed to highly weathered weak sandstone. No groundwater was encountered to a depth of 30 feet below existing grade at the time of the subsurface investigation, although perched groundwater could occur in unpaved or buried stormwater management systems area for a brief time after significant rains. Therefore, the potential for liquefaction of the soils encountered is low.

Another type of seismically induced ground failure that can occur as a result of seismic shaking is dynamic compaction or seismic settlement. Such phenomena typically occur in unsaturated, loose granular material or uncompacted fill soils. In the event of a major earthquake in the site vicinity, it is estimated that less than ¼ inches of total and differential settlement could occur as a result of dynamic compaction.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
VII. GEOLOGY AND SOILS. Would the project					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐	5, 21, 23, 38, 39
ii) Strong seismic ground shaking?	☐	☐	☒	☐	21, 22, 38, 39, 40
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	21, 22, 38, 39, 40

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
iv) Landslides?	☐	☐	☒	☐	21, 22, 38, 39, 40
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	21, 22, 38, 39, 40
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐	5, 21, 23, 28, 39, 40
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐	5, 21, 23, 28, 39, 40
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒	5, 21, 23, 28, 39, 40
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒	21, 23

EXPLANATION:

ai) **Less-than-Significant Impact**. Surface rupture occurs along lines of previous faulting. According to the CGS, the site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest known active or potentially active fault is the Rinconada fault, located approximately 2.8 miles (approximately 4.5 km) northeast from the site, which is capable of producing a maximum earthquake magnitude event of 7.3. As is true for the entire region, moderate to severe ground shaking and associated seismic hazards due to large earthquakes on vicinity faults may be experienced during the design lifetime of the proposed project. However, there are no known faults that traverse the CSUMB campus. Therefore, potential rupture impacts would be less than significant.

aii) **Less-than-Significant Impact**. Due to its location in a seismically active region, the proposed project may be subject to strong seismic ground shaking during their design life in the event of a major earthquake on any of the region's active faults. Seismic impacts would be minimized by using standard engineering and construction techniques in compliance with the requirements of the California Building Code (CBC). This would be a less-than-significant impact.

aiii) **Less-than-Significant Impact**. As described above, the proposed project may be subject to strong ground shaking in the event of a major earthquake. Materials that underlie the CSUMB campus are considered to have a low susceptibility to liquefaction. Therefore, this would be a less-than-significant impact.

aiv) **Less-than-Significant Impact**. Given topography surrounding the proposed project site in conjunction with the natural grade of the slopes in the vicinity, slope instability is not anticipated to be an issue for the proposed project. Therefore, this would be a less-than-significant impact.

b) **Less-than-Significant Impact with Mitigation.** Site preparation and construction activities associated with the proposed project would disturb soil and increase its susceptibility to erosion. Construction contractors would be required to conform to all legal requirements for avoiding erosion and sedimentation to protect water quality. This includes aligning project site design with the CSUMB Stormwater Master Plan and use of erosion control BMPs. Please refer also to the discussion in **Section 4.10, Hydrology and Water Quality** of this document. In addition, **Mitigation Measure GEO-1** below requires implementation of the recommendations in the Geotechnical Investigations from the 2007 CSUMB Master Plan, which would reduce any potential impacts from soil erosion or loss of topsoil to a less-than-significant level.

c) **Less-than-Significant Impact**. As described above, the proposed project has a low susceptibility for liquefaction and would not be affected by landslides on- or off-site. This would be a less-than-significant impact.

d) **Less-than-Significant Impact with Mitigation**. As described above, soils at the project site contain silty sand and poorly graded sand with silt. Based on the results of the 2007 CSUMB Master Plan Geotechnical Investigation, it was determined that improvements could be developed as planned provided the recommendations in the Geotechnical Investigation are incorporated into the design and construction of the project, as described in the mitigation measure below, which would reduce any potential impacts from expansive soils to a less-than-significant level

MITIGATION

GEO-1 The contractor shall be required to implement the recommendations from the Geotechnical Investigation and incorporate the recommendations into the final plans and specification prior to the start of construction.

e) **No Impact**. The proposed project does not involve any septic tank or alternative wastewater systems, and, therefore, no impact would occur.

f) **No Impact.** The proposed project does not contain any paleontological resources or unique geological features. The proposed project site consists of the existing Freeman Stadium, surrounding land is previously disturbed. Therefore, no impact to paleontological resources or unique geological features would occur.

4.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

Greenhouse gases (GHGs) are emitted by both natural processes and human activities. Of these gases, carbon dioxide (CO_2) and methane (CH_4) are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Different types of GHGs have varying global warming potentials. The global warming potential of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere. Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CDE), and is the amount of a GHG emitted multiplied by its global warming potential. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century.

According to CARB, some of the potential impacts in California of global warming may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. While these potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general, scientific modeling tools are currently unable to precisely predict what impacts would occur locally.

Greenhouse Gas Emissions and Links to Global Climate Change

With regard to climate change impacts, no air district in California, including the MBARD, has identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions. The State has identified 1990 emission levels as a goal through adoption of AB 32. To meet this goal, California would need to generate lower levels of GHG emissions than current levels. However, no standards have yet been adopted quantifying 1990 emission targets. For this analysis, the proposed project's contribution to global climate change would be considered significant if it would be inconsistent with AB 32's goal of reducing 2020 greenhouse gas emissions to 1990 levels from sources associated with projected growth (i.e., motor vehicles, direct energy use, waste-related activities) or expose persons to significant risks associated with the effects of global climate change.

The greenhouse effect is a natural process by which some of the radiant heat from the sun is captured in the lower atmosphere of the earth, thus maintaining the temperature, and making the earth habitable. The gases that help capture the heat are called greenhouse gases. Some GHGs occur naturally in the atmosphere, while others result from human activities. Naturally occurring GHGs include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Certain human activities, however, add to the levels of most of these naturally occurring gases as describe below:

Carbon dioxide (CO_2) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned.

Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills and from the raising of livestock.

Nitrous oxide (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

High global warning potential (GWP) gases that are not naturally occurring, including hydro fluorocarbons (HFCs), per fluorocarbons (PFCs), and sulfur hexafluoride (SF6), are generated in a variety of industrial processes.

Each GHG differs in its ability to absorb heat in the atmosphere. High GWP gases such as HFCs, PFCs, and SF_6 are the most heat-absorbent. Methane traps over 21 times more heat per molecule than CO_2, and N_2O absorbs 310 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its GWP. **Table 3** shows the GWP for different GHGs for a 100-year time horizon.

Table 3. Global Warming Potential for Greenhouse Gases

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous Dioxide (N_2O)	310
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur Hexafluoride (SF_6)	23,900

Source: BAAQMD, 2006

Projects which are not consistent with the AQMP have not been accommodated in the AQMP and would have a significant cumulative impact on regional air quality unless emissions are totally offset. A project that is inconsistent with the AQMP has not been accommodated in the emissions budget and would have a significant cumulative impact on attainment of the state's ozone ambient air quality standards (AAQS) unless project emissions are totally offset.

Since global climate change is certainly a cumulative impact, this analysis considers that the proposed project would have a significant impact if it would:

- Result in substantial net increases in greenhouse gases and CO_2e emissions. In the absence of generally accepted thresholds of significance for projects, a substantial increase, for purposes of this analysis, occurs when a project exceeds thresholds of significance for criteria pollutants. This approach is consistent with guidance from the California Air Pollution Control Officers' Association (CAPCOA), which notes that implementing CEQA without an explicit threshold prior to formal guidance from the State of California's Office of Planning and Research is appropriate. In fact, this approach is consistent with CAPCOA's belief that by defining substantial emissions of GHGs to performance standards (e.g., criteria pollutant emission thresholds), lead agencies would amass information and experience with specific project categories that would support establishing explicit thresholds in the future.

- Expose persons to significant risk associated with the effects of global climate change.

- Conflict with or obstruct implementation of the goals or strategies of Executive Order S-3-05.

- Be inconsistent with the Air Resources Board's 44 Early Action Measures for AB 32 compliance.

- Be subject to CARB's mandatory reporting requirements (generally required for projects producing more than 25,000 annual metric tons of CO_2e).

- Be inconsistent with the recommended global warming mitigation measures from the Attorney General, CAPCOA, Office of Planning and Research, or other appropriate sources.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
VIII. GREENHOUSE GAS EMISSIONS. Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	2, 4, 29, 30
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	2, 4, 29, 30, 34

EXPLANATION:

a) **Less-than-Significant Impact**. MBARD has determined that if a project emits less than 10,000 metric tons per year (MT/yr) of CO_2e (Carbon Dioxide equivalent), its impact will be less than

significant. This calculation is determined by combining the estimated greenhouse gas emissions generated by construction, amortized over a 30-year period, with the estimated annual GHG emissions resulting from the operation of the project. As mentioned in **Section 4.2 Air Quality**, the project would primarily result in minor temporary emissions due to construction-related activities. Due to the short construction period, proposed minor earthmoving, and overall temporary construction impacts, the project would not generate greenhouse gases that would have a significant impact on the environment.

More specifically, the construction of the proposed project would generate 223.20 MT/yr of CO_2e based on the CalEEMod (**Appendix B**). Amortized over a 30-year period, the construction emissions would be 13.69 MT/yr of CO_2e. The proposed project operation would emit 414.32 MT/yr of CO_2e. The combined emissions generated as a result of the proposed project would be 428.01 MT/yr of CO_2e, well below the MBARD threshold of 10,000 MT/yr. as such the operation and construction of the proposed project would have a less-than-significant impact related to GHG emissions.

b) **No Impact.** The proposed project is located in the NCCAB, where air quality is regulated by MBARD. Neither the State, MBARD, nor Monterey County have adopted a GHG emissions reduction plan that would apply to the project. However, CSUMB 2007 Master Plan has their own Climate Action Plan. None of the reduction strategies to be included in the CAP pertains to construction generated GHG emissions. Therefore, the proposed project does not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. No impacts would occur.

4.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

The CSUMB campus is located on a portion of the former Fort Ord, which has been used by infantry units for maneuvers, target ranges, and other purposes since it was established in 1917.

The former Fort Ord was added to the EPA's National Priorities List of Hazardous Waste Sites (Superfund) compiled pursuant to Government Code §65962.5 ("Cortese List") in 1990, and a federal facilities agreement required the Army to perform the Superfund cleanup process prior to the conveyance of any land. Findings of Suitability to Transfer (FOSTs) have been prepared by the Army to document that the property is environmentally suitable for transfer under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Department of Defense (DOD) FOST Guidance. In accordance with CERCLA, the FOSTs demonstrate that either the property is uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully. To date, all campus property, with the exception of the East Campus Open Space Zone, has been transferred to CSUMB.

On March 31, 2007, the Army and FORA entered into an Environmental Services Cooperative Agreement (ESCA) thereby allowing the Army to transfer 3,500 acres of Economic Development Conveyance (EDC) properties, and the responsibility of removing Munitions and Explosives of Concern (MEC) to FORA. Under the terms of the ESCA and additional agreements between the EPA and Department of Toxic Substance Control (DTSC), FORA is required to meet the same standards for Army MEC remediation as the Army and abide by all federal and state regulations governing the cleanup of a Superfund site.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	23, 34
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	23, 34
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	23, 34
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒	10, 23
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒	23, 34
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	32
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐	3, 15

EXPLANATION:

a) **Less-than-Significant Impact**. MEC's have been removed from the CSUMB campus, including the proposed project site. However, there is still potential for hazardous materials to be encountered at the project site (i.e., lead-based paints and asbestos, etc.). Furthermore, construction of the proposed project would involve the use of products such as concrete, paints, and adhesives, as well as heavy equipment, which would contain fuels, oils, and hydraulic fluid. The contractor would be required to comply with all California Health and Safety Codes and campus policies regulating the handling and use of hazardous materials. Therefore, this would be a less-than-significant impact.

b) **Less-than-Significant Impact**. Construction and operation of the proposed project may involve the use of, or result in the exposure to, hazardous materials that may be accidently released into the environment. Best management practices will be implemented during construction and operation to reduce risk of hazardous material exposure associated with the proposed project. Therefore, this would be a less-than-significant impact.

c) **Less-than-Significant Impact.** The proposed project is located on the CSUMB campus; however, there are no other schools within ¼ mile of the proposed project site. The contractor would be required to comply with all California Health and Safety Codes and campus policies regulating the handling and use of hazardous materials. Therefore, this would be a less-than-significant impact.

d) **No Impact.** The proposed project site is not located on the "Cortese" Hazardous Waste & Substance Sites list compiled pursuant to Government Code Section 65962.5. There would be no impact in connection with the proposed project.

e-f) **No Impact.** The proposed project site is not located within two miles of an airport or private airstrip and would not create a safety hazard or excessive noise for people residing in the project area. The General Plans for Monterey County, City of Seaside, and City of Marina do not identify any of the roads within or adjacent to the proposed project site as a major evacuation route. In addition, no evacuation routes were identified in the proposed project area in the CSUMB 2007 Master Plan. The proposed project would have no impact on the ability of CSUMB or other adjacent jurisdictions to maintain and safely utilize their established emergency evacuation routes. Therefore, no impact would occur.

g) **Less-Than-Significant Impact.** The proposed project would not expose people or structures to significant risk from wildfires. Standard fire protection requirements would be implemented and subject to approval from Presidio of Monterey Fire Department (POMFD), see **Section 4.17 Public Services**. This would be a less-than-significant impact.

4.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Site Conditions

The proposed project site is located within Watershed A2 of the local CSUMB watershed identified within the CSUMB Stormwater Master Plan. Stormwater within the proposed project site is currently uses existing percolation basins and drainage features near the intersection of General Jim Moore Blvd. and Lightfighter Drive. The area has a moderate, Mediterranean-type climate with an average annual precipitation of about 14.2 inches, the majority of which falls between November and April. Well-defined natural drainage channels are largely absent in the western half of the former Fort Ord because sandy soils in this area are highly permeable and absorb much of the rainfall and runoff.

Surface waters within the former Fort Ord are not used for domestic supply but are used to a limited extent for stock watering; as a result, surface water quality data is limited. In general, surface water quality varies seasonally; the first heavy rains of the season tend to flush the highest concentration of pollutants into the storm water system. This runoff from urbanized areas typically contains elevated levels of suspended solids, coliform bacteria, oil and grease, fertilizers and pesticides, and heavy metals; many of these pollutants are associated with the operation of motor vehicles.

There are no ponds, lakes, or other water bodies located on the proposed project site. Per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site is located outside both the 100-year and 500-year floodplains. Therefore, flooding is not a concern at the project site.

Tsunamis or "tidal waves" are seismic waves created when displacement of a large volume of seawater occurs as a result of movement on seafloor faults. The proposed project site is about 200 feet above mean sea level and would not be affected by a tsunami.

Water Supply

Water service to CSUMB is currently provided by the MCWD. The MCWD provides water supply and wastewater collection services for residents in the City of Marina and to lands in the former Fort Ord military base. Water supply is primarily sourced from groundwater from the Salinas Valley Groundwater Basin, which is regulated by the Monterey County Water Resource Agency (MCWRA) and the Salinas Valley Basin Groundwater Sustainability Agency (SVGWSA). Per agreements with MCWRA, MCWD is limited to pumping a total of 6,600 AFY for the service area, which includes CSUMB. Of the 6,600 AFY, the campus is allocated 1,035 AFY.

The Salinas Valley Groundwater Basin underlies the Salinas Valley from San Ardo in southern Monterey County to the coast of Monterey Bay. The Salinas Valley Groundwater Basin consists of nine subbasins, of which six (6) fall entirely or partially under the SVBGSA's jurisdiction. The proposed project site, and the broader CSUMB campus is serviced by the Salinas Valley – 180/400-foot Aquifer Subbasin. Natural groundwater recharge occurs through infiltration of surface water, deep percolation of excess applied irrigation water, and deep percolation of infiltrating precipitation.

The Salinas Valley Groundwater Basin has been in an overdraft condition, and the 180/400 subbasin that is utilized by the campus has been declared by the State to be a basin subject to "critical conditions of overdraft." To address the basin overdraft, several measures have been implemented or are proposed by the MCWRA for long-term management and protection of groundwater resources to provide adequate water supplies to meet current and future needs. In January 2020, the SVGWSA finalized their Groundwater Sustainability Plan (GSP), a requirement per the 2014 California Sustainable Groundwater Management Act. The GSP outlines how each basin will achieve groundwater sustainability in 20 years, and how they will maintain sustainability for an additional 30 years. In addition to the GSP, the SVGWSA is also required to submit annual Water Year (WY) reports to discuss the condition of the basin and show that the GSP is being implemented in a manner that will meet the sustainability goals defined by the GSP.

In 2020, the SVGWSA published their first annual report that assessed the 2019 WY. Data from this report illustrates annual fluctuations in groundwater elevation, storage, and quality, of which, is compared to the thresholds set by the GSP. Table 12 of the WY 2019 Report shows that groundwater elevations do not exceed the 20-year planning horizon undesirable result, as elevations are above their minimum thresholds.

Storm Drainage

CSUMB owns the stormwater systems within their property. The North, West, and most of the Central Campus systems discharge to existing regional stormwater systems that collect stormwater and discharge it to percolation ponds. Small sections of the North and Central Campus have systems that discharge to local percolation ponds and open space outside of CSUMB property.

The existing terrain of the proposed project site slopes from the south to the north. Stormwater on-campus is managed in accordance with the CSUMB Stormwater Master Plan (Schaaf & Wheeler Consulting Civil Engineers, Feb 2006), which ensures physical upgrades to the existing stormwater system are planned accordingly with future growth. On-site storm drainage improvements for the proposed project would be provided in conformance with the Post Construction Stormwater Management Requirements for Development Projects in the Central Coast Region, Central Coast Regional Water Quality Control Board (Central Coast RWQCB) Resolution No. R3-2013-0032 (Regional Permit). On-site LID measures include, but are not limited to, limiting the areas of disturbance and impervious surfaces, and constructing vegetated bioswales.

The Federal Clean Water Act regulates discharges into U.S. waters through a National Pollutant Discharge Elimination System (NPDES) permit, administered through the State Water Resources Control Board (SWRCB) and the State Regional Water Quality Control Board (RWQCB) in California. The State and Central Coast RWQCB oversee a statewide General Permit regarding management of stormwater runoff from construction sites over one acre in size. Provisions of the Statewide Permit indicate that discharges of material other than stormwater into waters of the U.S. are prohibited; that storm water discharges shall not cause or threaten to cause pollution, contamination, or nuisance; and that storm water discharges not contain hazardous substances. The Statewide Permit also requires implementation of BMPs to achieve compliance with water quality standards. A BMP is defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces discharge of pollutants into bodies of water.

Any project that would disturb over one acre, including the proposed project, is required to file a "Notice of Intent" with the RWQCB with submittal of a Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB prior to proposed project construction. The SWPPP is the foundation of the required documentation for a NPDES General Storm Water Permit for construction activities. A Stormwater Master Plan was prepared and approved by CSUMB in February 2006 and a Draft Stormwater Management Plan was prepared by CSUMB in July 2006, which has not been officially approved. Together these two documents create CSUMB's overall stormwater management program. CSUMB has applied and received the RWQCB for a waiver of the NPDES Phase II General Permit since none of the stormwater runoff created by the University reaches any surface waters of the U.S., including the Monterey Bay.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
X. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐	23, 24, 31, 32
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐	23, 24, 31, 32
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐	23, 24, 36
i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒	5, 23, 24, 36
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒	5, 23, 24, 35

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒	5, 23, 24, 31, 32
iv) Impede or redirect flood flows?	☐	☐	☐	☒	23, 38
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	23, 24, 25
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐	23, 24, 31, 32, 37

EXPLANATION:

a-c) **Less-than-Significant Impact**. The proposed project would not violate any state or local water quality standards or requirements. Temporary, and isolated, construction and operational impacts may occur and would be addressed through standard BMPs. Similarly, the proposed project would not decrease groundwater supplies or interfere substantially with groundwater recharge. Discussed in more detail below and in **Section 4.19 Utilities and Service Systems**, the proposed project would require water for construction and operation. The proposed project which is located within the CSUMB campus is supplied water by MCWD and sourced primarily by the Salinas Valley Groundwater Basin, subbasin 180/400. Groundwater extraction is closely regulated and monitored by the MCWRA and the SVGWRA. CSUMB was allocated 1,035 AFY of water from MCWD. Current campus wide use is 318 AFY, while the existing stadium and Field House currently use 0.17 AFY for CSUMB athletic uses and events. Potable water would be supplied by connecting to or utilizing existing water supply infrastructure on campus, specifically supplied from the Field House. The existing field would be replaced with synthetic turf with sand and rubber infill and would not require additional potable water. The proposed project would require approximately 1.2 AFY for increased use of existing showers, water closet, urinals, lavatories, service sinks and the beer garden. Additional water would be used to periodically rinse the synthetic turf field and stadium stands and would require 0.06 AFY. During events, temporary or portable restrooms would be utilized, and water needs (e.g., hand washing stations at restrooms and concession stands) would be supplied from a temporary portable source.

The water demand required for the proposed project would fall within the existing campus allocation. As discussed above in the Environmental Setting, the proposed project would align with the campus's Stormwater Master Plan, which serves as a comprehensive guide to storm water management. Additionally, as required by the RWQCB, the proposed project would be required to submit a SWPPP, which is required for the acquisition of the NPDES General Storm Water Permit. Furthermore, improvements to drainage on-site and the construction of a retention pond to the west of the project site will retain runoff, eliminating discharges to surface water bodies within or near the campus. Therefore, the proposed project would have a less-than-significant impact on water quality and drainage patterns.

ci-civ) **Less-than-Significant Impact.** The implementation of the proposed project would not result in a significant increase in erosion or runoff, on or off-site, nor would any temporary runoff be in excess that it would pose a flood hazard on or off-site. Construction activities could result in temporary

increase in sediments and debris entering retention ponds or storm drains. However, as discussed in detail in **Section 4.19 Utilities and Service Systems**, the proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. The implementation of BMPs, the Stormwater Master Plan, and NPDES permitting would minimize impacts associated with runoff and erosion. Therefore, the proposed project would have less-than-significant impact.

d) **No Impact.** The proposed project site is not located within a flood hazard, tsunami, or seiche zone. Therefore, no impact would occur.

e) **Less-than-Significant Impact.** The proposed project would not conflict with or obstruct the implementation of any water quality control plans or sustainable groundwater management plans. The proposed project would be subject to compliance with the measurable objectives and minimum thresholds for groundwater management identified in the GSP. This would be a less-than-significant impact.

4.11 LAND USE

ENVIRONMENTAL SETTING

The proposed project is located on the CSUMB campus at the existing Freeman Stadium. The CSUMB 2007 Master Plan designated the site as Athletics and Recreational.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XI. LAND USE AND PLANNING. Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	23
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	23

EXPLANATION:

a) **No Impact**. The proposed project would consist of renovations to the existing Freeman Stadium and would not physically divide an established community. No impact would occur.

b) **No Impact**. The proposed project is consistent with the existing use of the site and the CSUMB 2007 Master Plan. The proposed project would not conflict with applicable land use plans, policies, or regulations. Therefore, no impact would occur.

4.12 MINERAL RESOURCES

ENVIRONMENTAL SETTING

According to the CSUMB 2007 Master Plan, there are no mineral resources of economic value classified under the Surface Mining and Geology Act within the CSUMB campus.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XII. MINERAL RESOURCES. Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	20, 21, 23
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒	20, 21, 23

EXPLANATION:

a – b) **No Impact**. There are no known mineral resources of value or locally important mineral resource recovery sites located within or adjacent to the proposed project sites. The proposed project would not adversely affect mineral resources. Therefore, no impact would occur.

4.13 NOISE AND VIBRATION

ENVIRONMENTAL SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is defined as unwanted sound. Environmental noise is frequently measured in decibels (dB). The A-weighted decibel (dBA) is used to reflect the human ear's sensitivity to sounds of different frequencies. On this scale, the sound level of normal talking is about 60 to 65 dBA. Because people are more sensitive to nighttime noise, sleep disturbance usually occurs at 40 to 45 dBA.

The most commonly used measurement scale used to account for a person's increased sensitivity to nighttime noise is the Community Noise Equivalent Level (CNEL). The CNEL is a noise scale used to describe the overall noise environment of a given area from a variety of sources. The CNEL applies a weighting factor to evening and nighttime values.

Generally, noise levels diminish as distance from the noise source increases. Some land uses are more sensitive to noise than others. Noise sensitive land uses are generally defined as residences, transient lodging, schools, hospitals, nursing homes, churches, meeting halls, and office buildings. Sensitive noise receptors within the CSUMB campus include residence halls in the main campus and academic buildings. As discussed in Aesthetics section, sensitive noise receptors on and off-campus, include residences approximately 1,800 feet northeast of

the site and roughly 0.51 miles south, respectively. The nearest academic building is approximately 1,500 feet from the project site.

The predominant noise source on the CSUMB campus and, more specifically at the proposed project site, is motor vehicle traffic along Highway 1, as well as local roads including 2nd Avenue, Inter-Garrison Road, Lightfighter Drive, and Imjin Parkway. Aircraft activities at the Marian Municipal Airport and Monterey Peninsula Airport do not significantly affect the site since the approach and takeoff areas are over rural areas to the north and south of the project site.

Construction noise is a temporary noise source that is generated from a variety of construction activities that occur both on- and off-site. These activities can include demolition, hauling of materials, grading, building construction, and construction traffic. Generally, construction equipment can generate noise levels in the range of 70 to 90 decibels at a distance of 50 feet. However, construction noise is generally not constant during the daytime hours. The proposed project would not require nighttime construction.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XIII. NOISE. Would the project:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	18, 19, 20, 23, 27, 34
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	18, 19, 20, 23, 27, 34
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	23

EXPLANATION:

a-b) **Less-than-Significant Impact.** The proposed project consists of renovations to the existing Freeman Stadium. Construction of the proposed project would generate temporary noise that may impact, depending on the activity, nearby sensitive receptors. As discussed in Environmental Setting, the nearest sensitive receptors are located over 1,500 feet from the project site. Per the 2007 Master Plan, construction contractor noise control measures (i.e., Best Construction Management Practices) would be implemented during project construction to reduce noise impacts. These control measures include:

- Noise reduction devises on construction equipment.

- Use of quieter equipment, proper maintenance in accordance with manufacturers' specifications, and fitting of noise-generating equipment with mufflers or engine enclosure panels, as appropriate.

- Prohibit unnecessary warming up, idling, and engine revving when equipment is not in use.

- Install temporary noise buffers, such as plywood barriers, around particularly noisy equipment, or activities.

- Locate stationary noise sources, when feasible, away from residential areas and perform functions such as concrete mixing and equipment repair off-site.

- Unless approved by CSUMB Campus Development and Operations Department (recently renamed Facilities Management), limit construction activities to the normal working day.

The construction of the proposed project would not expose any person to or generate excessive ground borne noise or vibration. As discussed above, sensitive receptors are located over 1,500 feet from the project site. Due to the implementation of construction BMPs and distance from nearest sensitive receptors, the ground borne noise and vibration impacts would be less than significant.

The operation of the proposed project would consist of 18 MBFC games, and one (1) CSUMB Campus Community event. CSUMB is not subject to County or City noise ordinances; however, project operations would be compliant with noise ordinances established by the Monterey County and Seaside General Plans. Both general plans contain Noise Elements that establish noise exposure standards for land use compatibility. Within the 2010 Monterey County General Plan, sports arenas and outdoor spectator sports are conditionally acceptable when community noise exposure is maintained between 50 and 75 dB.

Illingworth & Rodkin, Inc. conducted a noise analysis for a stadium in Mountain View, California in 2020. The analysis examined noise generation during two events, one event with 1,500 spectators and the other with 2,200. Examining the upper limit of noise generation, the sporting event with 2,200 spectators generated 71 dB, where the event with 1,500 spectators generated 70 dB, which illustrated that noise between the two games increased in increments of one (1) db per 700 spectators. It should be noted, that the report stated that variation in spectator noise primarily depends upon the attendance and level of excitement generated by the event. As such, the findings from this analysis were utilized to calculate noise generation for the proposed project at full capacity (i.e., 6,000 spectators). Based on the calculation, the proposed project could generate 75 dB. The noise generated by the MBFC home matches would be temporary and intermittent, occurring Friday nights from 7:00 pm – 11:00 pm and/or Saturdays during the day or in the early mornings, 18 times over the course of the 10-month season. In addition, the proposed project site is located more than 1,500 feet from sensitive receptors (e.g., classrooms, residential buildings). Therefore, the proposed project would have a less-than-significant impact.

c) **No Impact**. The proposed project is approximately three miles from the Marina Municipal Airport and would not expose people to excessive noise levels. Therefore, no impact would occur.

4.14 POPULATION AND HOUSING

ENVIRONMENTAL SETTING

The proposed project is located on CSUMB campus at the existing Freeman Stadium. The proposed project site is designated as Athletics and Recreational in the 2007 Master Plan.

CSUMB campus lies within the city limits of Marina and Seaside and also within unincorporated County land, which have populations of 22,321, 33,537, and 441,143, respectively. Housing within Monterey County has increased by 2% between 2010 and 2019 and are anticipated to continue to increase.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XIV. POPULATION AND HOUSING. Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐	20, 23, 34
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	20, 23, 34

EXPLANATION:

a) **Less-than-Significant Impact**. The proposed project involves renovating existing facilities for use by the Monterey Bay Football Club and the campus and does not involve the construction of any new housing or new infrastructure that would induce population growth. Implementation of the proposed project would not induce substantial unplanned population growth in the area, either directly or indirectly. The proposed project would require 20 full time employees and 210 part-time match-related personnel. These employees would be existing CSUMB employees and/or Monterey County residents. The 32 players for the MBFC may be relocating to the area but would not induce substantial population growth in the area. Therefore, this would be a less-than-significant impact.

b) **No Impact.** The proposed project would not displace any existing housing or any people necessitating construction of replacement housing elsewhere. Therefore, no impact would occur.

4.15 PUBLIC SERVICES

ENVIRONMENTAL SETTING

Fire Protection

The CSUMB campus falls within three fire service jurisdictions. For the main campus within the City of Marina (west of 7th Avenue), fire protection services are provided by the Marina FD and Seaside FD on the parts of campus that fall within their respective city limits. Both cities have agreements in place with one another, as well as with the Presidio of Monterey Fire Department (POMFD), to provide mutual and automatic aid relative to fire protection services (McCluney pers. comm. 2021).

The closest fire stations to the campus are located at 4400 General Jim Moore Boulevard in Seaside, 1635 Broadway Avenue in Seaside, 211 Hillcrest Avenue in Marina (Marina FD), and 18143-18111 Porter Street in Salinas (McCluney pers. comm. 2021). The POMFD is located adjacent to campus in the proposed Campus Town Specific Plan area.

The Seaside FD is staffed with 25 firefighting personnel (McCluney pers. comm. 2021). The response time goal for Seaside FD is five minutes (McCluney pers. comm. 2021). To achieve this goal, the 2004 Seaside General Plan Policy LU-9-1 calls for a standard of 1.0 firefighters per 1,000 residents. The City's current ratio is below the current standard at 0.7 firefighters per 1,000 residents, based on a population of 34,165. Excluding mutual aid calls, the average response time is 3.5 minutes.

