1450 32nd Street Project

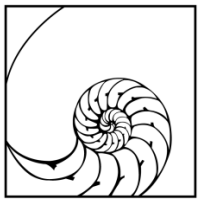
CEQA Analysis

Prepared for:

City of Oakland
Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612

Prepared by:

Lamphier–Gregory
1944 Embarcadero
Oakland, CA 94606



September, 2017

TABLE OF CONTENTS

ATTACHMENT E: TRIP GENERATION MEMO

Tables

Figures

I. PROJECT CHARACTERISTICS

1. **Project Title:**
   1450 32nd Street Project

2. **Lead Agency Name and Address:**
   City of Oakland
   Planning & Building Department
   250 Frank H. Ogawa Plaza, Suite 2114
   Oakland, CA 94612

3. **Contact Person and Phone Number:**
   Jason Madani, Planner II
   (510) 238-4790
   250 Frank H. Ogawa Plaza, Suite 2114
   Oakland, CA 94612
   jmadani@oaklandnet.com

4. **Project Location:**
   1450 32nd Street,
   Oakland, CA 94608
   Assessor's Parcel No. 007-0595-019-01

5. **Project Sponsor's Name and Address:**
   M Squared Development
   1834 Fourth Street
   Berkeley, CA 94710

6. **Existing General Plan Designations:**
   Mixed Housing Type Residential

7. **Existing Zoning:**
   RM-3 Mixed Housing
   Height limit: 60 ft

8. **Requested Permits:**
   - Regular Design Review
   - Conditional Use Permit (3+ multiple dwelling units)

II. BACKGROUND

The Project applicant, M Squared Development, is proposing the redevelopment of 1450 32nd Street (Project), the former site of Zero Waste Solutions, a chemical recycling plant that has been vacant for over 25 years. The lot size is 21,556 square feet (0.5 acres); the lot currently consists of two metal warehouses and a small concrete block office building. Current zoning is Mixed Residential RM-3.

The proposed Project involves the following:

- Demolition of the 3000-sf warehouse to create a surface parking lot for 11 cars
- Re-habilitating and re-purposing a 5000-sf warehouse to create 10 live-work units
- Re-habilitating a 2500-sf office building to create 1 commercial unit
- Addition of 1 residential unit above the rehabilitated office building
- Construction of 3 attached loft-style duplexes (6 apartments)
- Construction of 2 attached loft-style townhouses

For a total of 10 live-works units, 2500 sf of commercial and 9 residential units.

This California Environmental Quality Act (CEQA) Analysis evaluates the 1450 32nd St. Project. The Project is eligible for CEQA streamlining and/or tiering provisions under CEQA Guidelines Sections 15183, which provides for streamlined review when the project is consistent with a Community or General Plan and its development density, and the impacts of projects implemented under the Plan have been analyzed in a certified program EIR. This analysis evaluates the Project's consistency with the General Plan, the West Oakland Specific Plan (WOSP), and the Zoning Ordinance of the Oakland Municipal Code. This analysis relies on the environmental analyses completed in the WOSP and its EIR (certified in 2014), which analyzed environmental impacts associated with adoption of that Specific Plan and implementation of the development activities it included.

West Oakland Specific Plan

The 1450 32nd Street Project site is located within the West Oakland Specific Plan (WOSP) Area, which encompasses a nearly 3-square mile (approximately 1,900-acre) Plan area of West Oakland, bounded by Interstate 580 (I-580) to the north, I-980 to the east and I-880 to the west, plus two additional areas that are "gateways" to West Oakland: the industrial area south of I-880 centered on 3rd Street, and the Oakland portion of the East BayBridge Shopping Center north of I-580 adjacent to Emeryville.

The Specific Plan provides for up to approximately 5,090 net new housing units and 4.03 million square feet of net new non-residential building space within the West Oakland Plan area. This development was projected to occur within four Opportunity Areas.

The Project lies in one of the predominantly residential neighborhoods of West Oakland that lie outside the Opportunity Areas, referred to as "Residential Areas". The Specific Plan noted that these residential areas are not in need of transformational change, but rather preservation and enhancement of their

existing characteristics. The Residential Areas consist mostly of residential neighborhoods which are to be enhanced through the preservation of historic resources, by facilitating maintenance of homes by property owners, by infilling of vacant parcels with similarly-scaled and compatible housing, and with improved streetscapes. Existing City of Oakland housing and historic preservation programs and policies already address these areas. The character of these residential areas is not envisioned to significantly change from what currently exists. The proposed Project is consistent with the development goals and stragies outlined in the Specific Plan for these residential areas, as discussed in Section V.

Environmental Effects Summary--WOSP EIR

The WOSP EIR is the previous CEQA document considered in this CEQA Analysis. This document is hereby incorporated by reference and can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612, and at http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index. htm

The 2014 WOSP EIR identifies significant unavoidable environmental impacts related to:

- Air Quality[1]
  - Exposure of new receptors near existing and potential new odor sources (not a CEQA impact per se, but identified and analyzed in the WOSP EIR for informational purposes)
  - Construction period emissions of criteria air pollutants for larger projects
  - Operational emissions of criteria pollutants, resulting from increased motor vehicle traffic and area source emissions
  - Emissions of toxic air contaminants from new light industrial, custom manufacturing and other similar land uses
- Greenhouse Gas Emissions--certain development projects implemented under the Specific Plan could exceed, on an individual and project-by-project basis, the project-level GHG threshold.
- Traffic and Transportation—the WOSP EIR identified three specific significant and unavoidable traffic impacts within the Plan Area: Hollis and 40th Street; San Pablo Avenue and 40th Street; and Mandela Parkway and West Grand Avenue.

Less-than-significant impacts were identified for the following resources in the 2014 WOSP EIR:

- Aesthetics--new sources of light and glare
- Air quality
  - Construction period fugitive dust
  - Toxic Air Contaminants (asbestos, gaseous TACs)
- Biological resources—tree removal
- Hazardous Materials
- Noise—construction noise and vibration, operational noise and vibration
- Public Services and Recreation—Oakland Fire Department calls, school District capacity

[1] The WOSP EIR also found a significant and unavoidable impact from development in accordance with the WOSP that could expose a substantial number of new people to existing and new objectionable odors. Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. That EIR nevertheless analyzes potential effects of the environment on the project (i.e. siting new receptors near existing and potential new odor sources) in order to provide information to the public and decision-makers.

- Utilities and service systems
  - Stormwater and Sewer
  - Waste Reduction and Recycling

Due to the identified r significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

Standard Conditions of Approval (SCAs)

The City established its SCAs and Uniformly Applied Development Standards in 2008, and they have since been amended and revised several times.[2] The City's SCAs are incorporated into new and changed Projects as conditions of approval regardless of a Project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Oakland Protected Trees Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

Note that the SCAs included in this document are referred to using an abbreviation for the environmental topic area and are numbered sequentially for each topic area—i.e., **SCA AIR-1**, **SCA AIR-2**, etc. The SCA title is also provided—i.e., **SCA AIR-1: Construction-Related Air Pollution (Dust and Equipment Emissions)**.

Consistent with the requirements of CEQA, a determination of whether the Project would have a significant impact must occur prior to approval of the Project. Where applicable, SCAs have been identified that will mitigate such impacts and will be implemented as part of the Project. In some instances, exactly how a given SCA will be achieved awaits completion of future studies, an approach that is legally permissible where SCAs are known to be feasible for the impact identified, where subsequent compliance with identified federal, state or local regulations or requirements apply, where specific performance criteria are specified and required, and where the Project commits to developing measures that comply with the requirements and criteria identified.

[2] The most recent revision to SCAs was published by the City of Oakland on April 11, 2017.

III. PROJECT DESCRIPTION

This section describes the proposed 1450 32nd Street Project (the Project) evaluated in this CEQA Analysis and includes a description of the Project site, existing site conditions, the proposed development, and required Project approvals.

Project Setting

The Project site is a 21,546 square foot (sf) corner parcel (approximately 0.5 acres) located at the northwest corner of 32nd Street and Louise Street (see Figures 1 and 2). The site lies at approximately 9 feet above mean sea level (msl), with minimal slope. The site is entirely paved with asphalt or concrete except where site buildings exist. The site was the former location of Zero Waste, which operated a transfer station and waste reclamation facility at the property from 1979 until 1983. The Property is currently unoccupied; it contains two adjoining single-story warehouse buildings measuring a total of approximately 8,000 sf in area on the western third of the site. The unbuilt area of the Property measures approximately 11,000 sf and is entirely surfaced with asphalt and concrete. A single-story 2,100-sf structure that was formerly used for office space is situated on the southeastern portion of the site.

Regional access is provided by Interstate 580 (I-580) and Interstate 880 (I-880), both of which pass within ½ mile of the site. I-880 provides access to the side via Exit 44 West Grand, and I-580 provides access via West Street (from I-580 West) or from San Pablo Ave (from I-580 East). The site is served by Alameda-Contra Costa Transit (AC Transit) bus route 29, which provides service to the nearest BART station (West Oakland) to the south and also stops within a block of Transbay bus service.

Surrounding Land Uses

Louise Street between Peralta St. and I-580 is a mix of residential and commercial/light industrial uses. The residential uses are both single family and multi-family dwellings, many of which are Queen Anne and Colonial cottages built in the early decades of the 20th century. The residence adjacent north of the Project (on Louise St) was built in 1912; the adjacent duplex west on 32nd St. was built in 1916. In addition, newly completed apartments and six single family residences under construction are also found on the same block as the Project site. Atlas Heating and Air Conditioning Company is located across 32nd Street from the Project site. Poplar Playground and the Poplar Recreation Center are located one block away, at the intersection of Louise Street and Peralta Street.

The Oakland Cultural Heritage Survey considers West Clawson (Watts Tract) to be an Area of Secondary Importance (ASI), because it contains many homes built before 1920. No properties in this ASI are local landmarks, individual historic properties, or eligible or listed in the NRHP. The WOSP identifies the West Clawson ASI area as not considered significant under CEQA.[3] However, the City's Design Review criteria would apply to any new construction or alteration for the project.

[3] West Oakland Specific Plan Draft EIR, p. 4.3-24.

General Plan and Zoning Designations

The Project site's General Plan designation is Mixed Housing Type Residential (Figure 3). The Mixed Housing Type Residential classification is intended to create, maintain, and enhance residential areas typically located near the City's major arterials and characterized by a mix of single family homes, townhouses, small multi-unit buildings, and neighborhood businesses where appropriate. The Mixed Housing Type Residential classification is primarily used in the old, established neighborhood housing areas of Oakland where a mix of unit types (single family homes, townhouses, and small multi-unit buildings) along with small scale neighborhood serving businesses are frequently found in close proximity to each other.

The site's Zoning Designation is Mixed Housing (RM-3) (Figure 4). The intent of the RM-3 zone is to create, maintain, and enhance residential areas characterized by a mix of single family homes, duplexes, townhouses, small multi-unit buildings at somewhat higher densities than in RM-2, and neighborhood businesses where appropriate.

The Project site is within the Residential Areas described in the West Oakland Specific Plan (Figure 5).

Project

The Applicant proposes redevelopment of the subject property to provide a total of 10 live-works units, 1,600 sf of commercial space, and 9 residential units. Specifically, the Project includes:

- Demolition of a 3000-sf warehouse to create a surface parking lot with 9 spaces (one accessible)
- Re-habilitation and re-purposing of a 5000-sf warehouse to create 10 live-work units
    - Five (5) ground floor live/work units, approximately 775 sf each
    - Five (5) second floor live/work units, approximately 920 sf each.
- Re-habilitation of existing office building to create one 1,600-sf commercial unit
- Addition of 1 residential unit (750 sf) with a roof deck (825 sf) above the rehabilitated commercial building.
- Construction of 3 attached loft-style duplexes (6 units)
    - First floor units would occupy 800 sf each
    - Second floor units 1200 sf each.
- Construction of two attached 4-bedroom loft-style townhouses (1,600 sf each), each with ground floor garage

The total proposed residential floor space equals approximately 18,425 sf, plus commercial space of 1,600 sf. The building footprints total approximately 10,749 sf, and will overlay 49.9% of the property (see Figures 6 through 13 for Project design details and views). Building heights would be 30' to the highest point on the roof. Five units include private open space totaling 1,360 sf, plus a 2860-sf open space public shared courtyard for uses to be determined by residents.

The site will be cleared of asphalt and concrete. Soil that is unsuitable for re-use on site will be removed and disposed of at an offsite permitted landfill. Base rock will be imported to the site; decomposed granite, gravel and landscape soil will be imported as required.

Table 1. 1450 32nd St Project--Development Summary

Development Parameter	Amount
Total site area	21,556 sf (0.5 acres)
Total gross floor area	~ 20,025 sf
Gross residential area, including services	~ 18,425 sf (including live/work units)
Gross commercial/retail area	~ 1,600 sf
Gross parking area	3,381 sf
Gross open space	4,220 sf
Residential Units	9
Parking spaces provided	9
Bicycle spaces	20
Number of building levels	3
Building height	30'0" to roof

Access

Access to the six new loft-style duplex residential units and surface parking area at the northern edge of the property on Louise Street would be provided by a new curb cut on Louise Street. The two townhomes on Louise Street would each have individual driveways fronting Louise Street. A relocation of the existing curb cut on 32nd St. would provide access to the garbage and recycling areas of the site. Access to the live/work units would be provided by a new curb cut on 32nd Street. The commercial building entrance would be located on Louise Street. Secure bicycle storage would be provided inside the Louise Street frontage.

Landscaping

There are no existing trees or other vegetation on the Project site. Sixteen new trees, including four street trees on Louise Street and two street trees on 32nd Street, are proposed. In addition, landscape trees, shrubs, grasses and vines are proposed along the building frontage in the interior courtyard of the live/work warehouse, as well as along vegetated strips around the townhomes and apartment units.

Utilities

The proposed Project will create or replace 17,315 sf of impervious surface. The Applicant's proposed site design measures include providing a large permeable public open space courtyard, paving interior walkways with permeable pavers, and directing surface parking lots and roof stormwater to pass-through planters and beds that drain to the existing storm drain system. In additional, all applicable source control measures will be implemented to prevent stormwater runoff pollution.

Electrical service will be provided overhead to new townhouse and duplex units, and underground to live-work units in the warehouse from an existing pole. Approximately 54 KW of solar power (expected to meet from 70-90% of total electrical demand) will be provided by 155 345-watt solar panels distributed on the roofs of all buildings.

All utilities would be served by existing connections.

Project Construction

The Project would be constructed over approximately 18 months and is anticipated to start in early 2018. Construction activities would consist of demolition of one of the existing warehouses, excavation and grading for new foundation construction, rehabilitation of the live/work space, and construction of the new buildings and finishing interiors. Demolition, excavation and grading are anticipated to occur over the course of 1-2 months. All of units will be slab on grade construction. Construction of footings and foundation slab and utility connections are expected to take between 2-3 months.

The proposed Project is excavating to approximately 2 feet below ground surface (bgs), removing the existing foundations, grubbing and grading and installing a subsurface ventilation system. Because the groundwater level is at a depth of approximately 5 to 6 feet bgs, no groundwater dewatering will be necessary.

Typical equipment used during construction would include an excavator, skid-steer loader, backhoe, trencher, crane, rough terrain forklift, paver, and paving equipment. Staging would primarily occur within the Project site, except in certain instances, such as deliveries or removal of large quantities of material, when parking lanes on one or more of the street frontages may be temporarily closed.

Depending on the construction phase, the number of on-site construction workers could range from approximately 5–20 workers per day. The maximum number of workers would be present during framing, rough-in, and interior finish, as well as the exterior work during the building construction phase. The minimum number of workers would be present during grading, excavation, and site preparation.

Project Site Issues

Prior use of the site as a transfer station and waste reclamation facility resulted in contamination of soil and groundwater. The principal chemicals of concern (COCs) include lead in the shallow (0-5 feet deep) soil, with chlorinated volatile organic compound tetrachloroethylene (PCE) and, to a lesser extent, some

petroleum hydrocarbons in the soil and groundwater. Subsequent to remediation and monitoring overseen by the San Francisco Bay Regional Water Quality Control Board (Water Board) through its Site Cleanup Program, the site was evaluated as a Low Threat Closure by the Water Board. The specific evaluation criteria of the Low Threat Closure Policy (LTCP) were analyzed in detail in a Soil and Groundwater Contamination LTCP Evaluation report dated December 14, 2016. The site received a letter from the Water Board on April 7, 2017, stating that "no further action related to the pollutant releases at the subject site is required beyond implementation of an approved Risk Management Plan dated March 2016." In addition, deed restrictions have been placed on the Project site that prohibit groundwater extraction or use.

The approved Risk Management Plan (RMP) proposes that a sub-slab ventilation system (SSVS) and liquid boot vapor barrier be installed underneath each of the four proposed buildings as part of the planned construction, to minimize potential vapor intrusion risk resulting from residual VOCs in the groundwater and soil vapor. The building footprint and hardscape will cover the entire site, with the exception of raised beds for landscaping.

The Project will also need to implement other recommendations in the RMP, including but not limited to:

- Soil Management--Protocols for evaluation of soil during soil-disturbing work and notification of findings of contamination;
- Groundwater Management--Monitoring to meet the LTCP criteria for well closures; and
- Health and Safety Considerations--Preparation of a Site Health and Safety Plan to minimize the risk of construction workers being exposed to the known residual soil contamination.

Project Approvals

The Project requires the following discretionary actions/approvals, including without limitation:

Actions by the City of Oakland

- Regular Design Review
- Conditional Use Permit
- Tentative Tract Map
- Other City Permits – Demolition permit, Building permit, Grading permit, encroachment permit and other related onsite and offsite work permits.

Actions by Other Agencies

- Regional Water Quality Control Board (RWQCB) –Waste Discharge Requirements or NPDES permit
- East Bay Municipal Utility District (EBMUD) – Approval of new service requests and water meter installation

Figure 1—General Location

Figure 2—Site Vicinity

Figure 3—General Plan Land Use

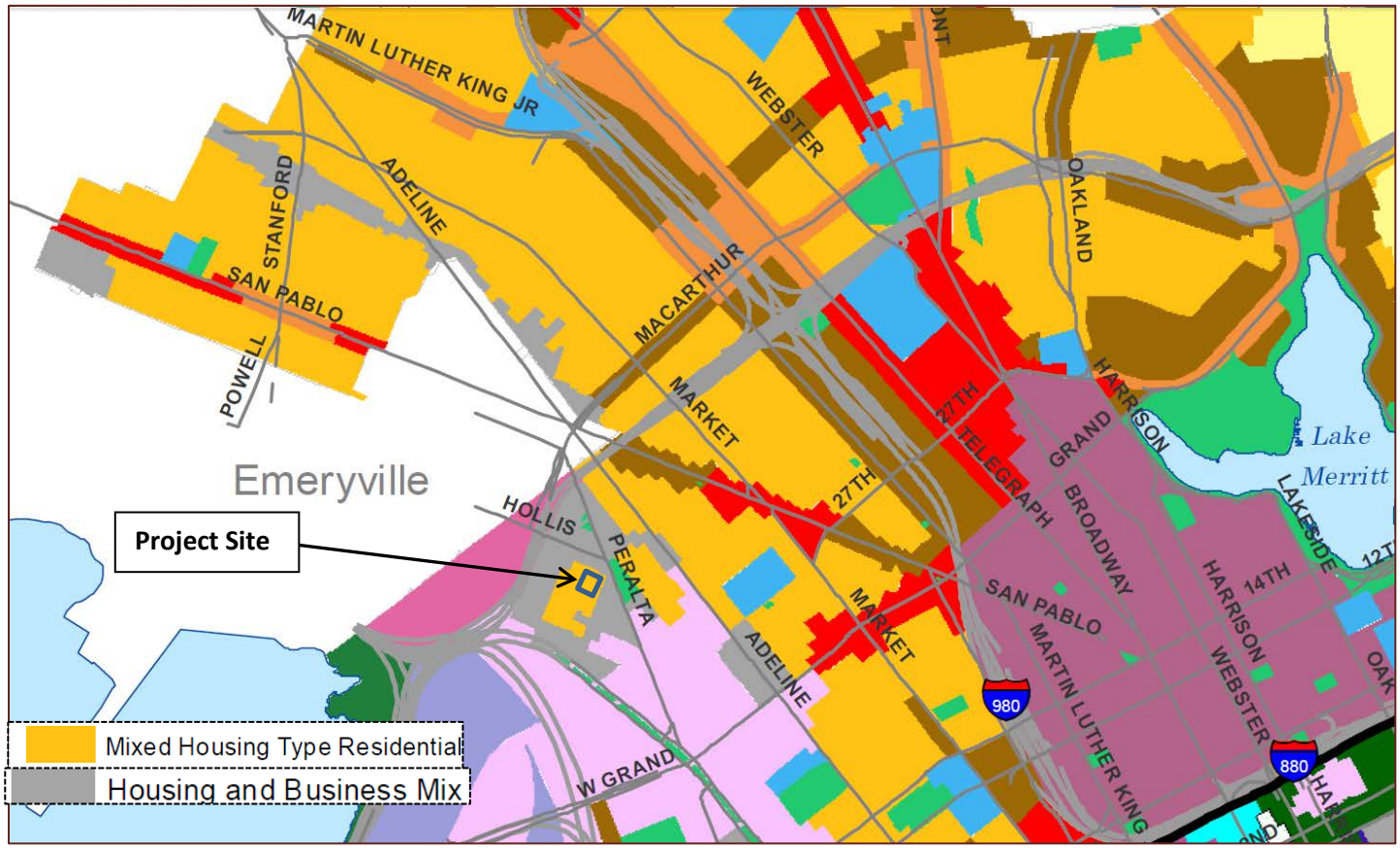


Figure 4—Zoning Map

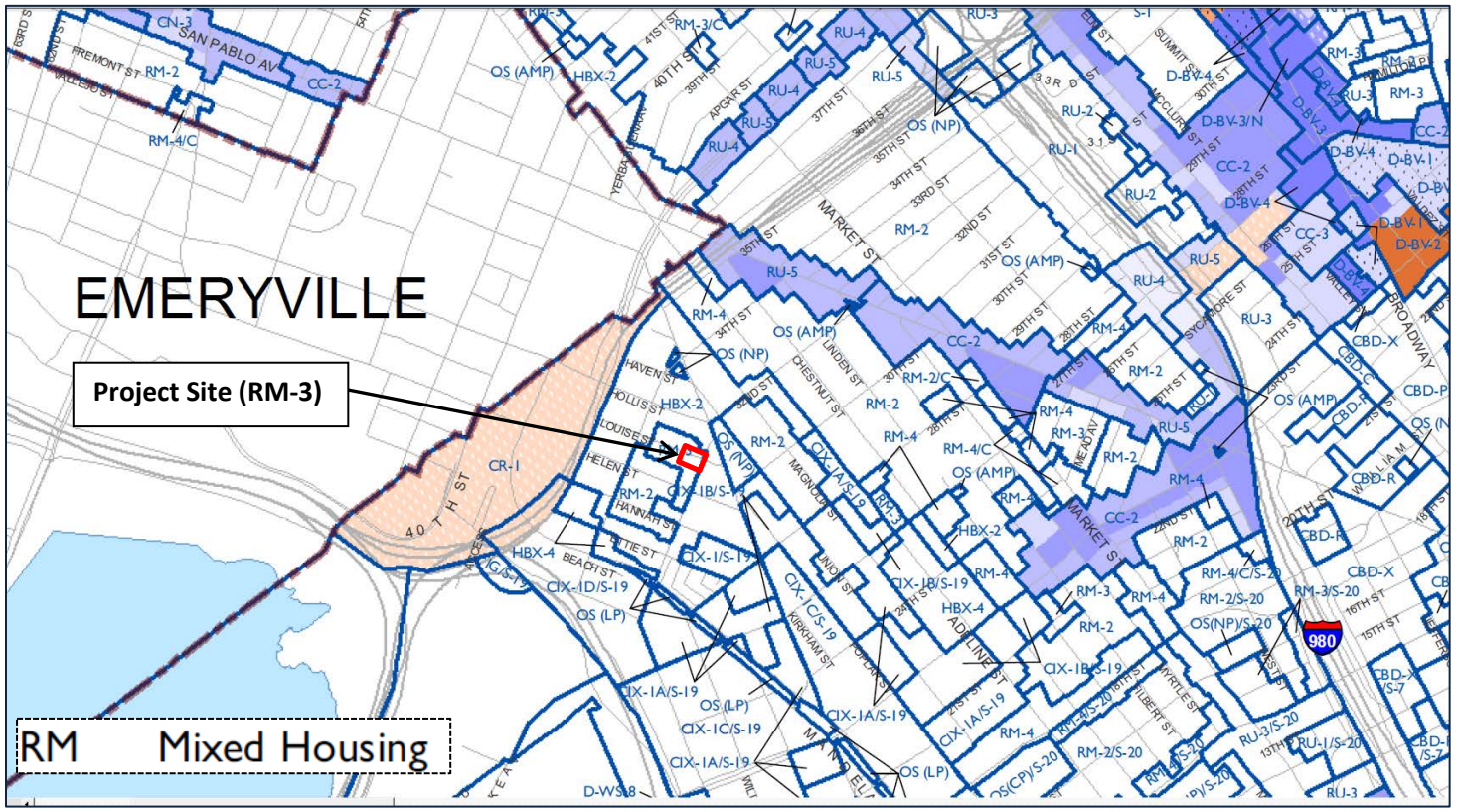


Figure 5. West Oakland Specific Plan Area

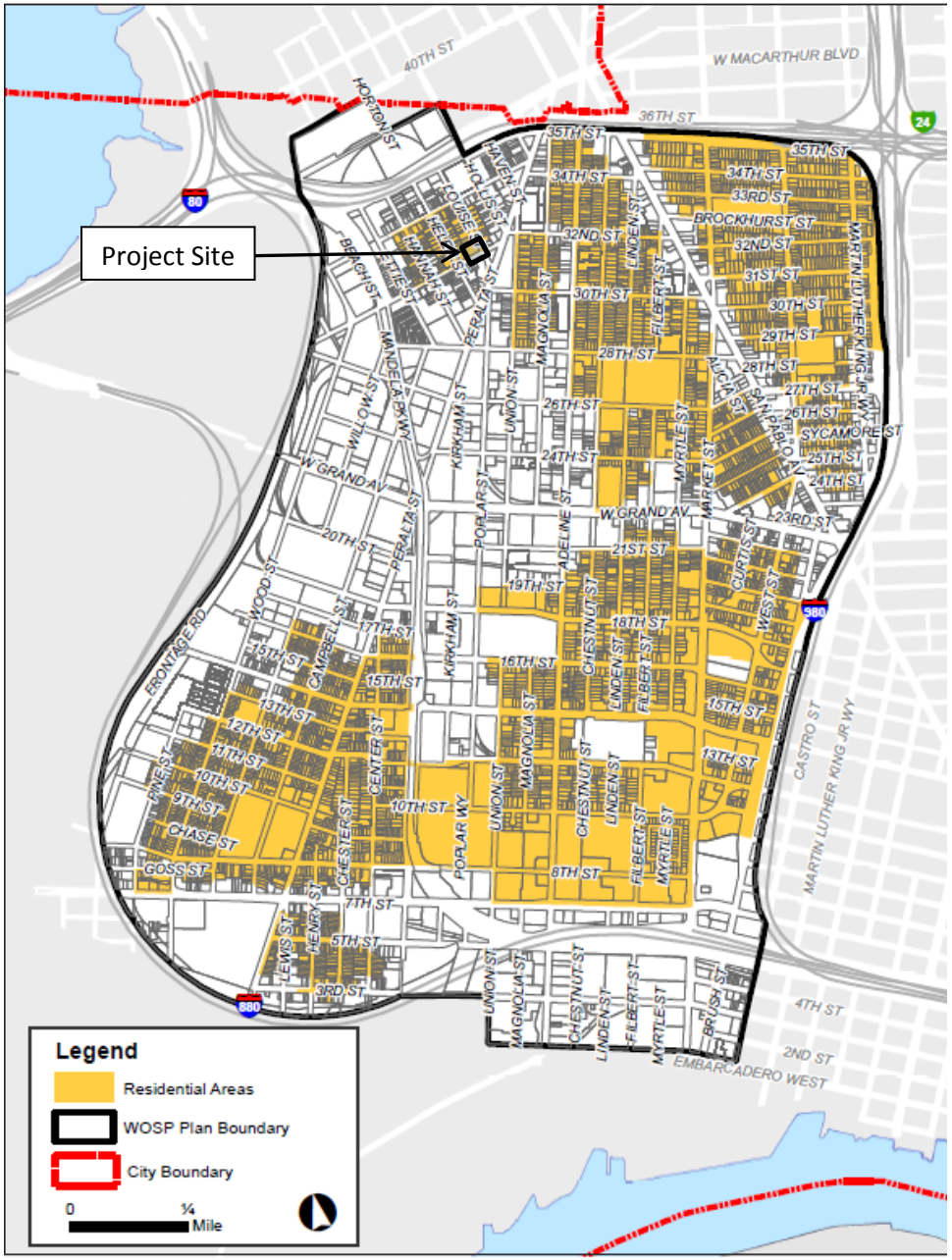
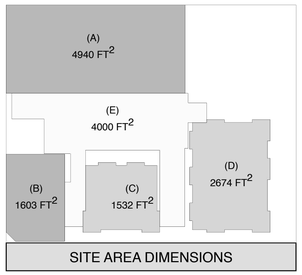


Figure 6. Site Plan



SITE AREA DIMENSIONS

OPEN SPACE CALCULATIONS	
19 UNITS TOTAL	
5 UNITS W/ > 100 SF PRIVATE OPEN SPACE (85 SF MINIMUM)	
TOTAL GROUP OPEN SPACE (E)	4000 SF
14 UNITS W/O PRIVATE OPEN SPACE	
SF GROUP OPENSPACE PER UNIT (200 SF MINIMUM)	286 SF
LOT COVERAGE CALCULATIONS	
TOTAL LOT AREA	21556 SF
ALLOWABLE COVERAGE (50%)	10778 SF
TOTAL BUILIDNG AREA	10749 SF
SITE DENSITY CALCULATIONS	
Total site area	21556 SF
Total Existing buildings to be re-used	6527 SF
Metal Warehouse (A)	4940 SF
Corner Ofiice Building (B)	1587 SF
Buildable Land (Site area - exising structures.)	15029 SF
Number of new units allowed (Buildable land/1500)	10
Number of Proposed Units in New Buildings	9
Number of Units Proposed in Existing Structures	11

NEIGHBORING DUPLEX

12' 3"
162' 0"
10' 0" EXISTING
15' 0"
40' 0"
20' 0"
20' 0"
0"
20' 0"
58' 4"
15' 0"
Existing CMU wall reinforced and reduced to 10' Fence
PROPERTY BOUNDARY
SETBACK
CURB CUT
49' 6"
133' 1"
33' 11"
8' 0"
4' 0"
54' 0"
5' 0"
EXISTING METAL WAREHOUSE
10 NEW LIVE/WORK UNITS
5 FIRST FLOOR UNITS @ 775 SF+/-
5 SECOND FLOOR UNITS @ 920 SF +/-
PARKING
1470 32ND ST
1466 32ND ST
1462 32ND ST
1458 32ND ST
1454 32ND ST
1468 32ND ST
1464 32ND ST
1460 32ND ST
1456 32ND ST
1452 32ND ST
New Cedar and Hog Wire Fence. Solid to 4'6" 6' total height
15' 0"
PRIVATE OPEN SPACE 140 SF +/-
9' 6"
3219 LOUISE ST
3217 LOUISE ST (SECOND FLOOR)
3223 LOUISE ST
3221 LOUISE ST (SECOND FLOOR)
3225 LOUISE ST (SECOND FLOOR)
3227 LOUISE ST
3 NEW 2-UNIT BUILDINGS
800 SF +/- LOWER UNITS
1200 SF +/- UPPER UNITS
DRIVEWAY
20' 0"
20' 0"
20' 0"
NEIGHBORING SINGLE FAMILY HOME
New Solid 8' Cedar Fence
GARBAGE & RECYCLING
1448 32ND ST (SECOND FLOOR APARTMENT)
16' 9"
PRIVATE OPEN SPACE 125 SF +/-
16' 9"
PRIVATE OPEN SPACE 125 SF +/-
8' 0"
8' 0"
EXISTING OFFICE BUILDING
1600 SF +/-COMMERCIAL SPACE
NEW 2ND FL APARTMENT WITHIN SETBACKS
1 BED 750 SF +/-
w/ 825 SF ROOF DECK
48' 9"
SECURE BICYCLE STORAGE
NEW TOWNHOUSES
TWO THREE BED UNITS
1600 SF +/-
3213 LOUISE ST
3215 LOUISE ST
1450 32ND ST
BICYCLE STORAGE
DRIVEWAY
BICYCLE STORAGE
PRIVATE OPEN SPACE 145 SF +/-
6' 9"
21' 3"
7' 6"
7' 6"
10' 10"
New Cedar and Hog Wire Fence, Solid to 4'6" 6' total height
9' 0"
18' 1"
9' 0"
10' 0"
10' 0" EXISTING
11' 6"
10' 5"
32' 10"
11' 9"
20' 0"
20' 0"
19' 6"
42' 0"
15' 0"
CURB CUT
CURB CUT
32nd Street
Louise Street

N

0 10 20

Louise Lofts
1450 32nd Street
Oakland,CA 94608

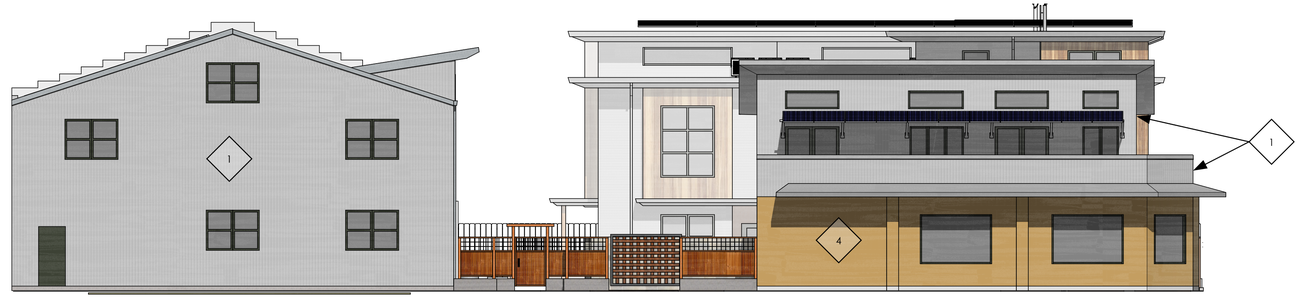
M Squared Development

SITE PLAN
SCALE: 1/8" = 1'

REVISIONS
5/30/17

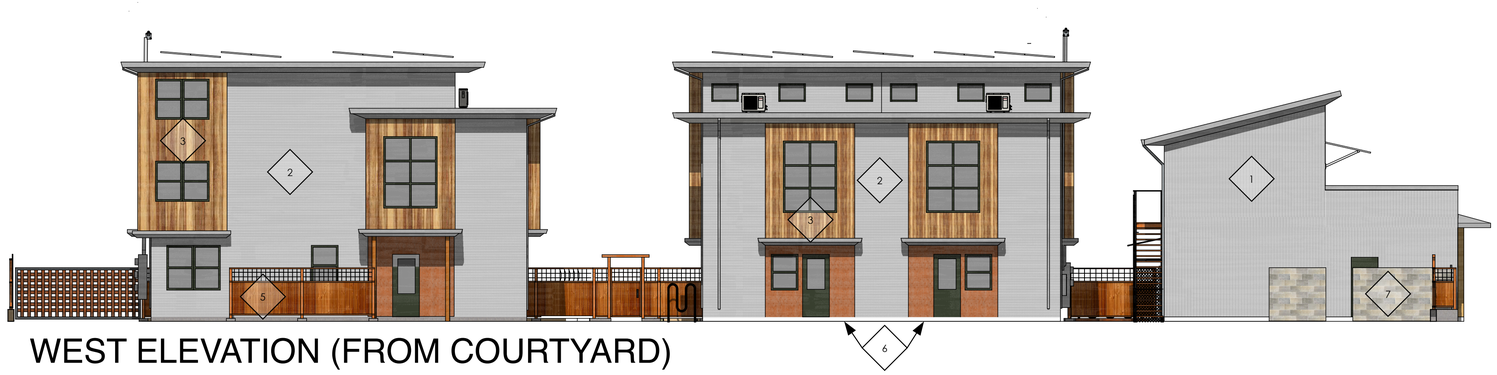
A.01

Figure 7. Project Elevation Drawings



SOUTH ELEVATION

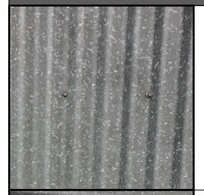
EAST ELEVATION



WEST ELEVATION (FROM COURTYARD)

NORTH ELEVATION

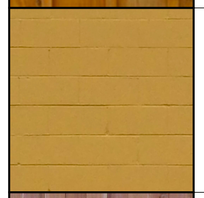
MATERIALS



1 GALVANIZED CORRUGATED STEEL INSTALLED VERTICALLY

2 GALVANIZED CORRUGATED STEEL INSTALLED HORIZONTALLY

3 BOARD AND BATTEN REDWOOD



4 EXISTING CMU WALL, PAINTED

5 ROUGH CEDAR BOARDS

6 STAINED PLYWOOD

7 NEW CMU WALL

M Squared Development

Louise Lofts
1450 32nd Street
Oakland, CA 94608

ELEVATIONS & MATERIALS
SCALE: 1/8" = 1'

REVISIONS
5/30/17

A.03

Figure 8. First Floor Plan

32nd Street

Louise Street

Figure 9. Second Floor Plan

N

0 10 20

A.10

REVISIONS	5/30/17

SECOND FLOOR PLANS

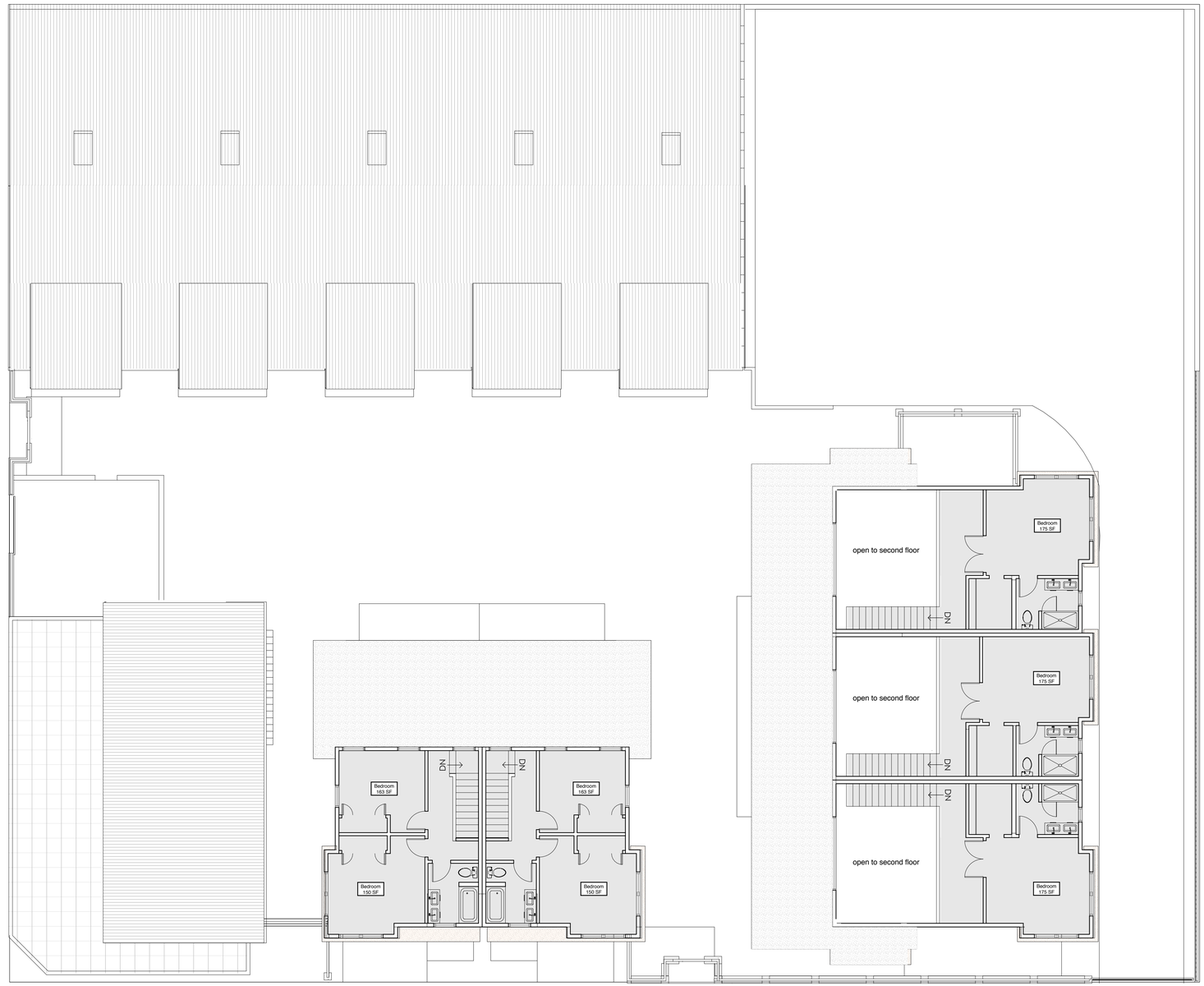
SCALE: 1/8" = 1'

Louise Lofts

1450 32nd Street
Oakland,CA 94608

M Squared Development

Figure 10. Third Floor Plan



0 10 20

N

M Squared Development

Louise Lofts

1450 32nd Street
Oakland,CA 94608

THIRD FLOOR PLANS

SCALE: 1/8” = 1’

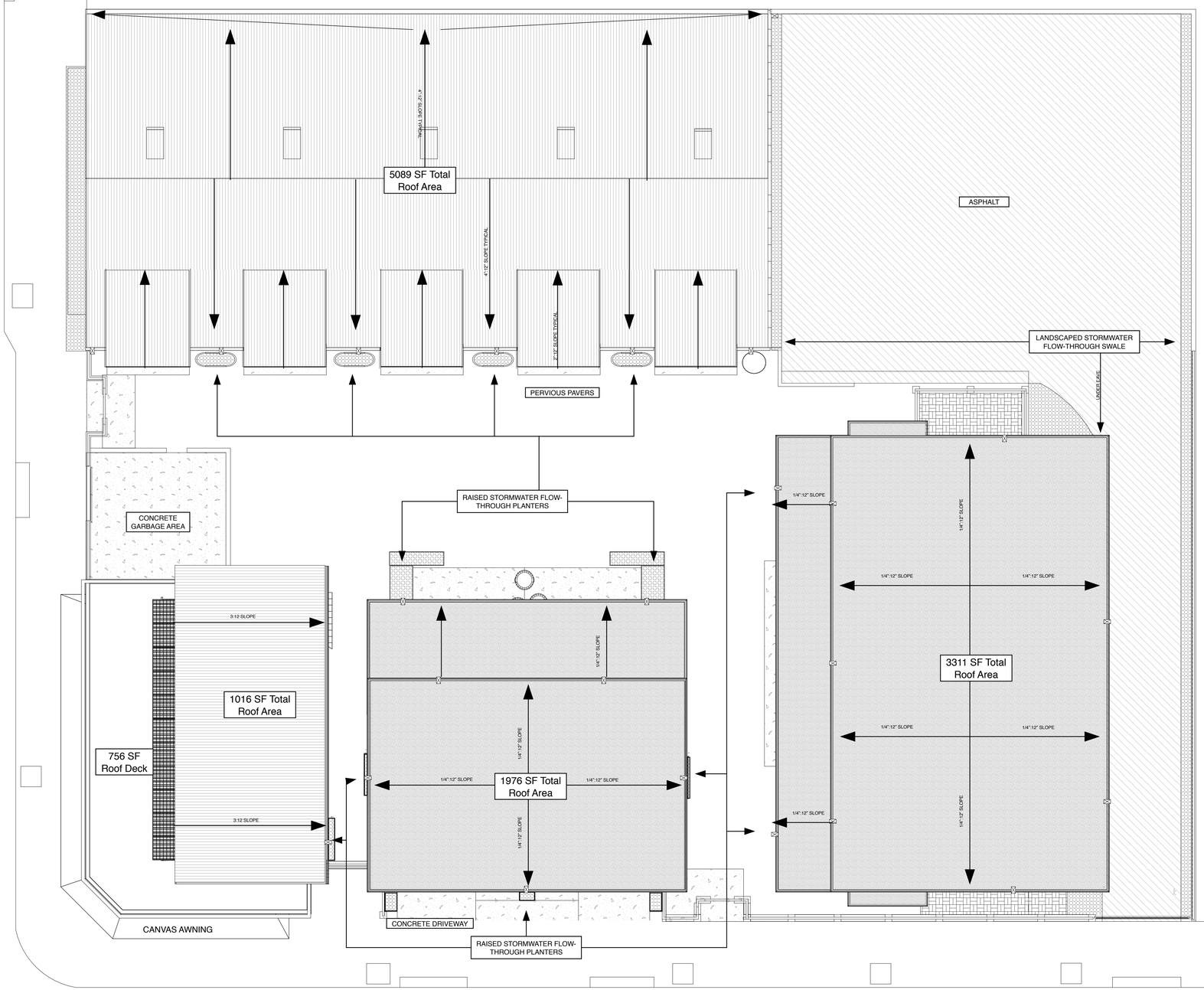
REVISIONS

5/30/17

A.11

Figure 11. Roof Plan with Stormwater Calculations

C-3 CALUCULATIONS		
IMPERVIOUS SURFACES		
	ROOF AREA	12,148 SF
	ASPHALT DRIVEWAY/PARKING LOT	3,980 SF
	CONCRETE PATHS/LANDINGS EXCLUDING UNDER ROOF AREAS	1,185 SF
	TOTAL IMPERVIOUS SURFACE AREA	17,349 SF
PERVIOUS SURFACES		
	PERVIOUS PAVERS	300 SF
	STORMWATER FLOW-THROUGH PLANTERS	700 SF
	DECOMPOSED GRANITE (PERVIOUS)	4000 SF
STORMWATER FLOW-THROUGH PLANTER SF/TOTAL IMPERVIOUS SURFACE AREA = 4%		



M Squared Development

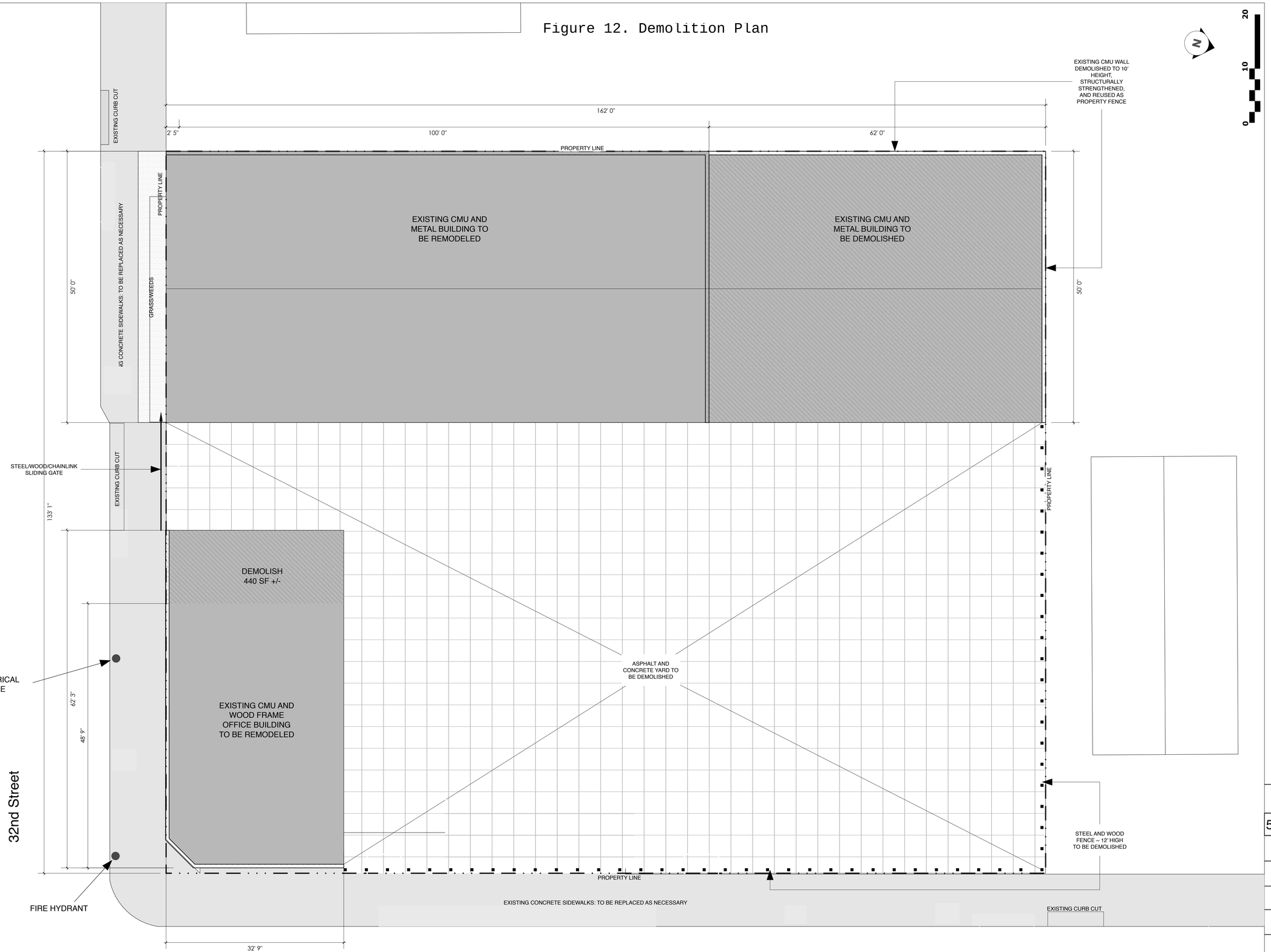
Louise Lofts
1450 32nd Street
Oakland,CA 94608

ROOF PLANS W/ C-3 CALUCULATIONS
SCALE: 1/8" = 1'

REVISIONS
5/30/17

A.08

Figure 12. Demolition Plan



M Squared Development

Louise Lofts

1450 32nd Street
Oakland,CA 94608

EXISTING CONDITIONS/ DEMOLITION PLAN

SCALE: 1/8" = 1'

REVISIONS

5/30/17

A.02

G-1
JUNCUS PATENS

G-2
MISCANTUS
"MORNING LIGHT"

G-3
PANICUM
VIRGATUM

G-4
CAREX NUDATA

G-5
LOMANDRA
PLATINUM BEAUTY

G-6
PENNISETUM
RUBRUM

G-7
FARGESI SP. "RUGA"

G-8
FORMIUM TENAX

GRASSES

S-1
MAHONIA RIPENS

S-2
NANDIAN
DOMESTICA

S-3
CORNUS RED
TWIGGED

S-4
VACCINIUM
OVATUM

S-5 CALYCANTHUS
OCCIDENTALIS

S-6
MYRICA
CALIFORNICA

S-7
RIBES
SANGUINEUM

S-8
MIMULUS
CARDINALIS

S-9
ABUTALON
PICTUM

SHRUBS

Figure 13. Landscape Plan

F-1
ATHYRIUM
FILIX-FEMINA

F-2
POLYSTICHUM
MUNITUM

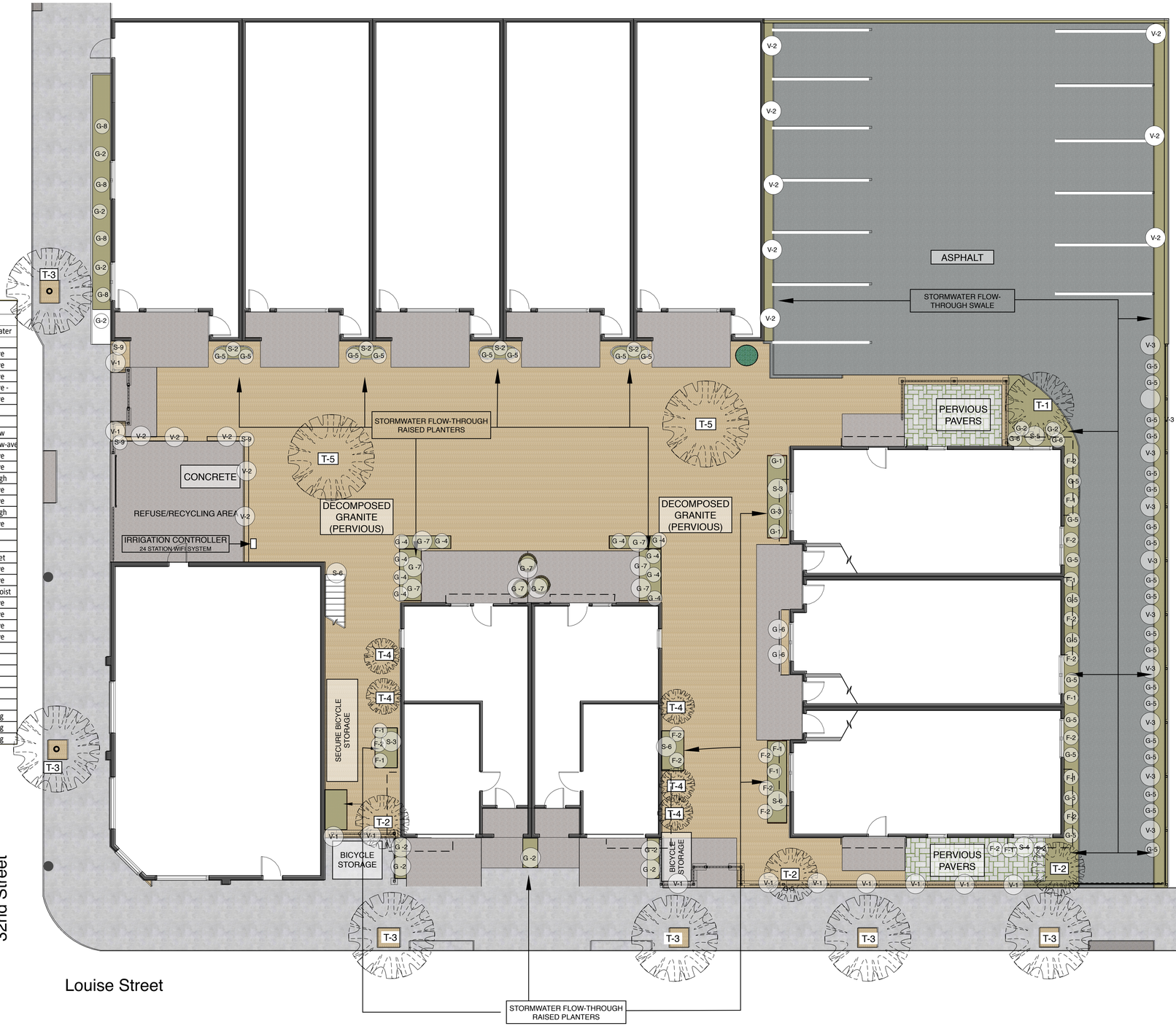
FERNS

V-1
AKEBIA QUINATA

V-2
FICUS PUMILA

V-3
GELSEMIUM
SEMIPERVENS

VINES



PLANT LIST						
		SPECIES	COMMON NAME	SIZE	sun	water
TREES						
	T1	NYSSA SYLVATICA	TUPELO (BLACK GUM)	15 gal	ave	ave
	T2	CERCIS CANADENSIS	REDBUD	15 gal	p. sh - sun	ave
	T3	CELTIS OCCIDENTALIS	HACKBERRY	15 gal	sun	ave
	T4	PITTOSPORUM	SILVER LIGHT	5 gal	sh - sun	ave -
	T5	GLEDITSIA	HONEY LOCUST	15 gal	p. sh - sun	ave
SHRUBS						
	S1	MAHONIA REPENS*	OREGON GRAPE	1 gal	p.sh - p.sn	low
	S2	NANDINA DOMESTICA	HEAVENLY BAMBOO	1 gal	p.sh - f.sn	low-ave
	S3	CORNUS SP.**	RED-TWIG DOGWOOD	1 gal	p.sh - f.sn	ave
	S4	VACCINIUM OVATUM*/**	HUCKLEBERRY	1 gal	p.sh - f.sn	ave
	S5	CALYCANTHUS OCCIDENTALIS	WESTERN SPICEBUSH	1 gal	p.sh - f.sn	high
	S6	MYRICA CALIFORNICA**	WAX MYRTLE	1 gal	f.sh - f.sn	ave
	S7	RIBES SANGUINEUM**	FLOWERING CURRANT	1 gal	p.sh - f.sn	ave
	S8	MIMULUS CARDINALIS**	SCARLET MONKEYFLOWER	1 gal	f.sh - f.sn	high
	S9	ABUTILON PICTUM	FLOWERING MAPLE	1 gal	p.sh - f.sn	ave
GRASSES/RUSHES						
	G1	JUNCUS PATENS**	GRAY RUSH	1 gal	p. sh - f.sn	wet
	G2	MISCANTHUS 'MORNING LIGH	JAPANESE SILVER GRASS	1 gal	p. sh - f.sn	ave
	G3	PANICUM VIRGATUM	SWITCH GRASS	1 gal	p. sh - f.sn	ave
	G4	CAREX NUDATA/ CAREX DIVU	BLACK / BERKELEY SEDGE	1 gal	p. sh - f.sn	moist
	G5	LOMANDRA	PLATINUM BEAUTY	1Ggal	F. sh - sun	ave
	G6	PENNISETUM RUBRUM	PURPLE FOUNTAIN GRASS	1 gal	p. sh - f.sn	ave
	G7	FARGESI SP. "RUGA"	CLUMPING BAMBOO	1 gal	p. sh - f.sn	ave
	G8	PHORMIUM TENAX	MAORI MAIDEN	1 gal	p. sh - f.sn	ave
FERNS						
	F1	ATHYRIUM FILIX-FEMINA	LADY FERN	1 gal	f.sh-p.sh	
	F2	POLYSTICHUM MUNITUM**	WESTERN SWORD FERN	1 gal	f.sh-p.sh	
VINES						
	V1	AKEBIA QUINATA	FIVE LEAF AKEBIA	1 gal	sh - sun	reg
	V2	FICUS PUMILA	CLIMBING FIG	1 gal	f.sh -f. sn	reg
	V3	GELSEMIUM SEMIPERVENS	CAROLINA JASMINE	1 gal	p.sh - f.sn	reg