The Marina FD is staffed with 11 full-time firefighters, 2 chief officers, 15 reserve firefighters, and 1 administrative assistant. The response time goal is 5 minutes for a medical incident and 5 minutes, 20 seconds for a fire. Average response time in the former Fort Ord area was approximately 6.5 minutes in 2014. The Marina FD is currently evaluating the need for a fire station in the southern portion of their response area (McCluney pers. comm. 2021).

The MCRFD's recently completed East Garrison Fire Station has full-time staffing of two to three paramedics/firefighters and has a five-minute response time goal (McCluney pers. comm. 2021). CSUMB campus lands within the MCRFD's service area are within five minutes of the new East Garrison station (McCluney pers. comm. 2021).

Police Protection

The University Police Department (UPD) operates 24 hours a day, 365 days a year, and shares concurrent law enforcement jurisdiction statewide and on all adjacent public streets, areas, and communities surrounding the CSUMB campus (McCluney pers. comm. 2021). UPD police officers are certified by the California Commission on Peace Officer Standards and Training. The UPD provides full-service law enforcement services, which include responding to criminal incidents and disturbances, emergency management, "NightWalk" escorts between main campus locations, fingerprinting, animal control, lost and found, and community classes and outreach services (McCluney pers. comm. 2021).

The Seaside PD services the entire City of Seaside and is co-located with the Seaside City Hall at 440 Harcourt Avenue. The Seaside PD currently operates with 51 members, comprised of 40 sworn and 11 non-sworn personnel (McCluney pers. comm. 2021).

The Marina PD services the entire City of Marina. The Marina PD is located at 211 Hillcrest Avenue, which fronts on Palm Avenue, and is co-located with the Marina FD. The Marina PD currently operates with 29 sworn and 8 non-sworn personnel (McCluney pers. comm. 2021).

Schools

The Monterey Peninsula Unified School District (MPUSD) provides public school service to the cities of Marina, Monterey, Seaside and Del Rey Oaks, portions of Monterey County and the former Fort Ord.

Parks

The Fort Ord National Monument operated by the Bureau of Land Management is within the proposed project vicinity. The Fort Ord State Beach is also located in the vicinity of the proposed project.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:					
a) Fire protection?	☐	☐	☐	☒	23, 28, 34
b) Police protection?	☐	☐	☐	☒	23, 28, 34
c) Schools?	☐	☐	☐	☒	23, 28, 34
d) Parks?	☐	☐	☐	☒	23, 34
e) Other public facilities?	☐	☐	☐	☒	23, 34

EXPLANATION:

a – e) **No Impact.** As discussed above in **Section 4.14, Population and Housing**, the proposed project involves renovating existing facilities for use by the Monterey Bay Football Club and the campus and does not involve the construction of any new housing or new infrastructure that would induce population growth. Implementation of the proposed project would not induce substantial unplanned population growth in the area, either directly or indirectly. As such, the proposed project would not result in an increased demand for fire and police services and, therefore, would not result in the need for any new facilities. The proposed project would have no impacts on schools, parks, or other public facilities. Therefore, no impact would occur.

4.16 RECREATION

ENVIRONMENTAL SETTING

Please refer to the discussion under **Section 4.15 Public Services**, above.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XVI. RECREATION. Would the project:					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐	23, 34
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	23, 34

EXPLANATION:

a – b) **Less-than-Significant Impact**. The proposed project consists of renovations to the existing Freeman Stadium at the CSUMB campus. The proposed project would increase the use of the stadium facilities by providing additional recreational facilities that would increase site access and the number of visitors coming to the stadium. This could potentially adversely affect the stadium facilities by causing the physical deterioration. Mitigation measures identified in this IS/MND would address the potential environmental impacts of the proposed project. As a result, this represents a less-than-significant impact.

The proposed project is a recreational use. The construction and operation of the renovated stadium and associated support facilities would result in the expansion of recreational amenities on the campus and within the region. This IS/MND evaluates the environmental impacts associated with construction and operation of the proposed project. The proposed project would not result in any new impacts beyond those previously evaluated within this IS/MND. All impacts would be mitigated to a less-than-significant level in accordance with the requirements of CEQA. This represents a less-than-significant impact.

4.17 TRANSPORTATION

ENVIRONMENTAL SETTING

The CSUMB Main Campus is located within the geographic boundaries of the cities of Marina and Seaside and Monterey County and is generally bounded by Eighth Street, Inter-Garrison Road, Eighth Avenue, Colonel Durham Street, Lightfighter Drive, and 2nd Avenue. The East Campus open space and housing is located east

of Eighth Avenue on either side of Inter-Garrison Road. The proposed project is located in the far western portion of CSUMB between Divarty Street, 2nd Avenue, Inter-Garrison Road, and Lightfighter Drive.

Regional access to the proposed project site and CSUMB Main Campus is provided by State Route (SR) 1. Primary local access to the proposed project site is provided by Imjin road from the north, Inter-Garrison Road from the west and east, and General Jim Moore Boulevard from the south. Traffic from Seaside and the Monterey Peninsula access the proposed project site from the General Jim Moore Boulevard and 2nd Avenue entrances, while traffic from Santa Cruz, Marina, and Salinas accesses the proposed project site from the 2nd Avenue, Imjin Parkway, and Inter-Garrison Road entrances.

SR 1 is a state highway within Monterey County, providing access to Watsonville and Santa Crus to the north via Seaside, Marina, and Castroville, and to San Luis Obispo to the south via Monterey and Carmel. Through its connection to SR 156 in Castroville, SR 1 also provides access to US 101 and the greater San Francisco Bay Area.

Vehicle Miles Traveled Impact Analysis

Fehr & Peers conducted a Vehicle Miles Traveled (VMT) Analysis for the proposed project in June 2021 (**Appendix D**). The VMT analysis considers the proposed project's direct VMT impacts as well as its long-term effects on Monterey County's VMT.

Project Site Access and Parking

The analysis assumes that primary construction and event site access would be provided via the 2nd Avenue entrance at the west end of the proposed project site. Parking would be available on-site for both construction and operations, and no construction of new temporary or permanent access roads would be required. Parking would utilize the three existing, adjacent parking areas for event use only. More specifically, general admissions parking would utilize an existing lot to the northwest of the site. Overflow/VIP parking would utilize an existing lot to the southwest of the site. Parking for teams, buses, event staff, and facility staff would be in the existing lot west of the field house.

The existing hardscape around the stadium will be utilized for parking. Short-term bike racks (LEED compliant) would be provided for bike parking spaces for a venue of this size. E-scooter parking alongside bicycle parking would be provided. An existing public transit line runs along Divarty Street and would also be utilized for stadium access.

Approach and Overview of Methods

Senate Bill (SB) 743 removed the use of automobile delay or traffic congestion for determining transportation impacts in environmental review. Rather, CEQA Statute & Guidelines now specify that VMT is the appropriate metric to evaluate transportation impacts. In 2019 the CSU Chancellors Office prepared the California State University Transportation Impact Study Manual (CSU TISM). The 2019 CSU TISM provides guidance for the preparation of CEQA-compliant transportation impact analysis and is the operative TISM for the analysis developed by the Fehr & Peers analysis.

The VMT analysis estimates the new vehicle miles generated by the special events and the new full-time equivalent employees. More specifically the impact analysis converts the MBFC and CSUMB special event activities to VMT by calculating the following:

- Total Annual Person Trips
- Total Annual Vehicle Trips

- Annual Project Generated VMT
- Daily Project Generated VMT
- Service Population
- Daily Project Generated VMT per Service Population

To determine whether the project has a direct impact on the environment, the proposed project generated VMT per service population is compared to the proposed project generated VMT per service population threshold under existing conditions. The indirect and cumulative impacts of the proposed project are evaluated under Cumulative Conditions using the boundary VMT per service population. To establish the VMT threshold, the analysis took the following steps:

- Select VMT calculation tool
- Select VMT accounting methods
  - Direct impacts
  - Cumulative impacts
- Calculate baseline and cumulative regional VMT estimates
- Set VMT thresholds

The proposed project will generate new employment including front-office employees, team personnel and 210 part-time math staff. Some of that new employment will be full-time while some employment will be part-time. To note, part-time employment was converted to full-time employment. Match spectators were not included. The 210 part-time match staff would work 4 to 16 hours for each match based on information from the MBFC front office staff, this would equate to 34,128 annual hours of work per year. A full-time job is 2,080 hours per year, which would translate into 16 full-time equivalent employee jobs. The service population for this project is 100 employees.

VMT Thresholds

The regionwide threshold for the proposed project VMT applied in the analysis is 15 percent below the existing project generated VMT per service population for Monterey County. The CSU has selected the 15 percent reduction relative to Monterey County based on the OPR Technical Advisory, whom set a similar threshold, and the fact that most of the students, faculty, and staff live within Monterey County. **Table 4** illustrates the existing VMT per service population of Monterey County. As such, the proposed project would cause a significant project generated VMT impact if the VMT per service population for the CSUMB campus under existing with project conditions is greater than 23.91.

Table 4: Project Generated VMT Threshold

Item	Monterey County
Project Generated Vehicle Miles Traveled (A)[1]	19,158,300
Service Population (B)[1,2]	681,200
Project Generated VMT per Service Population (A/B = C)	28.12
Project Generated VMT per Service Population Threshold (C*85% = D)	23.91

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Source: Fehr & Peers, 2021.

Table 5 depicts the Monterey County Boundary VMT per service population. Accordingly, the project's effect on VMT, or its cumulative effect, would be significant if it increased the cumulative countywide daily boundary VMT per service population above 14.07.

Table 5: Boundary VMT Cumulative Threshold

Item	Monterey County
Boundary Vehicle Miles Traveled (A)[1]	11,268,400
Service Population (B)[1,2]	800,900
Boundary VMT per Service Population (A/B = C)	14.07
Boundary VMT per Service Population Threshold (C)	14.07

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Source: Fehr & Peers, 2021.

VMT Estimates

Special event activities were converted to Vehicle trips and VMT by estimating the total number of annual person trips, total annual vehicle trips, total annual project generated VMT, and daily proposed project generated VMT.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XVII. TRANSPORTATION/TRAFFIC. Would the project:					
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐	11, 17
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☒	☐	☐	11, 17

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	11, 17
d) Result in inadequate emergency access?	☐	☐	☐	☒	23

EXPLANATION:

a - b) **Less-than-Significant with Mitigation (Project-Generated VMT Impact) and Less-than-Significant Impact (Project Impact on VMT/Cumulative Impact).** The proposed project would exceed the VMT threshold set by the County of Monterey and adopted by the CSU Chancellor's Office as the project significance threshold and would therefore be inconsistent with CEQA Guidelines Section 15064.3(b). Fehr & Peers prepared conducted a VMT Analysis for the project, which is provided in June 2021 (**Appendix D**). The VMT Analysis findings are summarized below.

Project Generated VMT

The MBFC and CSUMB-Community special events were evaluated for potential direct and indirect, and cumulative environmental impacts assuming maximum ticketed spectator capacity (6,000 spectators). This VMT analysis estimates the net new vehicle miles generated by the special events and the new full-time-equivalent (FTE) employees. Specifically, this impact analysis converts the MBFC and CSUMB special event attendance to VMT by calculating the following:

- Total Annual Person Trips
- Total Annual Vehicle Trips
- Annual Project-Generated VMT
- Daily Project-Generated VMT
- Service Population
- Daily Project Generated VMT per Service Population

Project-generated VMT per service population is the metric used to evaluate the difference between "without Project" and "with Project" scenarios, considering both VMT increases due to growth and VMT reductions due to changes in travel behavior. Project generated VMT per service population is used to evaluate whether the VMT rate due to the project (i.e., the direct impacts) is greater than a specified VMT threshold. For purposes of this project, in accordance with California's Office of Planning and Research guidance, the significance threshold used for project generated VMT impacts is 15 percent below the defined baseline VMT per service population.3

3 The CSU has selected the 15 percent reduction relative to Monterey County based on the OPR *Technical Advisory*, which states "…OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold." (Quote from page 10 of the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018).

To determine whether the project would have a direct impact on the environment, the project generated VMT per service population was compared to Monterey County's VMT baseline to evaluate whether the project would achieve a 15 percent reduction in VMT per service population compared to Monterey County's existing conditions baseline VMT (see "Approach and Overview of Methods" in the VMT Analysis provided in **Appendix D** for further discussion of the baseline VMT). Monterey County's VMT was used as the baseline because most of the MBFC spectators (more than 90 percent) and CSUMB campus population (nearly 90 percent of students, faculty, and staff) lives within Monterey County. Accordingly, most of the project generated VMT would be within Monterey County and impacts assessed against the Monterey County baseline is the most appropriate assessment of the project's direct impact. Monterey County's existing VMT is 28.12; a 15 percent reduction from that is 23.91 (28.12 x 85% = 23.91).

As shown in **Table 6**, below, the VMT Analysis memo the results of the analysis found that the proposed project would generate 4,471 daily project generated VMT, which is 87 -percent greater than the VMT threshold on a per- service -population basis, as discussed in the Environmental Setting, would be 87 -percent greater than the VMT threshold. These results are outlined in **Table 6** below.

Table 6: Project Generated VMT for SB 743 VMT Assessment

	Project Generated VMT
Project Site	
Project Generated Vehicle Miles Traveled (A)[1]	4,471
Service Population (B)[1,2]	100
Project Generated VMT per Service Population (A/B = C)	44.71
Initial Impact Assessment	
Project Generated VMT per Service Population Threshold (28.12 * 85%)	(23.91)
(Impact Conclusion)	Potentially Significant

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Source: Fehr & Peers, 2021.

As noted in **Appendix D**, the analysis, the maximum-attendance MBFC and CSUMB-Community special events activities are infrequent would take place a limited number of times annually (i.e., 18 games, 1 campus/community event)., however, many of the 6,000 or more spectators for each event are expected to arrive and depart from the stadium travel by personal vehicle. Annually, if maximum stadium capacity is reached and all special event attendees were to arrive at and depart from events in single occupancy vehicles, the project would generate the following:

- 269,350 person trips,
- 108,070 vehicle trips, and
- 1,630,930 project- generated VMT

Most of the annual project generated VMT would be generated by MBFC match spectators, off-season event participants, and CSUMB and community guests to the CSUMB Campus and Community Event. To remain below the significance threshold of 23.91 VMT per service population, project operations would need to generate no more than 872,715 project-generated VMT (the product of (23.91 project-generated VMT per service population (*(100 service population) *(365)).

However, as discussed in the VMT Analysis memo in **Appendix D** (see "VMT Sensitivity Analysis"), based on its own experience of past seasons and the expected attendance at future games at CSUMB, the MBFC indicates that it expects to average 4,140 spectators per match (69 percent of its 6,000-spectator capacity), with approximately 75 percent of the spectators arriving in carpool vehicles with at least 3.5 persons per vehicle. Per these assumptions, which serve as the basis for this impact analysis, the project generation rate would be reduced to 25.57, which is 6.9% percent greater than the project generated VMT per service population threshold.

Therefore, even assuming the reduced special event attendance and higher vehicle occupancy per MBFC, the project would result in a potentially significant VMT per service population impact, which would constitute a conflict with applicable transportation and circulation policies, plans and CEQA Guidelines Section 15064.3(b).

This impact would be reduced to less-than-significant with implementation of Mitigation Measures TR-1 through TR-7, which require the development and implementation of a Transportation Management Plan (TMP) that includes a Transportation Demand Management (TDM) program; identifies the objectives and performance standards of the TMP; lists the minimum required measures of the TDM program; requires monitoring of VMT for a full season to ensure the project-generated VMT significance threshold is not exceeded; and defines adaptive measures for modifying the TDM program and conducting further monitoring, as well as the trigger for additional/subsequent CEQA review, in the event that IS/MND VMT assumptions are not achieved and project-generated VMT exceeds the significance threshold.

Fehr & Peers conducted a VMT sensitivity analysis to assess what changes to the MBFC and campus/community events would be necessary to reduce VMT impacts. While the sensitivity analysis provided suggestions, the proposed project will ultimately need to implement a TMP with a TDM. The TMP and TDM Program will manage and monitor MBFC and CSUMB special event spectator traffic with the primary performance standard of achieving less than 23.91 daily project generated VMT per service population. Monitoring will also observe the event specific supporting performance measures of mode share, average vehicle occupancy and average vehicle distance of the MBFC and CSUMB special events. TMP and TDM Program monitoring and mitigation developed by the proposed project would address the following:

<u>Project Impact on Boundary VMT (Cumulative Impact)</u>

The VMT Analysis memo evaluates whether project implementation would result in an increase in the countywide boundary VMT per service population, by comparing "Cumulative Conditions" to "Cumulative with Project Conditions" analysis does not assume the Eastside Parkway extension). Boundary VMT, which captures all VMT on the roadway network within a specified geographic area (here, Monterey County), including local trips plus interregional travel without an origin or destination inside the County. The boundary method only considers traffic within the physical limits of the selected study area and does not include the impact of vehicles once they travel outside the area limits. The use of boundary VMT is a more comprehensive evaluation of the potential effects of the Project because it captures the combined effect of net new VMT, shifting existing VMT to/from other neighborhoods, and/or shifts in existing traffic to alternate travel routes or modes. Boundary VMT is then divided by the service population (sum of residents, employees, and students) to account for the effects of population and/or employment growth and the effects of changes in personal travel behavior within the specified geographic area.

Like the project generated VMT baseline, the boundary VMT baseline analysis for this project measures the project's effect on the Monterey County boundary VMT because project effects are likely to be localized, occurring near the CSUMB campus and within Monterey County.

The regional impact threshold for the project's effect on VMT is the Monterey County Cumulative Conditions boundary VMT per service population of 14.07, as shown in **Table 7**, below. This represents the vehicle travel on Monterey County roads divided by the service population of Monterey County.

The analysis found that the proposed project would not exceed the applicable thresholds relative to the proposed project's effect on VMT under cumulative with project conditions, **Table 7** below.

Table 7: Project's Effect on VMT (Boundary VMT) for SB 743 VMT Assessment

	Cumulative Conditions	Cumulative with Project Conditions
Monterey County		
Boundary Vehicle Miles Traveled (A)[1]	11,268,400	11,272,871
Service Population (B)[1,2]	800,900	801,000
Boundary VMT per Service Population (A/B = C)	14.07	14.07
Boundary VMT per Service Population Threshold (14.07) (Impact Conclusion)		14.07 (Less than Significant)

Notes:
1. This table presents data side to side.
2. Rounded service population and VMT to nearest 100.
3. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Source: Fehr & Peers, 2021.

The project's effect on VMT would be significant if the project causes the cumulative countywide daily boundary VMT per service population to increase above 14.07. As shown in **Table 7**, the project would not exceed the threshold of 14.07 for cumulative impacts.

MBFC and CSUMB special event attendance and related trip generation represent a relatively small portion of Monterey County travel overall. Therefore, it is to be expected that the project would have predominantly localized VMT impacts rather than contributing measurably to the countywide VMT per service population.

To conclude, the proposed project would have a potentially significant impact on VMT per service population which would conflict with transportation and circulation policies, plans and CEQA Guidelines Section 15064.3(b). The impact would be reduced to a less-than-significant with mitigation.

MITIGATION

TR-1 CSUMB campus shall develop and implement a Transportation Management Plan (TMP) with a Transportation Demand Management (TDM) Program component prior to opening day of the MBFC season. The TMP shall provide a management and operating plan for minimizing undesirable transportation-related effects at Freeman Stadium and adjacent developments during events, while providing safe and convenient access for employees and spectators to the project.

While the TDM program shall provide a plan to reduce the amount of vehicle traffic generated by the MBFC and CSUMB special event activities by shifting employees, team personnel, match spectators, and CSUMB visitors from driving alone to using transit, carpooling, cycling, and walking modes.

The TMP with TDM Program shall manage and monitor MBFC and CSUMB special event spectator attendance (i.e., the 18 home games and the CSUMB-Community event) for the first year to assess achievement of the following performance standard objectives:

- A daily project generated VMT per service population of 23.91 or less
- The following annual travel supporting performance standards:
  - Fewer than 61,185 annual vehicle trips.
  - Less than 872,715 annual project- generated VMT.

TR-2 To evaluate the effectiveness of the TDM program, event monitoring shall observe the event-specific supporting performance measures of mode share, average vehicle occupancy and average vehicle distance of MBFC and CSUMB-Community special events (i.e., the 18 home games and the CSUMB-Community event). These event-specific performance measures are necessary to determine the effectiveness of the TDM program and help identify additional VMT reduction measures.

- The TDM program shall be implemented for the lifetime of the project.
- The TDM program may specify a phased implementation approach that provides initially for implementation of the existing CSUMB TDM program measures that are targeted to reducing CSUMB student, faculty, and staff vehicle travel. To ensure the VMT threshold is not exceeded, CSUMB shall develop an expansive TDM Program to ensure the average vehicle occupancy assumptions provided in this IS/MND are not exceeded. CSUMB shall modify measures as needed during the life of the project to ensure the TDM achieves the overall vehicle miles traveled reduction objective.

TR-3 **TMP Objectives.** The TMP with a TDM program shall address the following objectives for the MBFC and CSUMB special events:

- Reduce the overall number of automobile trips to and from the stadium and required parking supply.
  - Annual travel supporting performance standard to monitor: Achieving fewer than 61,185 annual vehicle trips.
- Reduce automobile dependency for project employees and spectators through education, assistance, and incentives.
  - Event specific supporting performance standard to monitor: Achieving a 75% vehicle mode share for the MBFC match spectators, and for the CSUMB Campus and Community Event; 58% and 77% vehicle mode share for the CSUMB students and community members, respectively.
  - Event specific supporting performance standard to monitor: Achieving an average vehicle occupancy of 3.91 persons per vehicle (or greater) for the MBFC match spectators, and CSUMB students and community members for the CSUMB Campus and Community Event.
- Identify the paths of vehicular circulation to and from the stadium for the various vehicle types that would need access to the site, including passenger vehicles, service and delivery vehicles, garbage/recycling trucks, taxis, buses, and emergency vehicles.

- Primary performance standard to monitor: Achieving less than 23.91 project generated VMT per service population.
- Annual travel supporting performance standard to monitor: Achieving less than 872,715 annual project generated VMT.
- Event specific supporting performance standard to monitor: Achieving an average vehicle occupancy of 3.91 persons per vehicle (or greater) for the MBFC match spectators, and CSUMB students and community members for the CSUMB Campus and Community Event.
- Event specific supporting performance standard to monitor: Achieving an average vehicle distance of approximately 16 miles (or less) for MBFC match spectators, off-season participants, and community guests to the CSUMB Campus and Community Event. And an average vehicle distance of 19 miles (or less) for CSUMB students for the CSUMB Campus and Community Event.

- Develop and describe pre- and post-event operational procedures for the management of pedestrians, passenger vehicle, and special vehicle flows arriving and departing the project site.
- Identify the special event signage, including Changeable Message Signs (CMS), blank-out signs, and flashing beacons, that would be required, including wayfinding signage.
- Identify best locations for provision of bicycle parking spaces for visitor or employee use during event and non-event operations.
- Identify placement of enforcement personnel required for event conditions.
- Identify need for barricades, parking control, and street closures during events.
- Coordinate with CSUMB staff regarding the provision of paratransit and transportation network company (e.g., Uber and Lyft) pick-up/drop-off.
- Identify sidewalk and crosswalk improvements near the project site.

TR-4 **TDM Program.** To the extent possible and effective, the TDM program shall rely on the existing CSUMB TDM program to reduce CSUMB student, faculty, and staff vehicle travel. At a minimum, the following measures shall be in place upon opening prior to opening day of the MBFC season and thereafter.

- Otter Cycle Center – on-campus bicycle repair shop that also offers bicycle rentals and other services to facilitate bicycle ridership.
- Bicycle Storage and Amenities – several hundred bicycle racks have been installed on campus outside of residence halls and popular academic, recreation and administrative buildings. Additionally, a secure bicycle bunker storage room have been installed, as well as three 'fix-it' stations that provide 24/7 access to bicycle repair tools and air pumps. Bicycle registration is also available through the University Police Department to simplify that process. Three skateboard storage racks also have been installed in the popular destinations on campus.
- Paid Parking – to discourage non-CSUMB related trips and parking on campus, as well as manage the vehicles allowed on campus, a fee structure is in place that is based

upon user type. The fees have increased several times over the last two decades to more accurately match the true cost of providing managed parking.

- Monterey Salinas Transit (MST) – the campus has entered into an annual agreement with MST that provides universal access on the MST bus network for all active CSUMB ID card holders, three supplemental campus-serving and subsidized bus routes, and funding for a shared transit marketing student intern.

- Main Campus Shuttle – the campus has secured funding and has begun the procurement process to initiate a shuttle program provider to run frequent circulating shuttle service around the Main Campus, connecting all major parking areas to academic, administrative, and co-curricular campus destinations.

- Emergency Ride Home Program – campus community members can sign up for a program run by the Transportation Agency for Monterey County (TAMC) that reimburses taxi or ridesharing trips home in emergency situations for commuters who use alternative means of transportation.

- Carsharing and Ridesharing – CSUMB hosts four cars for carsharing. These are cars stationed on the campus available to be used by carshare members in the campus. CSUMB students, faculty and staff can use Go831 a regional ride share program.

- Transportation Services Website – information for most of the TDM strategies listed above is included on a campus website to facilitate information dissemination.

- Delivery Vehicle Limitations – to discourage delivery vehicle trips, frequent delivery services to campus, such as office supplies, have been instructed to reduce their deliveries to campus to no more than three days per week.

- Bicyclist/Pedestrian Malls – to encourage pedestrian and bicycle use, a section of Divarty Street and a section of Sixth Avenue are closed to regular vehicular traffic and encourage pedestrians and bicyclists to use the entire roadway.

- Traffic Calming – to discourage auto use (and improve safety), speed humps and flashing beacon crosswalk devices have been installed on several campus roadways to encourage lower vehicle speeds, particularly near high traffic pedestrian crosswalks.

- E-Scooter Share – The has entered into a multi-year agreement with an electric scooter share program provider. Students, faculty, staff, and campus visitors can use the app-based program to ride a scooter across campus instead of driving or walking.

TR-5 **TDM Monitoring.** During the first year of operations, each game and campus-community event shall be monitored by CSUMB to ensure that activities meet the anticipated primary performance standard (project generated VMT per service population), annual travel supporting performance standards (annual project generated VMT, and annual vehicle trips) and event specific supporting performance standards (mode share, average vehicle occupancy and average vehicle distance). An annual monitoring memorandum shall be submitted to CSUMB staff. If the MBFC and CSUMB-Community special events are found not to follow the mitigation measure, then additional travel reducing measures from the TMP and TDM Program will be implemented to achieve the performance standard. CSUMB may propose new strategies that develop over

time to further reduce annual project generated VMT per service population if substantial evidence is provided to support the efficacy of the strategy.

TR-6 **Alternative Monitoring Approach.** CSUMB may develop a regionwide VMT monitoring program to allow global monitoring of the stadium VMT, which may provide cost efficiencies and be a more effective way to track VMT generation for each event. This monitoring program may make use of emerging technologies including location-based services on cell phones and in vehicles to track trip lengths, along with traditional technologies such as driveway traffic counts. If such a program is developed, CSUMB shall ensure the project is monitored and achieves the required performance with respect to the project's VMT target.

TR-7 **Remedial Action and Trigger for Subsequent Environmental Review**

- **Trigger for Modification of TMP with TDM Program**. If the TMP with TDM program monitoring results show that the trip reduction target assumed in this IS/MND is not being met, the TDM program shall be updated to identify replacement and/or additional feasible TDM measures to be implemented as follows:
  - The updated TDM program shall identify other TDM measures that were considered but determined to be infeasible or ineffective. This shall include the enhanced CSUMB TDM Program that would address travel by MBFC spectators and complement other multimodal infrastructure investments, vehicle restrictions, pick-up/drop-off charges, transit mobility, and active mode (bicycle and pedestrian) mobility.
  - CSUMB staff shall oversee and coordinate the implementation of the feasible additional TDM program measures and continue to explore methods of making other potential TDM measures feasible.
  - The updated TDM program shall be submitted to the CSUMB and approved.
  - Following implementation of replacement and/or additional feasible TDM measures per this mitigation measure, additional monitoring shall be conducted for a second year to assess the effectiveness of the updated TDM program and achievement of the rep VMT performance standard objectives set forth in Mitigation Measure TR-1.
  - If, at the end of the second year of monitoring, the performance standard objectives set forth in Mitigation Measure TR-1 have not yet been achieved based on monitoring results (allowing for uncertainty in available observed and forecasted VMT data), CSUMB in consultation with the CSU Office of the Chancellor shall evaluate whether additional/further environmental review is necessary, and if so, what level of review is appropriate to appropriate address VMT impacts. That pushes the requirement for additional CEQA review out another year to allow refinement of the TDM program.
  - CSUMB may elect to undertake additional/subsequent CEQA review to address VMT impacts before the end of the second year of monitoring following implementation of the revised TDM program if monitoring results warrant.

To conclude, the proposed project would have a potentially significant impact on VMT per service population which would conflict with transportation and circulation policies, plans and CEQA Guidelines Section 15064.3(b). The impact would be reduced to a less-than-significant with mitigation.

c) **No Impact.** Construction and operation of the proposed project would not substantially increase hazards due to a geometric design feature or incompatible use. Furthermore, the proposed project would not be changing roadway systems in or around the proposed project site. Therefore, the proposed project would have no impact.

d) **No Impact**. See **Response c)** and **Response f)** in **Section 4.9, Hazards and Hazardous Materials**, the proposed project would not result in inadequate emergency access. Therefore, the proposed project would have no impact.

4.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Please refer to the discussion under **Section 4.5 Cultural Resources**.

REGULATORY SETTING

Assembly Bill 52 (AB 52) requires consideration of tribal cultural resources early in the CEQA process to ensure that local and tribal governments, public agencies, and project proponents would have information available early in the project planning process to identify and address potential adverse impacts to tribal cultural resources. Furthermore, AB 52 requires the lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requests to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environment impact report is required for a project. In compliance with AB 52 (Public Resources Code Section 21080.3.1), notification letters were distributed on May 25, 2021 to the Ohlone Indian Tribe and Torres Martinez Desert Cahuilla Indians. No responses have been received at this time.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XVIII. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐	23, 34, 35

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native America Tribe.	☐	☒	☐	☐	23, 34, 35

EXPLANATION

a-b) **Less-than-Significant with Mitigation.** Section 21074(a) of the Public Resource Code defines Tribal Cultural Resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California American tribe that are either eligible for inclusion in the California Register of Historic Resources or included in local register of historical resources. As discussed in **Section 4.5 Cultural Resources**, the proposed project site is not listed, nor eligible for listing in the California Register of Historical Resources or local register of historical resources as defined by Public Resources Code Section 5020.1(k) and considered under Public Resources Code Section 5024.1(c). No tribal cultural resources have been documented at the proposed project site. Letters of notification were distributed on May 25, 2021to the Ohlone Indian Tribe and Torres Martinez Desert Cahuilla Indians; no responses have been received. However, previously unknown or buried resources could be present. Ground-disturbing activities on the proposed project site could impact unknown archaeological resources including California Native American artifacts and human remains. Potential impacts would be reduced to a less-than-significant level with implementation of **Mitigation Measures CR-1** and **CR-2**.

MITIGATION

TRC-1 Implement **Mitigation Measures CR-1** and **CR-2**.

4.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

Storm Drainage

The proposed project site is relatively flat, with minimal sloping on the north and south sides of the project site. Stormwater on-campus is managed in accordance with the CSUMB 2006 Stormwater Master Plan, which ensures physical upgrades to the existing stormwater system are planned accordingly with future growth.

Natural Gas and Electric

Pacific Gas and Electric Company (PG&E) provides electric service to the campus. Solar electricity is distributed throughout campus from the 1.0 MW solar tracking PV generation facility owned by SunEdison. There are utilities located within the proposed project sites which would require removal, relocation, and updating. Removal may include wiring, raceway, boxes, switches, light fixtures, etc. as indicated on the plans.

Where removal of equipment or wiring is necessary, all associated wiring back to the last active remaining outlet, device, fixture, or panel would be removed and the electrical contractor would remove and dispose of all removed electrical equipment and material.

Solid Waste

CSUMB falls within the jurisdiction of the Monterey Regional Waste Management District (MRWMD). Solid waste is collected by the GreenWaste, which serves the former Fort Ord and much of the Monterey Peninsula area. The MRWMD also accepts and safely recycles or disposes of household hazardous waste. The MRWMD's landfill has a total capacity of 32 million tons, with an available capacity of about 26 million tons. Capacity is sufficient to accommodate development in the MRWMD service area for approximately 75 years.

Water Supply

The proposed project is located within CSUMB's main campus. As discussed in **Section 4.10 Hydrology and Water Quality**, water supplied to the project site is primarily sourced from groundwater from the Salinas Valley Groundwater Basin and provided to the campus by MCWD. Water withdrawals from the Salinas Valley Groundwater Basin are regulated by the MCWRA. Per the agreements with the MCWRA, 6,600 AFY of groundwater allocated to the service area that includes CSUMB. The amount allocated was based on the peak historic water use on Fort Ord. To reduce risk of saltwater intrusion, MCWRA requires that MCWD not pump more than 5,200 AFY. Of the 6,600 AFY, CSUMB specifically, was allocated 1,035 AFY of potable water. Additional reclaimed/recycled water is supplied to CSUMB. To reduce water usage, the campus is metering all new buildings, replacing existing urinals with waterless urinals and existing toilets with dual-flush toilets, installing artificial turf, and using evapotranspiration metering to reduce landscape water use.

Wastewater

The sanitary sewer system serving CSUMB is owned, operated, and maintained by the MCWD. The main campus is served by two (2) distinct systems made up of various pipe collectors and one lift station. One of these two sewer systems also collects waste from areas adjacent to CSUMB whose wastewater flows pass through the campus in MCWD's system. The campus buildings include dinning commons, residence halls, classrooms, and recreation buildings. Wastewater derived from the existing Freeman Stadium and the proposed project utilize MCWD Collector N. This line continues off campus to the west where it connects to the Monterey Water One (M1W) pump station at highway one, where it is in turn pumped to the M1W treatment plant two miles north of Marina. The M1W Regional Treatment Plant north of Marina began operation in 1990 and maintains a daily operational capacity of 29.6 million gallons.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would case significant environmental effects.	☐	☐	☒	☐	23, 31, 32, 33, 37
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐	23, 31, 32, 33, 37, 47
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	23, 31, 32, 33, 37, 47
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐	23, 31, 32, 33, 37, 47
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒	23, 30, 31, 32, 36

EXPLANATION:

a) **Less-than-Significant Impact.** The proposed project consists of the renovation of the existing Freeman Stadium and would require or result in the relocation of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, as discussed below.

Water and Wastewater

Construction of the proposed project consists of renovations to the Freeman Stadium, which would include, more specifically, renovations to the Field House which includes existing showers, water closets, urinals, lavatories, and service sinks. The proposed project also consists of the construction of a beer garden at the eastern end of the site. The beer garden would consist of three, prefabricated shipping containers that would require new water and wastewater connections. As discussed above in Environmental Setting the proposed project site, specifically the Field House, is connected to existing water and wastewater distribution infrastructure. However, the beer garden operations would require

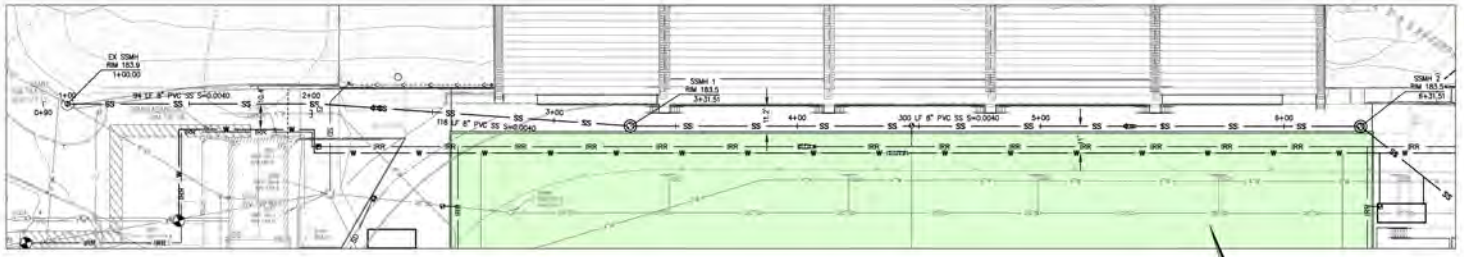
the construction of two new 800-foot, 8-inch sanitary sewer and potable water pipes which would connect to existing infrastructure (**Figure 12**).

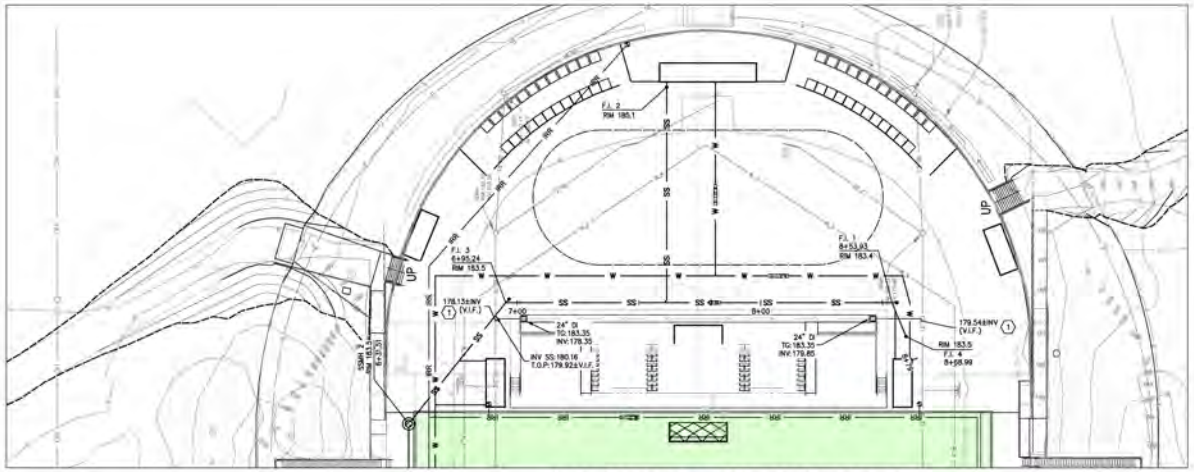
The 2007 Master Plan EIR examined existing infrastructure for campus buildout. While several components of existing water system infrastructure were identified as being deficient and would require replacement and/or improvement at the time the 2007 Master Plan EIR was prepared, infrastructure has since been improved as a condition of the 2007 Master Plan mitigation program and per the agreement between CSUMB and MCWD regarding easements for the construction of reservoirs and MCWD administration, operation, maintenance, and storage yard.

In May 2019, as requested by CSUMB, Whitson Engineers conducted a Sanitary Sewer Capacity Analysis. The analysis was prepared based on water use information obtained from records of MCWD billings to CSUMB, MCWD system maps and as-built plans, and proposed Master Plan concept figures. More specifically, wastewater flow generation, existing and future dry and wet weather flow rates, infiltration into the sanitary sewer system of surface runoff, inflow factors, peaking factors, and flow depth were assessed based on the MCWD Procedure and Design Requirements. The 2016-2017 Loading data was used to determine existing conditions for the analysis. Per this data, the Field House generates 211 GPD of wastewater under existing conditions. The current project proposes the renovation of 2,000 GSF of space within the existing Field House, including the installation of new showers, sinks, and other locker room fixtures to accommodate increased use by the MBFC and visiting teams, and a new beer garden. As a result of these improvements, the project would generate an additional 37 GPD of wastewater over existing conditions. Based on the analysis prepared by Whitson Engineers, Collector N has sufficient capacity for the anticipated increase in wastewater as a result of the project.

Stormwater Drainage

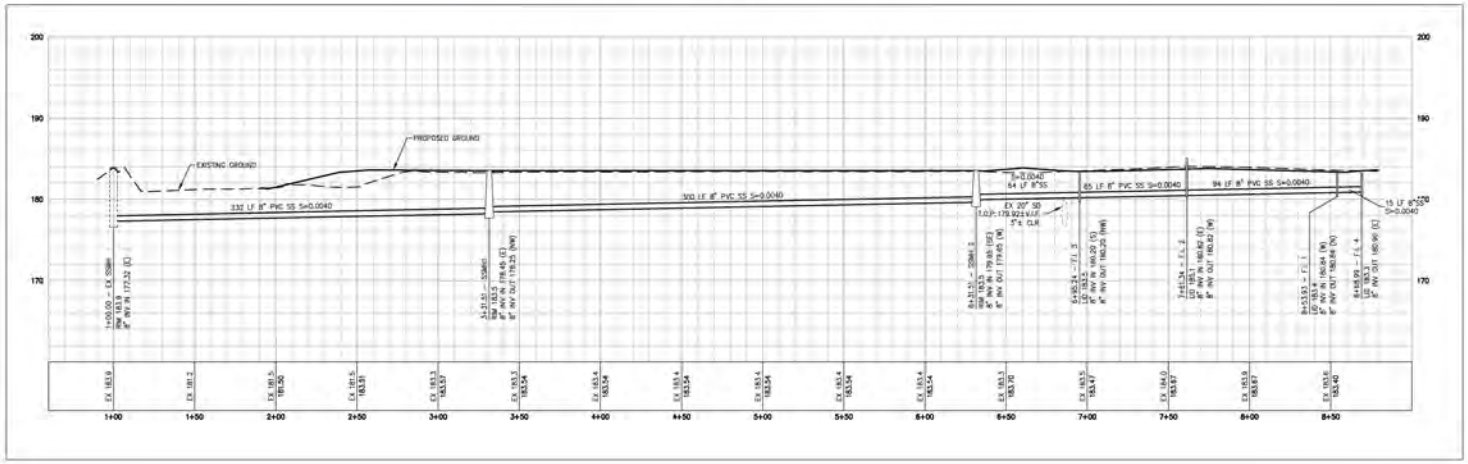
Storm water drainage would be improved, and more specifically, include the construction of a retention basin on the western side of the project site. Please see **Section 4.10 Hydrology and Water Quality,** for further detail. On-site storm drainage improvements for the proposed project would be provided in conformance with the Post Construction Stormwater Management Requirements for Development Projects in the Central Coast Region, RWQCB Resolution No. R3-2013-0032 (Regional Permit). On-site LID measures include, but are not limited to, limiting the areas of disturbance and impervious surfaces, and constructing vegetated bioswales.





SANITARY SEWER PLAN & PROFILE

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=5'



811 Know what's below. Call before you dig.

KEYNOTES

1. INSTALL INSERTA-TEE TAP INTO EXISTING STORM DRAIN PIPE. SEE LLOYD FIELD PLANS DETAIL 5 ON SHEET PY800
2. OVERFLOW STRUCTURE. 36" X 36" CENTRAL PRECAST DROP INLET. SEE DETAIL 16/C003
3. BUBBLE UP STRUCTURE. 24" X 24" CENTRAL PRECAST DROP INLET. SEE DETAIL 15/C003

SCALE: 1" = 20'

SCALE: 1" = 20'

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE		TYPE	MCWD STD
SSMH	1, 2	SANITARY SEWER MANHOLE	S-1, S-2, S-3
FS	1, 2, 3	SANITARY SEWER FLUSHING INLET	S-5

SANITARY SEWER SYSTEM

PIPE QUANTITIES

8" PVC SDR-35 MAIN 868 LF

NOTES:

1. GRAVITY SEWER PIPE SHALL BE INSTALLED PER MCWD STANDARDS AND SHALL BE PVC SDR-35.
2. SEWER LATERALS AND WATER SERVICES SHALL MAINTAIN 5' CLEAR HORIZONTAL SEPARATION.

STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE		TYPE	CORRESPONDING PLAN DETAIL
DI		"CENTRAL PRECAST" DROP INLET, 2X W/ TG-2X GRATE	C003

POTABLE WATER SYSTEM

PIPE QUANTITIES

2-1/2" SCH-80 PVC 808 LF (DOMESTIC ONLY)

Title: Wastewater & Water Line Plan - Beer Garden

Source: HOK, 2021

Date 6/15/2021
Scale N/A
Project 2020-45

Monterey | San Jose
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure 12

Electrical, Natural Gas, and Telecommunications

The proposed project would require minor improvements to existing electrical, natural gas and telecommunications infrastructure, but would connect to existing utilities and therefore would result in a less-than-significant impact.

b) **Less-than-Significant Impact.** As discussed in the Environmental Setting above, and **Section 4.10 Hydrology and Water Quality**, water is supplied to the proposed project site by MCWD. Per the agreements between CSUMB and MCWD, 1,035 AFY was allocated to CSUMB. The 2007 Master Plan EIR evaluated campus water demand for future campus buildout. Planning Horizon II of the 2007 Master Plan illustrates the campus buildout between the 2015 – 2024 academic years. The development of a multi-purpose varsity sports center had an associated water demand of 36 AFY. To note, this includes the development or expansion of the recreational fields and the outdoor pool. The Field House had been renovated during Planning Horizon I. The 36 AFY for the varsity sports center contributes to the total campus water demand, which as stated in the 2007 Master Plan would be within the 1,035 AFY that has been allocated by FORA for campus use. The proposed project site currently uses 0.05 AFY for the existing field house, and 0.03 AFY for the irrigation of landscape. Conservatively, the proposed project would require approximately 1.14 AFY for operation of the renovations to the Field House and beer garden, and 0.06 AFY for the irrigation of the field (i.e., washing the turf and stands). Artificial turf would be installed on the athletics field, and portable restroom facilities would be utilized during events. Water demand was estimated based on the use of similar facilities within the Field House and beer garden, and the current water demand calculations from the meters outside the facility. In total, the proposed project would require 1.2 AFY of water. As mentioned above, the 2007 Master Plan estimated water demand for the multipurpose varsity sports center to be approximately 36 AFY. As such, there are sufficient water supplies for the proposed project. Therefore, impacts to water supply would be less-than-significant.

c) **Less-than-Significant Impact**. The proposed project would generate approximately 333,215 gallons-per-year (1.02 AFY) of wastewater per year, resulting from use of the facilities in the field house. The proposed project, as discussed above, would utilize existing wastewater infrastructure. The CSUMB 2007 Master Plan states that the existing sanitary sewer system is sufficient for future development within the Master Plan. This determination is further supported by the 2019 Whitson Sanitary Sewer Capacity Analysis referenced above. Therefore, this would be a less-than-significant impact.

d) **Less-than-Significant Impact.** Solid waste generated during the construction and operation of the proposed project would not be in excess of state or local standards, or otherwise impair waste reduction goals. More specifically, the construction and operation of the proposed project would generate 0.2478 tons of waste annually. The waste generated was calculated using CalEEMod (**Appendix B**). The project would complete and submit a Construction Waste Management Plan that complies with the LEED credit, and would align with CalRecycle requirements. Operation of the proposed project would utilize signed and color-coded waste receptacles, approved and consistent with campus standards to accept and divert waste streams (i.e., recycle, compost, landfill). Furthermore, the proposed project would be consistent with the goals and policies identified in the CSUMB 2007 Master Plan. The 2007 Master Plan estimated campus development of 12,000 students with associated faculty and staff, totaling 17,000 people. At the time of adoption of the 2007 Master Plan, Monterey County had established a solid waste target of 5.4 lbs/capita/day. Under these assumptions, the 2007 Master Plan states waste generation would have a less than significant impact and as mentioned above, would implement recycling throughout campus.

e) **No Impact**. Please refer to **Response d)** above. No impact would occur.

4.20 WILDFIRE

ENVIRONMENTAL SETTING

The proposed project is located on the CSUMB campus. More specifically, the project site is located at the existing Freeman Stadium. The CSUMB campus is within the city limits of Seaside and Marina and unincorporated County land on the former Fort Ord military base. As discussed in **Section 4.16 Public Services,** fire protection is provided primarily by Presidio of Monterey Fire Department, and supported by Marina Fire Department, and the Seaside Fire Department.

Due to devastating wildfires, the California Public Utilities Commission (CPUC) developed fire-safety regulations which included fire-threat maps which delineates the boundaries of High Fire-Severity Zones within both State Responsibility Area lands and Local Responsibility Area lands. The proposed project is located within the Local Responsibility Area and is outside the high-fire-threat zone.

IMPACTS

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	3, 15, 23
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒	3, 15, 23
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impact to the environment?	☐	☐	☐	☒	3, 15, 23
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?	☐	☐	☐	☒	3, 15, 23

EXPLANATION

a-d) **No Impact.** As discussed in previous sections, the proposed project would not impair emergency response or evacuation plans. The proposed project is not located in a high fire severity zone, as

defined by the CAL FIRE Fire Hazard Severity Zone Maps, and, therefore, there would be no impact regarding wildfires associated with the implementation of the proposed project.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Thresholds per CEQA Appendix G: Environmental Checklist:

Environmental Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source Citation
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	6, 9, 12, 13,14, 20, 23, 35, 40, 41, 42, 43
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐	23, 34
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	23, 34

EXPLANATION:

a) **Less-than-Significant with Mitigation Incorporated**. Based on the analysis provided in this Initial Study, the proposed project would result in potentially significant impacts to biological resources and cultural and tribal cultural resources. However, mitigation measures are identified that would reduce these potentially significant impacts to a less-than-significant level.

b – c) **Less-than-Significant Impact**. As evidenced in this Initial Study, the proposed project would not result in significant cumulative impacts, nor would it result in substantial adverse effects on human beings, directly or indirectly since all potentially significant impacts would be less than significant based on compliance with regulatory requirements, implementation of proposed project design features such as BMPs, and mitigation measures identified in this Initial Study.

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CHAPTER 5 LIST OF PREPARERS AND REFERENCES

5.1 LIST OF PREPARERS

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Monterey Bay Football Club, LLC
Frank Yallop

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Appendix A
Photometric Analysis

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Freeman Stadium Field Renovation

Field Lighting Renovation

Photometric Analysis

Project Number
USS-21009117

Prepared By:

Michael Schrupp

Date Submitted
20 May, 2021

TABLE OF CONTENTS

NARRATIVE

1 INTRODUCTION

We (exp engineering) have conducted a photometric review of the proposed renovation to California State University Monterey's (CSUMB) Freeman Stadium for use by the Monterey Bay Football Club (MBFC) with specific regard to the impact of the new high-mast sports lighting on the surrounding areas. This report details the findings of the study and provides our conclusions and recommendations if any modifications are needed to be made to the design.

2 PROJECT LOCATION

Freeman Stadium is a part of the greater Otter Sports Complex located at the south west corner of the CSUMB campus off General Jim Moore Blvd between Lightfighter Drive and Divartiy Street in the city of Seaside in Monterey County, CA. The site is approximately 1/2 mile east of Highway 1 and 4 miles north east of the city center.
See Figure 1, Project Site Location

3 PROPOSED LIGHTING RENOVATION

As part of the greater stadium renovation, the field lighting is to be upgraded with new poles and luminaires. The proposed layout consists of four (4) new 90' tall high-mast poles, one at each corner of the stadium, each containing 46 LED flood lights aimed at the field surface below. The luminaires are all aimed at various positions on the playing field with the furthest and shallowest aiming angle being roughly 65° to the center of the field to the closest and steepest aiming angle being roughly 20°. *See Figure 3, Field Lighting Proposal*
The proposed luminaires are to have glare shields on the front of the fixture to mitigate direct view of the LEDs.
Lower level, pedestrian-scale luminaires are also being added as a part of this renovation and it is proposed that portable, temporary parking lot flood light towers will be employed for evening events. While these other sources will add to the illumination surrounding the stadium at night, their contribution will not be visible to the surrounding community and therefore were not considered in any of the calculations for this report.

4 SITE CONSIDERATIONS

CSUMB is located on the site of the former military base Fort Ord with the Otter Sports Complex and

Freeman Stadium isolated in the south west corner of the campus. Most of the former base structures have been demolished leaving wide swaths of land between the stadium and community structures.
The closest building to the site is the Veteran's Administration building, a medical office complex located on a small hill above the stadium, roughly 580' from the closest light tower. However, this office complex is no longer in operation.
The closest campus residences are approximately 1,800 feet northeast of the site, and the site is not visible from this location due to topography and vegetation. The closest off-campus residential community view of the complex is located roughly .51 miles south which is bordered by large, dense canopy trees obstructing the views to the north. The same is true for Highway 1. Any view to the sports complex and the stadium from highway traffic is obscured by groves of tall trees.
The stadium itself sits several feet below grade, with the new high-mast poles mounting at that lower field level making the top of those poles roughly the same height as the existing poles around the adjacent baseball field to the south and soccer fields to the south west.

5 CODES AND REGULATIONS

This section describes regulatory plans, policies, and ordinances related to lighting on the CSUMB campus or within the surrounding City of Seaside. As indicated in the following text, the California State University (CSU) does not have specific lighting policies or guidelines directing appropriate light levels (and spillover) from sports field or stadium lighting. As a result, although CSU as a state entity is not subject to local land use regulations, the City of Seaside's General Plan, the City's Municipal Zoning Code, and the guidelines in CSU Outdoor Lighting Design Guide were reviewed to provide parameters for the analysis of light impacts resulting from the proposed outdoor lighting.

California State University Outdoor Lighting Design Guide (2018)

The Outdoor Lighting Design Guide provides CSU campuses with guidelines for outdoor lighting design to ensure a comfortable nighttime environment, maximize energy efficiency, reduce light pollution, reduce glare, and improve campus aesthetics.
The guide dictates that lighting designs follow the current State codes (Title 24/ CALGreen).
Sports field lighting is not specifically addressed in this document.

CSUMB Master Plan 2007 (Current)

CSUMB's 2007 Master Plan Campus Lighting Plan states that the "*primary goal of most exterior lighting is functional: to provide adequate light for safety and security*." The proposed lighting plan would be reviewed by Campus Police Department to ensure it meets safety concerns.

CSUMB Master Plan 2017 (Draft)

CSUMB's lighting policy, based on the Draft 2017 Master Plan, is geared toward energy efficacy while ensuring safety and security on all walkways and parking areas. The most pertinent section to this project falls under section 9 regarding Daylighting Strategies and Lighting Technologies:

LED lighting technologies have progressed rapidly in quality, color rendering, and cost effectiveness and are now embedded in California's Title 24 energy code. LEDs are therefore a requirement for new construction, and lighting loads as a fraction of total loads will decline. New buildings should take advantage of LED lighting technologies. Existing buildings can also be retrofit for LED technologies, and this might be considered for an additional energy efficiency project. The UC CSU Energy Efficiency Partnership provides incentives for LED retrofits.

California Title 24

The California Lighting Technology Center's 2019 Outdoor Lighting Guide for Title 24, Part 6, compliance is designed to help builders, lighting industry professionals, and others navigate the nonresidential outdoor lighting portion of the California's Building Energy Efficiency Standards (CLTC 2016). The new standards, which took effect January 1, 2020, include updated requirements for retrofit standards, lighting controls, and uplight and glare limits. The guide includes an overview of updates to the 2019 standards, information about current lighting technologies, and energy-efficient lighting strategies and principles. Explanations of critical code requirements for outdoor lighting and controls accompany best practice recommendations are also included.

California Green Building Standards Code (CALGreen)

The California Green Buildings Standards (2019), a subsection of California's Title 24 code (Part 11) includes regulations for backlight, uplight, and glare. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced glare rating and reduced backlight rating regulations outlined within these standards shall be met. These ratings are defined by Lighting Zones within the California Energy Code and California Administrative Code.

Seaside General Plan

The current General Plan (2003) provides the direction for current and future development within the city. A major theme throughout the plan involves the protection of the natural environment, including the night sky. The plan includes the following directives specifically pertaining to lighting:

<u>Implementation Plan UD-2.2.1 Restrict Light and Noise Impacts</u>

Continue to impose and enforce mitigation measures and operation requirements on new development to

restrict construction and operation lighting and noise levels to regular work hours during the week and to acceptable times during the weekends.

Implementation Plan COS-8.1.2 Design Guidelines for Exterior Light Sources.

The City shall develop design guidelines that re-quire wherever possible that exterior light sources be controlled and/or shielded to the downward direction so as not to glare or be directly visible beyond the limits of the parcel.

Additionally, the plan emphasizes the desire to protect the night sky environment for the continued success of the nearby Monterey Institute for Research in Astronomy (MIRA).

Seaside Municipal Code

Chapter 17 of the city's Municipal Code identifies lighting regulations for outdoor development. Specifically, Section 17.30.070 *Outdoor Lighting* states that lighting on the site of a multi-family or nonresidential structure or use shall comply with the following requirements:

Maximum height. A freestanding outdoor light fixture shall be limited to a maximum height of 16 feet, measured from adjacent normal grade to the top of the fixture(s). The fixture shall be considered to be the highest portion of the light structure. When not located adjacent to a single-family residential zone, the Board of Architectural Review may grant exceptions to the maximum height of freestanding outdoor light fixture(s) with the finding that the proposed height is consistent with surrounding land uses and is compatible with the existing or proposed surrounding structures.

Energy efficiency. Outdoor lighting shall utilize energy-efficient (high pressure sodium, low pressure sodium, hard-wired compact fluorescent, LED, or other lighting technology that is of equal or greater energy efficiency) fixtures and lamps.

Position of light fixtures. All lighting fixtures shall be properly directed, recessed, and fully shielded (e.g., downward and away from adjoining properties) to reduce light bleed and glare onto adjacent properties or public rights-of-way, by:

1. Ensuring that the light source (e.g., bulb, etc.) is not visible from off the site; and
2. Confining glare and reflections within the boundaries of the subject site to the maximum extent feasible.

Maximum illumination. No lighting on private property shall produce an illumination level greater than one foot-candle on any property within a residential zone except on the site of the light source.

Backlighting, Uplighting and Glare (BUG) rating. All outdoor light fixtures are subject to the BUG rating limits established by the California Energy Code (CALGreen 5.106.8) prior to the issuance of an electrical permit.

No blinking, flashing, or high intensity. No permanently installed lighting shall blink, flash, flutter, or be of unusually high intensity or brightness, or change light brightness, color, or intensity, as determined by the Zoning Administrator.

New light fixtures on commercial buildings. Installation of new light fixtures on commercial buildings shall be

subject to review and approval by the Board of Architectural Review.

6 ANALYSIS

The proposed project site, while isolated from the majority of other public buildings, is currently exposed to urban nighttime lighting. Artificial light sources found on site and in the surrounding area include existing interior and exterior lighting at the Field House, high-mast sports lighting at the baseball and soccer fields and outdoor aquatic center adjacent to the site, parking lot lighting, light along the adjacent walkways and streets, and illuminated automobile headlights. The site itself previously contained high-mast field lighting that is being upgraded to the new locations with improved luminaires.

The proposed project includes the installation of four energy-efficient lighting poles, with a mounting height of 90 feet and 46 luminaries on each pole, to facilitate nighttime use of the field. These poles would be the primary sources of light for the field while other new lighting is associated with the proposed project. The lighting poles would be implemented with Dark Sky-compliant LED fixtures with a fixed tilt based upon their calculated aiming angles. The poles would be mounted at the corners at the perimeters of the field to focus light directly on the field and away from neighboring receptors. Field lighting for the proposed project would be turned on at full output at dusk when needed for practice or games and would be switch off after the events with exact times being determined by the duration of the usage.

The CSU *Outdoor Lighting Design Guide* provides the CSU campuses with guidelines for outdoor lighting design to ensure a comfortable nighttime environment, maximize energy efficiency, reduce light pollution, reduce glare, and improve campus aesthetics. The guide contains CSU lighting design goals and strategies, lighting control strategies and methods throughout the campuses, and the mandated use of LED sources on new luminaires for energy efficiency and ease of maintenance. The guide includes goals pertaining to compliance with local codes, assurance of good nighttime visibility, low maintenance of lighting, energy efficiency, reduced light pollution, and integration into the overall campus aesthetic. As previously noted, sports field lighting is not specifically addressed in this document. Lighting design strategies are provided in the guide to aid in implementation of established lighting goals. Lighting design strategies are oriented toward creating vertical surface brightness, enhancing navigation, minimizing glare, maintaining lighting uniformity, and providing appropriate lighting levels (CSU 2018). The proposed lighting and operational schedule would ensure that the field is illuminated as efficiently as possible and that campus uniformity is maintained in the project vicinity.

Regulations and restrictions with respect to lighting on the CSUMB campus are not strictly defined within campus development and planning documents. The 2007 Master Plan and 2017 Draft Master Plan focus on better efficiency of all lighting throughout the university and should meet safety and security standards. When

possible, outdoor light should be controlled by automatic timers, and the use of LED sources mandatory. The documents do not identify strict lighting restrictions or regulations and does not have any specific lighting requirements for CSUMB sports fields. The proposed LED source and shielding treatment and proposed operational schedule would ensure that the field is being illuminated as efficiently as possible and that public safety is maintained during nighttime hours, respectively..

Due to the lack of specific guidance for sports field lighting from the applicable CSU and Master Plan lighting guidelines, the City of Seaside's Outdoor Lighting ordinance was reviewed (City of Seaside Municipal Code Section 17.30.070). Although CSUMB is not subject to the City's ordinances or regulations, the City's Municipal Code and Master Plan guidelines were reviewed to provide parameters for the analysis of light impacts. Although neither the City's Municipal Code, nor the City's Mater Plan provide numeric regulations specifically for sports field lighting, there are several regulations and restrictions for development of outdoor lighting that can be useful in the evaluation of the lighting impacts associated with the proposed project.

The City's Municipal Code (2020) states that outdoor lighting shall utilize energy-efficient (high pressure sodium, low pressure sodium, hard-wired compact fluorescent, LED, or other lighting technology that is of equal or greater energy efficiency) fixtures and lamps. It further states that all lighting fixtures shall be properly directed, recessed, and fully shielded (e.g., downward and away from adjoining properties) to reduce light bleed and glare onto adjacent properties by ensuring that the light source is not visible from off the site and confining glare and reflections within the site to the maximum extent feasible.The design of the field lighting for the proposed project takes into account all available methods for reducing lighting spillover and glare. The field lighting poles would be arranged to focus the light directly on the field. The energy-efficient luminaires would be at a mounting height of 90 feet, mitigating the direct glare in the pedestrian views within the immediate vicinity. The luminaires in this system will have a fixed downward angel to prohibit upward spill of the light and the fixtures faces are shielded with a 20" long shield making the system Dark-Sky compliant.