HARD SURFACES	SQ FT
DECOMPOSED GRANITE	4000 SQ FT
PERVIOUS PAVERS	300 SQ FT
CONCRETE	1550 SQ FT
ASPHALT	3919 SQ FT
SEE A8 FOR C-3 CALCULATIONS	

T-1 NYSS SYLVATICA

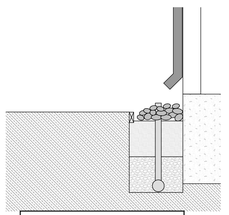
T-2 CERCIS
CANADENSIS

T-3 CELTIS
OCCIDENTALIS

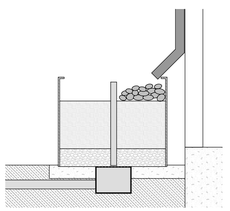
T-4 PITTOSPORUM
SLIVER LIGHT

T-5 GLEDITSIA

TREES



STORMWATER FLOW-THROUGH
SWALE



STORMWATER FLOW-THROUGH
RAISED PLANTER

Louise Lofts
1450 32nd Street
Oakland,CA 94608

M Squared Development

LANDSCAPE PLAN

SCALE: 1/8" = 1'

REVISIONS

5/30/17

A.07

IV. SUMMARY OF FINDINGS

This CEQA Analysis demonstrates that the Project requires no additional environmental review because the Project is consistent with the development density and land use characteristics established by existing zoning and General Plan policies for which an EIR was certified [i.e., the City of Oakland General Plan LUTE and LUTE Environmental Impact Report (EIR) (1998) and the WOSP EIR (2014)]. The Project would be required to comply with all applicable mitigation measures identified in the WOSP EIR, as well as applicable City of Oakland SCAs (see Attachment A for a complete list of SCAs referred to and required by this CEQA Analysis). Because the SCAs are mandatory City requirements, this CEQA analysis assumes they will be imposed and implemented; the Project sponsor has agreed to do so as part of the proposed Project. With implementation of the applicable mitigation measures from the prior WOSP EIR and SCAs, the Project would not result in a substantial increase in the severity of significant impacts previously identified in the WOSP EIR, or in any new significant impacts that were not previously identified in the WOSP EIR.

In accordance with Public Resources Code Sections 21083.3 and 21094.5, and State CEQA Guidelines Section 15183, and as set forth in this CEQA Analysis, the Project requires no further environmental review because the following finding can be made:

- **Consistency with Community Plan or Zoning (CEQA Guidelines Section 15183):** The Project is permitted in the zoning district where the Project site is located (RM-3) and consistent with the bulk, density, and land use standards envisioned in the General Plan, West Oakland Specific Plan, and the Municipal Code. The Applicant has applied for a Conditional Use Permit to construct multiple dwelling facilities of 3 or more residential units in the RM-3 zone. The analysis presents substantial evidence that there would be no significant impacts peculiar to the Project or its site, and that the Project's potentially significant effects have already been addressed as such in the WOSP EIR, or will be substantially mitigated by the imposition of SCAs, as further described in Attachment A. No further environmental documents are required in accordance with CEQA Guidelines Section 15183.

Each of the above findings provides a separate and independent basis for CEQA compliance.

Darin Ranelletti
Environmental Review Officer

Date

V. PROJECT CONSISTENCY WITH COMMUNITY PLAN OR ZONING: CEQA GUIDELINES SECTION 15183

Section 15183 (a) of the California Environmental Quality Act (CEQA) Guidelines states that "…projects which are consistent with the development density established by the existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site." The following analysis provides substantial evidence to support a conclusion that the Project qualifies for streamlined review under CEQA Guidelines Section 15183 as a project consistent with the development density established by existing zoning community plan, or general plan policies for which an EIR was certified.

1. Criterion Section 15183 (a): General Plan, Community Plan, and Zoning Consistency

Yes	No	
☑	❒	The Project is consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified.

The General Plan land use designation for the Project site is Mixed Housing Type Residential. The Mixed Housing Type Residential classification is intended to create, maintain, and enhance residential areas typically located near the City's major arterials and characterized by a mix of single family homes, townhouses, small multi-unit buildings, and neighborhood businesses where appropriate.

a) <u>The Project is aligned with policies set forth in the LUTE of the General Plan and the West Oakland Specific Plan.</u>

The site is within the West Oakland Plan area, described in the LUTE as "a community with a number of persistent land use conflicts between residential and businesses uses. "[4] The area of the community most affected by these issues has historically been the West Clawson neighborhood, where the Project is located. In this area, land uses are "thoroughly mixed with no clear dominance of one use over another"[5]. The LUTE recommends a number of "good neighbor" criteria, including "encouragement for adaptive reuse of vacant buildings and development of compatible infill projects."[6]

The LUTE further identifies the Project area as a Target Area for community and economic development. As detailed in the LUTE, development in West Oakland must fulfill the following policy objectives: Neighborhood Objectives N1, N2, N4, N6, N7, N9, N11, N12, and Industry and Commercial Objective I/C2.

As Table 2 demonstrates, the Project is consistent with these relevant policies of the LUTE. As Table 3 demonstrates, the Project is consistent with the relevant policies of the WOSP.

[4] City of Oakland, 1998. *General Plan*, Land Use and Transportation Element, Policies in Action p. 187.
[5] Ibid.
[6] Ibid., p. 188.

Table 2: Evaluation of Consistency with General Plan LUTE

Relevant Policies, Principles and Guidelines of the General Plan (LUTE)	*Project Consistency*	
Policy N1.1 Concentrating Commercial Development. Commercial development in the neighborhoods should be concentrated in areas that are economically viable and provide opportunities for smaller scale, neighborhood-oriented retail.	**Consistent**	The proposed commercial space is neighborhood-oriented in that it is ground-floor commercial in a mixed-use development, accessible directly by pedestrians from the sidewalk.
Policy N1.2 Placing Public Transit Stops. The majority of commercial development should be accessible by public transit	**Consistent**	Proposed commercial spaces are one block from AC Transit Bus Route 29.
Policy N1.5 Designing Commercial Development. Commercial development should be designed in a manner that is sensitive to surrounding residential uses.	**Consistent**	The proposal would re-habilitate and re-purpose existing commercial buildings. Therefore, the design and scale of the proposed commercial spaces are not visually discordant with the predominantly residential character of the surrounding blocks.
Policy N1.6 Reviewing Potential Nuisance Activities. The City should closely review any proposed new commercial activities that have the potential to create public nuisance or crime problems, and should monitor those that are existing. These may include isolated commercial or industrial establishments located within residential areas, alcoholic beverage sales activities (excluding restaurants), adult entertainment, or other entertainment activities.	**Consistent**	No specific tenants have been identified for the Project's proposed commercial space, but no alcoholic beverage sales, adult entertainment, or other entertainment uses are proposed.
Policy N3.1 Facilitating Housing Construction. Facilitating the construction of housing units should be considered a high priority for the City of Oakland.	**Consistent**	The Project adds 19 new housing units (within density requirements).
Policy N3.2 Encouraging Infill Development. In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.	**Consistent**	The Project site is surrounded by development and represents an infill housing opportunity.
Policy N3.5 Encouraging Housing Development. The City should actively encourage development of housing in designated mixed housing type and urban housing areas through regulatory and fiscal incentives, assistance in identifying parcels that are appropriate for new development, and other measures	**Consistent**	The Project is consistent with the City's Joint Living and Work Quarters policies, which allow joint living and work quarters in all zones where Residential Activities are permitted or conditionally permitted (Planning Code 17.102.190).

Table 2: Evaluation of Consistency with General Plan LUTE

Policy N3.9 Orienting Residential Development. Residential developments should be encouraged to face the street and to orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure.	**Consistent**	Nine of the proposed units are street-facing (all of the purely residential units). The new residential buildings are of similar height to surrounding structures (30 feet) and would not block sunlight or views from neighboring buildings. Can we conform this with analysis?
Policy N3.10 Guiding the Development of Parking. Off-street parking for residential buildings should be adequate in amount and conveniently located and laid out, but its visual prominence should be minimized.	**Consistent**	The Project would construct 7 surface parking spaces in the courtyard of the development, and two dedicated spaces for residents in one of the townhome buildings. This meets the City's development standard for parking for RM-3 zones.
Policy N4.2 Advocating for Affordable Housing. The City encourages local non-profit organizations, affordable housirig proponents, the business community, the real estate industry, and other local policy makers to join in efforts to advocate for the provision of affordable housing in communities throughout the Bay Area region.	**Consistent**	The Applicant intends to deed two (2) of the 19 units as moderately priced (per City's defined income requirements), in perpetuity.
Policy N5.3 Supporting Live-Work Development. The city should support and encourage residents desiring to live and work at the same location where neither the residential use nor the work occupation adversely affects nearby properties or the character of the surrounding area.	**Consistent**	The Project includes conversion of abandoned warehouse space to ten (10) joint living and work quarters in a manner that is consistent with neighborhood character.
Polley N6.1 Mixing Housing Types. The City will generally be supportive of a mix of projects that provide a variety of housing types, unit sizes, and lot sizes which are available to households with a range of incomes.	**Consistent**	The development includes live/work units, residential units in 2- and 3-bedroom sizes, and will also include two (2) moderately-priced rental units of different unit sizes.
Policy N6.2 Increased Home Ownership. Housing developments that increase home ownership opportunities for households of all incomes are desirable.	**Consistent**	The Project is proposing a condominium tract map that would allow for future sale of individual units to occupants.
Policy N7.1 Ensuring Compatible Development. New residential development in Detached Unit and Mixed Housing Type areas should be compatible with the density, scale, design, and existing or desired character of surrounding development.	**Consistent**	The Project's choices of materials, design features, and scale of development are compatible with existing character of surrounding development.

Table 2: Evaluation of Consistency with General Plan LUTE

Policy N7.2 Defining Compatibility. Infrastructure availability, environmental constraints and natural features, emergency response and evacuation times, street width and function, prevailing lot size, predominant development type and height, scenic values, distance from public transit, and desired neighborhood character are among the factors that could be taken into account when developing and mapping zoning designations or determining "compatibility". These factors should be balanced with the citywide need for additional housing.	**Consistent**	The Project design is consistent with the values that define compatibility. It is located near infrastructure for utilities, transit, and community services. In height, scale, and development type, the Project is consistent with existing community character. Its inclusion of live/work units and neighborhood commercial is compatible with the land use goals in the GP.
Policy N9.7 Creating Compatible but Diverse Development. Diversity in Oakland's built environment should be as valued as the diversity in population. Regulations and permit processes should be geared toward creating compatible and attractive development, rather than "cookie cutter" development.	**Consistent**	The Project includes a mix of housing types: live/work units, loft-style duplex rental units, and loft-style townhouses.
Policy N11.4 Alleviating Public Nuisances. The City should strive to alleviate public nuisances and unsafe and illegal activities. Code Enforcement efforts should be given as high a priority as facilitating the development process. Public nuisance regulations should be designed to allow community members to use City codes to facilitate nuisance abatement in their neighborhood.	**Consistent**	Prior use of the site as a transfer station and waste reclamation facility resulted in contamination of soil and groundwater. The principal chemicals of concern (COCs) include lead in the shallow soil, with chlorinated volatile organic compound tetrachloroethylene (PCE) and, to a lesser extent, some petroleum hydrocarbons in the soil and groundwater. Subsequent to remediation and monitoring overseen by the San Francisco Bay Regional Water Quality Control Board through its Site Cleanup Program, the site was evaluated as a Low Threat Closure by the Water Board. The site received a letter from the Water Board on April 7, 2017, stating that "no further action related to the pollutant releases at the subject site is required beyond implementation of an approved Risk Management Plan dated March 2016." In addition, deed restrictions have been placed on the Project site that prohibit groundwater extraction or use. The approved Risk Management Plan (RMP) proposes that a sub-slab ventilation system (SSVS) and liquid boot vapor barrier be installed underneath each of the four proposed buildings as part of the planned construction, to minimize potential vapor intrusion risk resulting from residual VOCs in the groundwater and soil vapor. The building footprint and hardscape will cover the entire site, with the exception of raised beds for landscaping. The Project will also need to implement other recommendations in the RMP.

Table 2: Evaluation of Consistency with General Plan LUTE

Policy C.2.1 Pursuing Environmental Cleanup. The environmental cleanup of contaminated industrial properties should be actively pursued to attract new users in targeted industrial and commercial areas.	**Consistent**	The Project site has been remediated and has received a No Further Action letter from the State Water Resources Control Board indicating low-threat closure status.
Policy C.2.2 Reusing Abandoned Buildings. The reuse of abandoned industrial buildings by non-traditional activities should be encouraged where the uses are consistent with, and will assist in the attainment of, the goals and objectives of all elements of the Plan.	**Consistent**	The Project converts an existing abandoned warehouse to joint living and work quarters, consistent with LUTE goals and objectives above. In addition, the existing office building will be retained for a commercial space.

Table 3: Evaluation of Consistency with West Oakland Specific Plan

Relevant Community-Based Goals and Objectives of the West Oakland Specific Plan		
Economic Goal #4. Rehabilitate underutilized, vacant, and neglected properties	**Consistent**	The proposed site is underutilized, and is currently unoccupied except for the use of an informal indoor baseball practice area in the corner commercial building. Existing buildings are being rehabilitated as part of the Project.
Housing Goal #3. Expand opportunities for affordable home ownership without concentrating low income housing	**Consistent**	The development is designed as moderately priced rental units of various sizes. The Applicant intends that two (2) units be deeded as moderately priced housing in perpetuity.
Housing Goal #4. Locate new housing near transit	**Consistent**	The Project is one block away from AC Transit Bus service (#29, which runs on Peralta Street and connects to the NL TransBay bus)
Infrastructure Objective #1. Ensure a safe, reliable and efficient wastewater collection system	**Consistent**	The accompanying CEQA analysis demonstrates that the Project's environmental impacts to the City's wastewater collection system are fully analyzed in the WOSP EIR. Project will comply with relevant City SCAs.
Infrastructure Objective #2. Ensure adequate water systems for new development	**Consistent**	The accompanying CEQA analysis demonstrates that the Project's environmental impacts to the City's water delivery system are fully analyzed in the WOSP EIR. Project will comply with relevant City SCAs.
Infrastructure Objective #3. Improve lighting and street appearance so as to deter dumping and blight.	**Consistent**	Project's lighting plan will promote safe use and appearance of the Louise and 32nd Streets. Project will comply with relevant City SCAs.
Environmental & Sustainable Development Goal 1. Remediate environmental hazards	**Consistent**	The Project has remediated environmental hazards from previous land use and received a No Further Action Letter from the State Water Resources Control Board.
Environmental & Sustainable Development Goal 5. Ensure that new development employs sustainable "green" building practices, facilitates access to pedestrian and transit networks, and enhances streetscapes and open spaces.	**Consistent**	The Project will comply with the City's Green Building Ordinance and applicable SCAs, as well as the planting of sixteen new trees, including six street trees), and the installation of solar energy (PV) infrastructure on the roof of the commercial/residential building.
Environmental & Sustainable Development Goal 6. Promote energy efficiency throughout all aspects of new development and redevelopment.	**Consistent**	Residential units are designed as all electric, with rooftop solar arrays designed to provide approximately100% of energy needs. Live-Work Units are designed with solar arrays that will provide approximately 60-75% of

Table 3: Evaluation of Consistency with West Oakland Specific Plan

		energy usage. The Project will meet the requirements of the City's PEV charging ordinance[7]
Environmental & Sustainable Development Goal 7. Characterize and seek remediation resources for brownfields, especially large Opportunity Sites and infill sites on strategic community corridors.	**Consistent**	The Project site is not identified as an Opportunity Site in the WOSP, but it has been remediated and has received a No Further Action letter from the State Water Resources Control Board indicating low-threat closure status.
Neighborhood Serving Retail. Attract more local neighborhood retail to West Oakland in order to provide for more neighborhood-serving shopping opportunities	**Consistent**	The Project includes 1,600 sf of commercial space intended for neighborhood-serving retail.
Housing-Based Revitalization Strategies: Reuse and Intensify-2. Revitalize and enhance existing Oak Center, Prescott, Hoover and Clawson neighborhoods. This initiative is likely to be a long-term, evolutionary process that will vary according to the circumstances of the existing development pattern and size of parcels.	**Consistent**	The Project is located in the Clawson neighborhood, adding needed housing and neighborhood-serving retail.
Diversified Housing Opportunities: Residential Infill. Smaller residential infill projects, including new deuplex, 4-plex and single family units will likely be readily absorbed, especially in the Clawson and other neighborhoods.	**Consistent**	The Project is located in the Clawson neighborhood and features a diversity of housing opportunities, including joint/live work, duplexes, and single unit over ground floor commercial.

[7] Electric Vehicle Infrastructure Requirements for New Multi-Family and Nonresidential Buildings, effective March 22, 2017. Fact sheet available at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak063669.pdf.

b) The Project is consistent with the development density established by existing Zoning, Community Plan or General Plan policies.

The Project site is zoned RM-3, Mixed Residential, per the City of Oakland Planning Code Section 17.33. The section states, "The intent of the RM-3 zone is to create, maintain, and enhance residential areas characterized by a mix of single family homes, duplexes, townhouses, small multi-unit buildings at somewhat higher densities than in RM-2, and neighborhood businesses where appropriate." Development standards in the RM-3 zone include the following:

- The maximum allowable density in these areas is for 3 or more units, 1 unit per 1,500 sf of lot area with approval of a Conditional Use Permit per Planning Code (Section 17.33).
    - The Project has a residential lot area of 16,616 sf (not including the existing warehouse to be converted to live/work), which is not counted towards residential density. The Project proposes to build 9 residential units within the residential area, at an average of 1 unit per 1,850 sf, which is within the allowable density.
- The maximum lot coverage for 3 or more units is 50%.
    - The Project proposes a lot coverage of 10,749 sf (including the existing rehabilitated buildings). This equals lot coverage of 49.87%, which is at the allowable maximum.
- The open space requirement is 85 sf of group open space per unit when private open space is substituted. Therefore, for the nine (9) residential units proposed, 765 sf of group open space is required. The Project proposes five units that include private open space totaling 1,360 sf. In addition, the Project includes a 2,860-sf group open space courtyard for uses to be determined by residents. Per the Zoning Code Bulletin (2001) that established development standards for the conversion of existing properties to Joint Living and Working Quarters (JLWQ), the requirements for open space for residential uses are not triggered by the conversion to JLWQ, since the residential use of JLWQ is considered accessory to the use as a work place. Therefore, the Project meets the open space requirement.
- The required minimum front setback is 15 ft., minimum interior side and street side setbacks are 4 ft, and the rear setback is 15 ft. The Project proposes 15' setbacks front and rear, 4' interior side setback, and 7.5' street side setback. Therefore, the Project meets all setback requirements of the RM-3 zone.

Other relevant development standards from the Zoning Code Bulletin on JLWQ include:

- Additional floor area can be added within the shell of an existing building that is being converted to JLWQ if the land use is Mixed Housing Type Residential (among other land use designations).

  - As new floor area falls outside the scope of the Planning Code definition of Joint Living and Working Quarters "…in a building originally designed for industrial or commercial occupancy…," a Conditional Use Permit (CUP) is required to construct new floor area under the provisions of the General Plan in [Mixed Housing Type Residential]".[8]

- The residential portions of JLWQs are considered accessory to the commercial/industrial activities, and do not trigger open space, buffering or parking requirements.

  - Section 17.116.060 of the Planning Code requires one (1) parking space per residential unit for all residential dwelling unit configurations in the RM-3 zone. The ten JLWQs do not count towards the residential parking requirement. The number of units counting towards the parking requirement is 9 units, and therefore, 9 parking spaces are required. Because the commercial space is less than 3,000 sf, no additional parking spaces are required (Section 17.116.080). The Project proposes 9 spaces, which meets the zoning requirement.

Based on the above, the Project is consistent with the development density established by existing zoning, community plan or General Plan policies for which an EIR was certified, and the Project qualifies as a Project Consistent with a Community Plan or Zoning pursuant to CEQA Guidelines Section 15183.

Since the Project is consistent with the development assumptions for the lands use classification and the site as provided under the LUTE EIR, and it is within the overall range of development within the Mixed Housing Type Residential designation as analyzed in the WOSP EIR, the Project's potential contribution to cumulatively significant effects has already been addressed in these WOSP EIRs. CEQA Guidelines Section 15183 applies to the Project, which allows for streamlined environmental review. This document considers whether there are project-specific effects peculiar to the project or its site, and relies on the streamlining provisions of CEQA Guidelines Section 15183 to address cumulative effects.

Therefore, the Project is eligible for consideration of an exemption under California Public Resources Code Section 21083.3 and Section 15183 of the CEQA Guidelines.

[8] Zoning Code Bulletin, Issued August 29, 2001, Amended August 23, 2004, Topic: LIVE/WORK. P. 2.

VI. CEQA CHECKLIST

Overview

This CEQA Checklist compares the potential environmental impacts that may result from construction and operation of the Project to those that were evaluated in the WOSP EIR (i.e, the WOSP EIR), which identified mitigation measures and SCAs to address potential environmental impacts of implementing the Plan.

This CEQA Checklist hereby incorporates by reference the WOSP EIR discussion and analysis of all potential environmental impact topics; only those environmental topics that could have a potential project-level environmental impact are included. The WOSP EIR significance criteria have been consolidated and abbreviated in this CEQA Checklist for administrative purposes; a complete list of the significance criteria can be found in the WOSP EIR.

Based on the criteria provided in Section 15183(b) for determining whether a particular impact requires further environmental review, this CEQA Checklist provides a determination of whether the Project would result in impacts that:

- Are peculiar to the project or the parcel on which the project would be located;
- Were not analyzed as significant effects in a WOSP EIR on the zoning action, general plan, or community plan, with which the project is consistent;
- Are potentially significant off-site impacts and cumulative impacts which were not discussed in the WOSP EIR prepared for the general plan, community plan or zoning action; or
- Are previously identified effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the WOSP EIR.

The Project is required to comply with applicable mitigation measures identified in the WOSP EIR and with City of Oakland SCAs. The Project sponsor has agreed to incorporate and/or implement the required mitigation measures and SCAs as part of the Project. This CEQA Checklist includes references to the applicable mitigation measures and SCAs.

Attachments

The following attachments are included at the end of this CEQA Checklist:

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
B. Human Health Risk Screening Analysis
C. Risk Management Plan and No Further Action Letter
D. Screening Analysis for Air Quality and GHG Emissions

1. Aesthetics, Shadow, and Wind

Would the project:

a. Have a substantial adverse effect on a public scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Sections 25980 through 25986); or cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or, cast shadow on an historical resource, as defined by CEQA Guidelines Section 15064.5(a), such that the shadow would materially impair the resource's historic significance;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Create winds that exceed 36 mph for more than one hour during daylight hours during the year. The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

Subsequent to certification of the Program EIRs, the CEQA statutes were amended related to assessment of aesthetics **(as well as** parking impacts**)**. CEQA Section 21099(d) states, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects**,** for projects that meet all three of the following

criteria: (1) the project is in a transit priority area[9]; (2) the project is on an infill site[10]; (3) the project is residential, mixed-use residential, or an employment center.

The proposed **P**roject meets all three criteria as follows: (1) it is located 0.2 mile from the 19th Street BART Station in a transit priority area; (2) the project site is an infill site within the urban area of the city of Oakland and is currently developed with commercial uses; and (3) the project is a mixed-use residential project. Therefore, this analysis does not consider aesthetics or the adequacy of parking in determining the significance of project impacts under CEQA. Nonetheless, the City of Oakland recognizes that the public and decision makers may be interested in information pertaining to the aesthetic and parking effects of a proposed project. Therefore, the information below related to aesthetics and parking is provided solely for informational purposes and is not used to determine the significance of the environmental impacts, pursuant to CEQA.

WOSP EIR

The WOSP EIR found that:

- There are no officially designated scenic vistas within the Plan area. The low elevation and surrounding development within the Plan area limit views.The WOSP EIR concluded that there would be no significant impacts to aesthetic resources from implementation of the Plan, including scenic vistas, visual character, shadow, wind, and light/glare.

- With respect to light and glare, **SCA AES-3: Lighting Plan** would be required for individual projects, as would design review in accordance with Chapter 17.136 of the Oakland Planning Code.

The WOSP EIR found that no mitigation measures were necessary to reduce aesthetic impacts below the level of significance**.**

Project Analysis and Conclusion

Consistent with the findings of the WOSP EIR, the Project's potential impacts to scenic vistas, scenic resources, visual character, and light and glare would be **less than significant** with implementation of SCAs. Nine of the proposed units are street-facing (all of the purely residential units). The new residential buildings are of similar height to surrounding structures (30 feet) and would not block sunlight or views from neighboring buildings. The view of Louise Street from nearby properties would be enhanced by replacing the 10-foot high fence that runs the length of the site with revitalized commercial frontage and two new housing structures (see elevation in Figure 7 above). The Project will replace a visually unattractive abandoned site with a development that is compatible with other recent housing developments along the same block of Louise Street. The Project would not cast shadows on a public or quasi-public park or open space. The nearest public open space is Poplar Park, one block south on

[9] "Transit Priority Area" means an area within one-half mile of a major transit stop that is existing or planned. CEQA Statute § 21099(a)(7)

[10] "Infill Site" means a lot located within an urban area that has been previously developed…" CEQA Statute § 21099(a)(4)

Louise. Use of Poplar Park would not be impaired by shadows from the Project.

The Project would be required to implement SCAs related to graffiti control, landscaping, landscape maintenance, street frontages, and lighting plans (**SCA AES-1: Graffiti Control, SCA AES-2: Landscape Plan, and SCA AES-3: Lighting**) as identified in Attachment A).

The City's CEQA Thresholds require a wind analysis only if the Project's height is 100 feet or greater (measured to the roof), and if the Project is located in Downtown or adjacent to a waterbody. Because the Project is lower than 100 feet high and is not located in Downtown or adjacent to a waterbody, no significant wind impacts would occur.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, implementation of the Project would not substantially increase the severity of the significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to aesthetics, shadows, or wind that were not identified in the WOSP EIR.