See Figure 3, Field Lighting Proposal

The City's Municipal Code (2020) also states that, to the extent applicable, outdoor lighting should be in compliance with the California Energy Code and Green Building Regulations (CALGreen0. CALGreen stipulates that all luminaires must meet the mandated BUG (Backlight/Uplight/Glare) ratings per their designated lighting zone unless otherwise exempt by Section 140.7 of the California Energy Code (Title 24) of which *Lighting for sports and athletic fields* is exemption number 4. However, despite being exempt, as shown in *Figure 5, Sky Glow Study*, the calculations show that the design does not produce any direct illumination at 120' or above the ground.

The City's Municipal Code (2020) states that all lighting shall direct, shield, and control light to keep it from falling onto surrounding properties, and no direct-beam illumination shall leave the premises. As shown in *Figure 2, Distance to Nearest Sensitive Receptors*, the closest campus residences are more than 1,800 feet

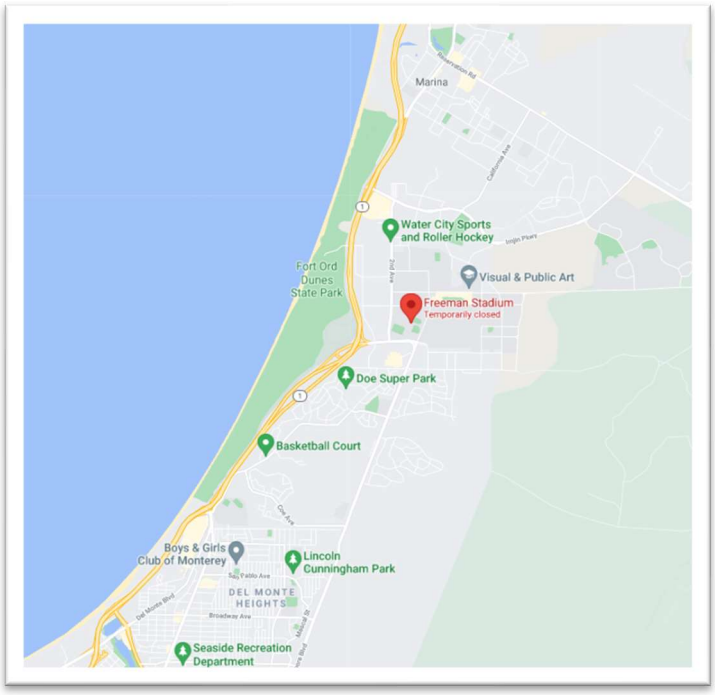
(.34 miles) northeast of the site, while the closest private residential neighborhood is located approximately ½ mile south of the site. In addition, the proposed residential areas within the approved Campus Town Specific Plan Project, located south of Lightfighter Drive in the City of Seaside, are located over 950 feet from the nearest lighting pole. And as shown in Figure *4, Light Spill Summary,* at 250' from the stadium (pole locations), there would be little to no spillover light. Therefore, the gross majority of the light would be directed to the field and would be shielded from all surrounding sensitive receptors.

Since this project would be in compliance with applicable outdoor lighting guidelines and policies and would result in minimal spillover, the increased light and glare would not be substantial for and public viewers at night. Because the proposed project would not create a new source of substantial light or glare in the area, impacts would be less than significant.

7 Conclusion

EXP has reviewed all of the University, State, and local outdoor lighting codes, ordinances, and recommendations as they pertain to the proposed upgrade to the Freeman Stadium field lighting upgrade.
We find that neither the pedestrian scale luminaires nor any of the temporary parking towers will emit light beyond the immediate site and if properly shielded will not contribute to any upward light pollution. As for the new stadium towers, the update to well-shielded LED luminaires with fixed downward aiming to only illuminate the field below, we find that there will be no significant visual impact on the surrounding community and that the system being proposed meets the environmental goals of mitigating sky glow from light shining above 90° nadir, into the night sky.

***Figure 1**, Project Site Location*



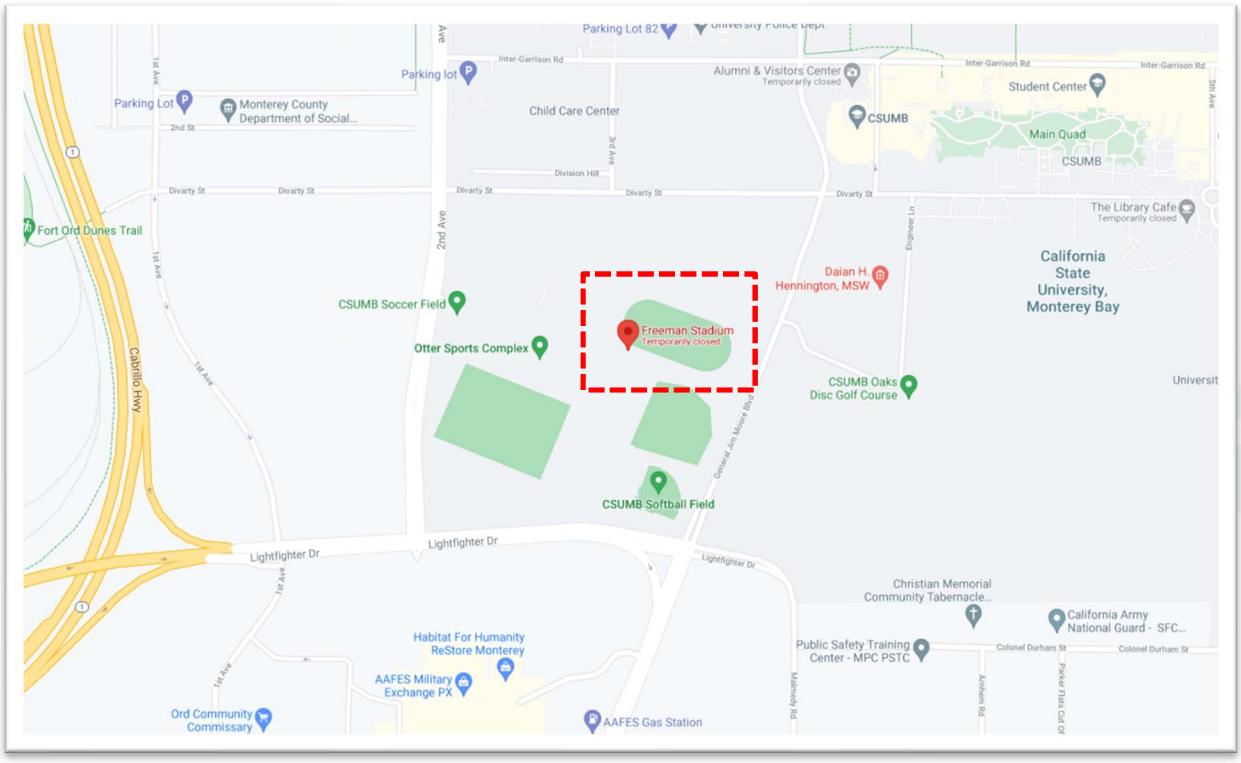


***Figure 2**, Distance to Nearest Sensitive Receptors*

***Figure 3**, Field Lighting Proposal*

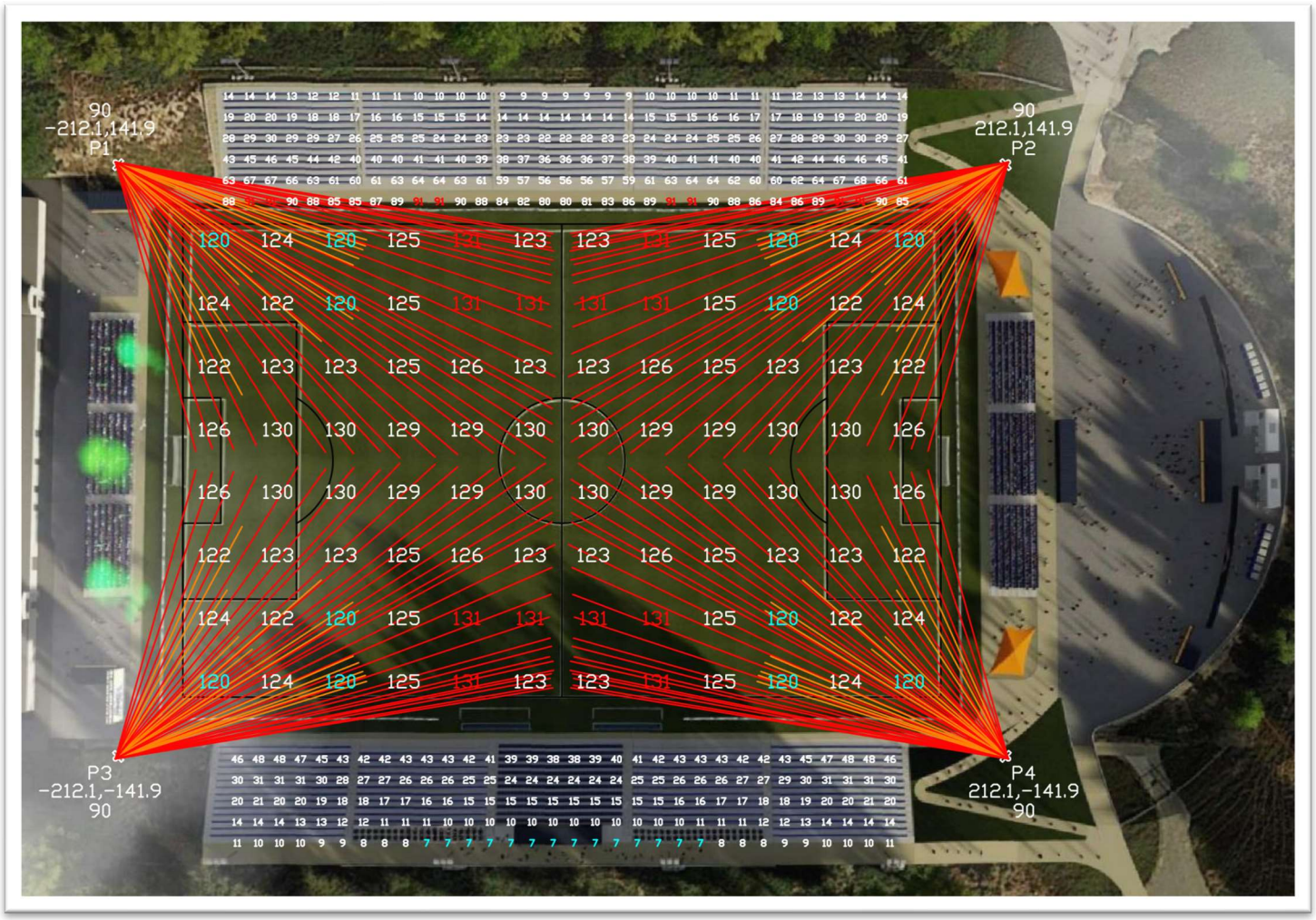
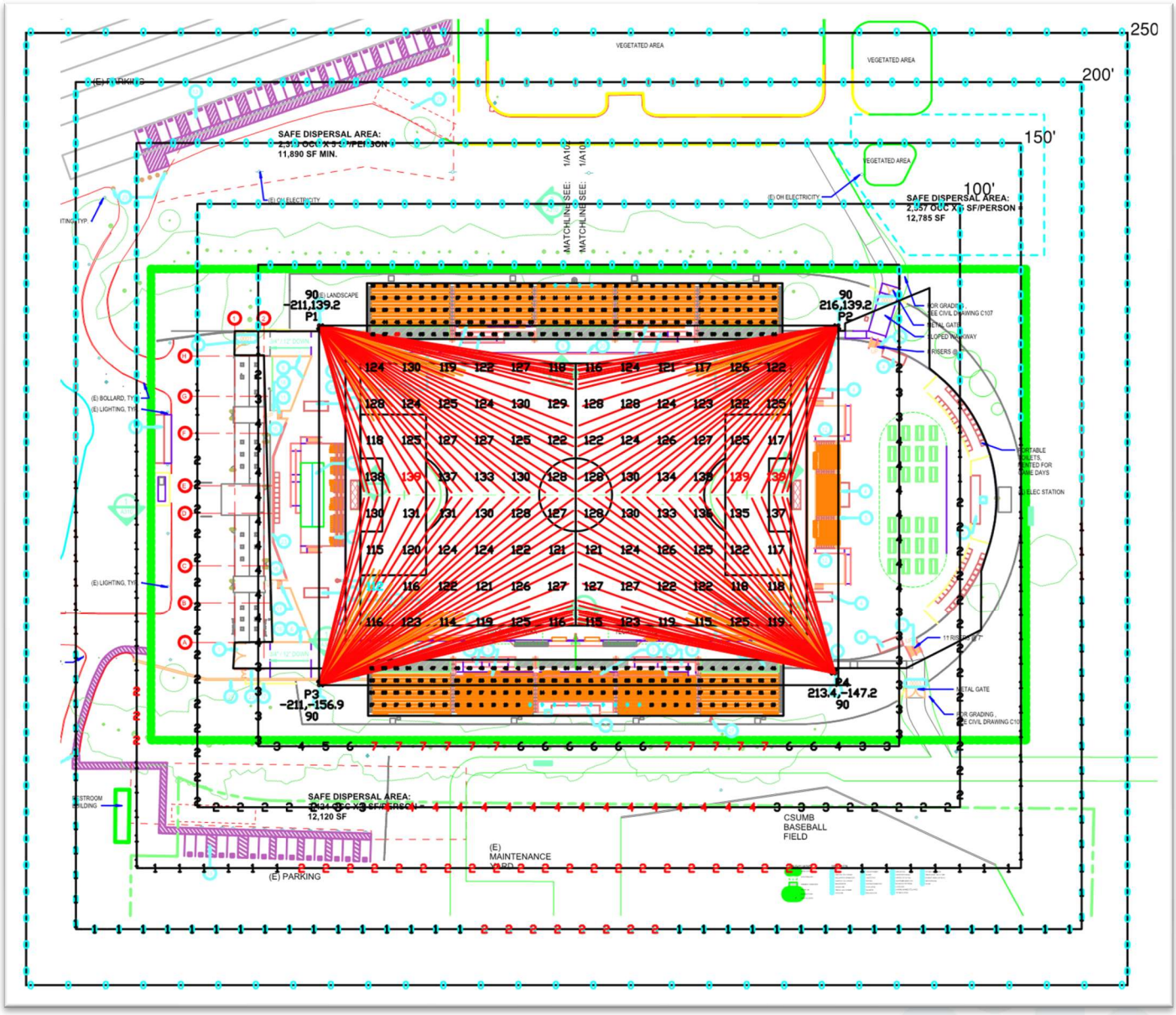


***Figure 4**, Light Spill Summary*



CACL @50'
92 points

VERTICAL FOOTCANDLES	
Average	3
Maximum	7
Minimum	0

CALC @100'
112 points

VERTICAL FOOTCANDLES	
Average	1
Maximum	4
Minimum	0

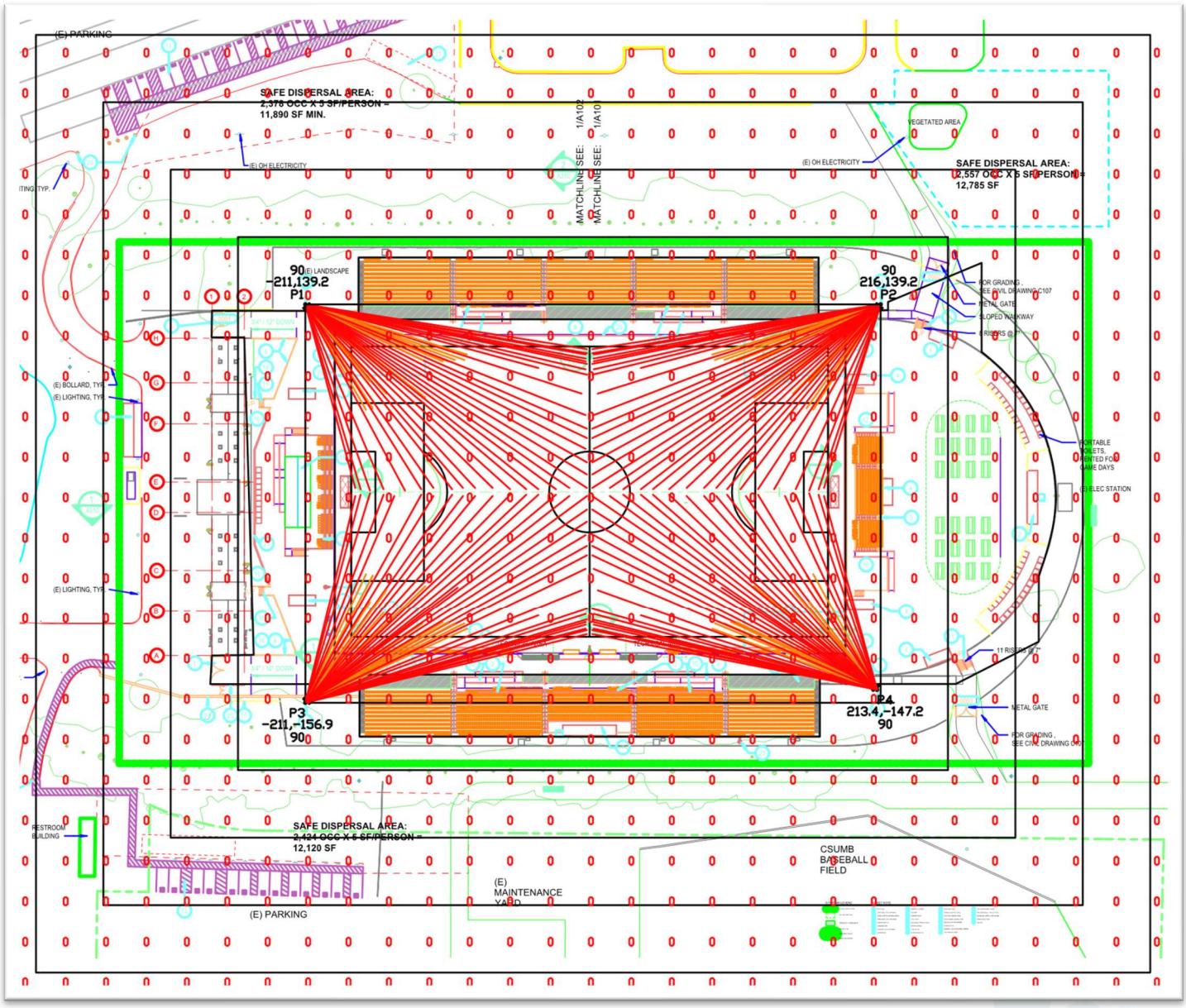
CALC @150'
132 points

VERTICAL FOOTCANDLES	
Average	1
Maximum	2
Minimum	0

CALC @200'
152 points

	A	B		
Average	0	1		
Maximum	1	2	A	HORIZONTAL FOOTCANDLES
Minimum	0	0	B	VERTICAL FOOTCANDLES,

***Figure 5**, Sky Glow Study*

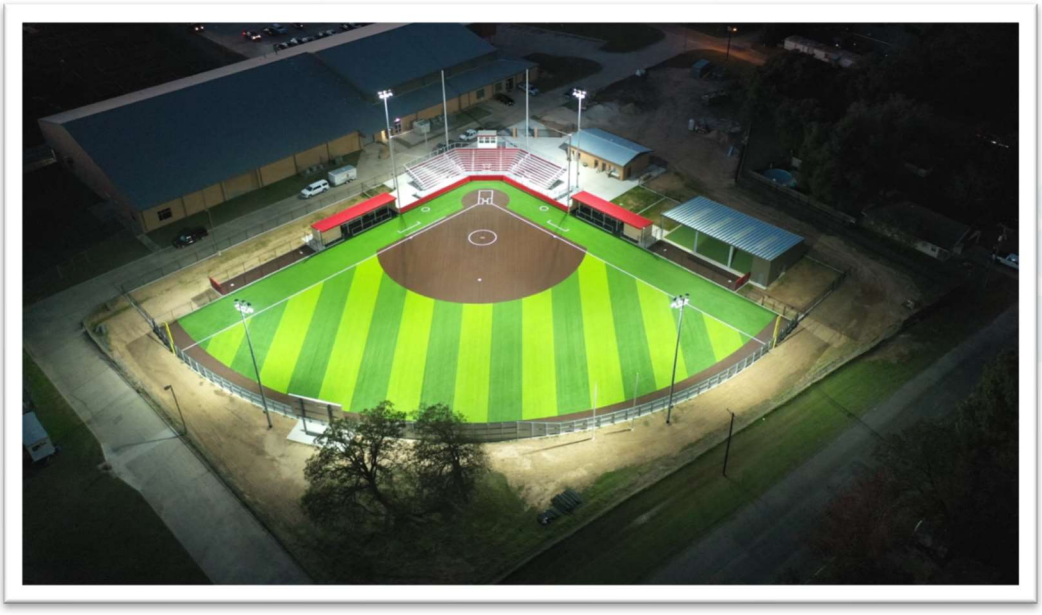


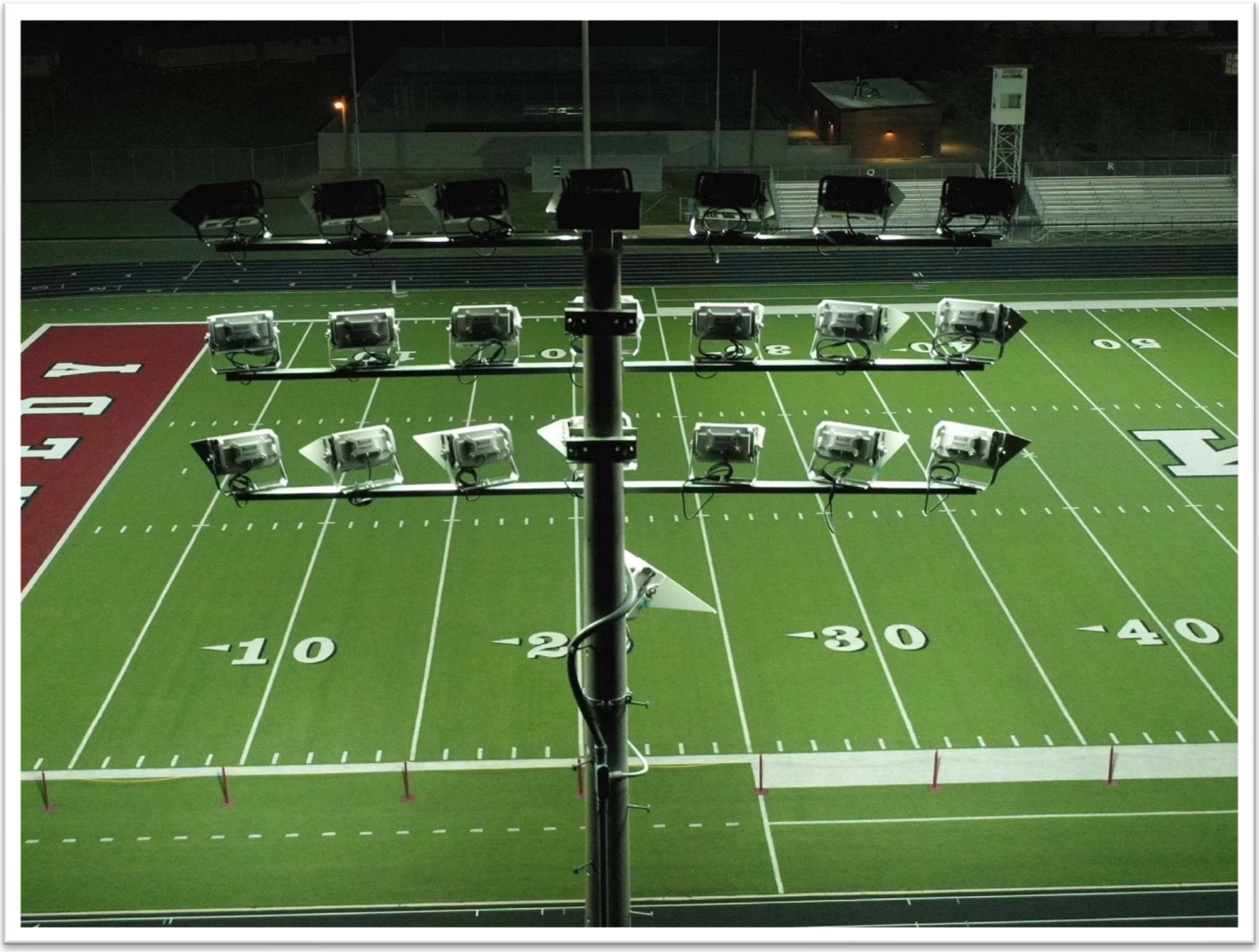
SKY GLOW @120'
696 points at z=120, sp 30ft by 30ft
FOOTCANDLES perpendicular to surface

Average	0
Maximum	0
Minimum	0

***Figure 6**, Proposed Filed Lighting Luminaire*

***Figure 7**, Similar Installed Examples of Proposed High-Mast Lighting System by Techline*

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Appendix B
CalEEMod Results

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Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay

Monterey County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	36.00	1000sqft	5.72	36,000.00	6140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	438.13	**CH4 Intensity (lb/MWhr)**	0.02	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay - Monterey County, Annual

Project Characteristics - Utility intensity factors reflect Senate Bill 100 (2018) Renewables Portfolio Standard program.

Land Use - The project site is 5.72 acres. An estimated 130-140 match-related personnel (i.e., staff, coaches, players) and 6,000 ticketed and seated fan capacity are expected for home matches.

Grading - Construction would result in approximately 1,530 cubic yards (CY) of cut and would not require any fill. Approximately 4.8 acres would be graded, but not more than 2 acres would be graded daily.

Demolition - Renovations to the existing Field House facility would require the demolition and disturbance of 2,000 SF.

Energy Use - The lights operate approximately 25 hours per month (300 hours per year) and produce 118.44 KW and 2,960 Kwh/month. The existing field house is connected to natural gas for heating and would require approximately 367,000 BTUh of natural gas per hour during project operations.

Water And Wastewater - The proposed project would require approximately 98,759 gallons per year or approximately 0.3 acre feet per year (AFY) for new uses of existing showers, water closest, urinals, lavatories, and service sinks. The existing field would be replaced with synthetic turf with sand rubber infill and would not require additional water.

Construction Off-road Equipment Mitigation - Monterey Bay Air Resources District (MBARD) Feasible Construction Emissions Mitigations.

Energy Mitigation - Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

Water Mitigation - Low-flow indoor water use.

Waste Mitigation - CalRecycle Requirements (State of California).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	3.08	0.99
tblEnergyUse	T24NG	19.71	21.20
tblGrading	AcresOfGrading	10.00	4.80
tblGrading	MaterialExported	0.00	1,530.00
tblLandUse	LotAcreage	11.57	5.72
tblLandUse	Population	0.00	6,140.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	641.35	438.13
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWater	IndoorWaterUseRate	15,507,724.23	98,759.00
tblWater	OutdoorWaterUseRate	989,854.74	0.00

2.0 Emissions Summary

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					
2021	0.1795	1.7381	1.3958	2.5400e-003	0.1673	0.0875	0.2548	0.0867	0.0816	0.1684	0.0000	221.8628	221.8628	0.0535	0.0000	223.1994
2022	0.3763	1.1534	1.2390	2.1500e-003	0.0114	0.0577	0.0691	3.1000e-003	0.0542	0.0573	0.0000	186.5751	186.5751	0.0424	0.0000	187.6337
Maximum	**0.3763**	**1.7381**	**1.3958**	**2.5400e-003**	**0.1673**	**0.0875**	**0.2548**	**0.0867**	**0.0816**	**0.1684**	**0.0000**	**221.8628**	**221.8628**	**0.0535**	**0.0000**	**223.1994**

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					
2021	0.0629	1.2339	1.5348	2.5400e-003	0.0732	0.0682	0.1414	0.0360	0.0682	0.1042	0.0000	221.8625	221.8625	0.0535	0.0000	223.1991
2022	0.3044	1.0670	1.3615	2.1500e-003	0.0114	0.0642	0.0756	3.1000e-003	0.0642	0.0672	0.0000	186.5749	186.5749	0.0424	0.0000	187.6335
Maximum	**0.3044**	**1.2339**	**1.5348**	**2.5400e-003**	**0.0732**	**0.0682**	**0.1414**	**0.0360**	**0.0682**	**0.1042**	**0.0000**	**221.8625**	**221.8625**	**0.0535**	**0.0000**	**223.1991**

	ROG	NOx	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	**33.92**	**20.42**	**-9.92**	**0.00**	**52.65**	**8.80**	**33.01**	**56.50**	**2.56**	**24.04**	**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	6-1-2021	8-31-2021	1.0272	0.6021
2	9-1-2021	11-30-2021	0.6550	0.5109
3	12-1-2021	2-28-2022	0.6046	0.5045
4	3-1-2022	5-31-2022	0.5943	0.5147
5	6-1-2022	8-31-2022	0.5642	0.5352
		Highest	1.0272	0.6021

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	0.1657	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	97.6834	97.6834	3.0400e-003	1.3800e-003	98.1721
Mobile	0.1214	0.4813	1.2656	3.5900e-003	0.2807	3.0400e-003	0.2838	0.0754	2.8300e-003	0.0782	0.0000	328.8882	328.8882	0.0164	0.0000	329.2974
Waste						0.0000	0.0000		0.0000	0.0000	0.2010	0.0000	0.2010	0.0119	0.0000	0.4979
Water						0.0000	0.0000		0.0000	0.0000	0.0313	0.1062	0.1375	3.2200e-003	8.0000e-005	0.2410
Total	**0.2925**	**0.5305**	**1.3073**	**3.8900e-003**	**0.2807**	**6.7800e-003**	**0.2875**	**0.0754**	**6.5700e-003**	**0.0820**	**0.2323**	**426.6787**	**426.9110**	**0.0345**	**1.4600e-003**	**428.2094**

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	0.1657	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	80.1639	80.1639	2.5700e-003	1.1100e-003	80.5594
Mobile	0.1214	0.4813	1.2656	3.5900e-003	0.2807	3.0400e-003	0.2838	0.0754	2.8300e-003	0.0782	0.0000	328.8882	328.8882	0.0164	0.0000	329.2974
Waste						0.0000	0.0000		0.0000	0.0000	0.0502	0.0000	0.0502	2.9700e-003	0.0000	0.1245
Water						0.0000	0.0000		0.0000	0.0000	0.0251	0.0850	0.1100	2.5800e-003	6.0000e-005	0.1928
Total	**0.2913**	**0.5193**	**1.2979**	**3.8200e-003**	**0.2807**	**5.9200e-003**	**0.2866**	**0.0754**	**5.7100e-003**	**0.0811**	**0.0753**	**409.1379**	**409.2132**	**0.0245**	**1.1700e-003**	**410.1751**

	ROG	NOx	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	**0.42**	**2.11**	**0.72**	**1.80**	**0.00**	**12.68**	**0.30**	**0.00**	**13.09**	**1.05**	**67.58**	**4.11**	**4.15**	**29.04**	**19.86**	**4.21**

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	6/1/2021	6/28/2021	5	20	
2	Site Preparation	Site Preparation	6/29/2021	7/12/2021	5	10	
3	Grading	Grading	7/13/2021	8/9/2021	5	20	
4	Building Construction	Building Construction	8/10/2021	6/27/2022	5	230	
5	Paving	Paving	6/28/2022	7/25/2022	5	20	
6	Architectural Coating	Architectural Coating	7/26/2022	8/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,000; Non-Residential Outdoor: 18,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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	6	15.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	191.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	15.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	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

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					1.0300e-003	0.0000	1.0300e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**1.0300e-003**	**0.0155**	**0.0165**	**1.6000e-004**	**0.0144**	**0.0146**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

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	4.0000e-005	1.2400e-003	2.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3466	0.3466	1.0000e-005	0.0000	0.3470
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	6.1000e-004	5.4000e-004	4.9600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0958	1.0958	4.0000e-005	0.0000	1.0969
Total	**6.5000e-004**	**1.7800e-003**	**5.2200e-003**	**1.0000e-005**	**1.2700e-003**	**1.0000e-005**	**1.2800e-003**	**3.4000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.4424**	**1.4424**	**5.0000e-005**	**0.0000**	**1.4438**

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					4.0000e-004	0.0000	4.0000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2500e-003	0.1831	0.2467	3.9000e-004		8.6300e-003	8.6300e-003		8.6300e-003	8.6300e-003	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**9.2500e-003**	**0.1831**	**0.2467**	**3.9000e-004**	**4.0000e-004**	**8.6300e-003**	**9.0300e-003**	**6.0000e-005**	**8.6300e-003**	**8.6900e-003**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

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	4.0000e-005	1.2400e-003	2.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3466	0.3466	1.0000e-005	0.0000	0.3470
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	6.1000e-004	5.4000e-004	4.9600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0958	1.0958	4.0000e-005	0.0000	1.0969
Total	**6.5000e-004**	**1.7800e-003**	**5.2200e-003**	**1.0000e-005**	**1.2700e-003**	**1.0000e-005**	**1.2800e-003**	**3.4000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.4424**	**1.4424**	**5.0000e-005**	**0.0000**	**1.4438**

3.3 Site Preparation - 2021

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

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	3.6000e-004	3.3000e-004	2.9800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6575	0.6575	3.0000e-005	0.0000	0.6581
Total	**3.6000e-004**	**3.3000e-004**	**2.9800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6575**	**0.6575**	**3.0000e-005**	**0.0000**	**0.6581**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0352**	**4.7300e-003**	**0.0400**	**0.0194**	**4.7300e-003**	**0.0241**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

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	3.6000e-004	3.3000e-004	2.9800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6575	0.6575	3.0000e-005	0.0000	0.6581
Total	**3.6000e-004**	**3.3000e-004**	**2.9800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6575**	**0.6575**	**3.0000e-005**	**0.0000**	**0.6581**

3.4 Grading - 2021

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					0.0629	0.0000	0.0629	0.0334	0.0000	0.0334	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0629**	**0.0116**	**0.0745**	**0.0334**	**0.0107**	**0.0441**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2644**

3.4 Grading - 2021

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	7.6000e-004	0.0264	5.5900e-003	8.0000e-005	1.6200e-003	1.0000e-004	1.7200e-003	4.4000e-004	9.0000e-005	5.4000e-004	0.0000	7.3562	7.3562	2.8000e-004	0.0000	7.3631
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	6.1000e-004	5.4000e-004	4.9600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0958	1.0958	4.0000e-005	0.0000	1.0969
Total	**1.3700e-003**	**0.0269**	**0.0106**	**9.0000e-005**	**2.8100e-003**	**1.1000e-004**	**2.9200e-003**	**7.6000e-004**	**1.0000e-004**	**8.7000e-004**	**0.0000**	**8.4519**	**8.4519**	**3.2000e-004**	**0.0000**	**8.4599**

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					0.0245	0.0000	0.0245	0.0130	0.0000	0.0130	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.1484	0.1899	3.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	**7.2600e-003**	**0.1484**	**0.1899**	**3.0000e-004**	**0.0245**	**7.5600e-003**	**0.0321**	**0.0130**	**7.5600e-003**	**0.0206**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2643**

3.4 Grading - 2021

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	7.6000e-004	0.0264	5.5900e-003	8.0000e-005	1.6200e-003	1.0000e-004	1.7200e-003	4.4000e-004	9.0000e-005	5.4000e-004	0.0000	7.3562	7.3562	2.8000e-004	0.0000	7.3631
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	6.1000e-004	5.4000e-004	4.9600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0958	1.0958	4.0000e-005	0.0000	1.0969
Total	**1.3700e-003**	**0.0269**	**0.0106**	**9.0000e-005**	**2.8100e-003**	**1.1000e-004**	**2.9200e-003**	**7.6000e-004**	**1.0000e-004**	**8.7000e-004**	**0.0000**	**8.4519**	**8.4519**	**3.2000e-004**	**0.0000**	**8.4599**

3.5 Building Construction - 2021

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	0.0989	0.9065	0.8619	1.4000e-003		0.0499	0.0499		0.0469	0.0469	0.0000	120.4514	120.4514	0.0291	0.0000	121.1779
Total	**0.0989**	**0.9065**	**0.8619**	**1.4000e-003**		**0.0499**	**0.0499**		**0.0469**	**0.0469**	**0.0000**	**120.4514**	**120.4514**	**0.0291**	**0.0000**	**121.1779**

3.5 Building Construction - 2021

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	1.1500e-003	0.0354	9.3200e-003	9.0000e-005	2.0500e-003	1.1000e-004	2.1600e-003	5.9000e-004	1.0000e-004	7.0000e-004	0.0000	8.3892	8.3892	3.7000e-004	0.0000	8.3986
Worker	3.1500e-003	2.8300e-003	0.0258	6.0000e-005	6.2000e-003	5.0000e-005	6.2500e-003	1.6500e-003	5.0000e-005	1.7000e-003	0.0000	5.6980	5.6980	2.3000e-004	0.0000	5.7037
Total	**4.3000e-003**	**0.0383**	**0.0351**	**1.5000e-004**	**8.2500e-003**	**1.6000e-004**	**8.4100e-003**	**2.2400e-003**	**1.5000e-004**	**2.4000e-003**	**0.0000**	**14.0872**	**14.0872**	**6.0000e-004**	**0.0000**	**14.1022**

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	0.0350	0.7398	0.9294	1.4000e-003		0.0470	0.0470		0.0470	0.0470	0.0000	120.4512	120.4512	0.0291	0.0000	121.1777
Total	**0.0350**	**0.7398**	**0.9294**	**1.4000e-003**		**0.0470**	**0.0470**		**0.0470**	**0.0470**	**0.0000**	**120.4512**	**120.4512**	**0.0291**	**0.0000**	**121.1777**

3.5 Building Construction - 2021

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	1.1500e-003	0.0354	9.3200e-003	9.0000e-005	2.0500e-003	1.1000e-004	2.1600e-003	5.9000e-004	1.0000e-004	7.0000e-004	0.0000	8.3892	8.3892	3.7000e-004	0.0000	8.3986
Worker	3.1500e-003	2.8300e-003	0.0258	6.0000e-005	6.2000e-003	5.0000e-005	6.2500e-003	1.6500e-003	5.0000e-005	1.7000e-003	0.0000	5.6980	5.6980	2.3000e-004	0.0000	5.7037
Total	**4.3000e-003**	**0.0383**	**0.0351**	**1.5000e-004**	**8.2500e-003**	**1.6000e-004**	**8.4100e-003**	**2.2400e-003**	**1.5000e-004**	**2.4000e-003**	**0.0000**	**14.0872**	**14.0872**	**6.0000e-004**	**0.0000**	**14.1022**

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	0.1075	0.9838	1.0309	1.7000e-003		0.0510	0.0510		0.0480	0.0480	0.0000	145.9869	145.9869	0.0350	0.0000	146.8613
Total	**0.1075**	**0.9838**	**1.0309**	**1.7000e-003**		**0.0510**	**0.0510**		**0.0480**	**0.0480**	**0.0000**	**145.9869**	**145.9869**	**0.0350**	**0.0000**	**146.8613**

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	1.2800e-003	0.0406	0.0102	1.1000e-004	2.4900e-003	1.1000e-004	2.6000e-003	7.2000e-004	1.1000e-004	8.3000e-004	0.0000	10.0783	10.0783	4.4000e-004	0.0000	10.0892
Worker	3.5400e-003	3.0700e-003	0.0285	7.0000e-005	7.5100e-003	6.0000e-005	7.5700e-003	2.0000e-003	6.0000e-005	2.0500e-003	0.0000	6.6604	6.6604	2.4000e-004	0.0000	6.6665
Total	**4.8200e-003**	**0.0437**	**0.0388**	**1.8000e-004**	**0.0100**	**1.7000e-004**	**0.0102**	**2.7200e-003**	**1.7000e-004**	**2.8800e-003**	**0.0000**	**16.7387**	**16.7387**	**6.8000e-004**	**0.0000**	**16.7558**

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	0.0425	0.8962	1.1261	1.7000e-003		0.0569	0.0569		0.0569	0.0569	0.0000	145.9867	145.9867	0.0350	0.0000	146.8611
Total	**0.0425**	**0.8962**	**1.1261**	**1.7000e-003**		**0.0569**	**0.0569**		**0.0569**	**0.0569**	**0.0000**	**145.9867**	**145.9867**	**0.0350**	**0.0000**	**146.8611**

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	1.2800e-003	0.0406	0.0102	1.1000e-004	2.4900e-003	1.1000e-004	2.6000e-003	7.2000e-004	1.1000e-004	8.3000e-004	0.0000	10.0783	10.0783	4.4000e-004	0.0000	10.0892
Worker	3.5400e-003	3.0700e-003	0.0285	7.0000e-005	7.5100e-003	6.0000e-005	7.5700e-003	2.0000e-003	6.0000e-005	2.0500e-003	0.0000	6.6604	6.6604	2.4000e-004	0.0000	6.6665
Total	**4.8200e-003**	**0.0437**	**0.0388**	**1.8000e-004**	**0.0100**	**1.7000e-004**	**0.0102**	**2.7200e-003**	**1.7000e-004**	**2.8800e-003**	**0.0000**	**16.7387**	**16.7387**	**6.8000e-004**	**0.0000**	**16.7558**

3.6 Paving - 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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	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	5.6000e-004	4.9000e-004	4.5300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0572	1.0572	4.0000e-005	0.0000	1.0582
Total	**5.6000e-004**	**4.9000e-004**	**4.5300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0572**	**1.0572**	**4.0000e-005**	**0.0000**	**1.0582**

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	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6100e-003**	**0.1130**	**0.1730**	**2.3000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	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	5.6000e-004	4.9000e-004	4.5300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0572	1.0572	4.0000e-005	0.0000	1.0582
Total	**5.6000e-004**	**4.9000e-004**	**4.5300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0572**	**1.0572**	**4.0000e-005**	**0.0000**	**1.0582**

3.7 Architectural Coating - 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					
Archit. Coating	0.2503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.2523**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	1.1000e-004	1.0000e-004	9.1000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2114	0.2114	1.0000e-005	0.0000	0.2116
Total	**1.1000e-004**	**1.0000e-004**	**9.1000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2114**	**0.2114**	**1.0000e-005**	**0.0000**	**0.2116**

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	0.2503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.2509**	**0.0136**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	1.1000e-004	1.0000e-004	9.1000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2114	0.2114	1.0000e-005	0.0000	0.2116
Total	**1.1000e-004**	**1.0000e-004**	**9.1000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2114**	**0.2114**	**1.0000e-005**	**0.0000**	**0.2116**

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	0.1214	0.4813	1.2656	3.5900e-003	0.2807	3.0400e-003	0.2838	0.0754	2.8300e-003	0.0782	0.0000	328.8882	328.8882	0.0164	0.0000	329.2974
Unmitigated	0.1214	0.4813	1.2656	3.5900e-003	0.2807	3.0400e-003	0.2838	0.0754	2.8300e-003	0.0782	0.0000	328.8882	328.8882	0.0164	0.0000	329.2974

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	385.56	385.56	385.56	748,734	748,734
Total	385.56	385.56	385.56	748,734	748,734

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
Arena	9.50	7.30	7.30	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	38.8411	38.8411	1.7700e-003	3.5000e-004	38.9911
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	44.1425	44.1425	2.0200e-003	4.0000e-004	44.3129
NaturalGas Mitigated	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	41.3228	41.3228	7.9000e-004	7.6000e-004	41.5684
NaturalGas Unmitigated	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5410	53.5410	1.0300e-003	9.8000e-004	53.8591

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					
Arena	1.00332e+006	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5410	53.5410	1.0300e-003	9.8000e-004	53.8591
Total		**5.4100e-003**	**0.0492**	**0.0413**	**3.0000e-004**		**3.7400e-003**	**3.7400e-003**		**3.7400e-003**	**3.7400e-003**	**0.0000**	**53.5410**	**53.5410**	**1.0300e-003**	**9.8000e-004**	**53.8591**

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					
Arena	774360	4.1800e-003	0.0380	0.0319	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	41.3228	41.3228	7.9000e-004	7.6000e-004	41.5684
Total		**4.1800e-003**	**0.0380**	**0.0319**	**2.3000e-004**		**2.8800e-003**	**2.8800e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**41.3228**	**41.3228**	**7.9000e-004**	**7.6000e-004**	**41.5684**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	222120	44.1425	2.0200e-003	4.0000e-004	44.3129
Total		**44.1425**	**2.0200e-003**	**4.0000e-004**	**44.3129**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	195444	38.8411	1.7700e-003	3.5000e-004	38.9911
Total		**38.8411**	**1.7700e-003**	**3.5000e-004**	**38.9911**

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	tons/yr										MT/yr					
Mitigated	0.1657	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Unmitigated	0.1657	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-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	0.0250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Total	**0.1657**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.9000e-004**	**8.9000e-004**	**0.0000**	**0.0000**	**9.5000e-004**

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	0.0250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Total	**0.1657**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.9000e-004**	**8.9000e-004**	**0.0000**	**0.0000**	**9.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1100	2.5800e-003	6.0000e-005	0.1928
Unmitigated	0.1375	3.2200e-003	8.0000e-005	0.2410

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.098759 / 0	0.1375	3.2200e-003	8.0000e-005	0.2410
Total		**0.1375**	**3.2200e-003**	**8.0000e-005**	**0.2410**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.0790072 / 0	0.1100	2.5800e-003	6.0000e-005	0.1928
Total		**0.1100**	**2.5800e-003**	**6.0000e-005**	**0.1928**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0502	2.9700e-003	0.0000	0.1245
Unmitigated	0.2010	0.0119	0.0000	0.4979

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.99	0.2010	0.0119	0.0000	0.4979
Total		**0.2010**	**0.0119**	**0.0000**	**0.4979**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.2475	0.0502	2.9700e-003	0.0000	0.1245
Total		**0.0502**	**2.9700e-003**	**0.0000**	**0.1245**

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

Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay

Monterey County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	36.00	1000sqft	5.72	36,000.00	6140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	438.13	**CH4 Intensity (lb/MWhr)**	0.02	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay - Monterey County, Summer

Project Characteristics - Utility intensity factors reflect Senate Bill 100 (2018) Renewables Portfolio Standard program.

Land Use - The project site is 5.72 acres. An estimated 130-140 match-related personnel (i.e., staff, coaches, players) and 6,000 ticketed and seated fan capacity are expected for home matches.

Grading - Construction would result in approximately 1,530 cubic yards (CY) of cut and would not require any fill. Approximately 4.8 acres would be graded, but not more than 2 acres would be graded daily.

Demolition - Renovations to the existing Field House facility would require the demolition and disturbance of 2,000 SF.

Energy Use - The lights operate approximately 25 hours per month (300 hours per year) and produce 118.44 KW and 2,960 Kwh/month. The existing field house is connected to natural gas for heating and would require approximately 367,000 BTUh of natural gas per hour during project operations.

Water And Wastewater - The proposed project would require approximately 98,759 gallons per year or approximately 0.3 acre feet per year (AFY) for new uses of existing showers, water closest, urinals, lavatories, and service sinks. The existing field would be replaced with synthetic turf with sand rubber infill and would not require additional water.

Construction Off-road Equipment Mitigation - Monterey Bay Air Resources District (MBARD) Feasible Construction Emissions Mitigations.

Energy Mitigation - Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

Water Mitigation - Low-flow indoor water use.

Waste Mitigation - CalRecycle Requirements (State of California).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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
tblEnergyUse	LightingElect	3.08	0.99
tblEnergyUse	T24NG	19.71	21.20
tblGrading	AcresOfGrading	10.00	4.80
tblGrading	MaterialExported	0.00	1,530.00
tblLandUse	LotAcreage	11.57	5.72
tblLandUse	Population	0.00	6,140.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	641.35	438.13
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWater	IndoorWaterUseRate	15,507,724.23	98,759.00
tblWater	OutdoorWaterUseRate	989,854.74	0.00

2.0 Emissions Summary

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					
2021	3.9615	40.5542	22.1155	0.0405	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	3,914.7304	3,914.7304	1.1981	0.0000	3,941.2640
2022	25.2449	16.2962	16.9949	0.0299	0.1638	0.8118	0.9756	0.0444	0.7638	0.8082	0.0000	2,856.6341	2,856.6341	0.7185	0.0000	2,872.2297
Maximum	**25.2449**	**40.5542**	**22.1155**	**0.0405**	**18.2141**	**2.0457**	**20.2598**	**9.9699**	**1.8820**	**11.8519**	**0.0000**	**3,914.7304**	**3,914.7304**	**1.1981**	**0.0000**	**3,941.2640**

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					
2021	1.0045	19.1228	25.2244	0.0405	7.1937	0.9474	8.1411	3.9122	0.9473	4.8595	0.0000	3,914.7304	3,914.7304	1.1981	0.0000	3,941.2640
2022	25.0998	14.9067	18.5052	0.0299	0.1638	0.9063	1.0701	0.0444	0.9062	0.9505	0.0000	2,856.6341	2,856.6341	0.7185	0.0000	2,872.2297
Maximum	**25.0998**	**19.1228**	**25.2244**	**0.0405**	**7.1937**	**0.9474**	**8.1411**	**3.9122**	**0.9473**	**4.8595**	**0.0000**	**3,914.7304**	**3,914.7304**	**1.1981**	**0.0000**	**3,941.2640**

	ROG	NOx	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	**10.62**	**40.14**	**-11.81**	**0.00**	**59.97**	**35.13**	**56.62**	**60.49**	**29.95**	**54.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Energy	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126
Mobile	0.7263	2.5459	6.9691	0.0206	1.5936	0.0167	1.6103	0.4268	0.0156	0.4423		2,087.0490	2,087.0490	0.0993		2,089.5316
Total	**1.6639**	**2.8155**	**7.1992**	**0.0223**	**1.5936**	**0.0372**	**1.6308**	**0.4268**	**0.0361**	**0.4628**		**2,410.4477**	**2,410.4477**	**0.1055**	**5.9300e-003**	**2,414.8526**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Energy	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
Mobile	0.7263	2.5459	6.9691	0.0206	1.5936	0.0167	1.6103	0.4268	0.0156	0.4423		2,087.0490	2,087.0490	0.0993		2,089.5316
Total	**1.6571**	**2.7540**	**7.1475**	**0.0219**	**1.5936**	**0.0325**	**1.6261**	**0.4268**	**0.0314**	**0.4582**		**2,336.6491**	**2,336.6491**	**0.1041**	**4.5800e-003**	**2,340.6155**

	ROG	NOx	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	**0.41**	**2.18**	**0.72**	**1.66**	**0.00**	**12.56**	**0.29**	**0.00**	**12.95**	**1.01**	**0.00**	**3.06**	**3.06**	**1.35**	**22.77**	**3.07**

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	6/1/2021	6/28/2021	5	20	
2	Site Preparation	Site Preparation	6/29/2021	7/12/2021	5	10	
3	Grading	Grading	7/13/2021	8/9/2021	5	20	
4	Building Construction	Building Construction	8/10/2021	6/27/2022	5	230	
5	Paving	Paving	6/28/2022	7/25/2022	5	20	
6	Architectural Coating	Architectural Coating	7/26/2022	8/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,000; Non-Residential Outdoor: 18,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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	6	15.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	191.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	15.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	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

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					0.1030	0.0000	0.1030	0.0156	0.0000	0.0156			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1030**	**1.5513**	**1.6543**	**0.0156**	**1.4411**	**1.4567**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	3.5300e-003	0.1219	0.0255	3.6000e-004	7.8500e-003	4.6000e-004	8.3100e-003	2.1500e-003	4.4000e-004	2.5900e-003		38.5311	38.5311	1.3900e-003		38.5658
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
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.0646**	**0.1695**	**0.5505**	**1.6500e-003**	**0.1311**	**1.4900e-003**	**0.1326**	**0.0348**	**1.3900e-003**	**0.0362**		**166.7855**	**166.7855**	**6.4400e-003**		**166.9466**

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					0.0402	0.0000	0.0402	6.0800e-003	0.0000	6.0800e-003			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**0.9246**	**18.3130**	**24.6739**	**0.0388**	**0.0402**	**0.8627**	**0.9029**	**6.0800e-003**	**0.8627**	**0.8688**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	3.5300e-003	0.1219	0.0255	3.6000e-004	7.8500e-003	4.6000e-004	8.3100e-003	2.1500e-003	4.4000e-004	2.5900e-003		38.5311	38.5311	1.3900e-003		38.5658
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
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.0646**	**0.1695**	**0.5505**	**1.6500e-003**	**0.1311**	**1.4900e-003**	**0.1326**	**0.0348**	**1.3900e-003**	**0.0362**		**166.7855**	**166.7855**	**6.4400e-003**		**166.9466**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0733	0.0571	0.6300	1.5500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		153.9053	153.9053	6.0600e-003		154.0569
Total	**0.0733**	**0.0571**	**0.6300**	**1.5500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**153.9053**	**153.9053**	**6.0600e-003**		**154.0569**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**7.0458**	**0.9462**	**7.9920**	**3.8730**	**0.9462**	**4.8191**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0733	0.0571	0.6300	1.5500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		153.9053	153.9053	6.0600e-003		154.0569
Total	**0.0733**	**0.0571**	**0.6300**	**1.5500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**153.9053**	**153.9053**	**6.0600e-003**		**154.0569**

3.4 Grading - 2021

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					6.2930	0.0000	6.2930	3.3402	0.0000	3.3402			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.2930**	**1.1599**	**7.4529**	**3.3402**	**1.0671**	**4.4073**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

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	0.0749	2.5861	0.5407	7.7200e-003	0.1666	9.7000e-003	0.1763	0.0456	9.2800e-003	0.0549		817.7147	817.7147	0.0295		818.4527
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
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.1360**	**2.6337**	**1.0657**	**9.0100e-003**	**0.2898**	**0.0107**	**0.3006**	**0.0783**	**0.0102**	**0.0886**		**945.9691**	**945.9691**	**0.0346**		**946.8335**

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					2.4543	0.0000	2.4543	1.3027	0.0000	1.3027			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0296		0.7555	0.7555		0.7555	0.7555	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.7263**	**14.8397**	**18.9906**	**0.0296**	**2.4543**	**0.7555**	**3.2098**	**1.3027**	**0.7555**	**2.0582**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

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	0.0749	2.5861	0.5407	7.7200e-003	0.1666	9.7000e-003	0.1763	0.0456	9.2800e-003	0.0549		817.7147	817.7147	0.0295		818.4527
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
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.1360**	**2.6337**	**1.0657**	**9.0100e-003**	**0.2898**	**0.0107**	**0.3006**	**0.0783**	**0.0102**	**0.0886**		**945.9691**	**945.9691**	**0.0346**		**946.8335**

3.5 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

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
Vendor	0.0216	0.6735	0.1679	1.7100e-003	0.0406	2.0500e-003	0.0426	0.0117	1.9600e-003	0.0137		180.0513	180.0513	7.6100e-003		180.2415
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.0827**	**0.7211**	**0.6929**	**3.0000e-003**	**0.1638**	**3.0800e-003**	**0.1669**	**0.0444**	**2.9100e-003**	**0.0473**		**308.3057**	**308.3057**	**0.0127**		**308.6222**

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	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

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
Vendor	0.0216	0.6735	0.1679	1.7100e-003	0.0406	2.0500e-003	0.0426	0.0117	1.9600e-003	0.0137		180.0513	180.0513	7.6100e-003		180.2415
Worker	0.0611	0.0476	0.5250	1.2900e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		128.2544	128.2544	5.0500e-003		128.3808
Total	**0.0827**	**0.7211**	**0.6929**	**3.0000e-003**	**0.1638**	**3.0800e-003**	**0.1669**	**0.0444**	**2.9100e-003**	**0.0473**		**308.3057**	**308.3057**	**0.0127**		**308.6222**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0566	0.0427	0.4796	1.2400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		123.7396	123.7396	4.5200e-003		123.8527
Total	**0.0764**	**0.6806**	**0.6315**	**2.9400e-003**	**0.1638**	**2.7700e-003**	**0.1666**	**0.0444**	**2.6200e-003**	**0.0470**		**302.3005**	**302.3005**	**0.0119**		**302.5975**

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	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0566	0.0427	0.4796	1.2400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		123.7396	123.7396	4.5200e-003		123.8527
Total	**0.0764**	**0.6806**	**0.6315**	**2.9400e-003**	**0.1638**	**2.7700e-003**	**0.1666**	**0.0444**	**2.6200e-003**	**0.0470**		**302.3005**	**302.3005**	**0.0119**		**302.5975**

3.6 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 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	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
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
Worker	0.0566	0.0427	0.4796	1.2400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		123.7396	123.7396	4.5200e-003		123.8527
Total	**0.0566**	**0.0427**	**0.4796**	**1.2400e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**123.7396**	**123.7396**	**4.5200e-003**		**123.8527**

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	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5609**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 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	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
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
Worker	0.0566	0.0427	0.4796	1.2400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		123.7396	123.7396	4.5200e-003		123.8527
Total	**0.0566**	**0.0427**	**0.4796**	**1.2400e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**123.7396**	**123.7396**	**4.5200e-003**		**123.8527**

3.7 Architectural Coating - 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					
Archit. Coating	25.0290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**25.2335**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 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	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
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
Worker	0.0113	8.5300e-003	0.0959	2.5000e-004	0.0246	2.0000e-004	0.0248	6.5400e-003	1.8000e-004	6.7200e-003		24.7479	24.7479	9.0000e-004		24.7705
Total	**0.0113**	**8.5300e-003**	**0.0959**	**2.5000e-004**	**0.0246**	**2.0000e-004**	**0.0248**	**6.5400e-003**	**1.8000e-004**	**6.7200e-003**		**24.7479**	**24.7479**	**9.0000e-004**		**24.7705**

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	25.0290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**25.0884**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 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	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
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
Worker	0.0113	8.5300e-003	0.0959	2.5000e-004	0.0246	2.0000e-004	0.0248	6.5400e-003	1.8000e-004	6.7200e-003		24.7479	24.7479	9.0000e-004		24.7705
Total	**0.0113**	**8.5300e-003**	**0.0959**	**2.5000e-004**	**0.0246**	**2.0000e-004**	**0.0248**	**6.5400e-003**	**1.8000e-004**	**6.7200e-003**		**24.7479**	**24.7479**	**9.0000e-004**		**24.7705**

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	0.7263	2.5459	6.9691	0.0206	1.5936	0.0167	1.6103	0.4268	0.0156	0.4423		2,087.0490	2,087.0490	0.0993		2,089.5316
Unmitigated	0.7263	2.5459	6.9691	0.0206	1.5936	0.0167	1.6103	0.4268	0.0156	0.4423		2,087.0490	2,087.0490	0.0993		2,089.5316

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	385.56	385.56	385.56	748,734	748,734
Total	385.56	385.56	385.56	748,734	748,734

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
Arena	9.50	7.30	7.30	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
NaturalGas Unmitigated	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126

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					
Arena	2748.82	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126
Total		**0.0296**	**0.2695**	**0.2264**	**1.6200e-003**		**0.0205**	**0.0205**		**0.0205**	**0.0205**		**323.3908**	**323.3908**	**6.2000e-003**	**5.9300e-003**	**325.3126**

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					
Arena	2.12153	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
Total		**0.0229**	**0.2080**	**0.1747**	**1.2500e-003**		**0.0158**	**0.0158**		**0.0158**	**0.0158**		**249.5923**	**249.5923**	**4.7800e-003**	**4.5800e-003**	**251.0755**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Unmitigated	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-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	lb/day										lb/day					
Architectural Coating	0.1372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Total	**0.9079**	**3.0000e-005**	**3.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**7.8800e-003**	**7.8800e-003**	**2.0000e-005**		**8.4000e-003**

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	0.1372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Total	**0.9079**	**3.0000e-005**	**3.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**7.8800e-003**	**7.8800e-003**	**2.0000e-005**		**8.4000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay

Monterey County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	36.00	1000sqft	5.72	36,000.00	6140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	438.13	**CH4 Intensity (lb/MWhr)**	0.02	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Monterey Bay Football Club Facilities Renovation Project at California State University Monterey Bay - Monterey County, Winter

Project Characteristics - Utility intensity factors reflect Senate Bill 100 (2018) Renewables Portfolio Standard program.

Land Use - The project site is 5.72 acres. An estimated 130-140 match-related personnel (i.e., staff, coaches, players) and 6,000 ticketed and seated fan capacity are expected for home matches.

Grading - Construction would result in approximately 1,530 cubic yards (CY) of cut and would not require any fill. Approximately 4.8 acres would be graded, but not more than 2 acres would be graded daily.

Demolition - Renovations to the existing Field House facility would require the demolition and disturbance of 2,000 SF.

Energy Use - The lights operate approximately 25 hours per month (300 hours per year) and produce 118.44 KW and 2,960 Kwh/month. The existing field house is connected to natural gas for heating and would require approximately 367,000 BTUh of natural gas per hour during project operations.

Water And Wastewater - The proposed project would require approximately 98,759 gallons per year or approximately 0.3 acre feet per year (AFY) for new uses of existing showers, water closest, urinals, lavatories, and service sinks. The existing field would be replaced with synthetic turf with sand rubber infill and would not require additional water.

Construction Off-road Equipment Mitigation - Monterey Bay Air Resources District (MBARD) Feasible Construction Emissions Mitigations.

Energy Mitigation - Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

Water Mitigation - Low-flow indoor water use.