2. Air Quality

Would the project:

a. During project construction result in average daily emissions of 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; during project operation result in average daily emissions of 54 pounds per day of ROG, NOx, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; result in maximum annual emissions of 10 tons per year of ROG, NOx, or $PM_{2.5}$, or 15 tons per year of PM_{10}; or

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation, expose sensitive receptors to substantial levels of TACs under project conditions, resulting in (a) an increase in cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.3 micrograms per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 micrograms per cubic meter; or expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 microgram per cubic meter.

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR concluded that:

- **Construction period emissions of criteria air pollutants for larger projects --**At the project level, construction activities pursuant to smaller-scale development projects in West Oakland would not result in significant impacts to air quality from fugitive dust generated by demolition,

grading, hauling, and construction activities, with the implementation of Basic Control measures included in **SCA Air-1**. For most individual development projects (except for large projects), implementation of Basic and/or Enhanced Control measures would reduce construction emissions of regional ozone percursors and particulate matter to a level of less than significant. However, the WOSP "conservatively estimated" the overall project level impact of construction period criteria emissions as significant and unavoidable, because larger individual construction projects could generate emissions of criteria air pollutants that would exceed the City's thresholds of significance.

- **Operational emissions of criteria pollutants, resulting from increased motor vehicle traffic and area source emissions --** New development in West Oakland would generate operational emissions of criteria pollutants (ROG, NOx, PM10, PM2.5) as a result of increased motor vehicle traffic and area source emissions. These emissions would exceed the City's project-level thresholds of significance. However, if individual projects do not exceed established screening levels, the WOSP EIR found that air quality impacts from those individual projects would not be significant.
- **Emissions of toxic air contaminants (TACs) from new light industrial, custom manufacturing and other similar land uses)--**During construction, individual development projects in West Oakland would generate construction-related TAC emissions from fuel-combusting construction equipment and mobile sources. These emissions could exceed thresholds for cancer risk, chronic health index, acute health index, or annual average PM2.5 concentration levels. These construction-related TAC emissions would be reduced to a less than significant level with implementation of construction-related Best Management Practices, defined in **SCAs 20 and 21**(these do not apply to the Project, as explained below).
- **Exposure of new receptors near existing and potential new odor sources**--Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. The WOSP EIR nevertheless analyzed potential effects of the environment on the project (i.e. siting new receptors near existing and potential new odor sources) in order to provide information to the public and decision-makers. It concluded that development in accordance with the Specific Plan could expose a substantial number of new people to existing and new objectionable odors, and categorized this impact as significant and unavoidable and proper controls or setbacks, as recommended for the Project, would be required.

Project Analysis and Conclusion

Construction and Operations

The Project would result in an increase in emissions of criteria air pollutants and ozone precursors from mobile on-road sources and onsite area sources during both the operational and construction periods. The Project would be required to comply with **SCA AIR-1** to minimize construction emissions. The Project will not employ a backup generator; therefore, it will not introduce any stationary sources of air pollution.

The City of Oakland utilizes screening criteria to provide a conservative indication of whether a Project could result in potentially significant air quality impacts related to construction and operational

emissions. If the project does not exceed the screening criteria, quantification of the project's air pollutant emissions is not necessary in order to make the determination that the impact will be below the thresholds of significance. The Project's live/work units, 19 residential units and 1,600 sf of retail space are well below the operational criteria pollutant screening size of 494 dwelling units (4%); well below the construction criteria pollutant screening size of 240 units (9%); less than 1% of the construction criteria pollutant screening size for commercial space of 277,000 sf; and 5% of the screening size for commercial operations (using "high turnover restaurant" as the commercial use). Therefore, the Project is well below criteria air pollutant screening standards for operational and construction emissions, and project-specific impacts related to operational and construction period emissions of criteria pollutants would be less than significant.

Implementation of the Basic controls under SCA AIR-1 would reduce emissions of both criteria air pollutants and TACs during construction. Further, SCA AIR-1 minimizes diesel emissions by minimizing idling; ensuring that construction equipment is running in proper condition; and by specifying that portable equipment would be powered by electricity if available. Is where we add tier 4 requirements?

Toxic Air Contaminants

The Project would construct new residential uses within 1,000 feet of stationary and roadway sources of TACs. A screening analysis was conducted to assess the cumulative health risk to the Project's sensitive receptors, included as Attachment B. The screening analysis included sources of emissions within 1,000 ft. of the Project site, including mobile source emissions from nearby major roadways and Interstate 580. Based on the screening results, the cumulative health risks to the Project's sensitive receptors from existing and reasonably foreseeable future sources of TACs would be below each of the City's cumulative health risk thresholds (cancer risk of 100 in a million, chronic hazard index [HI] of 10, and fine particulate matter [$PM_{2.5}$] concentration of 0.8 micrograms per cubic meter). The Project's exposure to TAC emissions is below the threshold that requires preparation of a Health Risk Assessment or adoption of further risk reduction strategies to reduce the exposure of the Project's sensitive receptors to TACs. SCA20: Exposure to Air Pollution (Toxic Air Contaminants) does not apply to the Project.

The Project is not proposing an emergency generator on-site. If the Project subsequently proposes an emergency generator, a BAAQMD stationary source permit for that unit would be required, and SCA 20 would be applicable, requiring assessment/risk reduction to demonstrate that resultant risk would be below applicable threshold levels. There would be nothing unique or peculiar about the Project's proximity to emission sources or sensitive receptors that would result in new or more significant impacts than previously analyzed in the WOSP EIR.

Since there are existing structures on the site, **SCA AIR-2 Asbestos in Structures** would be applicable, if disturbance activities would expose workers or nearby residents to airborne asbestos.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to air quality that were not identified in the WOSP EIR. The Project would be required to implement SCAs related to air quality, as identified in

Attachment A (**SCA AIR-1**, and also SCA AIR-3 if an emergency generator is proposed). The Project is below the threshold requiring preparation of a Health Risk Assessment or adoption of further risk reduction strategies to reduce the exposure of the Project's sensitive receptors to TACs pursuant to SCA AIR-2. **SCA AIR-4** would potentially apply to the structures at 1450 32nd Street, if demolition of asbestos-containing structures occurs.

Odors

The Project is within the BAAQMD-recommended two mile buffer zone of the EBMUD Waste Treatment Facility. While EBMUD has implemented a variety of odor control measures since 2006[11], odors are unlikely to be fully prevented. Odors could result from food processing facilities, painting/coating operations, and/or green waste and recycling facilities in the Plan area. It is also possible that new development projects located near the proposed Project could produce objectionable odors which, without proper controls or setbacks, could result in odor complaints.[12] As noted in the WOSP EIR, the City's Housing Element EIR concluded that odor sources in all high density areas of the City could potentially expose future residents to substantial and frequent odors. This was identified as a significant and unavoidable Plan area impact. However, the area is largely residential in nature and it is unlikely that the residential units would be exposed to substantial odors. The Project does also include live-work units and a small amount of commercial space which could generate odors. However, these uses would be subject to the Performance Standards regarding odors in Chapter 120 of the Planning Code.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to air quality that were not identified in the WOSP EIR. The Project would be required to implement SCAs related to air quality, as identified in Attachment A (**SCA AIR-1**, and also SCA AIR-3 if an emergency generator is proposed). The Project is below the threshold requiring preparation of a Health Risk Assessment or adoption of further risk reduction strategies to reduce the exposure of the Project's sensitive receptors to TACs pursuant to SCA AIR-2. **SCA AIR-4** would potentially apply to the structures at 1450 32nd Street, if demolition of asbestos-containing structures occurs. Furthermore, the Project would meet the Performance Standards for odors in Chapter 120 of the Planning Code.

[11] These odor control mesures are detailed in the WOSP EIR, p. 4.2-35.

[12] In California Supreme Court case, *California Building Industry Association v Bay Area Air Quality Management District* (Case No. S213478, December 17, 2015), the Court ruled that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." However, the issue of the Project's residents potentially being exposed to objectionable odors is discussed here as an informational item.

3. 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 Wildlife or U.S. Fish and Wildlife Service;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

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 U.S. Fish and Wildlife Service;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Substantially 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;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) by removal of protected trees under certain circumstances; or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

f. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR found that:

- **Special Status Species**--Tree removal, building demolition, and other construction activities could cause disturbance, noise, or loss of habitat for resident or migratory birds and mammals, including special-status species potentially occurring within West Oakland. The WOSP EIR found that, based on its search of the California Natural Diversity Database (CNDDB), there are a number of special-status animals that may potentially use habitat in the Planning Area,

including the peregrine falcon, Cooper's hawk, red-shouldered hawk, red-tailed hawk, pallid bat, silver-haired bat, hoary bat, and big free-tailed bat. However, according to the Open Space, Conservation and Recreation Element of the City of Oakland General Plan, there are no special-status species known to occur within the Plan area.

- **Sensitive Natural Communities**--Future development in accordance with the WOSP would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service, or interfere with movement of species through migratory wildlife corridors. City SCAs requiring specific pre-construction surveys would be implemented.
- **Wetlands**--Future development would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- **Conflicts with Local Policies**-- Future development pursuant to or consistent with the WOSP may require the removal of trees that are protected by the City of Oakland Tree Protection Ordinance. No creek in wo what about the bay? This seems more specific to project but the other bullet points more broad. Think we need to be broad here and more specific about screening out below.

Project Analysis and Conclusion

The approximately 21,556-sf Project site is located in an urban setting on a site that was used as a waste reclamation facility for many years. As such, the Project site provides no natural habitat for special status species, wildlife corridors, or riparian or sensitive habitat. The site is entirely covered with pavement. There are no existing trees at the Project site. New street trees will be planted and landscaped areas will be established around the residential buildings.

Because there are no open sections of any creek near the Project area, the Creek Protection Ordinance does not apply to the Project. There are no wetlands or sensitive natural communities associated with the site, and the Project would not conflict with any local plans or ordinances, including the Tree Protection Ordinance.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, implementation of the Project would not substantially increase the severity of the significant biological impacts identified in that EIR, nor would it result in new significant impacts related to biological resources that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures related to biological resources, and none would be needed for the Project.

4. Cultural Resources

Would the project:

d. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired;"

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Disturb any human remains, including those interred outside of formal cemeteries.

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR identified approximately 1,421 Local Register properties within the Plan area, including three Areas of Primary Importance (API) that are considered historic resources under CEQA (Oakland Point API, Oak Center API, and Southern Pacific Railroad Industrial API).

The WOSP EIR concluded that:

- **Historic Resources**--Development projects within the Plan area could result in the direct alteration of significant historic and architectural resources. For example, vibration during construction activities could potentially damage nearby historic properties, or new development could be visually incompatible with older, historical buildings. However, the EIR also found that compliance with existing policies contained within the Historic Preservation Element of the General Plan, the design review processes utilized by the City, and other existing City codes, regulations, and SCAs**,** would reduce adverse changes in significant historical resources to a less-than-significant level.
- **Archaeological, Paleontological, Tribal Resources**--There is a high potential for identifying unrecorded Native American resources, especially buried archaeological deposits, as well as unrecorded historic period archaeological resources within the Plan area**.** Compliance with SCAs identified in the WOSP EIR would ensure that resources are recovered and appropriate procedures are followed in the event of accidental discovery, and would therefore reduce potential risk of impact to archaeological resources to a less-than-significant level. **SCAs CUL-**

1, CUL-2, and CUL-3 would apply to projects in the Plan area.

Project Analysis and Conclusion

Historical Resources

The Project site is not an individually significant historic resource. However, the site is within the West Clawson area (also known as the Watts Tract), which is an Area of Secondary Importance (ASI). ASIs are areas and building groups with a coherent and intact period character that distinguishes them as districts. They do not appear obviously eligible for the National Register because they are not clearly "first, last, best, or only," but they could be eligible for local designation and might in some cases qualify for National Register listing with a persuasive application.[13]

The northern Watts Tract area developed in a semi-rural way, with many houses from the 1870s and 1880s. The northern Watts Tract is at the junction of radiating long-distance roads, and was within easy reach of Emeryville's early ironworks, stockyards, and racetrack, which employed many of the residents. There was also, from the 1880s, a community of Scandinavian seafarers in the west part of the neighborhood around Ettie Street. The Watts Tract neighborhoods grew through residential infill in the 1900s and 1910s, and through spreading industrial development in the 1920s.

The Project site is not identified as a contributor to the West Clawson ASI; therefore, development of the Project will not impair significant historic resources. The Project will demolish an existing warehouse building but will not remove or impair any contributing landscape architectural features or structures of high architectural integrity, or adversely impact public uses of the ASI.

Archaeological and Paleontological Resources and Human Remains

As noted in the WOSP EIR, there is a high potential for identifying unrecorded Native American resources, especially buried archaeological deposits, as well as unrecorded historic period archaeological resources within the Plan area. While excavation for the Project is only 2 feet, unanticipated discoveries of archaeological and paleontological resources or human remains are still possible. **SCA CUL-1: Archaeological and Paleontological Resources** would apply. Implementation of SCAs related to archaeological and paleontological resources and human remains would reduce any potential impacts to a less-than-significant level.

An examination of the analysis, findings, and conclusions of the WOSP EIR finds that implementation of the Project would not substantially increase the severity of significant cultural resource impacts that were identified in the WOSP EIR, nor would it result in new significant impacts related to cultural resources that were not identified in the WOSP EIR. The Project would be required to implement SCAs related to the discovery of archaeological or paleontological resources and human remains during construction, as identified in Attachment A (**SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction and SCA CUL-2: Human Remains – Discovery During**

[13] Appendix C: Oakland Cultural Heritage Survey Evaluation System, in the City of Oakland General Plan, Historic Preservation Element, 1994. Available at http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/oak035243.pdf. Accessed July 5, 2017.

Construction).

---

5. Geology, Soils, and Geohazards

Would the project:

a. Expose people or structures to substantial risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
- Strong seismic ground shaking;
- Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or
- Landslides;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property; result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR found that:

- **Fault Rupture**--Future development in accordance with the Specific Plan would not expose people or structures to substantial adverse effects, including the risk of loss, injury or death as a result of the surface rupture of a known earthquake fault.

- **Other Seismic Risks**--Within West Oakland, the combination of strong earthquake ground shaking, underlying geological material consisting of sand, alluvial and fluvial deposits and artificial fill, and shallow depth to groundwater result in a high potential for liquefaction throughout most of the Plan area. The California Geological Survey has identified a majority of West Oakland as being located within a Seismic Hazard Zone due to high liquefaction potential. However, with required implementation of the City **SCA GEO-1: Construction-Related Permits** to prepare project Geotechnical Reports, impacts related to strong seismic ground shaking and seismic-related ground failure would be reduced to levels generally considered by professional engineering geologists as acceptable, or less than significant.

- **Erosion**--Grading and excavations associated with future development pursuant to or consistent with the Specific Plan could result in the loss of topsoil through erosion. However, with required implementation of the City **SCA HYDRO-1: Erosion and Sedimentation Control Plan for Construction** to prepare project Erosion and Sedimentation Control Plans, impacts

related to erosion would be reduced to less than significant levels.

- **Unstable Soil Conditions**--Portions of the Plan area are underlain by unstable geologic conditions and soils, and potentially wells, pits, tank vaults or unmarked sewer lines, creating substantial risks to lifeor property. Future development pursuant to or consistent with the Specific Plan could expose people or structures to substantial adverse effects. However, with required implementation of the City of Oakland **SCA GEO-2: Soils Report** to prepare project Soils Reports, impacts related to unstable soil conditions would be reduced to less-than-significant levels.

The WOSP EIR concluded that compliance with the California Building Code and the City's SCAs would result in less-than-significant exposures of people and structures to the hazards of liquefaction, erosion, or expansive soils resulting from implementation of the WOSP.

Project Analysis and Conclusion

Although the WOSP EIR states that the majority of the Plan area is within a Seismic Hazard Zone due to high liquefaction potential, the Project site is within an area of only moderate susceptibility to liquefaction. Liquefaction maps of the City indicate that the Project site is in a zone of 3% potential liquefaction, meaning that approximately 3% of the area is predicted to liquefy in a magnitude 7.1 earthquake.[14],[15] Pursuant to **SCA GEO-2,** the Project applicant is required to provide a Soils Report that contains, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and Project design. The Project applicant shall implement the recommendations contained in the approved report as well as **SCA GEO-1** during project design and construction. In addition, the WOSP EIR states that **SCA HYDRO-1: Erosion and Sedimentation Control Plan** should be adopted as a mandatory requirement for each project in the Plan area.

The terrain at the site and the surrounding area is flat. The area is not mapped as a landslide zone by the California Geological Survey. Therefore the risk of landslide is minimal at the site.[16]

The Tsunami Foundation Map for Alameda County indicates that the Project site is not within the Potential Tsunami Inundation Area. Therefore, there would be no impacts related to tsunami risk.

Projects within the City that propose to excavate more than 500 cubic yards of soil are required to obtain a grading permit. The site will be cleared of asphalt and concrete, and the building area will be excavated to a depth of 2 ft. Soil that is unsuitable for re-use on site will be removed and disposed of at

[14] Liquefaction Hazard Map of Alameda, Berkeley, Emeryville, Oakland, and Piedmont, California: A Digital Database by Thomas L. Holzer, Michael J. Bennett, Thomas E. Noce, Amy C. Padovani and John C. Tinsley, III. Accessed 9/14/2016 at http://pubs.usgs.gov/of/2002/of02-296/of02-296_2liq-sg.pdf.

[15] By contrast, areas surrounding the Estuary more closely are in a 73% liquefaction area.

[16] Association of Bay Area Government (ABAG) Resilience Program maps can be found at http://gis.abag.ca.gov/website/Hazards/?hlyr=cgsLiqZones.

an offsite permitted landfill. Base rock will be imported to the site; decomposed granite, gravel and landscape soil will be imported as required. Because more than 500 cubic yards of soil will be excavated, a grading permit would be required.

The Project is required to comply with the requirements of the City's **SCAs (GEO-1, GEO-2, and HYDRO-1)**. GEO-2 ensures implementation of recommendations from the Applicant's required Soils Report for appropriate grading practices and Project design.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of the Project would not substantially increase the severity of significant geologic impacts identified in the WOSP EIR, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures related to geology, soils, and geohazards, and none would be needed for the Project. SCAs related to required construction-related permits and submission of a soils report would apply, as identified in Attachment A **(SCA GEO-1: Construction- Related Permit(s), SCA GEO-2: Soils Report and SCA HYDRO-1: Erosion and Sedimentation Control Plan**).

---

6. Greenhouse Gases and Climate Change

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

- For a project involving a land use development, produce total emissions of more than 1,100 metric tons of COe annually AND more than 4.6 metric tons of CO2-eq per service population annually. The service population includes both the residents and the employees of the project. The project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold.
- Accordingly, the impact would be considered less than significant if the project's emissions are below EITHER of these thresholds.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR concluded that:

- **Greenhouse Gas Emissions**--Development facilitated by the Specific Plan would produce a level

of greenhouse gas emissions that is expected to exceed the project-level threshold of 1,100 annual metric tons of CO2e (MTCO2e), but would not exceed the project-level efficiency threshold of 4.6 MTCO2e of annual emissions per service population, nor would it exceed the Plan-level threshold of 6.6 MTCO2e annually per service population. Development facilitated by the proposed Specific Plan would thus not be expected to generate greenhouse gas emissions at levels that would result, in the aggregate, in significant or cumulatively considerable GHG emissions.

- **Conflict with Applicable GHG Plan**--The WOSP does not conflict with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions. Future development pursuant to the Plan would comply with the applicable requirements of the City's recently approved Energy and Climate Action Plan (ECAP). The WOSP would not be in conflict with current plans or policies the policies adopted for the purpose of reducing GHG emissions.
- **New Stationary Sources of GHG Emissions, Individual Development Projects**--New industrial and commercial growth facilitated by the Specific Plan could introduce new stationary sources of greenhouse gases. It is possible that on an individual basis, certain development projects envisioned and enabled under the Specific Plan could exceed, on an individual and project-by-project basis, the project-level GHG threshold. The WOSP EIR concluded that this impact could be significant and unavoidable.

Project Analysis and Conclusion

The Project would be required to comply with applicable SCAs that would reduce GHG emissions. These include but are not limited to **SCA UTIL-1**: **Construction and Demolition Waste Reduction and Recycling Plan** and **SCA UTIL-4**: **Compliance with Green Building Requirements**.

City of Oakland SCA-38 requires a GHG Reduction Plan for projects that produce total GHG emissions exceeding one or both of the City's established thresholds of significance, and that could potentially result in a significant impact. The City's 2007-2014 Housing Element EIR found that residential development projects of less than 172 units would generally not result in a significant climate change impact[17] and that no project-specific GHG analysis is required for projects that do not exceed that screening size. The Project's 19 residential units are 11% of the GHG emissions screening size of 172 units in the 2007-2014 Housing EIR. In addition, the 1,600 square feet of retail is 8% of the City's GHG emissions screening size of 19,000 square feet for retail land use. While the WOSP EIR concluded that GHG impacts would be significant and unavoidable, this was based on the possibility that future individual projects within the plan area would exceed the GHG thresholds. As discussed above, the Project is well below the GHG emissions screening size and would not have significant project-specific impacts related to GHG emissions. SCA-38 does not apply to the Project; no GHG Reduction Plan is required.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the WOSP

[17] City of Oakland 2007-2014 Housing Element Draft EIR, p. 3.5-34.

EIR, nor would it result in new significant impacts related to GHG and climate change that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures related to GHGs, and none are required for the Project.

---

7. 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;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

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;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the "Cortese List") and, as a result, would create a significant hazard to the public or the environment;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

f. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions; or

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

g. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

☑**Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR found that:

- **Transport, Use, Disposal, Release of Hazardous Materials**--Development pursuant to the

Specific Plan could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, with required implementation of the City's SCAs, as well as required compliance with hazardous materials laws, regulations, standards and oversight currently in place, the potential impacts of the Specific Plan related to the routine transport, use, or disposal of hazardous materials would be less than significant.

- **Government List**--The Plan area contains numerous sites which are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Continued occupancy and use or future development of these hazardous materials sites in accordance with the Specific Plan could create a significant hazard to the public or the environment. However, the EIR also noted that with required implementation of City of Oakland SCAs and required compliance with local, state and federal regulations for treatment, remediation or disposal of contaminated soil or groundwater, hazards to the public or the environment from hazardous materials sites would be less than significant.
- **School Exposure**--All schools within the Plan area are located within ¼-mile of an existing permitted hazardous materials use or an identified environmental case. The Specific Plan could facilitate the addition of new businesses that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school. However, the EIR concluded that, with required implementation of the City's SCAs, as well as required compliance with hazardous materials laws, regulations, standards and oversight currently in place, the potential impact of the Specific Plan related to emission and handling of hazardous materials near schools would be less than significant.

Project Analysis and Conclusion

Before the Applicant purchased the Project site in 2014, a number of subsurface site investigations were completed. The owner of the property initially commissioned these investigations in 1995 (thirteen years after its former occupant, Zero Waste, moved their operations out). More recent investigations were conducted in 2010 and 2014, as part of real estate due diligence by other perspective buyers. Residual chemicals of concern (COCs) above applicable Environmental Screening Levels (ESLs) were documented in soil and groundwater during these site investigations, with a potential source area identified as the former Zero Waste process/storage area in the east and northeast portion of the property[18].

In October 2014, the San Francisco Bay Regional Water Quality Control Board (Water Board) accepted the role of providing regulatory oversight for the property through the its Site Cleanup Program (SCP). The principal chemical of concern for soil contamination at the property is lead. Grid sampling across the site identified hotspots associated with the former Zero Waste processing and storage areas. Based on that discovery, focused excavations were conducted to remove the hotspots. Four impacted areas containing Total Threshold Limit Concentration (TTLC) lead levels up to 4,800 mg/kg were excavated to

[18] Letter from San Francisco Bay Regional Water Quality Control Board, dated April 7, 2017.

depths of up to 4 feet bgs to remove lead-impacted soil. However, since one of the possible sources for the lead in soil may also be imported fill, there is still a risk that additional lead-impacted soil may be found during redevelopment. The approved March 2016 Risk Management Plan contains soil management procedures and protocols to address any potential residual soil contamination.

Trenching conducted in August 2015 in the location of the former source area on the east side of the property removed a significant quantity of tetrachloroethylene (PCE)-impacted soil (300 gallons of impacted groundwater were also removed from the trench). 175 gallons of emulsified zero-valent iron product were introduced into the trench before backfill, in an attempt to create a suitable environment for natural bio-attenuation of any residual volatile organic compounds (VOCs) or total petroleum hydrocarbons (TPH) in the former source area[19].

Subsequent to remediation and monitoring measurements, the site was evaluated as a Low Threat Closure by the Water Board. The specific evaluation criteria of the Low Threat Closure Policy (LTCP) were analyzed in detail in a Soil and Groundwater Contamination Low Threat Closure Policy Evaluation report dated December 14, 2016. The site received a letter from the Water Board on April 7, 2017, stating that "no further action related to the pollutant releases at the subject site is required beyond implementation of an approved Risk Management Plan dated March 2016." In addition, deed restrictions have been placed on the Project site that prohibit groundwater extraction or use.

The approved Risk Management Plan (RMP) proposes that a sub-slab ventilation system (SSVS) and liquid boot vapor barrier be installed underneath each of the four proposed buildings as part of the planned construction, to minimize potential vapor intrusion risk resulting from residual VOCs in the groundwater and soil vapor. The building footprint and hardscape will cover the entire site, with the exception of raised beds for landscaping.

The Project will also need to implement other recommendations in the RMP, including but not limited to:

- Soil Management--Protocols for evaluation of soil during soil-disturbing work and notification of findings of contamination;
- Groundwater Management--Monitoring to meet the LTCP criteria for well closures; and
- Health and Safety Considerations--Preparation of a Site Health and Safety Plan to minimize the risk of construction workers being exposed to the known residual soil contamination.

In addition to compliance with the approved RMP, the Project would be required to follow all applicable laws and regulations related to transportation, use, and storage of all hazardous materials, as well as to safeguard workers and the general public. The Project would be required to comply with **SCA HAZ-1:**

[19] That work is described in "Soil and Groundwater Contamination Corrective Action Report and Preferential Pathway and Sensitive Receptor Study Related to Hydrocarbons, Volatile Organic Compounds (VOCs), and Lead Contaminated Site at 1450 32nd Street, Oakland, California" dated December 3, 2015. The report described the remediation of Pb in soil and hydrocarbons and VOCs in groundwater, and further delineated those impacted areas and described remedial actions taken. In addition, a preferential pathway survey was conducted to investigate the potential risk to downgradient sensitive receptors via contaminant migration of VOCs in groundwater.

Hazardous Materials Related to Construction, SCA HAZ-2: Site Contamination, and, to the extent that demolition of the structure at the Project site involves asbestos and/or lead paint, **SCA AIR-4: Asbestos in Structures**, which requires the applicant to comply with all applicable laws and regulations regarding demolition and renovation of asbestos containing materials. These SCAs require the removal of asbestos from structures and implementation of best management practices and health and safety plans for hazardous materials, respectively.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures related to hazards and hazardous materials, and none would be needed for the Project. SCAs related to asbestos removal; lead-based paint/coatings; PCBs; ESA reports and remediation; health and safety plans; and groundwater and soil contamination would apply to the Project, as identified in Attachment A at the end of the CEQA Checklist (**SCA HAZ-1: Hazardous Materials Related to Construction, SCA AIR-4: Asbestos in Structures, and SCA HAZ-2: Site Contamination**).