Waste Mitigation - CalRecycle Requirements (State of California).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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
tblEnergyUse	LightingElect	3.08	0.99
tblEnergyUse	T24NG	19.71	21.20
tblGrading	AcresOfGrading	10.00	4.80
tblGrading	MaterialExported	0.00	1,530.00
tblLandUse	LotAcreage	11.57	5.72
tblLandUse	Population	0.00	6,140.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	641.35	438.13
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWater	IndoorWaterUseRate	15,507,724.23	98,759.00
tblWater	OutdoorWaterUseRate	989,854.74	0.00

2.0 Emissions Summary

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					
2021	3.9680	40.5690	22.1074	0.0404	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	3,905.7951	3,905.7951	1.1978	0.0000	3,932.3249
2022	25.2459	16.3118	17.0073	0.0297	0.1638	0.8119	0.9757	0.0444	0.7639	0.8082	0.0000	2,843.4696	2,843.4696	0.7183	0.0000	2,859.0773
Maximum	**25.2459**	**40.5690**	**22.1074**	**0.0404**	**18.2141**	**2.0457**	**20.2598**	**9.9699**	**1.8820**	**11.8519**	**0.0000**	**3,905.7951**	**3,905.7951**	**1.1978**	**0.0000**	**3,932.3249**

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					
2021	1.0109	19.1375	25.2162	0.0404	7.1937	0.9474	8.1411	3.9122	0.9473	4.8595	0.0000	3,905.7951	3,905.7951	1.1978	0.0000	3,932.3249
2022	25.1008	14.9222	18.5177	0.0297	0.1638	0.9064	1.0702	0.0444	0.9063	0.9506	0.0000	2,843.4696	2,843.4696	0.7183	0.0000	2,859.0773
Maximum	**25.1008**	**19.1375**	**25.2162**	**0.0404**	**7.1937**	**0.9474**	**8.1411**	**3.9122**	**0.9473**	**4.8595**	**0.0000**	**3,905.7951**	**3,905.7951**	**1.1978**	**0.0000**	**3,932.3249**

	ROG	NOx	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	**10.62**	**40.12**	**-11.81**	**0.00**	**59.97**	**35.13**	**56.62**	**60.49**	**29.95**	**54.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Energy	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126
Mobile	0.6645	2.7066	7.3982	0.0196	1.5936	0.0168	1.6104	0.4268	0.0157	0.4424		1,975.3876	1,975.3876	0.1019		1,977.9349
Total	**1.6020**	**2.9761**	**7.6283**	**0.0212**	**1.5936**	**0.0373**	**1.6309**	**0.4268**	**0.0361**	**0.4629**		**2,298.7863**	**2,298.7863**	**0.1081**	**5.9300e-003**	**2,303.2558**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Energy	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
Mobile	0.6645	2.7066	7.3982	0.0196	1.5936	0.0168	1.6104	0.4268	0.0157	0.4424		1,975.3876	1,975.3876	0.1019		1,977.9349
Total	**1.5953**	**2.9146**	**7.5766**	**0.0208**	**1.5936**	**0.0326**	**1.6262**	**0.4268**	**0.0315**	**0.4582**		**2,224.9877**	**2,224.9877**	**0.1067**	**4.5800e-003**	**2,229.0188**

	ROG	NOx	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	**0.42**	**2.07**	**0.68**	**1.75**	**0.00**	**12.53**	**0.29**	**0.00**	**12.92**	**1.01**	**0.00**	**3.21**	**3.21**	**1.31**	**22.77**	**3.22**

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	6/1/2021	6/28/2021	5	20	
2	Site Preparation	Site Preparation	6/29/2021	7/12/2021	5	10	
3	Grading	Grading	7/13/2021	8/9/2021	5	20	
4	Building Construction	Building Construction	8/10/2021	6/27/2022	5	230	
5	Paving	Paving	6/28/2022	7/25/2022	5	20	
6	Architectural Coating	Architectural Coating	7/26/2022	8/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,000; Non-Residential Outdoor: 18,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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	6	15.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	191.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	15.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	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

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					0.1030	0.0000	0.1030	0.0156	0.0000	0.0156			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1030**	**1.5513**	**1.6543**	**0.0156**	**1.4411**	**1.4567**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	3.6500e-003	0.1245	0.0276	3.6000e-004	7.8500e-003	4.7000e-004	8.3200e-003	2.1500e-003	4.5000e-004	2.6000e-003		37.7640	37.7640	1.4900e-003		37.8012
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
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.0701**	**0.1845**	**0.5424**	**1.5700e-003**	**0.1311**	**1.5000e-003**	**0.1326**	**0.0348**	**1.4000e-003**	**0.0362**		**157.8502**	**157.8502**	**6.3000e-003**		**158.0076**

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					0.0402	0.0000	0.0402	6.0800e-003	0.0000	6.0800e-003			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**0.9246**	**18.3130**	**24.6739**	**0.0388**	**0.0402**	**0.8627**	**0.9029**	**6.0800e-003**	**0.8627**	**0.8688**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	3.6500e-003	0.1245	0.0276	3.6000e-004	7.8500e-003	4.7000e-004	8.3200e-003	2.1500e-003	4.5000e-004	2.6000e-003		37.7640	37.7640	1.4900e-003		37.8012
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
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.0701**	**0.1845**	**0.5424**	**1.5700e-003**	**0.1311**	**1.5000e-003**	**0.1326**	**0.0348**	**1.4000e-003**	**0.0362**		**157.8502**	**157.8502**	**6.3000e-003**		**158.0076**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0798	0.0719	0.6178	1.4500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		144.1034	144.1034	5.7700e-003		144.2476
Total	**0.0798**	**0.0719**	**0.6178**	**1.4500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**144.1034**	**144.1034**	**5.7700e-003**		**144.2476**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**7.0458**	**0.9462**	**7.9920**	**3.8730**	**0.9462**	**4.8191**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0798	0.0719	0.6178	1.4500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		144.1034	144.1034	5.7700e-003		144.2476
Total	**0.0798**	**0.0719**	**0.6178**	**1.4500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**144.1034**	**144.1034**	**5.7700e-003**		**144.2476**

3.4 Grading - 2021

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					6.2930	0.0000	6.2930	3.3402	0.0000	3.3402			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.2930**	**1.1599**	**7.4529**	**3.3402**	**1.0671**	**4.4073**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

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	0.0774	2.6426	0.5849	7.5600e-003	0.1666	9.9600e-003	0.1766	0.0456	9.5200e-003	0.0552		801.4361	801.4361	0.0316		802.2263
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
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.1439**	**2.7025**	**1.0997**	**8.7700e-003**	**0.2898**	**0.0110**	**0.3008**	**0.0783**	**0.0105**	**0.0888**		**921.5223**	**921.5223**	**0.0364**		**922.4326**

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					2.4543	0.0000	2.4543	1.3027	0.0000	1.3027			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0296		0.7555	0.7555		0.7555	0.7555	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.7263**	**14.8397**	**18.9906**	**0.0296**	**2.4543**	**0.7555**	**3.2098**	**1.3027**	**0.7555**	**2.0582**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

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	0.0774	2.6426	0.5849	7.5600e-003	0.1666	9.9600e-003	0.1766	0.0456	9.5200e-003	0.0552		801.4361	801.4361	0.0316		802.2263
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
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.1439**	**2.7025**	**1.0997**	**8.7700e-003**	**0.2898**	**0.0110**	**0.3008**	**0.0783**	**0.0105**	**0.0888**		**921.5223**	**921.5223**	**0.0364**		**922.4326**

3.5 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

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
Vendor	0.0230	0.6794	0.1930	1.6600e-003	0.0406	2.1500e-003	0.0427	0.0117	2.0500e-003	0.0137		174.7848	174.7848	8.3300e-003		174.9931
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.0895**	**0.7394**	**0.7078**	**2.8700e-003**	**0.1638**	**3.1800e-003**	**0.1670**	**0.0444**	**3.0000e-003**	**0.0474**		**294.8709**	**294.8709**	**0.0131**		**295.1994**

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	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

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
Vendor	0.0230	0.6794	0.1930	1.6600e-003	0.0406	2.1500e-003	0.0427	0.0117	2.0500e-003	0.0137		174.7848	174.7848	8.3300e-003		174.9931
Worker	0.0665	0.0599	0.5148	1.2100e-003	0.1232	1.0300e-003	0.1243	0.0327	9.5000e-004	0.0336		120.0862	120.0862	4.8100e-003		120.2063
Total	**0.0895**	**0.7394**	**0.7078**	**2.8700e-003**	**0.1638**	**3.1800e-003**	**0.1670**	**0.0444**	**3.0000e-003**	**0.0474**		**294.8709**	**294.8709**	**0.0131**		**295.1994**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0617	0.0537	0.4688	1.1600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		115.8605	115.8605	4.2900e-003		115.9677
Total	**0.0827**	**0.6962**	**0.6439**	**2.8100e-003**	**0.1638**	**2.8600e-003**	**0.1667**	**0.0444**	**2.7000e-003**	**0.0471**		**289.1360**	**289.1360**	**0.0124**		**289.4451**

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	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0617	0.0537	0.4688	1.1600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		115.8605	115.8605	4.2900e-003		115.9677
Total	**0.0827**	**0.6962**	**0.6439**	**2.8100e-003**	**0.1638**	**2.8600e-003**	**0.1667**	**0.0444**	**2.7000e-003**	**0.0471**		**289.1360**	**289.1360**	**0.0124**		**289.4451**

3.6 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 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	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
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
Worker	0.0617	0.0537	0.4688	1.1600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		115.8605	115.8605	4.2900e-003		115.9677
Total	**0.0617**	**0.0537**	**0.4688**	**1.1600e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**115.8605**	**115.8605**	**4.2900e-003**		**115.9677**

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	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5609**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 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	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
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
Worker	0.0617	0.0537	0.4688	1.1600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		115.8605	115.8605	4.2900e-003		115.9677
Total	**0.0617**	**0.0537**	**0.4688**	**1.1600e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**115.8605**	**115.8605**	**4.2900e-003**		**115.9677**

3.7 Architectural Coating - 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					
Archit. Coating	25.0290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**25.2335**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 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	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
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
Worker	0.0123	0.0107	0.0938	2.3000e-004	0.0246	2.0000e-004	0.0248	6.5400e-003	1.8000e-004	6.7200e-003		23.1721	23.1721	8.6000e-004		23.1935
Total	**0.0123**	**0.0107**	**0.0938**	**2.3000e-004**	**0.0246**	**2.0000e-004**	**0.0248**	**6.5400e-003**	**1.8000e-004**	**6.7200e-003**		**23.1721**	**23.1721**	**8.6000e-004**		**23.1935**

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	25.0290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**25.0884**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 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	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
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
Worker	0.0123	0.0107	0.0938	2.3000e-004	0.0246	2.0000e-004	0.0248	6.5400e-003	1.8000e-004	6.7200e-003		23.1721	23.1721	8.6000e-004		23.1935
Total	**0.0123**	**0.0107**	**0.0938**	**2.3000e-004**	**0.0246**	**2.0000e-004**	**0.0248**	**6.5400e-003**	**1.8000e-004**	**6.7200e-003**		**23.1721**	**23.1721**	**8.6000e-004**		**23.1935**

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	0.6645	2.7066	7.3982	0.0196	1.5936	0.0168	1.6104	0.4268	0.0157	0.4424		1,975.3876	1,975.3876	0.1019		1,977.9349
Unmitigated	0.6645	2.7066	7.3982	0.0196	1.5936	0.0168	1.6104	0.4268	0.0157	0.4424		1,975.3876	1,975.3876	0.1019		1,977.9349

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	385.56	385.56	385.56	748,734	748,734
Total	385.56	385.56	385.56	748,734	748,734

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
Arena	9.50	7.30	7.30	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
NaturalGas Unmitigated	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126

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					
Arena	2748.82	0.0296	0.2695	0.2264	1.6200e-003		0.0205	0.0205		0.0205	0.0205		323.3908	323.3908	6.2000e-003	5.9300e-003	325.3126
Total		**0.0296**	**0.2695**	**0.2264**	**1.6200e-003**		**0.0205**	**0.0205**		**0.0205**	**0.0205**		**323.3908**	**323.3908**	**6.2000e-003**	**5.9300e-003**	**325.3126**

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					
Arena	2.12153	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.5923	249.5923	4.7800e-003	4.5800e-003	251.0755
Total		**0.0229**	**0.2080**	**0.1747**	**1.2500e-003**		**0.0158**	**0.0158**		**0.0158**	**0.0158**		**249.5923**	**249.5923**	**4.7800e-003**	**4.5800e-003**	**251.0755**

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	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Unmitigated	0.9079	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-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	lb/day										lb/day					
Architectural Coating	0.1372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Total	**0.9079**	**3.0000e-005**	**3.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**7.8800e-003**	**7.8800e-003**	**2.0000e-005**		**8.4000e-003**

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	0.1372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.8800e-003	7.8800e-003	2.0000e-005		8.4000e-003
Total	**0.9079**	**3.0000e-005**	**3.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**7.8800e-003**	**7.8800e-003**	**2.0000e-005**		**8.4000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Appendix C
Freeman Stadium: State of California, Department of Parks and Recreation
Form 523 (Buildings, Structure, and Object Record)

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State of California ◆ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

Page 1 **of** 14 ***Resource Name or #:** (Assigned by recorder) Freeman Stadium
P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Monterey County **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Marina, CA **Date** 1947 (1983 ed.) **T** 15S; **R** 1E; SW ¼ ■ **of** SE ¼ ■ **of Sec** 1 ; Mount Diablo **B.M.**

c. Address 4111 2nd Ave Seaside Zip 93955

d. UTM: (Give more than one for large and/or linear resources) Zone 10S , 606835 mE/ 4056788 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Freeman Stadium sits south of Divarty Street, between 2nd Avenue and General Jim Moore Boulevard. APN: 031101044000

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Freeman Stadium sits south of Divarty Street, between 2nd Avenue and General Jim Moore Boulevard. The stadium is clustered with other outdoor athletic facilities northeast of the Otter Sports Complex on the California State University, Monterey Bay (CSUMB) campus. The campus Aquatic Center is located to the west and the Baseball Field, Softball Field, and Soccer Field to the south and southeast. **See Continuation Sheet.**

***P3b. Resource Attributes:** (List attributes and codes) HP42. Stadium/Sports Field

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P4. Resources Present:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #) East elevation, view looking west, Dudek

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both Circa 1952 (The Californian 1951)

***P7. Owner and Address:** California State University Monterey Bay, 100 Campus Center, Seaside, CA. 93955

***P8. Recorded by:** (Name, affiliation, and address) Sarah Corder, Dudek, 38 N Marengo Ave., Pasadena, CA 91101

***P9. Date Recorded:** 6/14/2021

***P10. Survey Type:** (Describe) Intensive level

***P11. Report Citation:** (Cite survey report and other sources or enter none) "Dudek 2021. Built Environment Inventory and Evaluation Report for California State" University, Monterey Bay.

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California ◆ Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

 ***Resource Name or #** (Assigned by recorder) Freeman Stadium
Map Name: Marina Quadrangle ***Scale:** USGS 7.5-minute Series ***Date of map:** 1995

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) Freeman Stadium ***NRHP Status Code** 6Z
Page 3 **of** 14

B1. Historic Name: Warriors Stadium
B2. Common Name: Freeman Stadium
B3. Original Use: Stadium/Sports Field 4. Present Use: Outdoor Field/Athletic Complex
***B5. Architectural Style:** Altered Beyond Recognition
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Designed in 1949 and completed in 1951, Freeman Stadium has been altered beyond recognition since its construction. Renovation and as-built drawings show alterations to the subject property took place in 1953, 1974, 1982, 1987, 1998, and 2006. Minor changes and upgrades were completed in 1953, 1974, 1982, 1987, and 1998. Major renovations were completed to the Field House in 2006, including the addition of three, barrel roof, two-story additions to the south, center, and north portions of the building, removal of original doors, windows, and substantial changes to fenestration (CSUMB Facilities 1953, 1974, 1982, 1987, 1998, and 2006). The field was paved in 2018 (Google Earth 2021)

***B7. Moved?** ■No □Yes □Unknown **Date:** ___ **Original Location:** ___ ***B8. Related Features:**

B9a. Architect: Fort Ord Engineering Office b. Builder: F. V. Hampshire Contracting Company
***B10. Significance: Theme** N/A **Area** N/A
Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

See Continuation Sheet.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References: See Continuation Sheet.**

B13. Remarks:

***B14. Evaluator:** Adrienne Donovan-Boyd, MSHP
***Date of Evaluation:** June 25, 2021

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

***P3a. Description (continued):**

Freeman Stadium is located at a low grade, with the bleachers following the slope of the hillside. A chain-link fence encloses the field, track, and bleachers, with gates on the west, near the Field House (Figure 1), and on the east side of the field for ADA accessibility. Deciduous and evergreen trees and shrubs are planted around the perimeter of the chain-link fence.

Figure 1. Main (west) elevation, looking northeast (IMG_0431)

Freeman Stadium is made up of the following components: the field, track, bleachers, electrical building, and Field House. Freeman Stadium field is oval, paved, and has a white coating (Figure 2). A paved track encircles the field, but track markings are no longer delineated on the pavement. Concrete, stepped bleachers are located on the north and south side of the track and field. They each measure approximately 342 feet by 48 feet and contain fifteen, board-formed, concrete bleachers with concrete stairs on both the north and south ends and four sets of stairs evenly spaced throughout the bleachers creating distinct aisleways. Additional concrete stairs lead from track on the east and west sides of bleachers. A welded 1½ inch metal railing is located along the perimeter of each section of bleachers with openings at each stairwell (Figure 4). The electrical building is located on a berm west of the track. The small, windowless building is constructed of CMU and sits on a concrete foundation. The building has a low-pitched cement shed roof with small eave overhangs (Figure 5).

The two-story, Field House building sits at the west end of the field and track (Figure 1 and 2). The building is rectangular in plan with a side-gable roof sheathed in standing seam metal. The roof has round skylights evenly spaced throughout and small eave overhangs. Three, two-story, barrel roofed sections are evenly spaced on the façade, one of which, is a larger central section. Two, smaller, two-story barrel roof sections are located on the north and the south portions of the building. The concession area is in the central two-story section. This section has square pillars supporting an overhanging barrel roof. The pillars are primarily clad in stucco fiber cement siding panels, with the lower portion clad in manufactured stone veneer. The west façade has windows located at irregular intervals, all of which appear to be the side-sliding vinyl variety, with the exception of the windows in the barrel roof gable ends, which appear to be fixed, multi-lite windows with prominent metal frames.

Clerestory windows are located on the north and south façade of the barrel roof additions. The building is clad in stucco fiber cement siding and sits on a concrete foundation.

Figure 2. East elevation, looking west (IMG_0477)

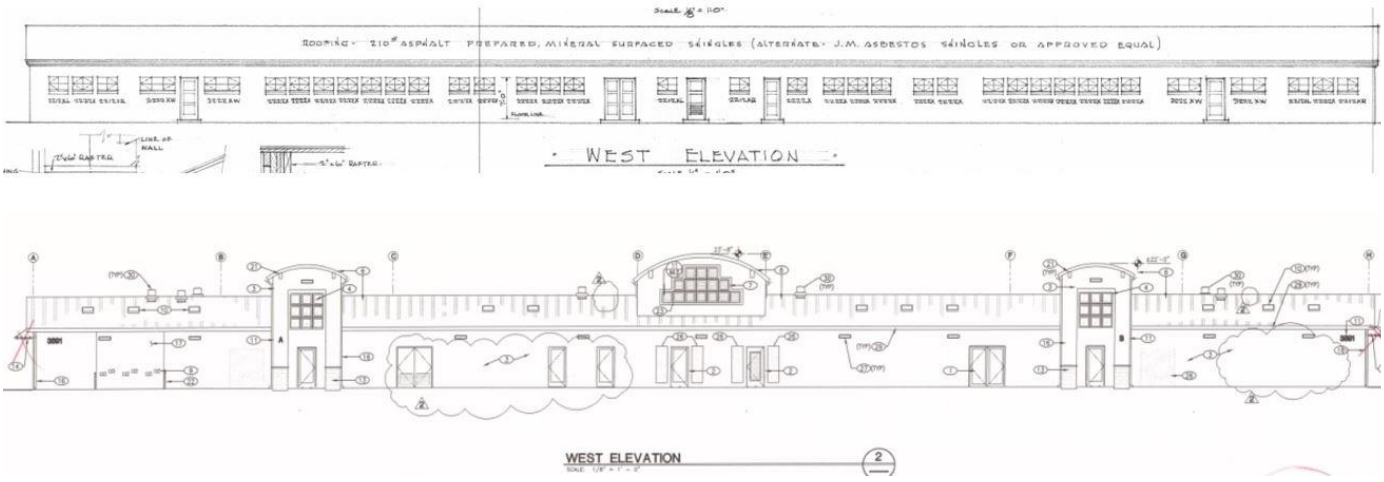

Figure 3. 1949 As-Built Drawing (top) 2006 Renovation Drawing (bottom) (DPR Elevations)

Figure 4. South bleachers, looking southeast (IMG_0434)

Figure 5. Electrical building, looking east (IMG_0452)

Figure 6. Track detail, looking northwest, Field House in background (IMG_0437)

***B10. Significance (continued):**

Historical Overview of Fort Ord

Fort Ord, located on the Monterey Peninsula, was established in 1917 under the name "Fort Gigling." It was formed for training of field artillery and calvary troops stationed at the Presidio of Monterey located about 8 miles southwest of the Fort (Military Museum, n.d.). No formal buildings were erected until the late 1930s when "administrative buildings, barracks, mess halls, tent pads, and sewage treatment plant were constructed" (Military Museum, n.d.). In 1939, the fort was renamed Camp Ord and then in 1940 the name was formally changed to Fort Ord (The Californian 1940: 1). Fort Ord was placed under the command of General Joseph "Vinegar Joe" Stilwell. The original camp encompassed 3,777 acres (Castle 1990: 4). In 1940, the *Salinas Morning Post* announced contracts awarded to the Ford J. Twait company and Morrison-Knudsen, Inc., Los Angeles based companies, for a total of $2.7 million to construct 564 structures on site. Barret and Hilp company of San Francisco was awarded "$35,000 to lay down two spur tracks from Southern Pacific lines into the army reservations" (Salinas Morning Post, 1940: 1). The War Progress Administration (WPA) had an additional $1.4 million budget for construction of buildings at Fort Ord (Salinas Morning Post, 1940:1).

By 1941, the camp had over 28,514 acres of land, 27,000 men and $12 million dollars invested in a training base and staging area for the U.S. Army (Cavanaugh 2000: 9). The WPA and private contractors were busy constructing wood framed buildings to accommodate the growing population. The Main Garrison was constructed between 1940 and 1960s "starting in the northwest corner of the base and expanding southward and eastward." (Military Museum n.d.) At this time, the army was changing training tactics and was actively transferring over from horse in calvary to tanks and trucks (Castle 1990: 4).

Fort Ord trained soldiers in preparation for war during World War I, World War II, the Korean War, and the Vietnam War. During World War II, Fort Ord began training for

amphibious warfare as it was becoming clear that it was advantageous during combat in the Pacific. With access to the beaches in Monterey Bay, Fort Ord became home to the amphibious training unit 18th Armored Group (Panorama, n.d.).

In 1957, Fort Ord was designated as a U.S. Army Training Center for infantry (Castle 1990: 4). The 7th Infantry Division made its home at Fort Ord in 1975. In 1983, the 7th Infantry became a light infantry division operating without heavy tanks, armor, or artillery (Military Museum, n.d.) The unit could deploy anywhere within 48 hours (Cavanaugh 2000: 9).

Recreation Opportunities at Fort Ord

Initially, the U.S. Armed Forces focused solely on training programs that led to the production and establishment of a robust fighting force. Recreation for enlisted soldiers was often provided by civilian groups, not through formal programs run through any branch of the military. This began to change after World War I. The 1940 plan for the development of Fort Ord called for all the buildings necessary to train, house, and care for the infantry, but also called for the construction of recreation buildings such as post exchanges, regimental recreational buildings, moving picture tents, and service clubs (Quartermaster Review 1940:37). During World War II, the military vastly expanded recreational offerings for military personnel to boost morale and to better align with more modern concepts of free-time and leisure (Gates 1957:99). Morale, it was said was "just as important as ammunition" and newer, more modern thinking, saw recreation as a "vital force in self-development and the art of living" (Gates 1957: 100).

Early recreation activities at the fort included band concerts, live theater, orchestra shows, and choir performances often organized by enlisted men (Park 2015: 25). Track and field meets were organized with field days happening throughout World War II. Boxing was also noted as a popular spectator sport at the base in its early years (Park 2015:25). Fort Ord's first football team, the Presidio Dons, was organized in October of 1940. The team initially practiced and played at nearby Del Monte Polo Field.

During World War II the Fort Ord Athletic and Recreation Officer set out to design a plan to keep soldiers "fit to fight" by developing a more extensive plan for football, baseball, softball, boxing and other recreational activities. Soon after games and tournaments were arranged between Fort Ord teams and nearby military bases and other organized teams (Gates 1957: 100). After the war ended in 1945, Fort Ord introduced an athletic program which gave service members, now back from the war, "an opportunity to take part in any recreational activity they wish" (Park 2015:33). In 1951, a report completed by the Committee on Religion and Welfare in the Armed Forces found that the availability of "wholesome free time activities" were essential for shaping character, increasing job performance, and for the national support of the Armed Forces" (Gates 1957: 100).

The recreation opportunities available at Fort Ord continued to expand, with the stadium and other outdoor athletic fields being constructed in the 1950s and 1960s. By 1977, the main garrison area included a wide variety of recreation facilities, including a snack bar, bowling center, softball field, baseball field, service club and library, hand ball courts, tennis courts, a commissary, the theater, parade grounds, as well as a football stadium and track (U. S. Army 1977). It was believed that these recreation opportunities would create better leaders and they would better prepare soldiers for successful civilian lives (Gates 1957:104).

Fort Ord Football: The Warriors

The first football team at Fort Ord were named the Presidio Dons was organized in

1940. The team held practices at nearby fields and appeared to play other branches of the military. After the new stadium was constructed in 1951, the team's name changed to the Warriors and games were being played regularly between military units, but also against other college teams. By November of 1953 the Fort Ord's semi-professional football team made up of service members stationed at Fort Ord, were playing games in the newly completed "Warriors Stadium" (Sacramento Bee 1953:33). During the 1953 season, the Warriors played both the Los Angeles Rams and the San Francisco Forty Niners. The team was so well respected that in the 1950s, coaches from various colleges would visit Fort Ord at the end of the season in an effort to recruit players for college football (Hollaway 2021). The Warriors were the top-ranked service team in the country in the mid-1950s (Sports Press 2012). In 1953, Don Heinrich, who twice earned the All-American rating while quarterbacking for the Washington Huskies, and Ollie Matson, who played for the Chicago Cardinals and went on to play for the Los Angeles Rams were both playing for the Warriors during their tour of duty (Seattle Times 1953:73). The Fort Ord Warriors continued to have All Star and professional bound players through the 1950s and 1960s keeping them in the top of the ratings and making football one of Fort Ord's most prominent sports.

Freeman Stadium, 1951

In January of 1949, the Army prepared plans and specifications for a new Football and Track Stadium (Fresno Bee 1951b:27). The plans were finalized in December of 1949, by the Fort Ord Engineer Office (CSUMB Facilities 1949). They called for the development of the new stadium at the site of the base's existing amphitheater, just north of the parade grounds. In January of 1951, the Army put out a call for bids for the $200,000, 6,000-seat, concrete football and track stadium at Fort Ord. The design called for the stadium seating to be reinforced concrete, set into the existing dirt embarkment of the base's amphitheater (Fresno Bee 1951a:13).

The plan to develop a stadium at Fort Ord was immediately met with criticism, as President Truman had previously ordered a federal freeze on new government construction to aid the Korean War effort. The Army argued that the stadium was planned "long before the present emergency" and would be constructed of non-critical materials. The planned stadium seating was designed to be constructed of "concrete steel blocks" and concrete slab flooring. They announced in February of 1951, in an effort to preserve copper, the stadium would use steel water pipes and cast-iron conduits for construction (Fresno Bee 1951b:27). Ultimately, the ban on unnecessary building was ignored, citing the need for recreational facilities to boost morale, and because the growth of Fort Ord was placing a "severe strain on the recreational facilities in the Monterey-Salinas area" (San Francisco Examiner 1951:4). The stadium was considered a necessary facility to "keep pace with the growth of the tent-soldier population" and the athletics field would help to reinforce the Army's rigorous training program (San Francisco Examiner 1951:4).

The contract was awarded to construct the stadium and Field House in March of 1951 to F. V. Hampshire Contracting Company of Salinas. They bid $146,346 for the project. Construction was set to begin soon after the contract was awarded and was planned to be completed by September of 1951 (The Californian 1951:1).

Fort Ord Closure and Establishment of California State University at Monterey Bay

As the Cold War came to an end, the United States sought to increase the efficiency of the Department of Defense. In doing so, Vice President Richard Cheney "announced [in 1990] proposals for defense installation realignment and closures, including the downsizing of Fort Ord" (Cavanaugh 2000: 9). The Base Realignment and Closure (BRAC) was a process used by the United States to determine which military installations would close and set up the framework for the transfer of ownership. Despite reports by

the community that the closure of Fort Ord was not in the best interest of the community, the Secretary of Defense announced the closure of Fort Ord in April 1991 (Cavanaugh 2000: 9). The Fort was divided, a portion was retained by the Army, another was kept as a nature preserve, and another was set aside to establish California State University, Monterey Bay (CSUMB).

The newest installation of the California State University system opened on September 4, 1996 (Cavanaugh 2000: 29). President Bill Clinton was present for the dedication of the campus (Cavanaugh 2000: 28). After Fort Ord closed, the stadium became part of the newly established CSUMB campus. It appears the track and field were used for some athletic activities after the transition, but eventually the field was paved, and the site has been in use as an occasional outdoor auditorium.

NRHP/CRHR Designation Criteria

In consideration of the project site's history and requisite integrity, Dudek recommends the property not eligible for listing in the NRHP and CRHR based on the following significance evaluation and in consideration of national and state eligibility criteria:

Criterion A/1: That are associated with events that have made a significant contribution to the broad patterns of our history.
Built in 1951, Freeman Stadium and associated buildings, were constructed for use by the fort's football team, the Warriors. The stadium was constructed after the core construction period of the base during a period when the military was working to increase recreational facilities and opportunities for service members. The initial base plan did not call for a stadium, with early practices and scrimmages taking place at nearby facilities. Both the increasing popularity of football and the desire to provide more avenues for athletic recreation, created a need for an on-site stadium at Fort Ord. This nationwide interest in sports and recreation resulted in numerous improvements to recreation facilities on army bases across America. While Freeman Stadium does reflect the post-war investment in recreation, that investment and subsequent infrastructure was not limited to or unique to Fort Ord. Utilitarian stadiums, such as these, were not uncommon. Therefore, due to a lack of identified significant associations with events important to history, the subject property does not appear eligible under NRHP/CRHR Criterion A/1.

Criterion B/2: That are associated with the lives of persons significant in our past.
To be found eligible under B/2 the property must be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Archival research indicated that Freeman Stadium, originally called the Warriors Stadium, was originally named after Fort Ord's football team, the Warriors. No single person was shown to be influential or directly associated with the stadium. As such this property is not known to have any historical associations with people important to the nation's or state's past. Due to a lack of identified significant associations with important persons in history, the subject property does not appear eligible under NRHP/CRHR Criterion B/2.