8. Hydrology and Water Quality

Would the project:

a. Violate any water quality standards or waste discharge requirements;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Result in substantial erosion or siltation on or off site that would affect the quality of receiving waters;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Create or contribute substantial runoff which would be an additional source of polluted runoff;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Otherwise substantially degrade water quality;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

f. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

g. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

h. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on or off site.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

i. Result in substantial flooding on or off site; Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows; or expose people or structures to a substantial risk of loss, injury, or death involving flooding.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR concluded that:

- **Water Quality Standards**--Future development in accordance with the Specific Plan would not be subject to waste discharge requirements and would not violate any water quality standards or waste discharge requirements. Compliance with existing General Plan policies, Municipal Code regulations, SCAs, and federal, State, and local regulations would reduce impacts related to waste discharges to a less than significant level.
- **Groundwater**--Future development or redevelopment of properties pursuant to or consistent with the Specific Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level . The impacts of the Specific Plan on groundwater recharge, the level of the groundwater table, and groundwater supplies would be less than significant.
- **Substantial Runoff**
    - Grading and excavations associated with future development could expose underlying soils to erosion or siltation, leading to downstream sedimentation in stormwater runoff. However, with required implementation of City of Oakland SCA: Stormwater Pollution Prevention Plan, impacts related to siltation would be reduced to less than significant levels.
    - New development could create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems, create or contribute substantial runoff which would be an additional source of polluted runoff from vehicle use, landscaping maintenance or industrial operations, or otherwise substantially degrade water quality. These potential impacts would be reduced to a level of less than significant through implementation of City SCAs for Post-Construction Stormwater Management Plan and Maintenance Agreement for Stormwater Treatment Measures.
- **Drainage Pattern**--The Specific Plan does not propose any changes to the existing drainage pattern within the Plan area. Drainage and stormwater runoff is conveyed via underground pipes and conduits to pumping plants, which discharge into the Bay. There are no surface water features or open drainage systems which would be altered, or where an increase in captured runoff may adversely affect the capacity of such features.
- **Flood Risk**--No portion of the Plan area is located within a 100-year or 500-year flood hazard area, as mapped on the National Flood Insurance Program Flood Insurance Rate Maps. Development in accordance with the Specific Plan would not place housing within a 100-year flood hazard area. The Plan area is not subject to risk from a seiche or landslides. However, the western portion of the Plan area, generally west of Mandela Parkway, is subject to tsunami inundation.

Project Analysis and Conclusion

Groundwater monitoring wells installed in January 2015 showed site groundwater at elevations between 9 and 10 feet above mean sea level (amsl) (approximately 5 to 6 feet bgs). The hydraulic gradient is relatively flat.[20] The proposed Project is excavating to approximately 2 feet below ground surface (bgs), removing the existing foundations, grubbing and grading and installing a subsurface ventilation system. With the groundwater at a depth of at least 5 feet bgs, no groundwater dewatering is expected to be necessary.[21]

The Project will create or replace a total of approximately 17,315 sf of impervious surface. Because the Project would result in greater than 10,000 sf of impervious area, it is a Regulated Project pursuant to National Pollutant Discharge Elimination System (NPDES), Provision C.3 of the Municipal Regional Stormwater Permit. The requirements for compliance are set forth in **SCAs HYDRO-1 and HYDRO-2,** which include preparation of a Stormwater Management Plan that includes site design, source control, and stormwater treatment measures.

Based on provisions of the City's NPDES Municipal Regional Stormwater Permit, the Project would be classified as Special Project C[22] and would qualify for 35 percent Low Impact Design treatment reduction credits, allowing up to 6,060 sf of impervious surface to be treated with non-LID treatment measures such as high flowrate tree well filters and mechanical vault-type media filters. The Project's drainage design (Figure 11) includes:

- 300 sf of pervious pavers, installed at both the front (Louise Street-facing) and rear (interior) sides of the six-unit building;
- 700 sf covered by flow-through planters (equal to 4% of total impervious surface area);
- 4,000 sf of decomposed granite (a pervious surface), which will comprise all non-landscaped, non-built surfaces except the asphalt parking area.

However, given the requirements in the RMP, additional non-LID stormwater treatment measures will likely be necessary.

Since the Project site is relatively flat and largely covered with impervious surfaces, and would remain so under the Project, the Project would not substantially alter drainage patterns or increase the flow of runoff from the site.

The Project site is located outside of the 100-year flood hazard zone,[23] and therefore flooding hazards are not expected to affect the Project.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, implementation of

[20] Risk Management Plan for the M-Squared Development Phase, Proposed Residential Development, 1450 32nd St., prepared by Stellar Environmental Solutions, Inc. March 2016.

[21] Ibid. p. 23.

[22] City of Oakland Stormwater Supplemental Form. Based on project parameters, the Project is designated as Special Project Category C, qualifying for 35% treatment using non-Low Impact Development (LID) measures.

[23] Federal Emergency Management Agency, 2009. Flood Insurance Rate Map, Alameda County, California and Incorporated Areas, Panel 67 of 725, Map Number **06001C0058G**, accessed 6-28-2017.

the Project would not substantially increase the severity of significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to hydrology and water quality that were not identified in the WOSP EIR. The WOSP EIR identified no mitigation measures related to hydrology and water quality, and none would be required for the Project. The Project would be required to implement SCAs related to stormwater, drainages and drainage patterns, and water quality, as identified in Attachment A **(SCA HYDRO-1: Erosion and Sedimentation Control Plan for Construction, and SCA HYDRO-2: NPDES C.3 Stormwater Requirements for Regulated Projects).**

9. Land Use, Plans, and Policies

Would the project:

a. Physically divide an established community

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Result in a fundamental conflict between adjacent or nearby land uses; or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR found that:

- **Divided Community** --The WOSP would not disrupt or divide the physical arrangement of the West Oakland community or any surrounding community, but rather would improve certain existing conditions that currently divide the community.
- **Land Use Conflicts**
  - The WOSP would not result in a fundamental conflict between adjacent or nearby land uses, but rather would result in a gradual improvement in compatibility between residential and other types of land uses.
  - The WOSP would not fundamentally conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect and result in a physical change in the environment. The impacts of the Specific Plan related to conflict with plans, policies and regulations would be less than significant.

- There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other adopted habitat conservation plan applicable to the Plan area.

Project Analysis and Conclusion

The Project site's General Plan land use classification is Mixed Housing Type Residential; its zoning is RM-3. The RM-3 zone is compatible with live/work development. As discussed in detail in Section V, the Project is consistent with the General Plan, the WOSP, the zoning designation, and the Planning Code requirements of Section 17. Per development standards for the RM-3 zone, the Applicant has requested a Conditional Use Permit to construct multiple dwelling facilities with 3 or more units. Therefore, the Project would be consistent with the land use plans and policies for the site.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, implementation of the Project would not substantially increase the severity of the significant impacts identified in that EIR, nor would it result in new significant impacts related to land uses, plans, or policies that were not identified in the WOSP EIR.

---

10. Noise

Would the project:

a. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts. During the hours of 7:00 p.m. to 7:00 a.m. on weekdays and 8:00 p.m. to 9:00 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard;

Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code Section 8.18.020) regarding persistent construction-related noise;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3-dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project);

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

f. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]); or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

g. During either project construction or project operation expose persons to or generate ground-borne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR gathered the results from several noise studies conducted over the past two decades in West Oakland. Of most relevance to the 1450 32nd Street Project was the finding that in areas (such as the proposed Project) away from arterials, freeways, and BART, noise levels are generally less than 65 dBA CNEL.

The WOSP EIR concluded that:

- **Construction Noise**--Construction activities related to the Specific Plan, including pile drilling and other extreme noise-generating construction activities, would temporarily increase noise levels in the vicinity of individual project sites. With implementation of applicable City SCAs for Construction Days/Hours, Noise Control, and Extreme Construction Noise, construction noise would not violate the City's Noise Ordinance or its nuisance standards regarding persistent construction-related noise, and construction noise impacts would be less than significant.
- **Traffic Noise --**New development pursuant to the Specific Plan would not generate traffic noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the Plan.
- **Construction Vibration--**Construction activities could generate excessive ground-borne vibration during the construction period. With required implementation of the City's SCA related to vibration, construction vibration impacts would be less than significant.

Project Analysis and Conclusion

Noise Exposure

Traffic noise is of concern in areas where sensitive noise receptors, such as residential units, are adjacent to high-traffic roadways. The Noise Element of the City's General Plan describes ambient noise levels less than 60 dB CNEL as "Normally Acceptable".

Based on calculations presented in the WOSP EIR as factored for distance to the Project site, the Project site is exposed to ambient traffic noise of between 63 to 64 dBA CNEL. These estimated ambient noise levels are below the City's 65 dBA CNEL "Normally Unacceptable" level for multi-family residential use, and are considered "Conditionally Acceptable". These noise levels are also within the State's Conditionally Acceptable range of 60-70 dBA for multi-family residential uses.

The Project would be constructed over approximately 18 months and would consist of demolition of one of the existing warehouses, excavation and grading for new foundation construction, rehabilitation of the live/work space, and construction of the buildings and finishing interiors. There is nothing unique or peculiar about the Project's construction activities that would substantially increase the level of significance of construction noise impacts over those identified in the WOSP EIR, or result in new significant construction noise impacts not previously identified. The Project does not propose to use pile-driving. In addition, the Project would be required to implement **SCA NOI-1: Construction Days/Hours** to limit the days and hours of construction; **SCA NOI-2: Construction Noise,** and **SCA NOI-3: Extreme Construction Noise** to ensure the application of measures to reduce noise impacts and extreme construction noise.

During operation of the Project, noise from increased residential and commercial traffic, including truck deliveries, would be generated. However, there is nothing unique or peculiar about the Project's traffic that would substantially increase the severity of significant traffic noise impacts identified in the WOSP EIR or result in new significant traffic impacts. The Project would be required to implement **SCA NOI-5: Operational Noise**, which requires all operational noise to comply with the performance standards of Chapter 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. With implementation of **SCA NOI-5**, the Project would not violate the City of Oakland operational noise standards and noise generated by mechanical equipment and delivery trucks at the site would be less than significant, consistent with the finding in the WOSP EIR.

Implementation of the City's SCAs would lessen the impacts of construction period noise, minimize potential adverse vibration effects from Project-related construction activities, require compliance with City of Oakland operational noise standards including for noise generated by the HVAC systems and delivery trucks, and require the incorporation of noise reduction measures into the building's design.

With the implementation of the required SCAs included in Attachment A **(SCA NOI-1: Construction Days/Hours, SCA NOI-2: Construction Noise, SCA NOI-3: Extreme Construction Noise, SCA NOI-4: Exposure to Community Noise, SCA NOI-5: Operational Noise,** , the Project would not result in significant effects related to noise and vibration.

Based on an examination of the analysis, findings, and conclusions of the WOSP EIR, the Project would not substantially increase the severity of significant noise impacts identified in the WOSP EIR, nor would it result in new significant impacts related to noise that were not identified in the WOSP EIR. The Project would be required to implement SCAs to reduce construction noise and vibration, achieve interior noise standards, and require mechanical equipment to meet applicable noise performance standards.

11. Population and Housing

Would the project:

a. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR concluded that:

- The Specific Plan build-out projections are consistent with ABAG projections of household and employment growth. Potential induced growth, if any, due to infrastructure improvements, enhanced development potential on adjacent land, or increased economic activity would occur as already contemplated in and consistent with adopted plans and the environmental documents prepared for those plans. Therefore, the growth facilitated or induced by the Specific Plan would not represent growth for which adequate planning has not occurred, and the growth inducement impacts of the Specific Plan would be less than significant.

- The potential loss of a small number of housing units and associated displacement of people as a result of development facilitated by the Specific Plan would be offset by the large number of new units proposed by the Specific Plan, by new units as anticipated pursuant to the 2007-2014 Housing Element, and by housing growth in Oakland. The impacts of the Specific Plan related to the displacement of housing or people would be less than significant.

Project Analysis and Conclusion

The Project would rehabilitate an existing warehouse and convert it to 10 live/work units, construct one residential unit above the existing commercial structure, and construct eight new residential units in two new buildings. Therefore, the Project is proposing a net increase of 19 housing units, accommodating approximately 37 people[24]. Construction of the Project would employ 5 to 20 construction workers per

[24] The City's Housing Element of the General Plan assumes approximately 1.87 residents per dwelling unit. Jobs are calculated using a standard generation rate of 500 square feet per employee. In the Project case, this would most likely overestimate the number of residents, because live/work spaces have a lower number of residents per unit on average.

day on a temporary basis. Approximately 4-5 workers would be permanently employed within the approximately 1,600 square feet of ground-floor retail space, and the 10 live/work units would also accommodate work space opportunities for the new residents. This small number of new units, new residents and temporary and permanent workers would have less than significant impacts on population growth or housing supply and demand.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, the Project would not substantially increase the severity of any significant impacts related to populations and housing, nor would it result in new significant impacts related to population and housing that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures or SCAs related to population and housing, and none would be required for the Project.

12. Public Services, Parks, and Recreation Facilities

Would the project:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 following public services:

- Fire protection;
- Police protection;
- Schools; or
- Other public facilities

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP concluded that:

- **Fire Protection**--Development under the Specific Plan would result in an increase in Oakland Fire Department service calls and a commensurate incremental need for additional staffing, equipment and facilities to maintain the City's response time goals and staffing ratios. Until the timing, location, size and characteristics of any associated facilities expansion needs can be identified, the environmental impacts related to such new facilities would be too speculative for evaluation. If and when any proposal for expanded or new OFD facilities is identified, it may require its own environmental review under CEQA. With implementation of the City's SCAs, normal development review and permitting procedures, and building and fire code requirements, the impacts of the Specific Plan related to fire protection would be less than significant.
- **Police Protection**-- Development under the Specific Plan would result in an increase in OPD service calls and a commensurate incremental need for additional staffing, equipment and facilities to maintain the City's response time goals and staffing ratios. Until the timing, location, size and characteristics of any associated facilities expansion needs can be identified, the environmental impacts would be too speculative for evaluation. If and when any proposal for expanded or new OPD facilities is identified, it may require its own environmental review under CEQA. The Specific Plan may reduce crime by incorporating crime prevention through

environmental design principles and up-to-date security features and technology in new development, and through economic growth and revitalization, and increased employment and personal income. The impacts of the Specific Plan related to police protection would be less than significant.

- **Schools**-- Development in accordance with the Specific Plan would generate additional students attending the Oakland Unified School District (OUSD) through 2035 or longer. The OUSD collects school impact fees from residential and non-residential development. Under California Government Code Sections 65995, 65996(a) and 65996(b), payment of these fees is deemed to be full and complete mitigation for additional students resulting from new development. Therefore, the impact of the Specific Plan related to schools would be less than significant.
- **Parks and Recreation**-- Development under the Specific Plan would generate a need for additional parkland, adding to the existing deficiency of parkland acreage, and would increase the use of existing parks and recreational facilities. No new public parks or recreational facilities are proposed as part of the Specific Plan. The increased demand would occur incrementally over the 25-year timeframe of the Specific Plan. Parks and recreational facilities may be required as part of new development projects and on-site useable open space or recreational facilities in new residential developments may offset some of the need. Parkland, recreational facilities and recreational trail links are proposed within and adjacent to the Plan area as part of the planned Gateway Park. The Specific Plan would not be expected to increase the use of existing parks and recreational facilities such that substantial physical deterioration of such facilities may occur or be accelerated. Therefore, the parks and recreation impacts of the updated Specific Plan would be less than significant.

Project Analysis and Conclusion

The Project would construct 19 residential units, housing approximately 37 people, and add approximately 1,600 square feet of retail space. The Project's minor increases in demand for public services are accounted for and consistent with the analysis in the WOSP EIR. Impacts would be less than significant.

The Project would likely result in only a minimal increase in student enrollment at local schools. Over half of the residences proposed are live/work units, which are less likely to contain school-age children. Impacts would be less than significant. Pursuant to Senate Bill 50, the Project developer would be required to pay school impact fees, which are established to offset potential impacts from new development on school facilities. Payment of these impact fees is deemed full and complete mitigation.

The Project could also cause a minor increase in demand for police and fire protection services; however, as described in the WOSP EIR, these impacts would be less than significant.

The Project would provide approximately 4,220 square feet of usable open space, which is above the required 765 square feet of usable open space pursuant to Planning Code Section 17.17.050 (85 square feet per regular dwelling unit, excluding live/work units). In addition, Poplar playground is a block away from the Project site and provides outdoor recreational opportunities.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, implementation of the Project would not substantially increase the severity of the significant impacts identified in the WOSP EIR, nor would it result in new significant impacts related to the provision of public services or park and recreational facilities that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures or SCAs related to public services or park and recreational facilities, and none would be required for the Project.

13. Transportation and Circulation

Would the project:

a. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle and pedestrian facilities (except for automobile level of service or other measures of vehicle delay);

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Cause substantial additional vehicle miles traveled (per capita, per service population, or other appropriate efficiency measure); or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

The WOSP EIR concluded that:

- **Intersection Operations--**Significant unavoidable impacts from the addition of Plan traffic would occur at two signalized intersections in the Plan Area: San Pablo and 40th Street, and Hollis and 40th Street. These impacts were found to occur under Existing Plus Plan Conditions and under Year 2035 Cumulative Plus Plan Conditions. Mitigation measures were proposed that would be expected to reduce the impacts to less than significant; however, because both intersections are located in Emeryville, outside of the City of Oakland's jurisdiction, the improvements could not be assured to be completed.
- **Travel Times for AC Transit—**The Specific Plan would increase travel times for AC Transit buses along West Grand Avenue. This impact would be less than significant.
- **Traffic Safety—**The Specific Plan would not cause significant impacts to the safety of other roadway users, nor would it directly or indirectly result in permanent substantial decrease in pedestrian or bus rider safety.

- **Conflict with City Policies--**The Specific Plan would not fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment (less than significant impact).
- **Construction Period Impacts--** The Specific Plan would result in a substantial, though temporary adverse effect on the circulation system during construction (less than significant impact).

Project Analysis and Conclusion

An estimate of vehicle trips that would be generated for the residential, live/work, and commercial uses of the Project has been developed (Table 4). Because the Project would not generate 50 new peak hour vehicle trips, its impacts on transportation and circulation would be considered less than significant and a Transportation Impact Assessment is not required, per City's Transportation Impact Review Guidelines.[25]

Table 4. Automobile Trip Generation Summary

LAND USE UNITS[1]		ITE CODE	DAILY	AM PEAK HOUR			PM PEAK HOUR		
				In	Out	Total	In	Out	Total
Live/Work (Residential)	10 DU	220[3]	67	1	5	6	5	2	7
Live/Work (Office)	3.4 KSF[2]	710[4]	37	5	1	6	1	5	6
Townhouses	2 DU	230[5]	12	1	2	3	2	1	3
Apartments	7 DU	220[3]	47	1	3	4	3	2	5
Subtotal			163	8	11	19	11	10	21
Live/Work Internalization[6]			-14	-2	-2	-4	-1	-1	-2
Non-Auto Reduction (-23.1%)[7]			-34	-1	-2	-3	-2	-2	-4
Net New Project Trips			**115**	**5**	**7**	**12**	**8**	**7**	**15**

Notes:
1. DU = Dwelling Units; KSF = 1,000 square-feet.
2. Assumes that 40-percent of each live/work unit would be allocated to office uses
3. ITE *Trip Generation Manual* (9th Edition) land use category 220 (Apartment):
   Daily: T = 6.65$*X$
   AM Peak Hour: T = 0.51$*X$ (20% in, 80% out)
   PM Peak Hour: T = 0.62$*X$ (65% in, 35% out)
   Where T=$Trips\ Generated$ and X=$Number\ of\ Units$
4. ITE Trip Generation Manual (9th Edition) land use category 710 (General Office Building):
   Daily: T = 11.03$*X$

[25] City of Oakland Transportation Impact Review Guidelines, April 14, 2017.

AM Peak Hour: T = 1.56$*X$ (88% in, 12% out)
PM Peak Hour: T = 1.49$*X$ (17% in, 83% out)
Where T=$Trips\ Generated$ and X=$Number\ of\ Units$

5. ITE *Trip Generation Manual* (9th Edition) land use category 230 (Residential Condominium/Townhouse):
Daily: T = 5.81$*X$
AM Peak Hour: (T)= 0.80$*Ln(X)$+0.26 (17% in, 83% out)
PM Peak Hour: (T)= 0.82$*Ln(X)$+0.32 (67% in, 33% out)
Where T=$Trips\ Generated$ and X=$Number\ of\ Units$

6. Adjustment of -20% (daily), -44% (AM), and -24% (PM) assumed to account for 50% internalization of home-based work trips. Per the Alameda County Transportation Commission Countywide Travel Demand Model, home-based work trips comprise 20% of the daily trips, 44% of the AM peak period trips and 24% of the PM peak period trips for multifamily dwelling units.

7. Adjustment of -23.1% assumed based on the City of Oakland's *Transportation Impact Review Guidelines* data for development in an urban environment more than 1.0 mile from a BART Station.

Source: Fehr & Peers, 2017.

Vehicle Miles Traveled

On April 14, 2017, the City released revised Transportation Impact Review Guidelines (Guidelines) to guide the analysis of transportation impacts associated with land use development projects[26]. The Guidelines ensure that potentially significant impacts are studied according to the City's thresholds of significance under CEQA. The Guidelines align with guidance from the Governor's Office of Planning and Research and the City's approach to transportation impact analysis with adopted plans and polices related to transportation, which promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. This section describes the potential impacts of the proposed Project on the transportation system.

Estimating Vehicle Miles Traveled

Neighborhoods within Oakland are expressed geographically in transportation analysis zones (TAZs). The Metropolitan Transportation Commission (MTC) Travel Model includes 116 TAZs within Oakland that vary in size from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower density areas in the hills. TAZs are used in transportation planning models for transportation analysis and other planning purposes.

The MTC Travel Model is a model that assigns all predicted trips within, across, to, or from the nine-county San Francisco Bay Area onto the roadway network and the transit system, by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus, rail) for a particular scenario.

The MTC Travel Model estimates travel behavior based on the following inputs:

- Socioeconomic data developed by the Association of Bay Area Governments (ABAG).
- Population data created using 2000 US Census and modified using the open source PopSyn software.
- Zonal accessibility measurements for destinations of interest.
- Travel characteristics and automobile ownership rates derived from the 2000 Bay Area Travel Survey.

[26] City of Oakland Transportation Impact Review Guidelines, April 14, 2017.

- Observed vehicle counts and transit boardings.

The daily vehicle miles traveled (VMT) output from the MTC Travel Model for residential and office uses comes from a tour-based analysis. The tour-based analysis examines the entire chain of trips over the course of a day, not just trips to and from the project site. In this way, all of the VMT for an individual resident or employee is included; not just trips into and out of the person's home or workplace.

Based on the MTC Travel Model, the regional average daily VMT per capita is 15.0 miles at year 2020 conditions and 13.8 miles at year 2040 conditions; the regional average daily VMT per worker is 21.8 miles at year 2020 conditions and 20.3 miles at year 2040 conditions.

Thresholds of Significance for Vehicle Miles Traveled

The following are the City's thresholds of significance related to substantial additional VMT:

- For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent.
- For office projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per employee minus 15 percent.
- For retail projects, a project would cause substantial additional VMT if it results a net increase in total VMT.

Screening Criteria

VMT impacts would be less than significant for a project if any one of the identified screening criteria are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day.
2. Low-VMT Areas: The project meets map-based screening criteria by being located in an area that exhibits below threshold VMT, or 15 percent or more below the regional average.
3. Near Transit Stations: The project is located in a Transit Priority Area or within a ½ mile of a Major Transit Corridor[27] or Stop[28], and satisfies the following:
   a. Has a Floor Area Ratio (FAR) of more than 0.75.
   b. Does not include more parking for use by residents, customers, or employees of the project than other typical nearby uses, or more than required by the City (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site).
   c. Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the MTC).

[27] "High-quality transit corridor" means an existing corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Governor's Office of Planning and Research. https://www.opr.ca.gov/docs/Revised_DRAFT_Appendix_M_043012.pdf

[28] "Major transit stop" is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Analysis

1. **Small Project:** The Project does not satisfy this criterion because it would generate an average of 115 trips per day (see Table 3), more than the screening size of 100 total vehicle trips per day.
2. **Low-VMT Area:** Based on a map of VMTs by Transit Area Zones (TAZ) prepared by the Metropolitan Transportation Commission, the Project is located in TAZ 988, which has a VMT per capita of 9.91. This estimated VMT is 34% below the regional average VMT of 15.0, based on MTC/ABAG modeling (See Figure 14). However, because the Project constructs live/work units, its location is also evaluated based on the Per Worker VMT for the Project TAZ, which is 25.74 VMTs per worker. This ratio is 18% above the regional average of 21.8 VMTs per worker. Therefore, the Project does not satisfy criterion #2 because it is located in a TAZ whose VMT are above the regional average for VMT per worker.
3. **Near Transit**: The Project satisfies criterion #3:
    a. It is within ½ mile of San Pablo Avenue and 32nd St, which meets the criteria for a "high quality transit corridor"[29], and
        i. The Project's floor area ratio is greater than .75 (it is 0.93, including live/work units),
        ii. The Project provides parking spaces equal to the number required by the City (nine)[30]
        iii. The Project is consistent with Plan Bay Area, the Bay Area's Sustainable Communities Strategy. Pursuant to the West Oakland Specific Plan, it is identified by the Association of Bay Area Governments as a Planned Priority Development Area.[31]

Based on the application of the City's thresholds of significance for transportation impacts demonstrating that a further VMT analysis is not required, the Project would not cause significant traffic impacts, nor would it result in new significant traffic impacts related to transportation and circulation that were not identified in the WOSP EIR. The Project would be required to implement SCAs related to city review and approval of all improvements proposed in the public right-of-way, and construction traffic and parking management, as identified in Attachment A (SCA TRANS-1: Construction Activity in the Public Right-of-Way).

---

[29] The Project is less than ½ mile from a bus stop at San Pablo and 32nd St.This stop is serviced by the 72 and 72M routes. Each route operates at a half-hour frequency during commute times, but their routes are staggered by 15 minutes, thereby providing 15-minute bus service to riders. The routes are identical for the first 10+ miles from the San Pablo/32nd St. These circumstances qualify the Project as being "within ½ mile of an existing…high quality transit corridor", as required by the City's Transportation Impact Review Guidelines, dated April 14, 2017.

[30] An earlier design of the Project included 13 parking spaces. Applicant will redesign the project to reduce this number to nine (9), thereby conforming the Project to this criterion that eliminates the need for additional VMT analysis.

[31] Bay Area Plan Priority Development Area Showcase. Available at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed August 1, 2017.

14. Utilities and Service Systems

Would the project:

a. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

b. Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

d. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

e. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

f. Violate applicable federal, state, and local statutes and regulations related to solid waste:

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

g. Violate applicable federal, state and local statutes and regulations relating to energy standards; or

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

h. Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

☑ **Of Equal or Less Severity Than Previously Identified in WOSP EIR**

WOSP EIR

- **Wastewater--**The WOSP EIR noted that City of Oakland sewer system pipes throughout West Oakland are in poor condition. Many laterals are "plugged" or "abandoned." The WOSP EIR concluded that, with the City's sub-basin allocation system, construction of needed sewer system improvements pursuant to City **SCA: Stormwater and Sewer**, and payment of improvement and hookup fees, the wastewater collection and treatment system would have adequate capacity to serve future development in accordance with the Specific Plan. With City SCAs related to construction impacts, the construction period impacts of needed sewer improvements would remain less than significant. Therefore, the wastewater service impacts of the Specific Plan would be less than significant.

- **Stormwater--**The WOSP EIR noted that the City of Oakland Storm Drainage Master Plan estimates that 30% of the existing storm drainage conduits and all of the storm drainage structures within West Oakland are in need of rehabilitation. The Master Plan also indicates that system capacity upgrades are also needed throughout West Oakland, especially within the commercial and industrial area corresponding to the West Grand/Mandela and 3rd Street Opportunity Areas.

  The WOSP EIR concluded that future development in accordance with the Specific Plan would consist of redevelopment of previously developed properties, so there would be limited change in impervious surface area and stormwater runoff. Because development facilitated by the Specific Plan would not result in an increase in stormwater runoff and with required compliance of individual development projects with **SCAs HYDRO-1 and HYDRO-2: Stormwater Requirements,** and the Alameda Countywide Clean Water Program NPDES Permit, the stormwater drainage impacts of the Specific Plan would be less than significant.

- **Water Supply--**The WOSP EIR noted that the Water Supply Assessment (WSA) prepared by EBMUD for the Specific Plan documented sufficient water supplies to meet current water demand and future water demand through 2035, including the increased water demand associated with the Specific Plan, during normal, single dry, and multiple dry years. Therefore, the water service impacts of the Specific Plan would be less than significant.

- **Solid Waste--**The WOSP EIR concluded that the Altamont Landfill and Vasco Road Landfill have sufficient permitted capacity to accommodate the solid waste disposal needs of future development under the Specific Plan. The Specific Plan was found to not violate applicable federal, state, and local statutes and regulations related to solid waste. Therefore, the impacts of the Specific Plan related to solid waste and recycling would be less than significant.

  Implementation of SCA UTIL-1 & SCA UTIL-3, pertaining to waste reduction and recycling, would reduce waste through compliance with the City of Oakland's Recycling Space Allocation Ordinance (Oakland Municipal Code, Chapter 17.118).

- **Energy--**The WOSP EIR noted that Pacific Gas & Electric Company (PG&E) has indicated that

there is ample capacity to handle projected energy demand within its current system. Therefore, it concluded that development under the Specific Plan would not cause a violation of regulations relating to energy standards nor result in a determination by PG&E that it does not have adequate capacity to serve the Project, or result in construction or expansion of energy facilities, construction of which could cause significant environmental effects. The impacts of the Specific Plan related to energy service would be less than significant.

Developments would be required to comply with the standards of Title 24 of the California Code of Regulations. **SCA UTIL-4,** pertaining to compliance with the Green Building Ordinance (Chapter 18.02 of the Oakland Municipal Code), which requires construction projects to incorporate energy-conserving design measures.

Project Analysis and Conclusion

Since the WOSP EIR concluded that development pursuant to the WOSP would not impact wastewater treatment facilities, and because the Project is consistent with applicable density requirements, no significant impacts would occur. Water demand from operation of the Project would not prompt a need to expand water treatment facilities in order to meet Project water demands. Impacts would be less than significant.

With respect to solid waste and energy usage, the same conclusion applies, and no significant impacts would occur.

Based on an examination of the analysis, findings, and conclusions in the WOSP EIR, implementation of the Project would not substantially increase the severity of the significant impacts identified in those EIRs, nor would it result in new significant impacts related to the operation of utility services or facilities, including water supply, wastewater treatment, stormwater capacity, solid waste disposal, and energy standards and use, that were not identified in the WOSP EIR. The WOSP EIR did not identify any mitigation measures related to utilities services or facilities, and none would be required for the Project. The Project will comply with **SCAs UTIL-1 through UTIL-6**.

ATTACHMENT A: CITY OF OAKLAND – STANDARD CONDITIONS OF APPROVAL

The City of Oakland's Uniformly Applied Development Standards, adopted as Standard Conditions of Approval (Standard Conditions of Approval, or SCAs), were originally adopted by the City in 2008 (Ordinance No. 12899 C.M.S.) pursuant to Public Resources Code section 21083.3) and have been incrementally updated over time. The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, Green Building Ordinance, historic/Landmark status, California Building Code, and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects.

These SCAs are incorporated into Projects as conditions of approval, regardless of the determination of a Project's environmental impacts. As applicable, the SCAs are adopted as requirements of an individual Project when it is approved by the City, and are designed to, and will, avoid or substantially reduce a Project's environmental effects.

In reviewing Project applications, the City determines which SCAs apply based upon the zoning district, community plan, and the type of permits/approvals required for the Project. Depending on the specific characteristics of the Project type and/or Project site, the City will determine which SCAs apply to a specific Project. Because these SCAs are mandatory City requirements imposed on a city-wide basis, environmental analyses assume that these SCAs will be imposed and implemented by the Project, and are not imposed as mitigation measures under CEQA.

All SCAs identified in the CEQA Analysis—which are consistent with the measures and conditions presented in the WOSP EIR—are included herein. To the extent that any SCA identified in the CEQA Analysis was inadvertently omitted, it is automatically incorporated herein by reference.

- The first column identifies the SCA applicable to that topic in the CEQA Analysis.
- The second column identifies the monitoring schedule or timing applicable to the Project.
- The third column names the party responsible for monitoring the required action for the Project.

In addition to the SCAs identified and discussed in the CEQA Analysis, other SCAs that are applicable to the Project are included herein.

The Project sponsor is responsible for compliance with any recommendations in approved technical reports and with all SCAs set forth herein at its sole cost and expense, unless otherwise expressly provided in a specific SCA, and subject to the review and approval of the City of Oakland. Overall monitoring and compliance with the SCAs will be the responsibility of the Planning and Zoning Division. Prior to the issuance of a demolition, grading, and/or construction permit, the Project sponsor shall pay

the applicable mitigation and monitoring fee to the City in accordance with the City's Master Fee Schedule.

Note that the SCAs included in this document are referred to using an abbreviation for the environmental topic area and are numbered sequentially for each topic area—i.e., SCA AIR-1, SCA AIR-2, etc. The SCA title and the SCA number that corresponds to the City's master SCA list are also provided in the Appendix listing—i.e., SCA AIR-1: Construction-Related Air Pollution (Dust and Equipment Emissions) (#19).

	Implementation/Monitoring		
Standard Conditions of Approval	**When Required**	**Initial Approval**	**Monitoring/ Inspection**
Aesthetics, Shadow and Wind			
SCA AES-1: Graffiti Control. (#16) a. During construction and operation of the Project, the Project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement. b. The Project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system. ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required).	Ongoing	N/A	Bureau of Building
SCA AES-2: Landscape Plan. (#17) *a. Landscape Plan Required* The Project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code.	Prior to approval of construction-related permit	Bureau of Planning	N/A
b. Landscape Installation	Prior to building	Bureau of	Bureau of

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
The Project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid.	permit final	Planning	Building
c. Landscape Maintenance All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	Ongoing	N/A	Bureau of Building
SCA AES-3: Lighting. (#18) Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.	Prior to building permit final	N/A	Bureau of Building
Air Quality			
SCA AIR-1: Construction-Related Air Pollution (Dust and Equipment Emissions). (#19) The Project applicant shall implement all of the following applicable air pollution control measures during construction of the Project: a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible. b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d. Pave all roadways, driveways, sidewalks, etc. within one month of site grading or as soon as feasible. In addition, building pads should be laid within one month of grading or as soon as feasible unless seeding or soil binders are used. e. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). f. Limit vehicle speeds on unpaved roads to 15 miles per hour. g. Idling times on all diesel-fueled commercial vehicles over	During construction	N/A	Bureau of Planning

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points. h. Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations"). i. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. j. Portable equipment shall be powered by electricity if available. If electricity is not available, propane or natural gas shall be used if feasible. Diesel engines shall only be used if electricity is not available and it is not feasible to use propane or natural gas.			
SCA AIR-2: Asbestos in Structures. (#23) The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.	Prior to approval of construction-related permit	Applicable regulatory agency with jurisdiction	Applicable regulatory agency with jurisdiction
Cultural Resources			
SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction. (#29) Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the Project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, Project design, costs, and other considerations. If avoidance is unnecessary or infeasible,	During construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the Project site while measures for the cultural resources are implemented. In the event of data recovery of archaeological resources, the Project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the Project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The Project applicant shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the Project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the Project applicant.			
SCA CUL-3: Human Remains – Discovery during Construction. (#31) Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the Project site during construction activities, all work shall immediately halt and the Project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the Project applicant.	During Construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Geology and Soils			
SCA GEO-1: Construction-Related Permit(s). (#33) The Project applicant shall obtain all required construction-related permits/approvals from the City. The Project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA GEO-2: Soils Report. (#34) The Project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and Project design. The Project applicant shall implement the recommendations contained in the approved report during Project design and construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
Hazards and Hazardous Materials			
SCA HAZ-1: Hazardous Materials Related to Construction. (#39) The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction; b. Avoid overtopping construction equipment fuel gas tanks; c. During routine maintenance of construction equipment, properly contain and remove grease and oils; d. Properly dispose of discarded containers of fuels and other chemicals; e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the Project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.	During construction	N/A	Bureau of Building
SCA HAZ-2: Hazardous Building Materials and Site Contamination. (#40)	Prior to Approval of demolition,	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
a. *Hazardous Building Materials Assessment* The project applicant shall submit a comprehensive assessment report to the Bureau of Building, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACMs), lead-based paint, polychlorinated biphenyls (PCBs), and any other building materials or stored materials classified as hazardous materials by State or federal law. If lead-based paint, ACMs, PCBs, or any other building materials or stored materials classified as hazardous materials are present, the project applicant shall submit specifications signed by a qualified environmental professional, for the stabilization and/or removal of the identified hazardous materials in accordance with all applicable laws and regulations. The project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.	grading, or building Permit		
b. *Environmental Site Assessment Required* The Project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the Project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The Project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.	Prior to approval of construction-related permit	Applicable regulatory agency with jurisdiction	Applicable regulatory agency with jurisdiction
c. Health and Safety Plan Required The Project applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect Project construction workers from risks associated with hazardous materials. The Project applicant shall implement the approved Plan.	Prior to Approval of Construction-Related Permit	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
d Best Management Practices (BMPs) Required for Contaminated Sites The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following: i. Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements. ii. Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.	During construction	N/A	Bureau of Building
Hydrology and Water Quality			
SCA HYDRO-1: Erosion and Sedimentation Control Plan for Construction. (#44) The project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. At a minimum, the project applicant shall provide filter materials deemed acceptable to the City at nearby catch basins to prevent any debris and dirt from flowing into the City's storm drain system and creeks.	During Construction	N/A	Bureau of Building
SCA HYDRO-2: <u>NPDES C.3 Stormwater Requirements for Regulated Projects</u> (#50) **a. *Post-Construction Stormwater Management Plan Required*** The project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following: i. Location and size of new and replaced impervious surface; ii. Directional surface flow of stormwater runoff; iii. Location of proposed on-site storm drain lines; iv. Site design measures to reduce the amount of impervious surface area; v. Source control measures to limit stormwater pollution; vi. Stormwater treatment measures to remove pollutants from	Prior to approval of construction-related permit	Bureau of Planning; Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
stormwater runoff, including the method used to hydraulically size the treatment measures; and vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff.			
Maintenance Agreement Required The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following: i. The project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense.	Prior to building permit final	Bureau of Building	Bureau of Building
Noise			
SCA NOI-1: Construction Days/Hours. (#58) The Project applicant shall comply with the following restrictions concerning construction days and hours: a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday. c. No construction is allowed on Sunday or federal holidays. Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of	During Construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The Project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the Project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.			
SCA NOI-2: Construction Noise. (#59) The Project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following: a. Equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible. b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. c. Applicant shall use temporary power poles instead of generators where feasible. d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction. e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.	During Construction	N/A	Bureau of Building
SCA NOI-3: Extreme Construction Noise. (#60) *a. Construction Noise Management Plan Required* Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the Project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-	Prior to Approval	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The Project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. Based on the potential noise impacts from construction equipment to nearby sensitive receptors, the following draft site-specific noise attenuation measures are additionally recommended for inclusion in the Construction Noise Management Plan: • Temporary noise barriers will be placed between the proposed construction activities and nearby receptors. The noise barriers may be constructed from plywood and installed on top of a portable concrete K-Rail system to be able to move and/or adjust the wall location during construction activities. A sound blanket system hung on scaffolding, or other noise reduction materials that result in an equivalent or greater noise reduction than plywood, may also be used. Due to the proximity of the commercial and apartment buildings located at the northern and southern borders of Project site, respectively, the use of Sound Transmission Class (STC) rated materials, or other materials that could similarly provide high levels of noise reduction above what plywood or sound blankets alone could provide, should be incorporated into the design of the noise barriers installed at these borders. An STC rating roughly equals the decibel reduction in noise volume that a wall, window, or door can provide. Therefore, using STC-rated materials could substantially increase the level of noise reduction provided by the barrier. The composition, location, height, and width of the barriers during different phases of construction will be determined by a qualified acoustical consultant and incorporated into the Construction Noise Management Plan for the Project. • Best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts,			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
engine enclosures and acoustically-attenuating shields or shrouds) will be used for Project equipment and trucks during construction wherever feasible. For example, exhaust mufflers on pneumatic tools can lower noise levels by up to about 10 dBA and external jackets can lower noise levels by up to about 5 dBA. • Noise control blankets will be utilized on the building structure as the building is erected to reduce noise emission from the site. The use of noise control blankets will particularly be targeted to cover the levels of the building that have line of sight with the windows of adjacent receptors; • Construction equipment will be positioned as far away from noise-sensitive receptors as possible. The Project site is surrounded by hard surfaces, and therefore, for every doubling of the distance between a given receptor and construction equipment, noise will be reduced by approximately 6 dBA. *b. Public Notification Required* The Project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the Project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.			
SCA NOI-4: Exposure to Community Noise. (#63) The Project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following: a. 45 dBA: Residential activities, civic activities, hotels. b. 50 dBA: Administrative offices; group assembly activities. c. 55 dBA: Commercial activities. d. 65 dBA: Industrial activities.	Prior to Approval of Construction-Related Permit	Bureau of Planning	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
SCA NOI-5: Operational Noise. (#64) Noise levels from the Project site after completion of the Project (i.e., during Project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.	Ongoing	N/A	Bureau of Building
Transportation /Traffic			
SCA TRANS-1: Construction Activity in the Public Right-of-Way. (#68) *Obstruction Permit Required* The Project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets and sidewalks.	Prior to Approval of Construction Related Permit	Bureau of Building	Bureau of Building
Traffic Control Plan Required In the event of obstructions to vehicle or bicycle travel lanes, the Project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The Project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian detours, including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Project applicant shall implement the approved Plan during construction.	Prior to Approval of Construction Related Permit	Public Works Department, Transportation Services Division	Bureau of Building
Repair City Streets The Project applicant shall repair any damage to the public right-of way, including streets and sidewalks caused by Project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.	Prior to Building Permit Final	N/A	Bureau of Building
SCA TRANS-2: Bicycle Parking. (#69) The Project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The Project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
Utilities and Service Systems			
SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling. (#74) The Project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and	Prior to Approval of Construction-Related Permit	Public Works Department, Environmental Services Division	Public Works Department, Environmental Services Division

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the Project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.			
SCA UTIL-2: Underground Utilities. (#75) The Project applicant shall place underground all new utilities serving the Project and under the control of the Project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the Project's street frontage and from the Project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During Construction	N/A	Bureau of Building
SCA UTIL-3: Recycling Collection and Storage Space. (#76) The Project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The Project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential Projects, at least two cubic feet of storage and collection space per residential unit is required, with a minimum of ten cubic feet. For nonresidential Projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten cubic feet.	Prior to Approval of Construction-Related Permit	Bureau of Planning	Bureau of Building
SCA UTIL-4: Green Building Requirements. (#77) *a. Compliance with Green Building Requirements During Plan-Check* The Project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and approval with the application for a building permit: • Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards. • Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.	Prior to Approval of Construction-Related Permit	Bureau of Building	N/A

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
• Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. • Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below. • Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the Project complied with the requirements of the Green Building Ordinance. • Signed statement by the Green Building Certifier that the Project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit. • Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. Ii. The set of plans in subsection (i) shall demonstrate compliance with the following: • CALGreen mandatory measures. • All pre-requisites per the green building checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit. • A minimum of 23 points (3 Community; 6 IAQ/Health; 6 Resources; 8 Water) as defined by the Green Building Ordinance for Residential New Construction. • All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted. • The required green building point minimums in the appropriate credit categories.			
b. Compliance with Green Building Requirements During Construction The Project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the Project. The following information shall be submitted to the City for review and approval: i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit. ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the Project complies with the requirements of the Green Building Ordinance. iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.	During Construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
c. Compliance with Green Building Requirements After Construction Within sixty (60) days of the final inspection of the building permit for the Project, the Green Building Certifier shall submit the appropriate documentation to Build It Green and attain the minimum required certification/point level. Within one year of the final inspection of the building permit for the Project, the applicant shall submit to the Bureau of Planning the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.	After Project Completion as Specified	Bureau of Planning	Bureau of Building
SCA UTIL-5: Sanitary Sewer System. (#79) The Project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-Project and post-Project wastewater flow from the Project site. In the event that the Impact Analysis indicates that the net increase in Project wastewater flow exceeds City-Projected increases in wastewater flow in the sanitary sewer system, the Project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.	Prior to Approval of Construction-Related Permit	Public Works Department, Department of Engineering and Construction	N/A
SCA UTIL-6: Storm Drain System. (#80) The Project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the Project site shall be reduced by at least 25 percent compared to the pre-Project condition.	Prior to Approval of Construction-Related Permit	Bureau of Building	Bureau of Building

ATTACHMENT B: HEALTH RISK SCREENING: 1450 32ND STREET

1450 32nd St Project--TAC Screening Summary and Highway/Roadway Sources

Highway/High Volume Roadway 1000 ft Screening for 1450 32nd Street Project

Highways	Side of Road	Distance Measured	Distance Rounded Down	Cancer Risk	PM 2.5	Chronic Hazard Index	Acute Hazard Index
580	South	862	860	0.904764197	0.01105039	0.00115497	0.010219251
Adjustment based on OEHHA guidance				1.3744			

Roadways	Direction	AADT	Side of Road	Distance	Cancer Risk	PM 2.5
none with ADT counts > 10,000						

Summary 1000 ft Screening for 411 W. MacArthur Project, Stationary and Highway/Roadway Sources

	Cancer Risk	PM 2.5	Hazard Index
Sum of Highways/Roadways	**0.9**	**0.01**	**0.001**
Sum of Stationary Sources	**0.0**	**0.00**	**0.00**
Sum of all Screening Sources	**0.9**	**0.01**	**0.01**
Adjustment based on OEHHA guidance	1.3744		
Adjusted cancer risk	1.243507912		
BAAQMD Cumulative Source Threshold	100.0	0.80	10.00

NOTES:

Highway Screening data is from BAAQMD Highway Screening Tool (6ft), Alameda County 2011

Roadway Cancer Risk and PM 2.5 concentrations were generated using BAAQMD's Roadway Screening Analysis Calculator, Alameda County, dated 4/16/15

Hazard Index is not generally exceeded by roadway sources so is not reported in all methodologies or here.

Stationary Source Screening is details on the following pages.

W. MacArthur Roadway AADT is from the closest reported segment in the 2007-2014 Oakland Housing Element DEIR Appendix E-1

Webster St. AADT between 38th and 40th taken from Fehr & Peers Memorandum to City of Oakland Bicycle and Pedestrian Advisory Committee, June 7, 2013 available at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/agenda/oak039263.pdf

Interstate 580	
distance	1000
direction	S
PM2.5	0.01105
Risk	0.904764
Chron.HI	0.001155
Acute.HI	0.010219
height	6ft

Stationary Sources Within 1,000 feet of 1450 32nd Street Project

Data and Map from BAAQMD Stationary Source Screening Tool, Alameda County 2012

		Levels for the Calcs
Cancer,	Sum of Stationary Sources	0.0
Hazard,	Sum of Stationary Sources	0.004
PM25,	Sum of Stationary Sources	0.000

G11913	
Alameda_May_2012_schema:FID	911
Alameda_May_2012_schema:PlantNo	G11913
Alameda_May_2012_schema:Name	Clear Channel Outdoor
Alameda_May_2012_schema:Address	2857 Hannah Street
Alameda_May_2012_schema:City	Oakland
Alameda_May_2012_schema:UTM_East	562747.5
Alameda_May_2012_schema:UTM_North	4186411
Alameda_May_2012_schema:Cancer	na
Alameda_May_2012_schema:Hazard	na
Alameda_May_2012_schema:PM25	na

17439	
Alameda_May_2012_schema:FID	915
Alameda_May_2012_schema:PlantNo	17439
Alameda_May_2012_schema:Name	Clear Channel Outdoor
Alameda_May_2012_schema:Address	2865 HANNAH STREET
Alameda_May_2012_schema:City	Oakland
Alameda_May_2012_schema:UTM_East	562786
Alameda_May_2012_schema:UTM_North	4186291
Alameda_May_2012_schema:Cancer	0
Alameda_May_2012_schema:Hazard	0
Alameda_May_2012_schema:PM25	0

12239	
Alameda_May_2012_schema:FID	932
Alameda_May_2012_schema:PlantNo	12239
Alameda_May_2012_schema:Name	Carusso's Restoration
Alameda_May_2012_schema:Address	2914 POPLAR STREET
Alameda_May_2012_schema:City	Oakland
Alameda_May_2012_schema:UTM_East	562892.028
Alameda_May_2012_schema:UTM_North	4186314.941
Alameda_May_2012_schema:Cancer	0
Alameda_May_2012_schema:Hazard	0.004
Alameda_May_2012_schema:PM25	0

The red circle is 1000 feet. BAAQMD methodology requires screening of sources within 1000 feet of the Project. Several of the sources are incorrectly mapped. However, none of the sites labeled below are actually located farther than 1000 ft away from the Project site.

ATTACHMENT C: RISK MANAGEMENT PLAN & NO FURTHER ACTION LETTER

RISK MANAGEMENT PLAN FOR THE M^2 DEVELOPMENT PHASE

PROPOSED RESIDENTIAL DEVELOPMENT
1450 32ND STREET, OAKLAND, CALIFORNIA

Prepared for

M-SQUARED DEVELOPMENT, LLC
BERKELEY, CALIFORNIA

Prepared by

STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET, SUITE 201
BERKELEY, CALIFORNIA 94710

March 2016

Project 2014-46

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET, SUITE 201·BERKELEY, CA 94710
TEL: (510)644-3123 · FAX: (510)644-3859
GEOSCIENCE & ENGINEERING CONSULTING

March 25, 2016

Mr. Randy Lee, P.E.
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Risk Management Plan for the 1450 32nd Street, Oakland, California for M-Squared Development, LLC Proposed Residential Development, Oakland, CA.

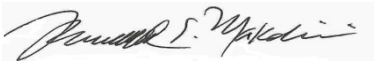
Dear Mr. Lee:

This Risk Management Plan (RMP) is being submitted by Stellar Environmental Solutions, Inc. (Stellar Environmental) on behalf of the property owner and developer – M-Squared Developers, LLC for the proposed development at 1450 32nd Street, Oakland, California. The objectives of this RMP are to:

1) Discuss the existing site conditions, project development plans and general schedule ;
2) Summarize the environmental site investigation data and potential pathways of exposure associated with the soil, soil gas and groundwater based on the site development plan;
3) Provide data supporting the planned direct loading of soil profiled for offsite disposal;
4) Describe the site vapor intrusion assessment and sub-slab venting system installation to mitigate vapor intrusion risk;
5) Identify involved parties and responsibilities, record keeping and reporting.

Please call the undersigned at (510) 644-3123 if you have any questions.

Sincerely,



Richard Makdisi, P.G.
Principal Geochemist and President.

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION AND BACKGROUND

Stellar Environmental Solutions, Inc. (Stellar Environmental) has been retained by M-Squared Development, LLC (M-Squared) to prepare this Risk Management Plan (RMP) and previous investigation summary that all relate to the proposed project residential development at 1450 32nd Street, Oakland, California. This RMP is designed to support the M-Squared redevelopment plans for the site and includes description of a sub-slab ventilation system (SSVS) that will be installed under the foundations of the proposed new buildings. The use of the RMP to serve as the mechanism to move the project forward to achieve the regulatory acceptance of the proposed development implementation was discussed with the Water Board in the meeting at the Water Board offices on February 16, 2016.

The rectangular-shaped Property is located on the north side of 32nd Street at the northwest corner of 32nd and Louise Streets in Oakland, California and contains approximately 21,546 ft^2 of land area. The Property is entirely paved with asphalt or concrete except where site buildings exist. The Property is currently unoccupied except for the use of an informal indoor baseball practice area in Building 1 and contains two adjoining single story warehouse buildings measuring a total of approximately 10,150 ft^2 in area on the western third of the site (Buildings 1 and 2). The yard area of the Property measures approximately 11,000 ft^2 and is entirely surfaced with asphalt and concrete. A single-story 2,100 ft^2 structure (Building 3) that was formerly used for office space is situated in the southeastern portion of the site.

Before the subject property was purchased by M-Squared in 2014, a number of subsurface site investigations were completed—initially commissioned in 1995 by the owner of the property 13 years after former occupant "Zero Waste" operations moved out and more recently in 2010 and 2014 by the real estate due diligence of other perspective buyers. Following the 2014 purchase of the property by M-Squared, Stellar Environmental was retained to complete the various follow on investigations and any remediation needed along with being a regulatory liaison with the Water Board, which accepted the role of providing regulatory oversight through the agreement between the Water Aboard and M-Squared under the Water Board's Site Cleanup Program (SCP) dated October 23, 2014. A meeting with the Water Board case officer assigned the project, Mr. Randy Lee, occurred in December 2014, following the submittal of the Stellar Environmental November 7, 2014 Workplan designed to complete a site investigation to fill perceived data gaps and identify the extent of contaminants of concern (COC).

The implementation of that November 2014 Workplan was summarized in the Stellar Environmental report "Contaminated Soil, Soil Gas and Groundwater Data Gap Investigation and Identification of Impediments to Site Closure related to the Site Development of 1450 32nd Street, Oakland, California" dated March 23, 2015. That study identified a suspect source area on the east side of the property for volatile organic compounds (VOCs) in groundwater as well as areas of shallow lead (Pb) contamination onsite and identified a preliminary site conceptual model and distribution of site contaminants in the soil, soil gas and groundwater as well as additional soil profile data.

Follow on corrective action work was subsequently completed by Stellar Environmental during the summer of 2015. That work is described in "Soil and Groundwater Contamination Corrective Action Report and Preferential Pathway and Sensitive Receptor Study Related to Hydrocarbons, Volatile Organic Compounds (VOCs), and Lead Contaminated Site at 1450 32nd Street, Oakland, California" dated December 3, 2015. That report described the remediation of Pb in soil and hydrocarbons and VOCs in groundwater and further delineated those impacted areas and described remedial actions taken. In addition, a preferential pathway survey was conducted to investigate the potential risk to downgradient sensitive receptors via contaminant migration of VOCs in groundwater.

At the February 16, 2016 meeting between M-Squared representatives, Richard and Matthew Millikan, Water Board case worker Mr. Randy Lee, and Stellar Environmental representatives, Mr. Richard Makdisi and Mr. Steve Bittman, results of the first quarter 2016 groundwater monitoring were presented and options for mitigating vapor intrusion risk from VOCs into proposed new building spaces was discussed. Mitigation of VOC vapors through installation of a SSVS in combination of sealing the building slabs with a "Liquid Boot" membrane emerged as the best solution to allow site development to move forward. In addition, creation of a RMP was agreed upon to set forth procedures to minimize risk to site workers and the environment during site redevelopment.

The specific objectives of this RMP is to described present the design specifications for the installation of the SSVS to be installed as part of the construction phase to mitigate against vapor intrusion risk resulting from the residual VOCs in the groundwater and associated soil vapor. Overlaying the SSVS an added protective layer of a VOC inhibiting membrane "Liquid Boot" will also be installed for added protection. All four of the proposed buildings will have the SSVS and Liquid Boot membrane. The RMP will also serve to guide the construction phase soil profiling, excavation oversight, direct soil loading and disposal procedures planned for based on the site investigation work completed to date.

Figure 1 shows the site location and Figure 2 shows the locations of historical site investigation bore and sample locations. Historical investigation analytical data summary tables are contained in Appendix A.

2.0 PROPOSED DEVELOPMENT AND RESIDUAL CONTAMINATION

Development plans for the site are to be submitted to the City of Oakland Planning Department as part of the development application. However, the City of Oakland will not review the planned development until they are provided some communication from the Water Board that the site appears to be appropriate for the residential development planned. Figure 3 shows the proposed development footprint and conceptual drawings of the proposed buildings.

SITE REDEVELOPMENT DESCRIPTION

The redevelopment planned for the Site consists of three residential building units and one commercial/residential building unit as shown in Figure 3. All of three units will be slab on grade construction (over the SSVS and VOC membrane barrier). The planned residential units consist of one 5-unit live-work warehouse unit; one building of three residential duplexes; two townhouses, and one building with commercial below and residential above. The maximum height is to be 30 feet in conformance with zoning. The driveway on the northeastern corner will lead into the paved area for 11 parking spaces. The building footprint and hardscape will cover the entire site with the exception of raised beds for landscaping. Some permeable paving surface will be used.

FACTORS IMPACTING THE FATE AND MOBILITY OF COCS

The following subsections describe factors that affect fate and mobility of the site COCs; chlorinated VOCs, and hydrocarbons in groundwater and soil gas and Pb in soil.

VOCs and Hydrocarbons in Groundwater and Soil Gas

Groundwater contamination by VOCs exceeding Environmental Screen Levels (ESLs), specifically PCE, has been documented at the project site as have fuel range hydrocarbons. Based on the data collected to date, site volatile COCs occur in shallow groundwater and soil-vapor. The highest concentrations of PCE in groundwater are located in the areas of wells MW-3, MW-5, and MW-6, with well MW-6 containing 430 µg/l PCE as January 2016. Groundwater dewatering is not expected to be necessary during the excavation or construction phases; however, the concentrations of VOCs in groundwater do present a vapor intrusion risk.