Criterion C/3: That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
Freeman Stadium was added to the Fort Ord in 1951. By 1952 the stadium included the track, football field, bleachers, electrical building, and the Field House. Research

indicates that the stadium was designed using the amphitheater on the site and was designed by the Fort Ord Post Engineer Office.

The original design for the stadium, bleachers, and Field House were completed by architects and/or engineers who were employed by the Fort Ord Engineering Office. The building drawings identify "ROWE" as the individual who drew the plans and shows the plans were checked by an individual with the initials "M.O.R". No further information on these individuals was identified during archival research. The drawings were approved by Lt. Col. Post Engineer Menon W. Whitsitt. No further information was uncovered during archival research about Whitsitt, or the other's listed on the plan. None of the research identified a significant architect for Freeman Stadium, as such, no master architect is found to be associated with the design.

Lastly, stadiums are a ubiquitous type of recreational facility. Archival research did not identify Freeman Stadium as being distinctive in its type, period, and method of construction. There is no artistic value to the present paved track or paved field. The concrete stadium bleachers are a simple, utilitarian design. The field and track have been altered beyond recognition with numerous additions and replacement of original materials including new surfacing on the track and the paving and surfacing of the field. Additionally, the Field House, has undergone numerous, extensive alterations, including substantial changes to the plan, exterior cladding, and fenestration. Due to a lack of high artistic value, a lack of evidence suggesting Freeman Stadium is associated with a master architect, and substantial alterations, Freeman Stadium is recommended not eligible under NRHP/CRHR Criterion C/3.

Criterion D/4: That have yielded, or may be likely to yield, information important in prehistory or history.
There is no evidence to suggest that this property has the potential to yield information important to state or local history. Therefore, the property is recommended not eligible under NRHP/CRHR Criterion D/4.

California Historic Landmark Statement of Significance
In consideration of the subject property's history and requisite integrity, Dudek recommends the property not eligible for designation as a California Historic Landmark based on the following significance evaluation and in consideration of state eligibility criteria:

The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
Freeman Stadium was designed in 1949 and constructed in 1951. The stadium and associated buildings were constructed after the initial, core development period of Fort Ord in the 1940s. The stadium was conceptualized by architects employed through the Fort Ord Engineering office and is a ubiquitous building type that lacks high style components to set it apart from other stadiums constructed throughout the State of California in the 1950s. Therefore, the subject property is recommended not eligible for listing as a CHL under this criterion.

Associated with an individual or group having a profound influence on the history of California.
Archival research failed to indicate any significant associations between the subject property and individuals or groups that profoundly influenced the history of California. Freeman Stadium was developed by the military, and no single individual was found to have influenced design, construction, or use of the building. Therefore, the subject property is recommended not eligible for listing as a CHL under this

criterion.

A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.
Freeman Stadium is neither a prototype or an outstanding example of a period, style, or architectural movement. The stadium has been altered beyond recognition and it fails to convey either its style or its temporal period. It is a typical example of a sports arena, designed to serve a utilitarian purpose. There are no remaining identifying features on the Field House that would establish the building as a notable work of a master architect, or a notable designer or builder working within the military, or in the State of California. Therefore, the subject property is recommended not eligible for listing as a CHL under this criterion.

Local Designation Statement of Significance

As discussed above, Freeman Stadium does not rise to the level of significance required for state or national designation. For the same reasons presented above, the property also does not rise to the level of significance required for local designation on an individual level or as a component of a historic district.

Integrity Discussion

Freeman Stadium retains its integrity of location. Replacement materials have been added throughout the stadium since its completion in 1951, including new track materials, the paving of the field, and extensive alterations and material changes to the Field House. These alterations have diminished the resource's integrity of design, materials, and workmanship. The stadium is no longer used as a football stadium and the site, once a bustling army base, is now home to a California State University campus. These changes to the surrounding area and the change of use, from a sports arena to an outdoor auditorium, have diminished the integrity of setting, feeling, and association. The changes to original materials and the change in original use prohibit the stadium from conveying its temporal period.

Summary of Evaluation Findings

Freeman Stadium retains little to no historic integrity and lacks historical and architectural significance. Based on the significance evaluations presented above, Freeman Stadium does not appear to meet the NRHP, CRHR, CHL or local designation criteria. Therefore, Freeman Stadium is not considered a historical resource for purposes of CEQA.

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Appendix D
VMT Analysis

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FEHR PEERS

Memorandum

Date: July 6, 2021

To: Erin Harwayne, Denise Duffy & Associates

From: Daniel Rubins, Elynor Zhou, and Jason Pack, Fehr & Peers

Subject: Vehicle Miles Traveled Impact Analysis for the Monterey Bay Football Club Facilities Renovation Project at California State University, Monterey Bay in Seaside, California

SJ21-2085

This memorandum summarizes a vehicle miles traveled (VMT) impact analysis for the Monterey Bay Football Club Facilities Renovation Project at California State University, Monterey Bay (CSUMB) Freeman Stadium Refurbishing in Seaside, California. As discussed below, the VMT analysis presented in this memorandum considers both the Project's direct VMT, as well as a cumulative analysis, which considers the Project's long-term effect on VMT.

Project Description

The Monterey Bay Football Club (MBFC) is proposing to renovate, utilize, and maintain the existing Freeman Stadium and Field House at CSUMB as a United Soccer League (USL) facility under a 30-year facilities agreement with the University (see Figures 1 to 3 of the Project Description for the MBFC facilities Renovation Project at California State University Monterey Bay). MBFC's sole purpose is to bring sports entertainment (soccer) to the Monterey Bay area. The proposed project would support CSUMB's educational efforts, including the overall success and well-being of CSUMB's student athletes. In addition, the partnership would support the mutual goal of the MBFC and campus to partner with communities across the greater Central Coast region in providing education, access and opportunities for underserved youth through campus, clinics, scholarships, and academic and wellness programming.

Project Site Access and Parking

It is assumed that construction and event operation site access would be accessed via the Second Avenue entryway at the west end of the property. Parking would be available on-site for

construction and operation, and no construction of new temporary or permanent access roads would be required. The proposed project would utilize the three existing, adjacent parking areas for event use only.

General admissions parking would utilize an existing lot to the northwest of the site. Overflow/VIP parking would utilize an existing lot to the southwest of the site. Parking for teams, buses, event staff, and facility staff would be in the existing lot west of the field house.

The proposed project would utilize existing adjacent campus hardscape for 2,232 parking spaces (2,200 standard and 32 accessible spaces). CSUMB standard double capacity short-term bike racks (LEED compliant) would be provided for bike parking spaces for a venue of this size. The site will also designate parking space for e-scooter parking alongside bicycle parking areas. CSUMB Main Campus permits will not be valid in event parking lots. To accommodate other means of transportation by event attendees, bike parking/e-scooter parking would be provided. An existing public transit line runs along Divarty Street and would also be utilized for stadium access.

MBFC Operations

The proposed stadium renovation would provide for the following operational activities:

- Hosting the USL team MBFC
    - Approximately 20 full-time MBFC staff using the Field House from 9:00 am-5:00 pm, Monday-Friday as office and training preparation space.
    - Approximately 10 months of training (practice) in the Field House and on the adjacent existing soccer fields, 4-5 days per week for 3-4 hours each day, with an estimated 32 players, coaches, and staff at each practice.
    - Approximately 18 home matches per year, on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., ticket takers, concessions, security, parking, ushers, media, etc.), home team (32 staff, coaches, and players), visiting team (32 staff, coaches, and players), and 6,000 ticketed spectator capacity.
- MBFC related camps and off-season activities (approximately six activities per year).
- Continued campus use with shared use of the Field House.
- New use of renovated playing field for academic courses and athletics programs when not in conflict with the MBFC schedule.
- Campus-sponsored or invited community events, such as Spring Commencement, concerts, or other events.

The stadium would be shared between the MBFC and CSUMB. Advanced scheduling during the MBFC season (February – November) and special events would be determined in advance by CSUMB to accommodate MBCS games.

MBFC staff and professional players and CSUMB faculty, staff, and students would regularly use the Field House as the MBFC schedule permits. During the 300-day MBFC season (pre-season + season + playoffs), the existing Field House would be in regular use by approximately 20 MBFC staff members working from 9:00 am-5:00 pm, Monday through Friday.

MBFC practices would be held at the adjacent existing soccer fields 4-5 days per week for approximately 3-4 hours/day, beginning around 10:00 am with an estimated 32 players, coaches, and staff at each practice.

MBFC would host approximately 18 home games per year (17 regular games and 1 playoff game). The games would be typically scheduled on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., ticket takers, concessions, security, parking, ushers, media, etc.), full-time home team personnel (32 staff, coaches, and players), full-time visiting team personnel (32 staff, coaches, and players), and 6,000 ticketed spectator capacity (the full-time front office staff would be included in the spectator count). Ticketed capacity for spectator would be 6,000 tickets. Average league attendance on non-playoff games is estimated to be 3,860 attendees (69 percent of its 6,000-spectator capacity).

CSUMB Operations

CSUMB estimates 10 campus-coordinated events, ranging from Commencement to Convocation (considered a smaller event size) and concerts/community events (considered a larger event size). These events are outlined as follows (* - Indicates this is an existing campus activity):

- Four (4) Commencement Ceremonies*
    - Fall Commencement*
        - One event in December, ~1,850 = 250 Students + 100 Faculty/Staff + 1,500 family attendees (6 family tickets per student)
    - Spring Commencement*
        - Three events in May, ~6,000 each (averaging across events) = 800 Students + 150 Faculty/Staff + 4,800 family attendees + 150 Community Guests

- Six (6) other events over the course of the Academic Calendar
    - Convocation*
        - One event in September, ~1,000 = 990 students + 10 staff/faculty
        - One event in May, ~800 = 500 students + 300 staff/faculty.
    - Homecoming Event*
        - One event in October, ~2,000 = 1,450 students + 50 staff/faculty + 500 community guests
    - Spring Concert*
        - One event in April, ~1,000 = 650 students + 350 community guests (*only allowed with student host)
    - Affinity Celebration*
        - One event in May, ~1,500 = ~300 students + 50 Faculty/Staff + 1,600 family attendees
    - Campus + Community Event
        - One event in Fall (just to balance out calendar), ~9,000 = 2,000 students + 500 staff/faculty + 6,500 community guests

In addition to the ten campus coordinated events listed above, there are 30 low-attendance CSUMB Athletics games. These events are outlined as follows (* - Indicates this is an existing campus activity):

- 20 Season Games plus 10 potential Post-Season Games*
    - All CSUMB Soccer Games in the Stadium (practice on adjacent existing fields)
        - Men's Soccer: 8-10 home games (5-6 CCAA games)
        - 60 Players and Coaches plus 150 spectators, per game
    - Women's Soccer: 8-10 home games (5-6 CCAA games)*
    - NCAA Regional Weekend*
        - Four (4) games, two per gender, teams must qualify
        - 60 Players and Coaches plus 150 spectators, per game

- CCAA Soccer Championship (once every 3-4 years at most)*
  - Six (6) games: four top teams for each gender (two semi-games plus one final per gender)
  - 60 Players and Coaches plus 300 spectators, per game

Approach and Overview of Methods

How transportation impacts under the California Environmental Quality Act (CEQA) are analyzed was changed with Senate Bill (SB) 743. SB 743 removed the use of automobile delay or traffic congestion for determining transportation impacts in environmental review. Instead, the latest *CEQA Statute & Guidelines* now specify that vehicle miles traveled, or VMT, is the appropriate metric to evaluate transportation impacts. In short, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. In response to this methodological change in required transportation analysis, the California State University (CSU) Office of the Chancellor prepared the *2019 California State University Transportation Impact Study Manual* (CSU TISM), which supersedes the 2012 CSU TISM. The *2019 CSU TISM* provides guidance for the preparation of CEQA-compliant transportation impact analysis pursuant to SB 743 and is the operative TISM for the analysis presented here including the VMT threshold metrics. The *2019 CSU TISM* was prepared by CEQA practitioners with a focus on legal adequacy regarding CEQA compliance based on past court decisions.

Approach

The MBFC and CSUMB special event activities were evaluated for potential direct, indirect, and cumulative environmental impacts assuming maximum ticketed spectator capacity (6,000 spectators). This VMT analysis estimates the new vehicle miles generated by the special events and the new full-time equivalent employees. Specifically, this impact analysis converts the MBFC and CSUMB special event activities to VMT by calculating the following:

- Total Annual Person Trips
- Total Annual Vehicle Trips
- Annual Project Generated VMT
- Daily Project Generated VMT
- Service Population
- Daily Project Generated VMT per Service Population

To determine weather the project has a direct impact on the environment, the Project generated VMT per service population is compared to the Project generated VMT per service population

threshold under Existing Conditions (this threshold is defined as 15 percent below Monterey County's Project generated VMT threshold under Existing Conditions). The indirect and cumulative impacts of the project are evaluated under Cumulative Conditions using the boundary VMT per service population (this is the vehicle travel on Monterey County roads divided by the service population of Monterey County).

A site-specific Transportation Management Plan (TMP) with a TDM Program will be prepared prior to opening day to manage spectator traffic and monitor performance standards during MBFC and CSUMB special event activities. The Freeman Stadium TMP with TDM Program will be a mitigation measure to address the direct VMT impact of the project.

Overview of Methods

The CSUMB 2020 Master Plan VMT assessment was CSUMB's first evaluation using VMT. As a part of that process the following steps were taken to establish SB 743 VMT thresholds:

- Select a VMT calculation tool
    - Use the Association of Monterey Bay Area Governments (AMBAG) regional travel forecasting model.
- Select the VMT accounting method(s)
    - Project generated VMT per service population (Direct Impacts): The sum of the "VMT from" and "VMT to" and within Monterey County under baseline conditions divided by the sum of the number of residents, employees, and students in the county.
    - Project's effect on VMT per service population (Cumulative Impacts): An evaluation of the change in travel between without and with project conditions on all roadways within Monterey County under the Cumulative Conditions scenario, divided by the sum of the number of residents, employees, and students in the county.
- Calculate the baseline and cumulative regional VMT estimates
    - The analysis presented here uses VMT from all trip purposes and vehicle types (i.e., there is not separation of VMT by land use) for Monterey County with a baseline set as Existing Conditions VMT generated by Monterey County and cumulative set as VMT on all roadways in Monterey County under Cumulative without Project Conditions (see the Project Generated VMT per Service Population Estimation Method and Project's Effect on VMT Estimation Method (Using Boundary VMT) sections for detailed descriptions.)

- Set a VMT threshold(s)
    - The threshold applied to Project generated VMT is 15 percent below the Existing Conditions for Monterey County.[1]
    - The threshold applied to project's effects on VMT threshold is no change from Cumulative Conditions to Cumulative with Project Conditions in the boundary VMT per service population.

As to direct impacts, Project generated VMT per service population is the metric used to evaluate how the project VMT changes (increases or decreases) between the without Project and with Project scenarios, considering both VMT increases due to growth and VMT reductions due to changes in travel behavior. Project generated VMT per service population is used to evaluate if the VMT rate due to the Project (i.e., the direct impacts) is greater than a specified VMT threshold; however, it does not evaluate a Project's effect on VMT on the entire roadway system,[2] which is evaluated as part of the cumulative analysis.[3]

Regarding the cumulative analysis, the MBFC and CSUMB special event activities are a relatively small portion of the Monterey County travel; therefore, it is to be expected that the Project's effect on VMT (cumulative impact) would have predominately localized VMT effects. Therefore, the Project's effect on VMT, as evaluated by the cumulative effects of the Project's land use and transportation changes, compares the changes in boundary VMT per service population between the Cumulative Conditions and Cumulative with Project and without Eastside Parkway Conditions.

The analysis presented in this memorandum focuses on the VMT for all trip purposes and vehicle types (i.e., there is no separation of VMT by land use). The Project generated VMT threshold was developed using the Existing Conditions VMT for Monterey County because most of the MBFC spectators (more than 90 percent) and CSUMB campus population (nearly 90 percent of students, faculty, and staff) lives within Monterey County. Similarly, most of the Project generated VMT would be within Monterey County and, therefore, impacts assessed against the Monterey County baseline is the most appropriate assessment of a project's direct impact. Like the Project generated VMT baseline, the boundary VMT baseline measures the Project's effect on the

[1] The CSU has selected the 15 percent reduction relative to Monterey County based on the OPR *Technical Advisory*, which states "…OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold." (Quote from page 10 of the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018).

[2] An often-cited example of how a project can affect VMT is the addition of a grocery store in a food desert. Residents of a neighborhood without a grocery store have to travel a great distance to an existing grocery store. Adding the grocery store to that neighborhood will shorten many of the grocery shopping trips and reduce the VMT to/from the neighborhood. This concept is likely to occur with the addition of campus housing.

[3] For this analysis, service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Monterey County boundary VMT because Project effects are likely to be localized – that is, occurring near the CSUMB campus and within Monterey County.

Project Generated VMT per Service Population Estimation Method

The Project generated VMT is the VMT from all vehicle trips for all trip purposes and types. It is calculated by summing the "VMT from" and "VMT to" a specified area, as follows:

$$Project\ Generated\ VMT = (II + IX) + (II + XI) = 2 * II + IX + XI$$

- Internal-internal (II): The full length of all trips made entirely within the geographic area limits.
- Internal-external (IX): The full length of all trips with an origin within the geographic area and destination outside of the area.
- External-internal (XI): The full length of all trips with an origin outside of the geographic area and destination within the area.

The intra-zonal VMT and VMT between traffic analysis zones, or TAZs, that are in the study area causes some double counting, which is an expected result when summing the trip end based VMT. To ensure a VMT rate is expressed properly (i.e., that the numerator and denominator include the generators of both trip ends of the VMT), the Project generated VMT is divided by the service population (residential population, employment population, plus student population), the generators of both trip ends of the VMT. The VMT estimates are also presented on a per service population basis to account for both the effects of population and/or employment growth and the effects of changes in personal travel behavior. For example, population growth may cause an increase in VMT, while travelers changing their behavior by using different travel modes or decreasing their vehicle trip lengths (such as a higher percentage of students living campus) would cause decreases in VMT.

Project's Effect on VMT Estimation Method (Using Boundary VMT)

As noted earlier, the Project's effect on VMT, or cumulative impact, is evaluated using the boundary VMT, which captures all VMT on the roadway network within a specified geographic area, including local trips plus interregional travel that does not have an origin or destination within the area. The geographical boundary method only considers traffic within the physical limits of the selected study area and does not include the impact of vehicles once they travel outside the area limits. The use of boundary VMT is a more comprehensive evaluation of the potential effects of the Project because it captures the combined effect of new VMT, shifting existing VMT to/from other neighborhoods, and/or shifts in existing traffic to alternate travel routes or modes. The boundary VMT is also divided by the service population (sum of residents, employees, and students) to account for the effects of population and/or employment growth and the effects of changes in personal travel behavior within the specified geographic area.

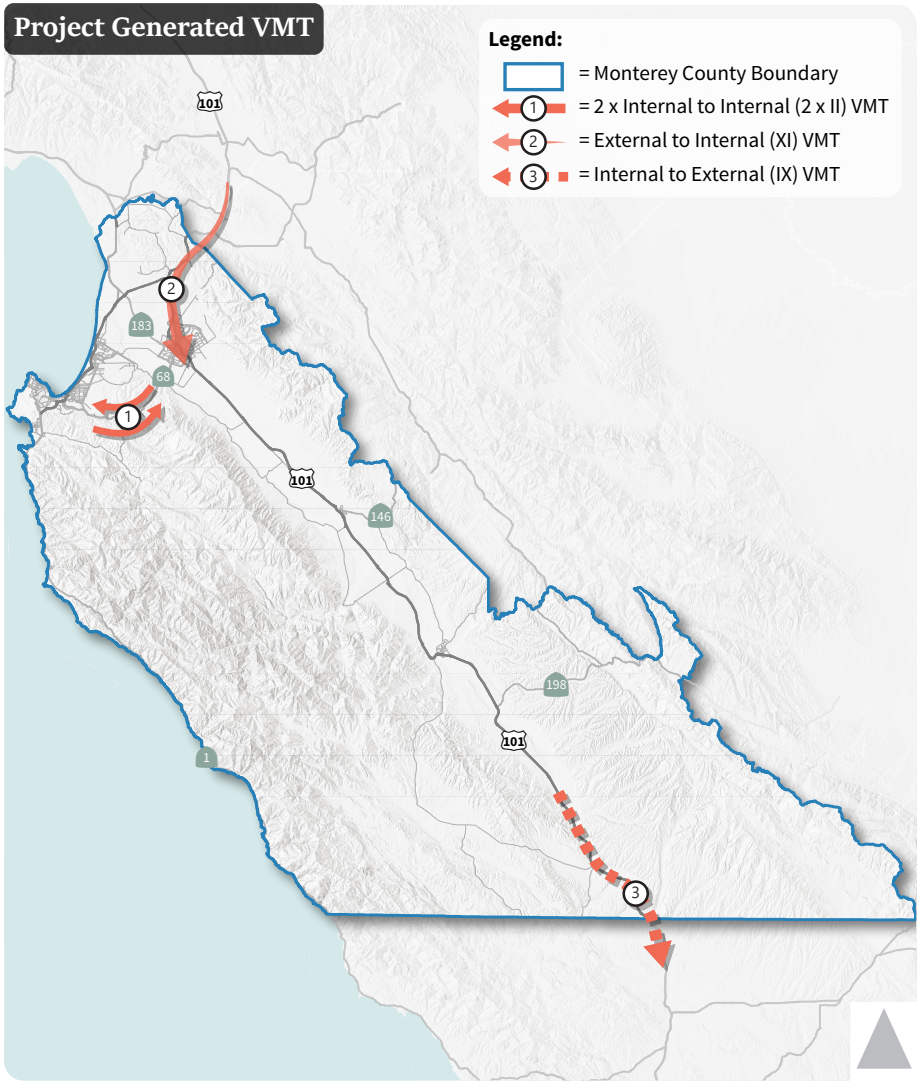
Figure 1 presents a representation of both Project generated VMT and boundary VMT for Monterey County. Both metrics are needed for a comprehensive evaluation of a project's VMT effects.

Service Population

The MBFC will generate new employment including front-office employees (20 front office, stadium operations, marketing, partnerships, and ticketing staff), team personnel (32 staff, coaches, and players for the home team and 32 staff, coaches, and players for the visiting team), and 210 part-time match staff (16 full-time equivalents). Some of that new employment will be full-time while some employment will be part-time. To be consistent with the AMBAG travel model employment inputs, the part-time employment was converted to full-time employment. Match spectators are not included as an independent variable in the AMBAG travel model equations and therefore are not included in the service population.

The 210 part-time match staff will work 4 to 16 hours for each match based on information from the MBFC front office staff. The MBFC staff has estimated that these part-time match staff will work approximately 34,128 annual hours of work per year. A full-time job is 2,080 hours per year, which would translate into 16 full-time equivalent employee jobs.

The service population for this project is 100 employees (20 front-office staff, 32 home team personnel, 32 visitor team personnel, and 16 full-time equivalents for the part-time match staff).



Notes: External to External (XX) trips are excluded from this VMT metric. Adjustments to project generated VMT made to include the full length of trips that leave Monterey County to capture inter-regional travel.

Notes: Boundary VMT is all the VMT within Monterey County. Transparent portions of arrows 2, 3 and 4 are not included in the VMT metric.

Figure 1

Measuring Vehicle Miles Traveled (VMT)

VMT Thresholds

The VMT impact analysis presented in this report considers the Project's direct impacts relative to Project generated VMT per service population, as well the Project's long-term effect on VMT using boundary VMT per service population evaluated under Cumulative Conditions.

Project Generated VMT Impact Thresholds and Impact Criteria

The regionwide threshold for Project generated VMT applied in the analysis presented here is 15 percent below the Existing Conditions VMT per service population for Monterey County. The OPR *Technical Advisory* suggests a similar threshold for residential and office land uses (i.e., 15 percent below VMT in a geographic area). The CSU has selected the 15 percent reduction relative to Monterey County based on the OPR *Technical Advisory* and the fact that most of the students, faculty, and staff live within Monterey County, and similarly most of the MBFC spectators live in Monterey County. As a result, most of the MBFC and CSUMB special event activity Project generated VMT would be within Monterey County and, therefore, impacts assessed against the Monterey County baseline is the most appropriate assessment of a project's direct impact. Thus, the threshold applied in this analysis is 15% below the existing VMT of 28.12, which as shown in **Table 1**, is the existing VMT per service population of Monterey County, or 23.91 (Monterey County VMT per Service Population of 28.12 x 85% = 23.91).

Table 1: Project Generated VMT Threshold

Item	Monterey County
Project Generated Vehicle Miles Traveled (A)[1]	19,158,300
Service Population (B)[1,2]	681,200
Project Generated VMT per Service Population (A/B = C)	28.12
Project Generated VMT per Service Population Threshold (C*85% = D)	23.91

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).
Source: Fehr & Peers, 2021.

Therefore, the Project would cause a significant Project generated VMT impact if:

- The Project generated VMT per service population for the CSUMB campus under Existing with Project Conditions is greater than 23.91.

Project's Effect on VMT Thresholds and Impact Criteria

The impact threshold for the Project's effect on VMT, or the project's cumulative impact, is the Monterey County Boundary VMT per Service Population, or 14.07 (see **Table 2** for illustration of how the 14.07 is calculated). Like the Project generated VMT baseline, the boundary VMT baseline uses the Monterey County boundary VMT to evaluate the project's effects on VMT because the project effects are likely to be localized near the CSUMB campus and within Monterey County.

Table 2: Project's Effect on VMT (Boundary VMT) Cumulative Threshold

Item	Monterey County
Boundary Vehicle Miles Traveled (A)[1]	11,268,400
Service Population (B)[1,2]	800,900
Boundary VMT per Service Population (A/B = C)	14.07
Boundary VMT per Service Population Threshold (C)	14.07

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).
Source: Fehr & Peers, 2021.

Therefore, the Project's effect on VMT would be significant if:

- The Project causes the cumulative countywide daily boundary VMT per service population to increase above 14.07.

VMT Estimates

The following special event activities are converted to vehicle trips and VMT. This is done by estimating the total annual person trips, total annual vehicle trips, total annual project generated VMT, and daily Project generated VMT.[4]

- Monterey Bay Football Club
    - Front Office Activities: Approximately 20 full-time MBFC staff using the Field House from 9:00 am-5:00 pm, Monday-Friday as office and training preparation space (included as spectators during matches).
    - Team Practices: Approximately 10 months of training (practice) in the Field House and on the adjacent existing soccer fields, 4-5 days per week for 3-4 hours each day, with an estimated 32 players, coaches, and staff at each practice.
    - Match Staff and Players: Approximately 18 home matches per year, on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with an estimated 210 part-time match-related personnel (i.e., ticket takers, concessions, security, parking, ushers, media, etc.), home team (32 staff, coaches, and players), visiting team (32 staff, coaches, and players). The visiting team members are assumed to travel from the San Jose Airport in several small vans.
    - Match Spectators: Approximately 18 home matches per year, on Friday nights from 7:00 pm-11:00 pm and/or Saturdays during the day or in the early evening, with 6,000 ticketed spectator capacity. The MBFC estimates the following distribution of match spectator locations:
        - 8% CSUMB Students
        - 55% Monterey Peninsula (e.g., Monterey, Seaside, Marina, Pacific Grove, Pebble Beach, and Carmel)
        - 30% Salinas Valley (e.g., Salinas, Gonzales, Soledad, Greenfield, and King City)
        - 3% Watsonville, Castroville, and Gilroy
        - 1% Santa Cruz
        - 3% Other (used San Jose as center point)

[4] These VMT estimates do not take into consideration some foreseeable travel changes including increased use of Transportation Network Companies (TNCs) (e.g., Uber and Lyft), nor the potential for autonomous vehicles. Although the technology for autonomous vehicles is expected to be available over the planning horizon, the federal and state legal and policy frameworks are uncertain. Initial modeling of an autonomous future indicates that with automated and connected vehicles, the capacity of the existing transportation system would increase as vehicles can travel closer together; however, these efficiencies are only realized when a high percentage of vehicles on the roadway are automated and connected. There is also the potential for vehicle travel to increase with zero-occupancy vehicles on the roadway.

- Camps and Off-Season Activities: Approximately six activities per year with 50 to 100 attendees plus a parent, and staff. This analysis assumes 100 people total participate in these events.
- Other Services: For each of the 18 matches there will be 5 food and team store vendor staff (this is in addition to the staff working the event). The portable restrooms will be emptied after each of the 18 matches.

- CSUMB Events
  - Joint Campus and Community Event: One event in Fall with approximately 9,000 participants = 2,000 students + 500 staff/faculty + 6,500 community guests.

The special event activity is converted to daily vehicle traffic estimates using the following equations:

- Total Annual Person Trips (**Table 3** shows the estimates):
  - **A** persons * **B** days per week * **C** weeks or events per year * 2 daily person trips = **D** total annual person trips
    - The persons, days per week and weeks or events per year are from the MBFC or CSUMB campus staff. For each match, approximately 10 percent of employees will travel for two days, which equates to 1.1 days per match.
    - The person trips are multiplied by two to create a round trip to and from the stadium.
- Total Annual Vehicle Trips (**Table 4** shows the estimates):
  - (**D** total annual person trips * **E** vehicle mode share) / **F** persons per vehicle = **G** total annual vehicle trips
    - The MBFC employees (e.g., front office, coaches, players, team staff, and match staff) mode share is assumed to be the same as the Monterey County average from the California Household Travel Survey. The vehicle mode share for non-CSUMB student spectators of 77 percent (an expression of the drive-alone, carpool and rideshare mode share) was provided by MBFC. While the vehicle mode share for CSUMB student spectators of 58 percent is based on the *CSUMB Person Trip Travel Survey* administered in 2017. Finally, the visiting team and other services were assumed to only travel by vehicle.
    - Spectators arriving in a carpool or a rideshare/transportation network company (Lyft, Uber, etc.) vehicle are treated the same for vehicle trips. A rideshares deadheading is not included in the vehicle trips or VMT.

        - The vehicle occupancy for the MBFC employees traveling by a vehicle (drive-alone plus carpool) is assumed to be 1.1 persons per vehicle, and 2.23 persons per vehicle for match day spectators based on observed data at Sacramento Republic Football Club (a USL Championship team established in 2012) soccer matches as summarized in the transportation section of the *Sacramento Railyards Specific Plan Update* (June 2016).

- Annual Project Generated VMT (**Table 5** shows the estimates):
    - **G** total annual vehicles trips ***** **H** average trip length = **I** Annual Project Generated VMT
        - The front office activities, team practices and match staff and players are assumed to travel the Monterey County average commute distance (11.8 miles) (2012 California Household Travel Survey).
        - The match spectators are assumed to travel from Monterey County, Santa Cruz County, and Santa Clara County. The distribution is based on a MBFC summary of season ticket deposit information. The vehicle distance was measured between the stadium and each city listed. The distance used for a group of cities is weighted based on the resident population.
        - The Campus and off-season activities are based on the same average distance of approximately 16 miles as the match spectators.
        - The other services average distance is based on average trip distance to Monterey Peninsula.