The two soil-gas collection sampling points described in the March 2015 Stellar Environmental investigation, SG-1 and SG-2, showed the contaminant PCE at concentrations of 950 µg/m^3 and 2,700 µg/m^3 respectively, exceeding its ESL of 210 µg/m^3 for soil gas screening levels for evaluation of potential residential vapor intrusion (Water Board, 2013, Table E-2). The exposure pathway of concern for this compound is that soil gas could migrate up through foundation slabs, into newly constructed residential air space.

Risk modeling is one way of evaluating the extent to which the soil-vapor VOC concentrations will decrease with upward migration and diffusion. A typical physical mitigation measure to directly inhibit or direct such vapor migration is the use of a vapor barrier beneath the foundation slab, designed specifically to be a barrier for VOC intrusion versus the usual vapor barriers used for general construction to inhibit water vapor penetration. Groundwater sampling results in the Stellar Environmental first quarter 2016 groundwater monitoring event detected PCE at concentrations above both residential and commercial ESLs and the Water Board's October 16, 2014 "Interim Framework for Assessment of Vapor Intrusion at Trichloroethene - Contaminated Sites in the San Francisco Bay Region" (Framework) criteria (Water Board, 2014).

Because no excavations are planned for the proposed new development other than for shallow footings and utility trenches, a SSVS to channel VOC laden soil-vapor through vents from beneath the slab to the roof of the proposed new buildings will be employed. This potential optional remedy is further described below.

Pb in Shallow Soil

The principal area of concern for soil contamination at the property is the metal Pb. Work conducted during the summer of 2015 included delineating the Pb impacted areas on site using historic borehole analytical data, and the additional shallow soil sampling. Four impacted areas onsite contained Total Threshold Limit Concentrations (TTLC) of Pb up to 4,800 mg/kg, and were excavated to depths of up to 4 feet below round surface (bgs) to remove the Pb impacted soil. All four of the excavations were sampled for confirmation purposes indicating no hazardous concentrations of Pb in soil remain in those areas. Every effort was made to accomplish a thorough removal of the Pb impacted soil from the property. However, since the likely sources for the Pb in the first place may be attributable to imported fill or auto exhaust from leaded fuel, both of which would have created a widespread impact, it must be assumed that some areas of the property may still be impacted. Therefore, the possibility that Pb impacted soil may remain onsite must be taken into account as part of any proposed construction involving soil excavation.

VAPOR INTRUSION MITIGATION

The groundwater concentration of PCE as reflected in four of the six the groundwater monitoring wells, MW-1, MW-3, MW-5 and MW-6, have shown concentrations of PCE above the Water

Board regulatory ESL for risk of vapor intrusion on residential properties. Two of the historical soil gas sample results also exceeded the soil gas ESLs. While the long term prospects of further attenuation of the VOCs in groundwater is promising given the source area removal and the bioremediation within that area, the mitigation of the vapor intrusion risk is best achieved through the implementation of a physical barrier to capture and passively vent any chlorinated VOCs vapor before they can penetrate the proposed beguiling foundations. The mitigation mechanism proposed here is the well-established combination of:

1. Installation of a sub slab venting system beneath the foundation slab of the four proposed building foundations. The specification of the Sub Slab Ventilation System (SSVS) is discussed in detail in Section 6.

2. Overlaying the SSVS and undelaying the foundation, a 20-mil-thick VI-20™ geomembrane and 60-mil-thick spray-applied LiquidBoot™) will be applied to mitigate any potential VOCs that are not captured and vented by the SSVS.

Based on the plans for as slab on grade construction and a groundwater depth of 10 feet or greater there is no concerns or need for contingency groundwater dewatering plans. Based on review of the available site characterization data, regulatory guidance materials, and planned land uses as summarized above, groundwater will remain undisturbed. The tentative plans call for the existing six groundwater m wells to be property decommissioned after demonstrating the steady state or reducing trend of VOC hydrochemistry before the planned construction in Y2017.

3.0 PHYSICAL SETTING

TOPOGRAPHY AND DRAINAGE

The site property has no discernible slope. Downspouts from building roofs direct rainwater to the ground surface then into the storm sewer beneath 32nd Street, where it ultimately discharges into the San Francisco Bay.

LOCAL GEOLOGY

Based on field observations recorded during the Stellar Environmental drilling activities in 2015 and review of the March 2010 and January 2014 conducted by TRC and SCHUTZE respectively, a consistent profile of the shallow site lithology is as follows: clay-rich material with some gravel fill and silty sand was observed from the surface to a depth of approximately 8 to 10 feet bgs. This material is underlain by moist, light brown-colored silt with intermittent brown to black sand layers to a depth of approximately 17 feet bgs. At depths between 17 feet bgs and 20 feet bgs site lithology becomes predominately clayey, with more gravelly layers in the clay encountered on the west side of the property. Only the one location, at BH-2, shows a more permeable base of clayey gravel (GC) at 20-foot base of the bore instead of the dominant silty clay (CL) in the other 19 bores that we drilled to a depth of 20 feet bgs.

LOCAL HYDROGEOLOGY

The January 2015 installed four groundwater monitoring wells initially showed site groundwater at elevations between 9 and 10 feet above mean sea level (amsl) (approximately 5 to 6 feet bgs). The hydraulic gradient is relatively flat. This groundwater well data and our first encountered water in the January 2015 investigation bores is relatively consistent with the 2010 and 2014 site investigations at the Property by TRC and SCHUTZE. Depth to first encountered groundwater in exploratory bores is found at a depth of approximately 15 to 17 feet bgs and subsequently is measured at between 5 to 7 feet bgs after equilibrating, indicating some confining pressure. Groundwater has been encountered at a shallower depth of about 5 feet bgs, which is likely a perched groundwater zone. A review of a GeoTracker-listed site approximately 1,700 feet northeast of the Property showed static groundwater observed between approximately 10 to 15 feet bgs with flow direction to the southwest. The hydro-geologic regime at the site is generally consistent with surrounding properties.

Groundwater elevations (amsl), for wells MW-1 through MW-4 in January 2015 ranged from 5.48 to 10.06 feet amsl with a general gradient of 0.01 feet/foot in the southwestern flow direction. In July 2015, the groundwater elevations ranged from 7.58 and 8.92 feet amsl with a general gradient of 0.01 feet/foot in the southwestern direction. On October 20, 2015 the six groundwater wells on site ranged from 7.03 and 8.50 feet amsl with a general gradient of 0.01 feet/foot in the southwestern direction. The most recent groundwater measurements recorded January 21, 2016 for the six groundwater wells on site ranged from 9.02 and 12.64 feet amsl with a general gradient to the east-southeast. This deviation from the southwest direction calculated from the three previous monitoring events may be due to uneven recharge in site wells during the heavy rains that occurred in January 2016, and is expected to be temporary.

4.0 REGULATORY CONSIDERATIONS AND MITIGATION OF RESIDUAL CHEMICALS OF CONCERN

REGULATORY CONSIDERATIONS AND CORRECTIVE ACTION OBJECTIVES

The Water Board has established Environmental Screening Levels (ESLs) for evaluating the likelihood of environmental impact. ESLs were developed as the lowest screening values for a wide range of common contaminants that might be indicative of site source origin and/or pose a significant risk to human health or the environment, assuming all possible exposure pathways. ESLs are conservative screening-level criteria for soil, soil gas, groundwater and indoor air media, designed to be generally protective of both drinking water resources and aquatic environments; they incorporate both environmental and human health risk considerations. ESLs are not cleanup criteria (i.e., health-based numerical values or disposal-based values). Rather, they are used as a preliminary guide in determining whether remediation and/or investigation may be warranted. Exceedance of ESLs suggests that additional investigation and/or remediation is warranted. However, because some environmental and human health concerns considered in determining ESLs may not be applicable where exposure routes are not complete, soil that exceeds ESLs does not necessarily pose a significant risk to human health or the environment. The ESLs have been updated periodically the lasts update being in February 2016.

Different ESLs are published for commercial/industrial vs. residential land use, for sites where groundwater is a potential drinking water resource vs. is not a likely drinking water resource, and for the type of receiving water body. The appropriate ESLs for the subject site are based on the following:

- In our professional opinion, the appropriate ESLs for the subject site are residential land use and groundwater is a potential significant drinking water resource. This is based on the fact that the although the property was most recently used as a commercial enterprise, the zoning status is residential and the planned use is residential with commercial (café) and is within the Zone A designation of the East Bay Plain Groundwater Basin beneficial Use Evaluation Report (Water Board, 1999).
- The receiving body for groundwater discharge is an estuary (San Francisco Bay).

The State of California has also promulgated drinking water standards (Maximum Contaminant Levels [MCLs]) for some of the site contaminants. Drinking water standards may also be utilized

by regulatory agencies to evaluate the potential risk associated with groundwater contamination. For the site contaminants, MCLs are generally the same as the ESLs (except that there is no MCL for gasoline and other hydrocarbon product ranges). Once regulatory ESLs or drinking water standards are exceeded, the need for and/or type of additional investigative and corrective action are driven by the potential risk associated with the contamination. Minimum regulatory criteria generally applied to fuel leak cases in groundwater include:

- The contaminant source has been removed, including reasonably accessible contaminated soils that pose a long-term impact to groundwater.
- The extent of residual contamination has been fully characterized to obtain sufficient lithologic and hydrogeologic understanding (generally referred to as a Site Conceptual Model).
- Groundwater wells have been installed and are monitored periodically to evaluate groundwater contaminant concentrations and hydrochemical trends.
- The stability of the contaminant plume has been evaluated to determine whether it is moving offsite, increasing or decreasing in concentration.
- A determination has been made as to whether the residual contamination poses an unacceptable risk to identified sensitive receptors.
- Regulatory case closure through the Water Board's Low Threat Closure Policy if the that criteria is met.

Exceeding ESLs may warrant additional actions, such as monitoring plume stability to demonstrate no significant risk to sensitive receptors in the case of sites where drinking water is not threatened.

The Water Board also adopted a Low Threat Closure Policy (LTCL) initiative to focus an evaluation of potential impacts for identified chemical of concern. The Low Threat Closure Policy (LTCP) evaluation was part of the December 2015 report submitted to the Water Board for this project. As concluded in the December 2015 report and subsequently discussed in the February 2016 meeting Stellar Environmental evaluated the site conditions against the VOC (and Total Petroleum Hydrocarbon (TPH) LTCP criteria. The site appears to be close to meeting the media and groundwater-specific LTCP criteria for case closure. Two additional monitoring events—one in April 2016 and one in July 2016—may be all that is needed to corroborate the stable of reducing trend of VOCs and TPH in the groundwater and provide the Water Board with the level of confidence that the dissolved phase attenuation of the COC concentrations will be amenable to meet the LTCP criteria. The conclusion is that the site appears to meet the LTCP with no apparent pathways of exposure to occur within the context of the planned development,

given the proposed vapor intrusion mitigation measures to be implemented during the development stage.

CONTAMINANTS OF CONCERN AND PROPOSED MITIGATION OF THEM

Residual Soil Contamination

The principal area of concern for soil contamination at the property is the metal Pb. The grid sampling across the site identified hotspots, particularly associated with the former Zero Waste processing and storage areas. Based on that discovery focused excavations was completed to remove the hotspots. Four impacted areas identified contained TTLC Pb concentrations up to 4,800 mg/kg, and were excavated to depths of up to 4 feet bgs to remove the Pb impacted soil. However, since one of the possible sources for the Pb in soil may also be imported fill; there is a risk that other Pb in soil elevated concentrations may be found during the excavation for development stage. To a lesser degree, potentially elevated (above the 100 mg/kg ESL) hydrocarbons also may found in the shallow soil.

Mitigation Measure

Section 5 of this report describes the soil management plan procedures and protocols to be followed during the excavation/construction phase. This includes the waste soil for net export profiling and management.

Potential soil contamination—or other contamination —that might be encountered during the shallow excavation stage will be addressed by the RMP soil management procedures and protocols of screening the soil excavated for metals and hydrocarbons, the identified COCs in soil. This will be completed on stockpiled soil to profile the soil for appropriate disposal. In addition Stellar Environmental will be on call during the excavation work to address any potentially contaminated soil based on visual or odor indicators.

Vapor Intrusion Risk from Soil Gas and Indoor Air

Soil gas ESLs were exceeded for PCE relative to vapor intrusion risk under the residential use, although the soil vapor data collection encountered refusal due to tight soils in two of the four sample locations. Indoor air sampling showed concentrations below the indoor air ESL for residential exposure. However, the indoor air space tested was collected in the environment of the existing open Warehouse and thus not considered as high a risk as the more confined space of the proposed residential units. The indoor air result may also be lower because the tight clay above the 5 foot depth that the soil gas was collected from inhibits the soil gas from migrating upward.

Mitigation Measure

Section 6 of this report describes the proposed mitigation to address the vapor intrusion risk and the post mitigation verification monitoring.

Groundwater Hydrocarbon Contamination Geometry and Migration Indications

The highest hydrocarbon concentration of 370 µg/L in groundwater is currently associated with the gasoline range in the sample from well MW-6 in October 2015. The hydrocarbon gasoline (TVHg) concentrations appear to attenuate from 37,000 µg/L at BH-1 to 6,700 µg/L at NB-8 about 50 feet southwest of BH-1 to 1,700 µg/L another 25 feet downgradient of NB-8 (at NB-7). Well MW-5, located about 20 feet downgradient from BH-1, showed 280 µg/L TVHg for the October 2015 sampling. The downgradient well MW-4 shows no detection of any of the hydrocarbons. However, there is some evidence of offsite migration of TVHg at above its 100 µg/L ESL, from data points MW-6 and BH-4 but the concentrations at these points should be amenable to LTCP criteria assuming the source area is treated. The volatile gasoline components, benzene, toluene, ethylbenzene and xylenes (BTEX) are not evident in any of the six onsite monitoring wells. Diesel grade hydrocarbon (TEHd) and motor oil (TEHmo) exceeded their ESL of 100 µg/L in well MW-4 during the July 2015 monitoring event. No other well onsite contains detectable concentrations of TEHd/TEHmo. The lack of BTEX in the hydrocarbon data suggests an older plume that has off-gassed.

Groundwater VOC Contamination Geometry and Migration Indications

The historical bore and grab-groundwater VOC COC distributions are contained in the Stellar Environmental December 2015 report in Figure form and summarized in this report in the tables found in Appendix G. The concentration trend of the dissolved constituents more typically show a downward trend but there are some exceptions. However, the largest change in COC concentrations is the groundwater around the former BH-1 (now excavated as part of the trench) where the significantly elevated VOCs and TPH were found, which dropped more than 90% for both VOC and TPH COC analytes, as reflected in the data from the monitoring well MW-5 located near the former BH-1. The other concern relative to evaluating the potential for offsite migration, that there was a more southerly component to the groundwater flow direction, was evaluated with the installation of the well MW-6 and the groundwater flow direction, to the southwest, is essentially the same based on the initial data from the four wells and the current six wells.

The confirmation of the flow direction to the southwest allows for a more confident evaluation of the potential offsite migration and impact of that offsite migration to downgradient potential sensitive receptors. The two downgradient “guard” monitoring wells MW-1 and MW-4 show

low concentrations that do not appear to place any significant risk of vapor intrusion to the residential units to the west of them.

Groundwater Mitigation Measures

Section 7 presents the groundwater mitigation measures. The corrective action completed for the groundwater as described in the December 2015 report is to be followed by the monitoring program to determine if the groundwater hydrochemical trends show the stable or reducing trend to meet the LTCP criteria.

5.0 SOIL MANAGEMENT

Potential soil contamination—or other contamination —that might be encountered during the shallow excavation stage will be addressed by the RMP soil management procedures and protocols of screening the soil excavated for metals and hydrocarbons, the identified COCs in soil. This will be completed on stockpiled soil to profile the soil for appropriate disposal. In addition Stellar Environmental will be on call during the excavation work to address any potentially contaminated soil based on visual or odor indicators.

IDENTIFICATION OF POTENTIALLY CONTAMINATED SOIL

Although contamination is not expected at the Site based on existing data, it will be the contractor's responsibility to identify potentially contaminated soils during soil-disturbing work activities and proceed accordingly. The initial evaluation of the presence of potentially contaminated soil will be based primarily on contractor field observations.

Soil potentially contaminated by petroleum hydrocarbons can be identified in the field by the presence of the following:

- Non-aqueous-phase liquids (free product);
- Odors;
- Soil staining; and
- Elevated readings indicated by an organic vapor analyzer (OVA) or other field equipment.

Other indicators of potentially contaminated soil include the presence of miscellaneous buried debris, abandoned underground tanks/pipes or other unanticipated types of contamination.

Site management and equipment operators will survey the work area at the beginning of each workday and routinely throughout each day during demolition and construction operations to check for the presence of potentially contaminated soil. Equipment operators, management, and other field personnel should be notified of any potential impacted soil within the work area. These locations should be clearly marked with paint, flagging, etc.

Protocol for Evaluation of Potentially Contaminated Soil

If potentially contaminated soil is identified, the presence of contaminants should be confirmed by taking the following steps:

3. Stop operations in the vicinity of the potentially contaminated soil and call out the designated environmental professional.

4. Soil samples should be collected by qualified personnel, with OSHA 40-hour HAZWOPER training, working under the supervision of a California Professional Geologist or California Professional Engineer. As dictated by the field construction schedule, expedited (24-hour) turnaround may be required.

5. Soil samples shall be analyzed (at a minimum) for:

   - TPH as gasoline, diesel, and motor oil by EPA Method 8015B
   - LUFT 5 Metals (based on CAM 17 metals showing Pb, and to a lesser extent, Cr, as the metal COCs.

Previous so sampling for pesticides or VOCs at concentration of regulatory concern in the soil so they are not added as part of the COCs for soil.

6. Site management and field personnel should use their best judgment to assess whether additional sampling and analysis is needed to delineate the extent of encountered impacted soil, including those cases where the field observations and laboratory results suggest increasing concentration trends laterally.

All contaminated soil and soil considered to be potentially contaminated must be managed in accordance with applicable regulations, health and safety requirements, and the applicable procedures described in this plan.

Screening of Soil Analytical Data

The analytical results will be reviewed by a qualified geologist or engineer to evaluate whether excavation/construction can continue. The analytical results will be screened against Regional Water Quality Control Board (RWQCB) ESLs for shallow soil for both residential and commercial/industrial land use where groundwater is a potential source of drinking water. These ESLs are listed in Table 3. The following screening approach will be used:

a. If the concentrations detected are below Residential ESLs, work can continue without further testing, special soil handling, or further provisions. This soil is considered non-contaminated.

b. If the detected concentrations are above the Residential ESLs, but are below Commercial/Industrial ESLs, the soil is considered contaminated. Work can continue, with the following procedures and provisions:

   - Notification procedures are as follows;
   - Store contaminated soil in separate stockpiles from non-contaminated soil; follow stockpiling procedures described;
   - After excavation is complete, collect soil samples from the excavation sidewalls and floor, following procedures described; and
   - Perform waste characterization of contaminated soil using procedures presented.

c. If concentrations are above Commercial/Industrial ESLs, soil is considered contaminated. Suspend excavation/construction operations and complete the following:

   - Follow notification procedures (see below) ; and
   - Consult with qualified geologist or engineer to prepare work plan for additional sampling and additional environmental control protocols that should be implemented in order to continue work—if warranted by the data.

Notifications of Contaminated Soil

Upon discovery and confirmation of contaminated soils, the Contractor or Site owner is responsible for notifying the RWQCB Case Officer in writing within 24 hours of receipt of analytical data. The written notification shall include the following information:

- Site map showing the approximate location of the contaminated soil;
- Physical description of the contamination and approximate quantities;
- Analytical data and comparison to appropriate screening criteria; and
- Indication of whether work has been suspended and when a work plan for additional sampling will be submitted to the RWQCB, as necessary.

Work in Petroleum-Contaminated Soil

Petroleum-contaminated soil (and potentially contaminated soil until such time that sampling data shows the soil is non-contaminated) will be managed as follows:

- The soil will be stockpiled following the measures described in Section 4.5.1.
- Soil exceeding residential ESLs cannot be reused at the Site without written permission from the RWQCB.

- If the soil contains known hazardous waste, or there is reason to suspect that the soil contains hazardous waste, reuse at the Site is prohibited.
- Contaminated soil will be characterized, managed and disposed of in accordance with procedures presented; and
- Equipment and clothing coming in contact with contaminated media shall be disposed of properly or decontaminated prior to leaving the immediate work are where the contaminated soil was encountered.

The following subsections describe work procedures that should be followed in the event that contaminated soil or potentially contaminated soils are identified.

Excavation Sampling and Analysis

Post-excavation soil sampling and analysis will be conducted in project areas where any significant contaminated soils were identified.

The number and location of soil samples to be collected will depend on the conditions encountered in the field. Samples should be collected under the direction of a qualified Professional Geologist or Registered Professional Engineer. In general, a sampling grid should be established for the excavation floor and sidewalls. One excavation floor confirmation soil sample should be obtained per 50 by 50 square feet grid, or part thereof. For the excavation sidewalls, one soil sample collected every 50 horizontal feet of sidewall and every 10 feet of vertical excavation, or part thereof.

The types of analyses required will depend on area conditions, field observations, and the known history of the area under investigation. However, given the general history and nature of contamination at the Site, the minimum required analytes and analytical methods will be:

- TPH as diesel, kerosene and bunker oil by EPA Method 8015B
- LUFT Metals EPA Method 6010

This data will be submitted by a qualified Professional Geologist or Registered Professional Engineer to the RWQCB within 30 days of collection. The data submittal shall include an evaluation of whether soil remaining after excavation exceeds ESLs (Table 3) and recommendations for further investigatory or remedial action, as necessary. If concentrations of contaminants exceed ESLs, the excavation will remain open if conditions permit. Prior to backfilling an excavation where the excavation sampling exceed the clean- up goals, RWQCB must approve of the data submittal and recommendations in writing.

Decontamination of Construction Equipment and Transportation Vehicles

Construction equipment and transportation vehicles that contact soil will be decontaminated prior to leaving the Site to minimize tracking of potentially contaminated soil onto roadways. Decontamination methods will include scraping, brushing, or vacuuming to remove dirt on vehicle exteriors and wheels.

Dust and Air Monitoring in the Event of Unanticipated Soil Contamination

In the event that contaminated soil is encountered, dust and air monitoring will be performed to ensure that site workers and offsite populations are not exposed to unsafe concentrations of airborne contaminants. The Contractor shall assign qualified site workers to be responsible for air monitoring. When there is a need to use field monitoring instruments, they will be calibrated on a daily basis in conformance with the manufacturer's recommendations.

Work Zone Air Monitoring

Work-zone air monitoring will be performed by the Contractor to protect their worker's Health and Safety as necessary. Air monitoring will be performed if potentially contaminated soil is identified at the work site and the procedures described in a Contractor-prepared health and safety plan.

Perimeter Air Monitoring

Perimeter air and dust monitoring ("perimeter monitoring") will be performed if deemed necessary during active shallow excavation stage to establish that BMP are effective in mitigating against fugitive dust. Perimeter monitoring will be performed within 50 feet of the boundary of the soil-disturbing activity to verify that Contractor-implemented control measures performed at the project site are adequate to prevent dust and volatile contaminants from leaving the Site.

6.0 VAPOR INTRUSION MITIGATION AND VERIFICATION

A post-excavation pre-construction soil-gas assessment survey is proposed to evaluate potential VOC contaminants in soil gas as an initial assessment of the potential risk of vapor intrusion into the planned development because PCE was detected in soil-gas at 2,600 µg/m³ during the Stellar Environmental 2013 site investigation. PCE was the only contaminant of concern that exceeded its respective ESL of 2,100 µg/m^3 for soil gas screening levels for the evaluation of potential vapor intrusion at commercial sites (Water Board, 2016, Feb ESLs), for shallow soil-gas during that investigation. A maximum concentration of 2,700 µg/m^3 PCE was found at bore SG-2 located about 35 feet west of the former Zero Waste process area. Another 50 feet west of SG-2, in the generally downgradient direction, the PCE soil gas attenuated to 950 µg/ m^3. The two additional soil gas survey to the south encountered tight clay rich soil that did not yield soil gas results. Though it is suspected that the PCE is likely associated with a limited onsite source near the former Zero Waste process area, there was no chemical inventory data that indicted Zero Waste stored or processed PCE or other chlorinated solvents.

The indoor air inside the main warehouse building where the five lofts are to go showed no detection of VOCs or BTEX at or above the indoor air ESLs, with the exception of benzene which was above the benzene ESL in the outdoor ambient air.

Reductive dechlorination is a major anaerobic biodegradation pathway for the chlorinated solvent PCE an daughter products provided that the geochemical conditions are suitable. In addition, PCE is included in the Water Board's October 16, 2014 "Interim Framework for Assessment of Vapor Intrusion at Trichloroethene - Contaminated Sites in the San Francisco Bay Region" (Water Board, 2014). However, it should be noted that the excavation of the process area trench likely remove some of the residual VOC impacted "source area" soils.

SSVS DESIGN

Vapor Mitigation System Design Intent

The intent of the VMS design is to provide a preferential pathway to the outdoor atmosphere for vapors that might otherwise accumulate beneath the floor slab and potentially migrate through the slab into indoor air. The system is designed to be passive, so that no electrical power is required and maintenance is minimal for the life of the system. The movement of vapors is achieved by convection; the warm air inside the structure warms the riser pipes,

such that the cooler air beneath the slab is drawn upward through the risers by the temperature gradient. To assist this process, a wind-assisted turbine is mounted on the top of each riser.

Sub-slab VOC concentrations have been reported to be reduced by orders of magnitude by reservoir of the permeable layer that underlays the foundation slab and the air within the 3-inch slotted piping (T&R, 2007).

. A one-fold reduction in sub-slab VOC concentrations induced by the passive venting system would reduce the maximum PCE concentrations below the applicable ESL for vapor intrusion into indoor air.

Vapor Mitigation System Components

The vapor collection system will consist of a horizontal network of three-inch perforated (well slotted screen) and solid polyvinyl chloride (PVC) piping that runs across the entire building footprint (though inset form the building margins by up to 6 feet) through a six-inch thick layer of open-graded, crushed rock gravel located immediately beneath the basement/garage floor slab. The horizontal piping network will connect to four vertical risers that run the full height of the building through pipe chases that are located adjacent opposite ends of the buildings. The risers will terminate above the roof and be fitted with a wind-assisted turbine. The system will continually passively vent any soil vapor and thus inhibit and subslab accumulation that could penetrate.

An added safety factor included in the design is a barrier designed to be inhibit VOC penetration, which is applied on top pf the SSVS before the foundation slab is put in place. The membrane product, manufactured by CETCO, is known as Liquid Boot Plus™. This material has completed various vapor diffusion tests on Liquid Boot Plus™ membrane. The tests performed using highly volatile chlorinated solvents tetrachloroethylene (PCE) and trichloroethylene (TCE) over a period of 1411 and 711 days, respectively. The membranes were subjected to relatively high solvent vapor concentrations to simulate conservative exposure conditions. The composite Liquid Boot Plus™ membrane was found to have very low diffusion coefficients for the solvents indicating the membrane is effective at inhibiting solvent vapors under the test conditions.

Figure 4, 5, 6, and 7 show the design of layout of the SSVS at each of the fur proposed buildings. Figure 8 shows the SSVS call out details.

POST-REDEVELOPMENT INDOOR AIR ASSESSMENT

This assessment has been prepared in accordance with the Water Board's October 16, 2014 "Interim Framework for Assessment of Vapor Intrusion at Trichloroethene - Contaminated Sites

in the San Francisco Bay Region" (Water Board, 2014). The Framework is designed to provide a set of guidelines for addressing vapor intrusion of TCE and other chlorinated volatile organic compounds (VOCs) that includes PCE, from the subsurface to indoor air.

The Framework for the vapor intrusion study area that EPA Region 9 and the Water Board had originally directed be assessed was defined as 100 µg/L of TCE in groundwater for commercial use properties and 50 µg/L for residential-use and was latter modified to include buildings beyond the previously approved study area to areas where TCE is greater than 5 µg/L (Water Board 2014). Recent and historical groundwater monitoring in the COE Study area shows the redevelopment to lie outside the >5 µg/L TCE isoconcentration boundary, however the Water Board is not utilizing the >5 µg/L TCE in groundwater as a trigger for indoor air sampling. Instead, the Water Board has developed specific Trigger Levels for TCE in soil-gas samples and groundwater samples and a stepwise approach (Table 1 in Section 3 of the Framework), modified from the DTSC October 2011 Guidance, to evaluate potential vapor intrusion that may ultimately lead to requiring indoor air sampling.