- Daily Project Generated VMT (**Table 6** shows the estimates):
    - **I** Annual Project Generated VMT / **J** days of operation = **K** Project generated VMT
        - The Project generated VMT per day is estimated by dividing the total annual VMT by 365 days.

Table 3: Total Annual Person Trips

Activity	Number of People (A)	Days per Week (B)	Weeks or Events (C)	Total Annual Person Trips (A*B*C)*2= D)
MBFC Operations				
Front Office Activities	20	5	52	10,400
Team Practices	32	5	40	12,800
Match Staff and Players – Home Team and Staff	242	1.1	18	9,583
Match Staff and Players – Visiting Team	32	1	18	1,152
Match Spectators – CSUMB Students	480	1	18	17,280
Match Spectators – Monterey Peninsula	3,300	1	18	118,800
Match Spectators – Salinas Valley	1,800	1	18	64,800
Match Spectators – Watsonville/Castroville/Gilroy	180	1	18	6,480
Match Spectators – Santa Cruz	60	1	18	2,160
Match Spectators – Other	180	1	18	6,480
Camps & Off-Season Activities	100	1	6	1,200
Other Services	6	1	18	216
Subtotal (a)	*6,432*			*251,351*
CSUMB Operations				
Campus & Community Event - Students	2,000	1	1	4,000
Campus & Community Event – Faculty & Staff	500	1	1	1,000
Campus & Community Event – Guests	6,500	1	1	13,000
Subtotal (b)	*9,000*			*18,000*
Total (a+b=c)	**15,432**			**269,351**

Source: Fehr & Peers, 2021.

Table 4: Total Annual Vehicle Trips

Activity	Total Annual Person Trips (D)	Vehicle Mode (E)	Persons per Vehicle (F)	Total Annual Vehicle Trips (D* E)/F=G)
MBFC Operations				
Front Office Activities	10,400	93%	1.1	8,831
Team Practices	12,800	93%	1.1	10,868
Match Staff and Players – Home Team	9,583	93%	1.1	8,137
Match Staff and Players – Visiting Team	1,152	100%	8	144
Match Spectators – CSUMB Students	17,280	58%	2.23	4,481
Match Spectators – Monterey Peninsula	118,800	77%	2.23	41,021
Match Spectators – Salinas Valley	64,800	77%	2.23	22,375
Match Spectators – Watsonville/Castroville/Gilroy	6,480	77%	2.23	2,237
Match Spectators – Santa Cruz	2,160	77%	2.23	746
Match Spectators – Other	6,480	77%	2.23	2,237
Camps & Off-Season Activities	1,200	75%	2.23	405
Other Services	216	100%	1	216
Subtotal (d)	*251,351*			*101,698*
CSUMB Operations				
Campus & Community Event – Students	4,000	58%	2.23	1,037
Campus & Community Event – Faculty & Staff	1,000	93%	1.1	849
Campus & Community Event – Guests	13,000	77%	2.23	4,489
Subtotal (e)	*18,000*			*6,375*
Total (d+e=f)	**269,351**			**108,073**

Note: Underlined text indicates supporting performance standard to be monitored in Transportation Management Plan.
Source: Fehr & Peers, 2021.

Table 5: Annual Project Generated VMT

Activity	Total Annual Vehicle Trips (G)	Average Vehicle Trips (H)	Total Annual VMT (G*H=I)
MBFC Operations			
Front Office Activities	8,831	11.84	104,579
Team Practices	10,868	11.84	128,702
Match Staff and Players – Home Team	8,137	11.84	96,360
Match Staff and Players – Visiting Team	144	69.30	9,979
Match Spectators – CSUMB Students	4,481	18.91	84,736
Match Spectators – Monterey Peninsula	41,021	8.26	338,833
Match Spectators – Salinas Valley	22,375	23.19	518,876
Match Spectators – Watsonville/Castroville/Gilroy	2,237	27.24	60,936
Match Spectators – Santa Cruz	746	38.00	28,348
Match Spectators – Other	2,237	67.00	149,879
Camps & Off-Season Activities	405	Varies[1]	6,515
Other Services	216	8.26[2]	1,784
Subtotal (g)	*101,698*		*1,529,527*
CSUMB Operations			
Campus & Community Event – Students	1,037	Varies[3]	19,610
Campus & Community Event – Faculty & Staff	849	11.84	10,054
Campus & Community Event – Guests	4,489	Varies[1]	71,741
Subtotal (h)	*6,375*		*101,405*
Total (g+h=i)	**108,073**		**1,630,932**

Note:
Underlined text indicates supporting performance standard to be monitored in Transportation Management Plan.
1. Assume attendee location distribution is like match spectator location distribution, use same vehicle trip lengths and distribution as the match spectators. The average distance is approximately 16 vehicle miles.
2. Used average distance between the stadium and Monterey Peninsula.
3. Assume attendee location distribution is like CSUMB student match spectator. The average distance is approximately 19 vehicle miles.
Source: Fehr & Peers, 2021.

Table 6: Project Generated Vehicle Miles Traveled

	Annual Project Generated VMT (I)	Days of Operation (J)	Project Generated VMT (K)
MBFC Operations			
Front Office Activities	104,579	365	287
Team Practices	128,702		353
Match Staff and Players – Home Team	96,360		264
Match Staff and Players – Visiting Team	9,979		27
Match Spectators – CSUMB Students	84,736		232
Match Spectators – Monterey Peninsula	338,833		928
Match Spectators – Salinas Valley	518,876		1,422
Match Spectators – Watsonville/Castroville/Gilroy	60,936		167
Match Spectators – Santa Cruz	28,348		78
Match Spectators – Other	149,879		411
Camps & Off-Season Activities	6,515		18
Other Services	1,784		5
Subtotal (j)	*1,529,527*		*4,192*
CSUMB Operations			
Campus & Community Event - Students	19,610	365	54
Campus & Community Event – Faculty & Staff	10,054		28
Campus & Community Event – Guests	71,741		197
Subtotal (k)	*101,405*		*279*
Total (k+l=m)	**1,630,932**		**4,471**

Source: Fehr & Peers, 2021.

To provide context, the daily Project generated VMT is compared to the CSUMB Campus Project generated VMT under Existing Conditions and Existing with Project Conditions in **Table 7**. The Project generated VMT rate of 44.71 is greater than the CSUMB campus under Existing Conditions. Although it is a small portion of the CSUMB generated VMT, the project would increase the CSUMB campus Project generated VMT rate to 22.59 under Existing with Project Conditions.

Table 7: Project Generated Vehicle Miles Traveled

	Existing Conditions	Project Generated VMT	Existing with Project Conditions
CSUMB Campus Comparison			
Project Generated Vehicle Miles Traveled (A)[1]	178,500	4,471	182,971
Service Population (B)[1,2]	8,000	100	8,100
Project Generated VMT per Service Population (A/B = C)	22.31	44.71	22.59

Notes:
1. Rounded service population and VMT to nearest 100 for the CSUMB campus.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).
Source: Fehr & Peers, 2021.

The boundary VMT shown in **Table 8** for Cumulative Conditions and Cumulative with Project Conditions is the VMT on the roadway system within Monterey County. To evaluate the indirect and cumulative conditions, the boundary VMT is summarized under Cumulative Conditions. The Project generated VMT is added to the Cumulative Conditions boundary VMT to estimate the Cumulative with Project Conditions boundary VMT. Because the Project generated VMT includes some trips that travel outside of Monterey County, the change in the Cumulative with Project Conditions boundary VMT is overstated.

Table 8: Boundary Vehicle Miles Traveled

	Cumulative Conditions	Project Generated VMT	Cumulative with Project Conditions
Monterey County			
Boundary Vehicle Miles Traveled (A)[1]	11,268,400	4,471	11,272,871
Service Population (B)[1,2]	800,900	100	801,000
Boundary VMT per Service Population (A/B = C)	14.07	44.47	14.07

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).
Source: Fehr & Peers, 2021.

VMT Impact Assessment

This section presents an analysis of the Project's impacts relative to VMT, including the daily VMT estimates for the SB 743 VMT assessment. The VMT thresholds are consistent with the *2019 CSU TISM* that provides guidance for the preparation of CEQA-compliant transportation impact analysis pursuant to SB 743 and is the operative TISM for the analysis presented here. The VMT thresholds were established using the AMBAG travel model. While the project specific VMT was estimated by converting the MBFC and CSUMB special event activities into VMT. The Project generated VMT per services population is used to evaluate the direct effects of the Project under Existing with Project Conditions, while the boundary VMT is used under Cumulative with Project Conditions to evaluate the project's effect on VMT – an evaluation of cumulative impacts. The results of the Project generated VMT and Project's effect on VMT analyses are presented in **Table 9** and **Table 10**, respectively. Each analysis is separately addressed below.

Project Generated VMT

As shown in **Table 9**, the 4,471 daily Project generated VMT would occur with the new MBFC and CSUMB special event activities. On a per service population basis, which is the metric relative to assessing impacts under CEQA VMT would *be* 87 percent greater than the VMT threshold (23.91 Project generated VMT per service population). While the MBFC and CSUMB special event activities occur on very few days, they will attract 6,000 or more spectators throughout Monterey County.

The significance threshold for Project generated VMT is 23.91, which is 15 percent below the Existing Conditions VMT per service population for Monterey County of 28.12. Under the Existing with Project Conditions, the Project would generate a VMT per service population of 44.71. This number is above the applicable threshold of 23.91. Therefore, the Project generated VMT would exceed the applicable thresholds under Existing with Project Conditions and be a potentially significant impact.

While MBFC and CSUMB special event activities are infrequent, many of the 6,000 or more spectators for each event are expected to travel by vehicle. Annually, the project would generate:

- 269,350 person trips,
- 108,070 vehicle trips, and
- 1,630,930 Project generated VMT

The more than 1.6 million annual Project generated VMT occurs under the conditions described earlier. Most of the annual Project generated VMT is generated by the MBFC match spectators, off-season event participants, and CSUMB and community guests to the CSUMB Campus and Community Event.

- The 6,000 MBFC match spectators per match have a 75% vehicle mode share with a 2.23 persons per vehicle and an average vehicle distance of approximately 16 miles.
- The 100 off-season participants per event have a vehicle mode share to 75% and an average vehicle occupancy of 2.23 persons per vehicle and an average vehicle distance of approximately 16 miles.
- The 2,000 CSUMB students for the CSUMB community event have a 58% vehicle mode share and an average vehicle occupancy of 2.23 persons per vehicle and an average vehicle distance of approximately 19 miles.
- The 6,000 community guests for the CSUMB community event have a 77% vehicle mode share and an average vehicle occupancy of 2.23 persons per vehicle and an average vehicle distance of approximately 16 miles.

Table 9: Project Generated VMT for SB 743 VMT Assessment

	Project Generated VMT
Project Site	
Project Generated Vehicle Miles Traveled (A)[1]	4,471
Service Population (B)[1,2]	100
Project Generated VMT per Service Population (A/B = C)	44.71
Initial Impact Assessment	
Project Generated VMT per Service Population Threshold (23.91)	44.71
(Impact Conclusion)	Potentially Significant

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).
Source: Fehr & Peers, 2021.

VMT Sensitivity Analysis

The MBFC expects to average 4,140 spectators per match (69 percent of its 6,000 spectator capacity) with ~75 percent of the spectators arriving in carpool vehicles with at least 3.5 persons per vehicle. If these expectations are met, the project generation rate would be reduced to 25.57, which is 6.9% percent greater than the Project generated VMT per service population threshold.

To not have a VMT impact, the project would need to generate less than 23.91 Project generated VMT per service population, which is 872,715 annual Project generated VMT (23.91 Project generated VMT per service population * 100 service population*365). If the CSUMB Campus and Community Event occurs, the following conditions would need to be met for the MBFC match spectators, off-season participants, and CSUMB students and community guests for the CSUMB Campus and Community event:

- The 4,140 MBFC match spectators (69% of the 6,000-spectator capacity) per match have a 75% vehicle mode share with a vehicle occupancy of 3.91 persons per vehicle and an average vehicle distance of approximately 16 miles.
- The 100 off-season participants per event have a vehicle mode share to 75% and an average vehicle occupancy of 3.91 persons per vehicle and an average vehicle distance of approximately 16 miles.
- The 2,000 CSUMB students for the CSUMB Campus and Community have a 58% vehicle mode share and an average vehicle occupancy of 3.91 persons per vehicle and an average vehicle distance of approximately 19 miles.
- The 6,000 community guests for the CSUMB Campus and Community have a 77% vehicle mode share and an average vehicle occupancy of 3.91 persons per vehicle and an average vehicle distance of approximately 16 miles.

If the Campus and Community Event does not occur, the 872,715 annual Project generated VMT could be achieved with an average vehicle occupancy of 3.46 (instead of 3.91) for the MBFC match spectators, off-season participants, and CSUMB students and community guests for the CSUMB Campus and Community event listed above.

Project Mitigation

A Transportation Management Plan (TMP) with a Transportation Demand Management (TDM) Program will be prepared prior to opening day of the MBFC season. The TMP with TDM Program will manage and monitor MBFC and CSUMB special event spectator traffic with the primary performance standard of achieving less than 23.91 daily Project generated VMT per service population and the following annual travel supporting performance standards:

- Achieving fewer than 61,185 annual vehicle trips.
- Achieving less than 872,715 annual Project generated VMT.

To further evaluate the effectiveness of the TDM program, the monitoring will also observe the event specific supporting performance measures of mode share, average vehicle occupancy and average vehicle distance of the MBFC and CSUMB special activities. These event specific performance measures are needed to determine the effectiveness of TDM Program and help identify additional VMT reducing measures.

The TMP shall provide a management and operating plan for minimizing undesirable transportation-related effects at Freeman Stadium and adjacent developments during events, while providing safe and convenient access for employees and spectators to the project. While the TDM Program will provide a plan to reduce the amount of vehicle traffic generated by the MBFC and CSUMB special event activities by shifting employees, team personnel, match spectators, and CSUMB visitors from driving alone to using transit, carpooling, cycling, and walking modes. As written in the facilities agreement, the TDM Program obligation in this

measure is to apply for the lifetime of the Project. The TDM Program may specify a phased implementation approach that provides initially for implementation of the existing CSUMB TDM Program that are targeted to reducing CSUMB student, faculty, and staff vehicle travel. To achieve the VMT threshold, CSUMB will develop an expansive TDM Program to ensure most spectators travel in very high average vehicle occupancy vehicles. CSUMB shall have the authority and discretion to permit modification of the measures provided that the modifications continue to achieve the overall vehicle miles traveled reduction objective.

Transportation Management Plan and Transportation Demand Management Program Mitigation

The TMP with a TDM Program will address the following objectives for the MBFC and CSUMB special events:

- Reduce the overall number of automobile trips to and from the stadium and required parking supply.
    - Annual travel supporting performance standard to monitor: Achieving fewer than 61,185 annual vehicle trips.
- Reduce automobile dependency for project employees and spectators through education, assistance, and incentives.
    - Event specific supporting performance standard to monitor: Achieving a 75% vehicle mode share for the MBFC match spectators, and for the CSUMB Campus and Community Event; 58% and 77% vehicle mode share for the CSUMB students and community members, respectively.
    - Event specific supporting performance standard to monitor: Achieving an average vehicle occupancy of 3.91 persons per vehicle (or greater) for the MBFC match spectators, and CSUMB students and community members for the CSUMB Campus Community Event.
- Identify the paths of vehicular circulation to and from the stadium for the various vehicle types that would need access to the site, including passenger vehicles, service and delivery vehicles, garbage/recycling trucks, taxis, buses, and emergency vehicles.
    - Primary performance standard to monitor: Achieving less than 23.91 Project generated VMT per service population.
    - Annual travel supporting performance standard to monitor: Achieving less than 872,715 annual Project generated VMT.
    - Event specific supporting performance standard to monitor: Achieving an average vehicle occupancy of 3.91 persons per vehicle (or greater) for the MBFC match spectators, and CSUMB students and community members for the CSUMB Campus Community Event.

    - Event specific supporting performance standard to monitor: Achieving an average vehicle distance of approximately 16 miles (or less) for MBFC match spectators, off-season participants, and community guests to the CSUMB Campus and Community Event. And an average vehicle distance of 19 miles (or less) for CSUMB students for the for the CSUMB Campus and Community Event.

- Develop and describe pre- and post-event operational procedures for the management of pedestrians, passenger vehicle, and special vehicle flows arriving and departing the project site.
- Identify the special event signage, including Changeable Message Signs (CMS), blank-out signs, and flashing beacons, that would be required, including wayfinding signage.
- Identify best locations for provision of bicycle parking spaces for visitor or employee use during event and non-event operations.
- Identify placement of enforcement personnel required for event conditions.
- Identify need for barricades, parking control, and street closures during events.
- Coordinate with CSUMB staff regarding the provision of paratransit and transportation network company (e.g., Uber and Lyft) pick-up/drop-off.
- Identify sidewalk and crosswalk improvements near the project site.

To the extent possible the TDM Program will rely on the existing CSUMB TDM Program to reduce CSUMB student, faculty, and staff vehicle travel.[5] At a minimum, the following measures will be in place upon opening of the stadium prior to opening day of the MBFC season and thereafter for the life of the project:

- Otter Cycle Center – on campus bicycle repair shop that also offers bicycle rentals and other services to facilitate bicycle ridership.
- Bicycle Storage and Amenities – several hundred bicycle racks have been installed on campus outside of residence halls and popular academic, recreation and administrative buildings. Additionally, a secure bicycle bunker storage room have been installed, as well as two 'fix-it' stations that provide 24/7 access to bicycle repair tools and air pumps. Bicycle registration is also available through the University Police Department to simplify that process. Three skateboard storage racks also have been installed in the popular destinations on campus.
- Paid Parking – to discourage non-CSUMB related trips and parking on campus, as well as manage the vehicles allowed on campus, a fee structure is in place that is based upon

[5] The existing CSUMB TDM Program complements the on-campus housing of students, faculty, and staff and enhances the quality of pedestrian, bicycle, and transit facilities on campus. Housing and high-quality transportation infrastructure helps to promote walking, bicycling, and transit use, which reduces vehicle trips to/from the campus.

user type. The fees have increased several times over the last two decades to more accurately match the true cost of providing managed parking.

- Monterey Salinas Transit (MST) – the campus has entered into an annual agreement with MST that provides universal access on the MST bus network for all active CSUMB ID card holders, three supplemental campus-serving and subsidized bus routes, and funding for a shared transit marketing student intern.
- Emergency Ride Home Program – campus community members can sign up for a program run by the Transportation Agency for Monterey County (TAMC) that reimburses taxi or ridesharing trips home in emergency situations for commuters who use alternative means of transportation.
- Carsharing and Ridesharing – CSUMB hosts four cars for carsharing. These are cars stationed on the campus available to be used by carshare members in the campus. CSUMB students, faculty and staff can use Go831 a regional ride share program.
- Transportation Services Website – information for most of the TDM strategies listed above is included on a campus website to facilitate information dissemination.
- Delivery Vehicle Limitations – to discourage delivery vehicle trips, frequent delivery services to campus, such as office supplies, have been instructed to reduce their deliveries to campus to no more than three days per week.
- Bicyclist/Pedestrian Malls – to encourage pedestrian and bicycle use, a section of Divarty Street and a section of Sixth Avenue are closed to regular vehicular traffic and encourage pedestrians and bicyclists to use the entire roadway.
- Traffic Calming – to discourage auto use (and improve safety), speed humps and flashing beacon crosswalk devices have been installed on several campus roadways to encourage lower vehicle speeds, particularly near high traffic pedestrian crosswalks.

Monitoring

Each event shall be monitored by CSUMB to ensure that the MBFC and CSUMB special event activities meet the primary performance standard (Project generated VMT per service population), annual travel supporting performance standards (annual Project generated VMT, and annual vehicle trips) and event specific supporting performance standards (mode share, average vehicle occupancy and average vehicle distance). An annual monitoring memorandum shall be submitted to CSUMB staff. If the MBFC and CSUMB special event activities are found not to follow the mitigation measure, then additional travel reducing measures from the TMP and TDM Program will be implemented to achieve the performance standard. The MBFC and/or CSUMB may propose new strategies that develop over time to further reduce annual Project generated VMT per service population if substantial evidence is provided to support the efficacy of the strategy. The MBFC and CSUMB staff expect to develop a TMP and TDM Program that achieves the performance standards listed above; therefore, the project impact would be less-than-significant.

Alternative Monitoring Approach

CSUMB may develop a regionwide VMT monitoring program to allow global monitoring of the stadium VMT, which may provide cost efficiencies and be a more effective way to track VMT generation for each event. The monitoring program could make use of emerging technologies including location-based services on cell phones and in vehicles to track trip lengths, along with traditional technologies such as driveway traffic counts. If such a program is developed, the Project could participate in the monitoring and demonstrate performance relative to the Project's VMT target.

Remedial Action

If the TMP with TDM Program monitoring results show that the trip reduction target is not being met, the TDM Program shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM Program shall be submitted to the CSUMB and approved by the CSU Office of the Chancellor. The updated TDM Program shall also identify other TDM measures that were considered but determined to be infeasible or ineffective. This will include the enhanced CSUMB TDM Program that would address travel by MBFC spectators and complement other multimodal infrastructure investments, vehicle restrictions, pick-up/drop-off charges, transit mobility, and active mode (bicycle and pedestrian) mobility. CSUMB staff shall oversee and coordinate the implementation of the feasible additional TDM Program measures and continue to explore methods of making other potential TDM measures feasible.

Project's Effect on VMT

As shown in **Table 10**, this analysis evaluated whether the Project would result in an increase in the countywide boundary VMT per service population from "Cumulative Conditions" to "Cumulative with Project Conditions" (this analysis does not assume the Eastside Parkway extension). The regional impact threshold for the Project's effect on VMT is the Monterey County Cumulative Conditions boundary VMT per service population of 14.07.

The Project's effect on VMT under Cumulative with Project Conditions of 14.07 is equal to the threshold of 14.07. Therefore, the Project would not exceed the applicable thresholds relative to the Project's effect on VMT under Cumulative with Project Conditions and the impact is less than significant.

Table 10: Project's Effect on VMT (Boundary VMT) for SB 743 VMT Assessment

	Cumulative Conditions	Cumulative with Project Conditions
Monterey County		
Boundary Vehicle Miles Traveled (A)[1]	11,268,400	11,272,871
Service Population (B)[1,2]	800,900	801,000
Boundary VMT per Service Population (A/B = C)	14.07	14.07
Boundary VMT per Service Population Threshold (14.07) (Impact Conclusion)		14.07 (Less than Significant)

Notes:
1. Rounded service population and VMT to nearest 100.
2. Service population is defined as the sum of all employees, residents, and students (Kindergarten through University).

Source: Fehr & Peers, 2021.

Attachments

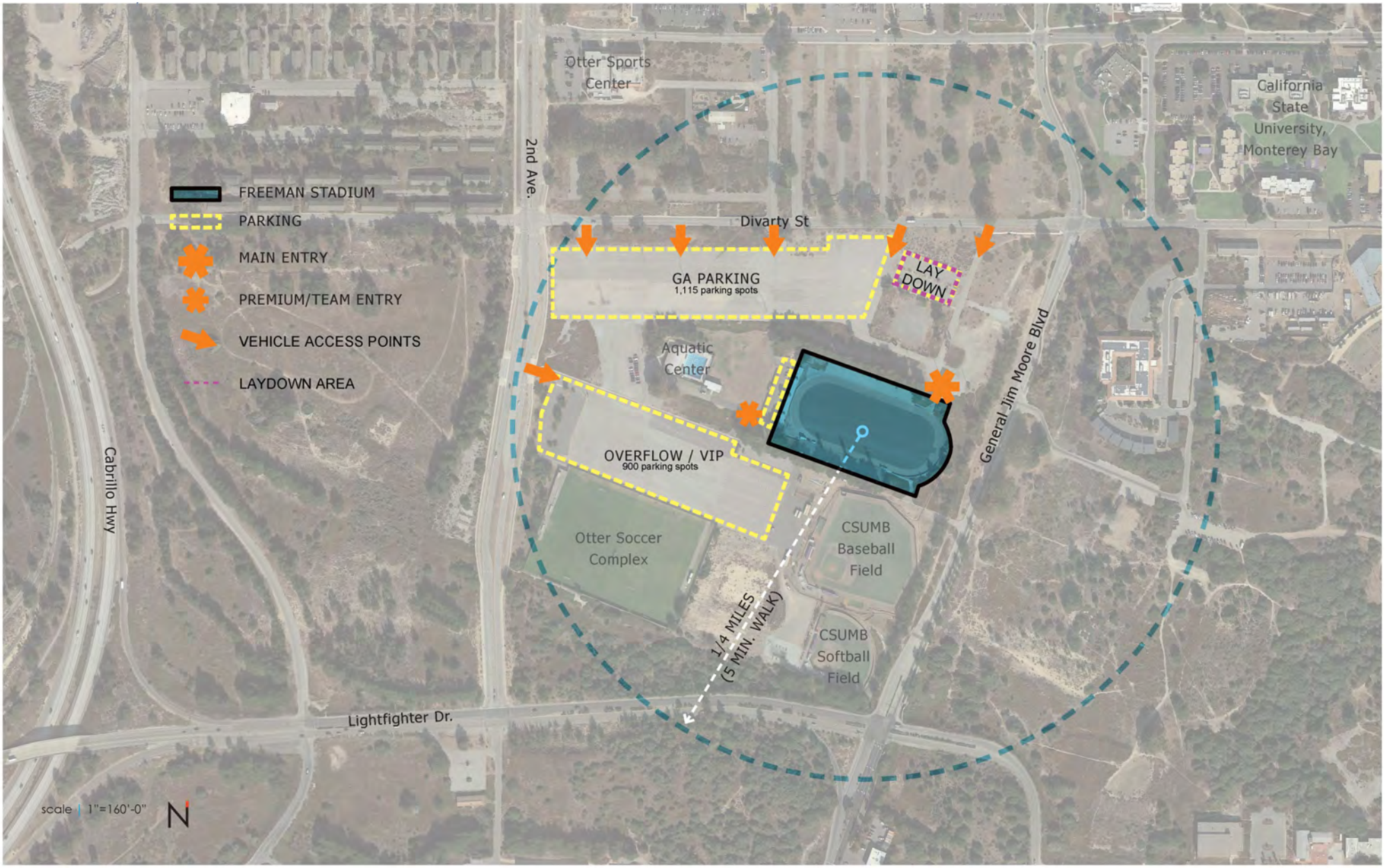
Figure 1: Regional Map

Figure 2: Project Site

Figure 3: Site Plan

Title: Regional Map	Date 6/17/2021 Scale 1 in = 2,000 feet Project 2020-45	Monterey | San Jose **Denise Duffy and Associates, Inc.** Environmental Consultants Resource Planners 947 Cass Street, Suite 5 Monterey, CA 93940 (831) 373-4341	Figure 1

Path: D:\GIS\GIS_Projects\2020-45 CSUMB Facilities Agreement\Map Products\Fig 1 - Regional Map.mxd



Title: **Proposed Project Site**

Source: 2021 Google Imagery AMBAG

Date	5/25/2021
Scale	N/A
Project	2020-45

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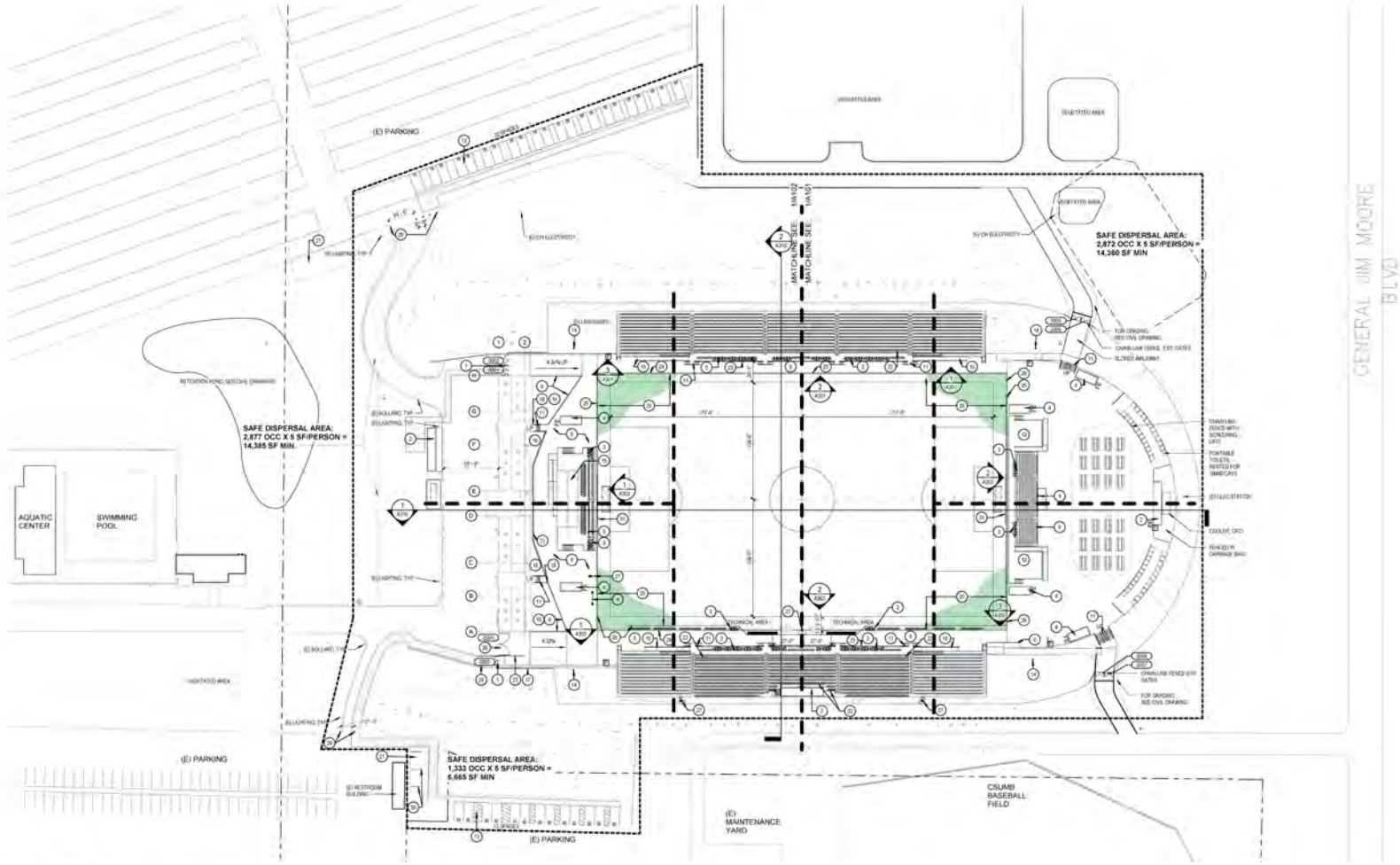
Figure 2



Title: **Proposed Project Site Plan**

Source: HOK, 2021

Date	5/18/2021
Scale	N/A
Project	2020-45

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Figure 3

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