Indoor Air Sampling

Based on input by the Water Board, the indoor air study will conduct 24-hour indoor air sampling tests for residential use evaluation versus the typical 8-or 10 hour surveys of commercial space. One sample per building (within one of the living spaces) will be collected and one ambient (control) outdoor-air sample will also be collected the same day and during the same time period as the related event samples.

Air samples for laboratory analysis will be collected in 6-liter stainless steel, passivated Summa™ canisters designed specifically for collecting indoor and outdoor ambient air samples. Both HVAC system-off and system-off indoor air samples will be collected from approximately the same locations and height (approximately 3 to 5 feet above the floor - considered to represent the typical breathing zone of building occupants as HVAC system-on samples). Each 6-liter canister will be individually or batch certified pursuant to EPA Method TO-15 for the target compounds to ensure that concentrations of COCs are below project reporting limits. Individual certification means that each laboratory-supplied canister will have been cleaned (using a combination of dilution, heat and high vacuum), then sampled and analyzed for the project-specific COCs. One Summa™ will also be places at each of the two fire risers. The location of the risers are on the plans are contained in Figures 4 through 7. The regulator and flow valve controls the test time and air inflow rate. The 24-hour test will utilize a Summa™ canister with an air intake rate set for an 24-hour test per procedures and protocols of the Department of Toxic Substances Control (October, 2011).

Following the collection of indoor-air samples, the Summa™ canisters will be transported to the analytical laboratory the same day under chain-of-custody record. The analyses would be performed by an Environmental Laboratory Accreditation Program certified (ELAP-certified) laboratory for analysis of volatile organic compounds via EPA Method TO-15, which includes the contaminants of concern, TCE and PCE**.**

Laboratory Analyses and QA/QC

Laboratory QA/QC samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) will be analyzed by the laboratory in accordance with the requirements for each analytical method, the results of which will be included in the documentation report.

Field QA/QC samples consisting of duplicate, split, equipment and trip blanks will be included as required and specified by the Water Board regulator.

Laboratory Analyses

A California Environmental Laboratory Accreditation Program (ELAP) -certified analytical laboratory Curtis & Tompkins in Berkeley or McCampbell Analytical in Pittsburgh, CA will complete the analyses. Based on the investigation findings to date and the regulatory Guidance cited, the samples will analyzed for:

- Chlorinated volatile organic compounds (VOCs) (EPA Method 8010 list of analytes) by EPA Method TO15.

Samples in summa™ canisters will be labeled and maintained at ambient temperature and out of direct sunlight until and transported to the analytical laboratory under chain-of-custody record.

7.0 GROUNDWATER MANAGEMENT

The proposed development project is only excavating to approximately 2 feet bgs, removing the existing foundations, grubbing and grading and installing the SSVS's described in Section 6. Thus with the groundwater at a depth of at least 8 feet bgs, no groundwater dewatering will n be necessary.

GROUNDWATER CORRECTIVE ACTION COMPLETED

The removal action (of purged groundwater) through the trench of the identified "source" area, in the former Zero Waste "process area" removed corroborates a conceptual model of some limited VOC contamination in that area that was removed by the trenching—removing the area around BH-1. reflected in the bore location BH-1, where the grab-groundwater sample showed one order of magnitude or greater concentrations of VOCs and hydrocarbons compared to An apparent disparity exists between the 16,000 µg/l PCE detected in the BH-1 grab groundwater sample collected in January 2015 and the 250 µg/l PCE detected in well MW-5 during the October 2015 sampling event, along with the other site downgradient grab-groundwater samples and well analytical data, support a model of a limited source area. The wells MW-5 is approximately 15 downgradient from the former BH-1 location. The introduction of 175 gallons of the EZVI bioremediation product into the trench backfilled with clean imported material was designed to provide acceleration of reduction of any residual VOC or TPH concentration based on the conceptual model.

The PCE concentration of 360 µg/l observed in well MW-6 as of October 2015 was the highest concentration detected during that third quarter monitoring event. A data gap exists between the area of MW-6 and the 32nd Street side of the property but the distance between well MW-6 and the closest downgradient sensitive receptor of the residential home across 32nd Street is approximately 200 feet, which is likely sufficient to provide additional attenuation, based on the attenuation patterns across the property.

GROUNDWATER MONITORING TO MEET LTCP CRITERIA FOR WELL CLOSURES

Data collected to date at the wells and grab groundwater samples before the wells shows strong natural attenuation downgradient of the former Zero Waste "process area." There is clearly some offsite groundwater migration to the south that is above the drinking water standards. However,

the case was make in the LTCP criteria analyses (Stellar Environmental, 2015) that there does not appear to be any pathways of exposure offsite. If the groundwater wells show a steady or reducing trend over at least four consecutive quarters of groundwater monitoring to evaluate seasonal variation, the groundwater concern could be considered de-minimis, and the site formally closed under the Water Boards LTCP initiative.

8.0 HEALTH AND SAFETY CONSIDERATIONS

STORM WATER POLLUTION PREVENTION PLAN

The property proposed for redevelopment is less than 1 acre, (less than ½ acre) and thus a *Storm Water Pollution Prevention Plan* (SWPPP) is not a requirement for this project. However the developer and subcontractors will adhere to state of California standard construction best management practices (BMPs) during all phases of the redevelopment process.

SITE HEALTH AND SAFETY PLAN

A site-specific health and safety plan (HASP) based on the site investigation findings has been prepared for reference use by the whomever M-Squared selects as their demolition/development contractor and/or subcontractors to ensure that appropriate measures are taken to minimize the risk of construction workers' exposure to the known residual soil contamination. Stellar Environmental is available to provide tailgate health and safety meetings before the construction phase begin.

PREFERENTIAL PATHWAYS AND SENSITIVE RECEPTOR SURVEY

Stellar Environmental performed a preferential pathways and sensitive receptor survey as described in the December 2015 repot. The survey concluded that the only potential preferential pathway was to City of Oakland storm drain conduit pipe that is located generally downgradient and slightly transgradient to the site. The storm pipe is 48 inches in diameter and runs beneath the eastbound direction of 32nd Street, approximately 30 feet south and parallel to the southern site boundary. The lower elevation of the pipe is at 12.5 feet bgs while the first occurrence of groundwater onsite was measured at a depth of 14 feet bgs, although seasonal variations could result in more elevated water table elevations.

Known surface waters are located greater than 1,000 feet of the source area and a well search conducted during the sensitive receptor survey show no water supply wells within 1,000 feet of the property, as discussed in the December 2015 report. The nearest surface water body is the San Francisco Bay located approximately 2,800 feet to the west/northwest.

DUST CONTROL MEASURES

The implementation of dust mitigation activities during the handling of excavated soil are to minimize:

1. Generation of visible airborne dust;
2. Offsite migration of fugitive dust; and
3. Worker and public exposure to on-site to airborne dust particulates.

Due to the potential for nuisance dust inside and outside the Work area, water spray will be used for dust suppression in working areas and haul routes as required to minimize dust emissions. However, if dust generation becomes an issue that might impact site workers and/or offsite receptors and/or any requirement of the City of Oakland, the property owner may need to initiate active dust monitoring to document generated dust as explained in project HASP.

Traffic patterns and start-up can affect the amount of trucks in staging. A stabilized construction entrance will be installed. Shaker plates that are designed to slow down truck traffic as well as provide dust control by removing dirt from the treads of the truck tires may be used if warranted.

A water truck or other water spray mechanism will be present to control dust everyday excavation and shoring work is to occur. Water will be applied as necessary to prevent dust emissions.

OSHA CONSIDERATIONS – WORKER EXPOSURE CONSIDERATIONS

The Water Board has developed soil ESLs for a construction/trench worker scenario for common hydrocarbon, VOC contaminants, and metals (Table S-1, Water Board, February 2016). The COC driver during the excavation phase is expected to be the metal in soil, particularly the metal Pb. To a lesser extent the hydrocarbons (diesel, motor oil, and gasoline) detected in some bore showed concentrations above ESLs but well below exposure risk to construction workers during the planned project excavation phase.

Only Good construction practices regarding management of potentially-contaminated soil (washing hands, wearing appropriate dermal protection, working upwind of excavation activity, minimizing fugitive dust emissions by using water spray for dust control, etc.) will minimize the potential for any worker exposure. Working upwind of excavation activities will also minimize the exposure risk to noxious soil gas vapors released during excavation. A Photoionization Detector (PID) will be used by the health and safety officer onsite to monitor for volatile organics during the soil excavation and disturbance phase. During the excavation stage, particularly in the fill material where man-made material can be present, any suspect contaminated material will be evaluated and sampled and analyzed, if warranted.

EXCAVATION PROCEDURES

Contaminated Soil Sampling, Excavation, and Management

The owner will retain an environmental consultant with appropriate hazardous waste 40-hour HAZMAT training to be on call during the excavation stage. Should any suspect hydrocarbon or other soil contamination (including fill) material be encountered, the environmental consultant will respond with a site inspection and potentially screen (using a PID) and segregate in a separate stockpile any excavated soil with potential contamination that appears to fall outside of the pre-profile characteristics.

Potential Contaminated Soil Identification

Soil characterization to date indicates no expected contaminated soil, other than the surface area around bores B4 and B6A. However, soil profiling cannot always identify small patches or isolated areas of varying soils conditions; no contaminated soil requiring offsite disposal to a regulated landfill other than the surface area around bores B4 and B6A is expected to be encountered during this excavation. In the event there is suspect soil contamination in the form of odors or discolored soil, the field foreman is to contact Stellar Environmental and field personnel will come to the site to investigate. Site staff is intended to solely report items out of the ordinary and contact trained personnel to determine the need for additional testing.

The soil that is not direct accepted for loading based on the analytical site data will be stockpiled during the excavation phase and profiled in accordance with the analytical suite and number of samples to characterize soil for potential offsite non-hazardous disposal.

Loading and Off-Site Hauling of Clean Soil

Traffic control and dust/dirt mitigation will be provided by those responsible for the excavation and loading and hauling earth work. In general, this type of work uses a track mounted excavator as the loading piece of equipment. The excavator will load along the perimeter of the site with a grade checker and support equipment to manage truck flow and access. The support equipment will be a smaller wheeled or track mounted dozer or similar. This equipment will be able to move in and out of areas quickly. The grade checker will be able to perform visual inspections of the dirt and plan the location the excavator will excavate to next. The grade checker will report directly to the Foreman and too will be informed on what “out of the ordinary” things to look for are. The grade checker generally uses laser leveling equipment and survey points to know and understand current elevations and grades. Knowing these grades will assist the grade checker in locating potential below grade hazards.

Normal BMPs such as moistening the soil prior to excavation to reduce fugitive dust while trucks are being loaded should be employed. Dust control, while loading, should be monitored to

ensure minimal fugitive dust to outlying areas if it is considered significant. As noted in earlier sections, the on-site Foreman will be alert and survey daily any presence of odors. If odors are encountered, procedures outlined in the RMP (and associated HASP) and will be instituted. The RMP document is to be submitted to the Water Board and possibly the City of Oakland.

Until environmental review and City of Oakland approvals, no additional excavation activities will occur in the area. It is assumed that any approvals will be accompanied by written instructions, proper profiling and waste manifests prior to the commencement of excavation.

Ultimately, the profile of the waste must meet the acceptance criteria of the disposal/reuse facility and be in compliance with all pertinent regulations.

9.0 INVOLVED PARTIES AND RESPONSIBILITIES, RECORD KEEPING, NOTIFICATIONS, AND REPORTING

M-Squared Development, LLC has retained all of the project commercial company entities listed below to implement the project with the last entry being the City of Oakland. Stellar Environmental will be retained to set up the construction related environmental tasks described in this RMP. Thereafter, depending on what is found during the project implementation phase, additional post construction long term monitoring may be needed, as described in the R M P .

Company/City and Project Role	Contact Name	Contact Number
M-Squared Development, LLC Project Applicant Entity	Matthew Millikan and Richard Millikan	(office) (650) 330-3600 (cell) (650) 464-0574 rkrietemeyer@tarlton.com
Rick Millikan Architects Project Architect	Richard Millikan	(office) (650) 473-0400 tim@fgy-arch.com
Prime Contractor (anyone to put here?	????	???
Stellar Environmental Solutions, Inc. Project Environmental Consultant	Steve Bittman, P.G. Richard Makdisi , P.G. Sami Malaeb, P.E.	(office) (510) 644-3123 (cell) (510) 812-6314 s.malaeb@comcast.net; rmakdisi@stellar-environmental.com
Regional Water Quality Control Board	Mr. Randy Lee	510-622-2375
City of Oakland , Planning Dept. Project Planner	????	????

NOTIFICATIONS AND CONTROLS

Notifications

The City of Oakland and the Water Board will be informed of the work schedule before starting the field activities.

Security/Fencing

During the project excavation work, the site area will be secured. There is currently high fencing ad a gate that locks. The need for additional on-site security has not been established. The site will be locked at the end of each day. Site access will be restricted to construction personnel only. All traffic will be monitored and controlled by the prime contractor or their designees.

The site will be used for construction equipment and will be underlain with rock and fabric to collect oil, hydraulic drips. All equipment will be fueled in a manner to protect against environmental contamination.

Dust Control and Monitoring

The on-site foreman using both visual inspection and real-time sampling, as needed, will rely on Stellar Environmental to perform dust monitoring—if required. In the event fugitive dust becomes an issue, then a hand held monitoring device will be used to perform real-time sampling. This monitoring will only be utilized in the event dust becomes an issue. The device will be used to determine if more extensive air monitoring or additional dust control measures need to be implemented.

In addition to potential fugitive dust the on-site foreman will perform daily inspections for the presence of odors. A PID device will be used to determine any health safety issues. The HASP plan and potential soil sampling described elaborates these procedures.

Traffic Control and Road Maintenance

The designated soil hauling company and or owner operators or truck brokers will need to be familiar with this management plan. All trucks will enter the site via the agreed upon entrance to be established by the prime contractor. A dedicated flag person will be present on all haul days. This flag person will operate the entrance and monitor traffic entering and leaving the site. Additional flag persons may be necessary depending on the entrance-egress pattern and how busy the haul days are. The number of flag persons that is appropriate will be dependent to a large extent on the volume of truck traffic.

Street cleaning equipment will be provided to ensure than adjacent streets remain clear of project-related soil. This will be done for all haul days requiring additional clean up.

Work Hours

All hours will be subject to City approvals. The project is planned for “Normal” hours or 7:00 am to 6:00 pm. (do we know what city of Oakland stipulates for this area). At times weekend work will need to be utilized. This document will be amended pending the issuance of a permit

Record Keeping

The soil disposal trucking will track all dumping locations with the use of a load counting log sheet, dispatch log and truck tags. All records will be kept at the Prime Contractors office with copies of all dumping locations and truck tags to be provided to Stellar Environmental to complete the documentation after the excavation part of the project is completed.

10.0 REFERENCES

CalEPA. 2012. *Advisory – Active Soil Gas Investigations*. California Environmental Protection Agency, Department of Toxic Substances Control. April.

California Department of Transportation, 2003 Storm Water Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual, March 1.

Department of Toxic Substances Control (DTSC), 2001. Information Advisory Clean Imported Fill Material. October.

DTSC, 2011a. Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). California Environmental Protection Agency, Department of Toxic Substances Control. October.

Helley, E.J. and K.R. LaJoie, 1979. USGS Publication, Flatland Deposits of the San Francisco Bay Region, California: Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning.

Regional Water Quality Control Board, San Francisco Bay Region (Water Board), 2013, Environmental Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater: Tables A-2, C-2, E-2, F-3 and K-3, Interim Final – December.

Regional Water Quality Control Board (Water Board), 2014. Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region Oct. 16.

USEPA. 2013c. EPA Region 9 Guidelines and Supplemental Information Needed for Vapor Intrusion Evaluations at the South Bay National Priorities List (NPL) Sites. Letter to California Regional Water Quality Control Board – SF Bay Region. December 3.

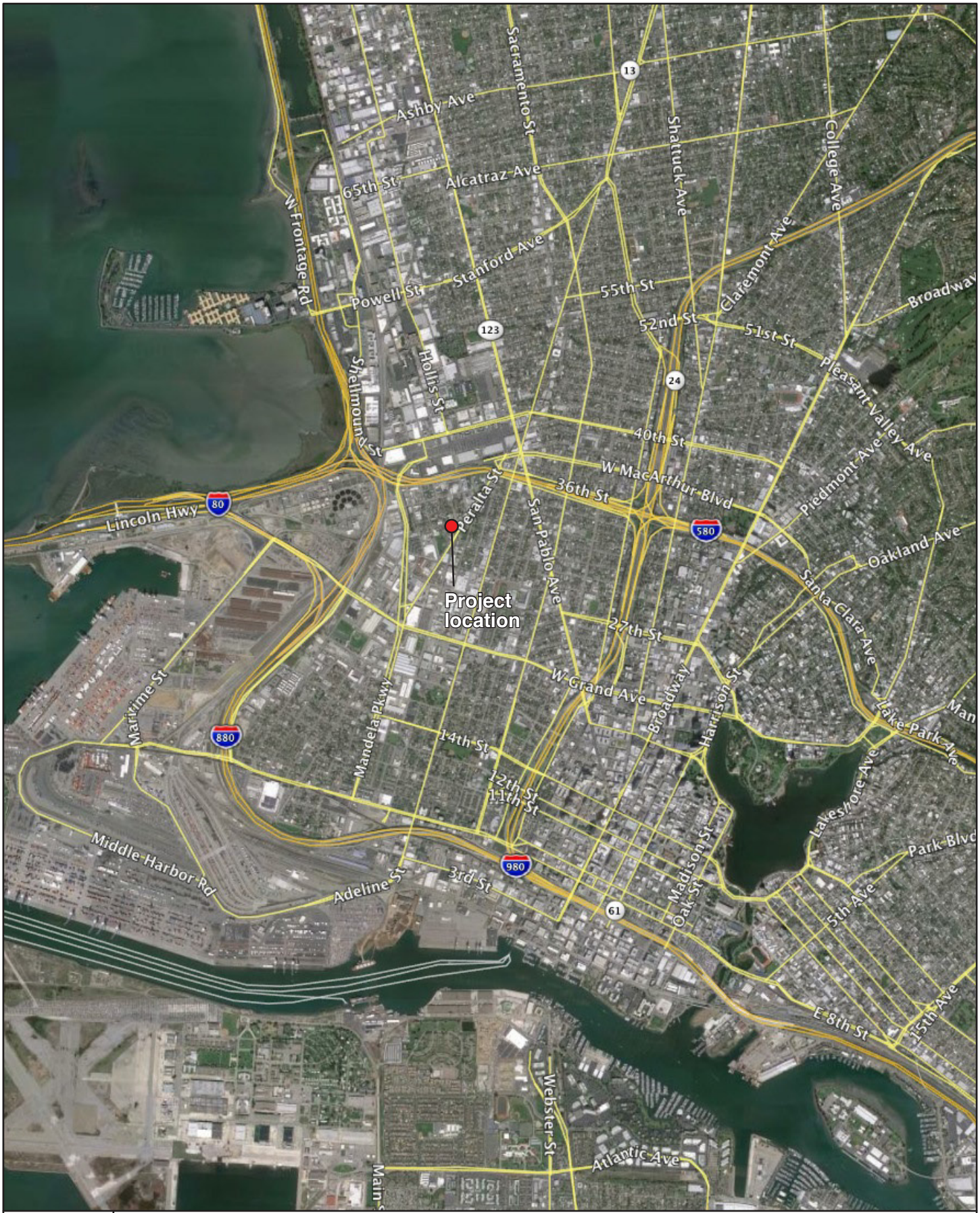
11.0 LIMITATIONS

This RMP has been prepared for the review by the regulator, the Water Board and for the use of M-Squared Development, LLC and its members and authorized representatives. The specification and procedures presented in this plan are based on a review of pertinent site-specific documents provided by the property owner and its agents (such as system schematics and development plans). This RMP has been prepared in accordance with generally accepted methodologies and standards of practice associated with construction projects of the type described. The personnel performing the work described are qualified to perform it and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made.

The usability of this RMP is valid as of the date of this document. Subject property conditions may change with the passage of time, natural processes, or human intervention, which can invalidate the specifications and procedures presented in this RMP. As such, this plan should be updated as needed with changed conditions, monitoring reports, inspection reports, contact information, and monitoring schedules.

APPENDIX A

Figures



N

SITE LOCATION MAP

1450 32nd Street Oakland, CA	By: MJC	MARCH 2016
	Figure 1	

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-01

N

SITE PLAN SHOWING WELL AND PRINCIPAL DATA POINT LOCATIONS

1450 32nd Street
Oakland, CA

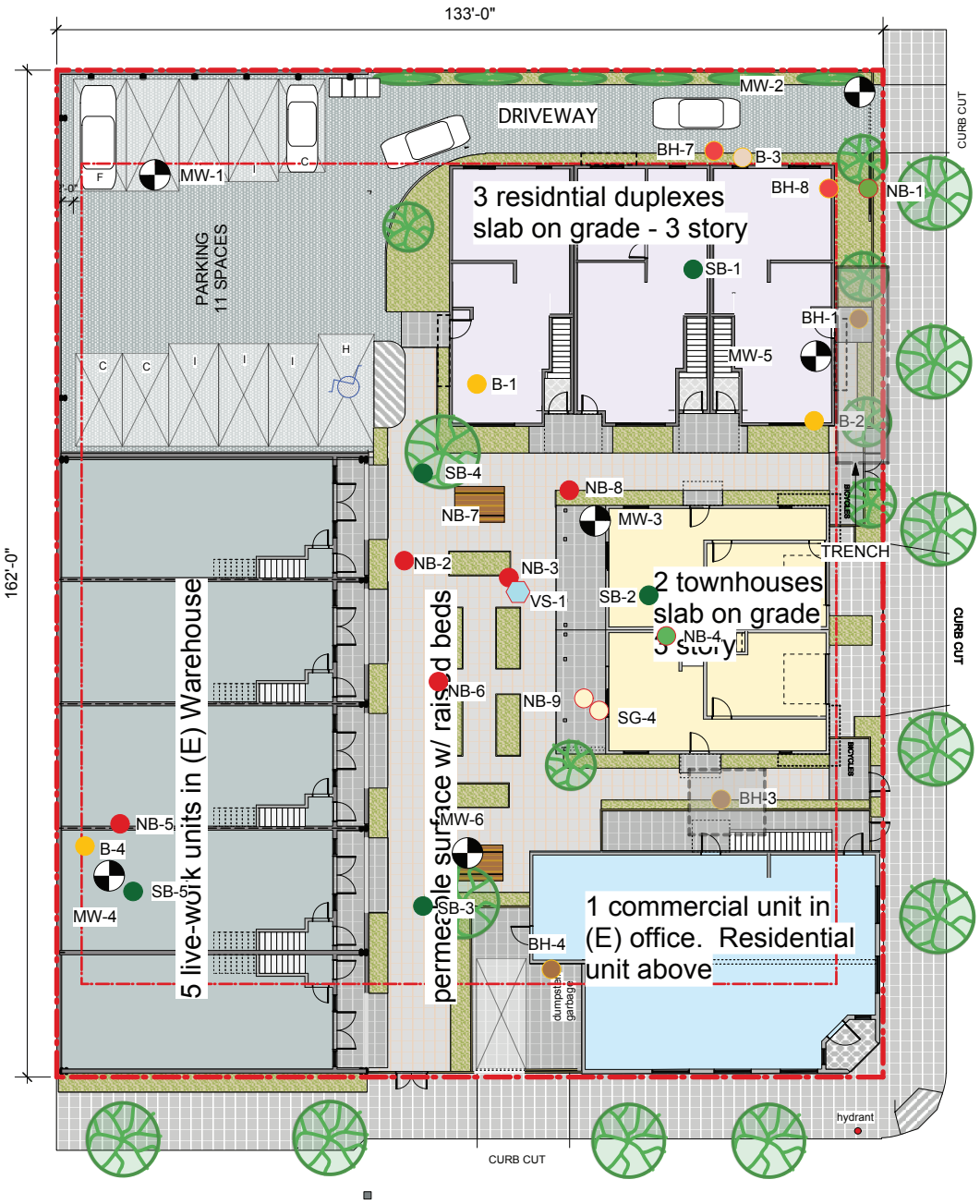
By: MJC

MARCH 2015

Figure 2

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-70



0 10 20 30 40 feet

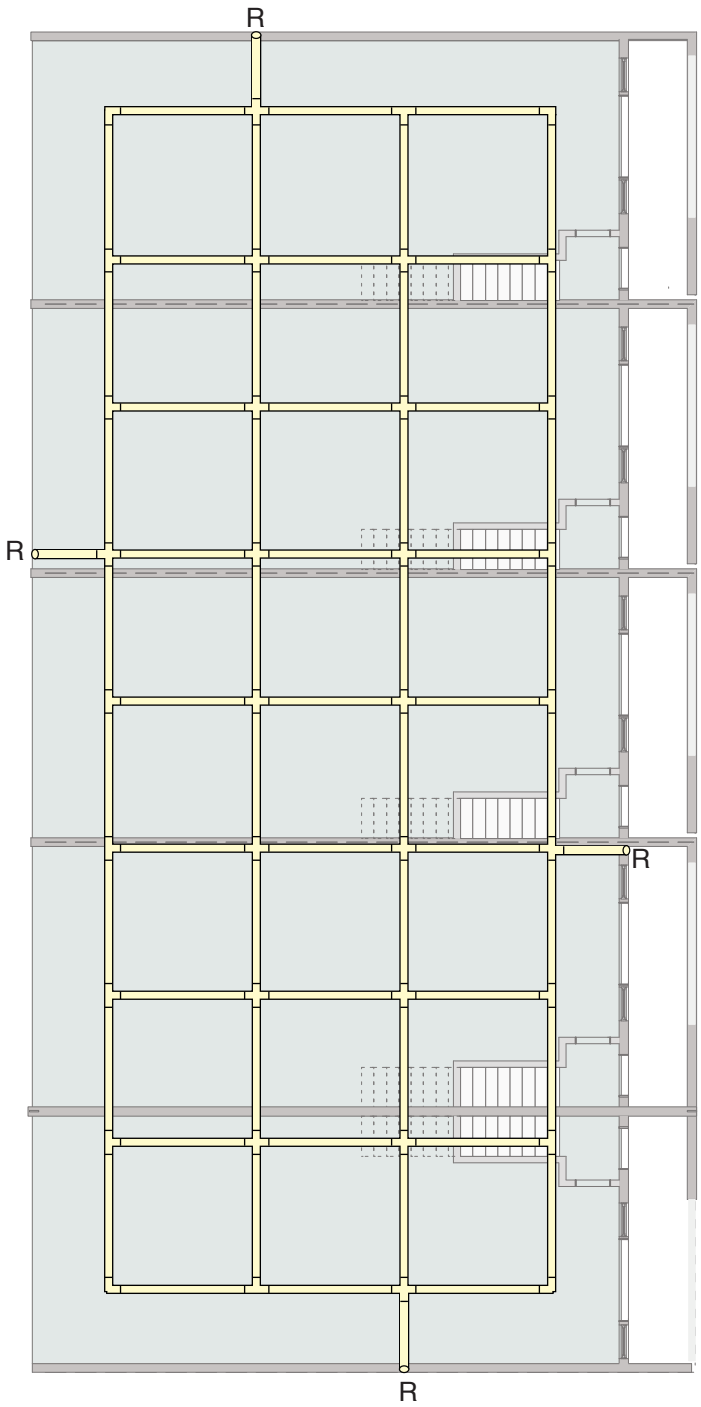
Louise Lofts
Proposed Site Plan

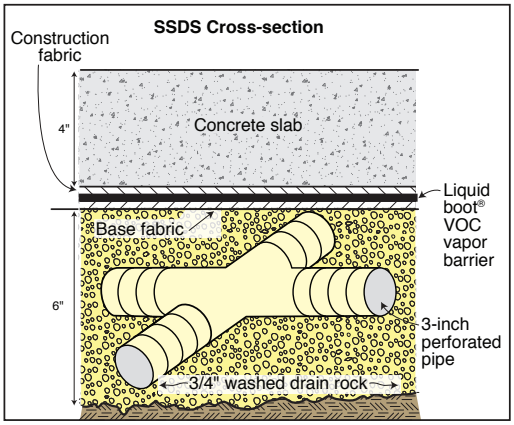
N

M2 DEVELOPMENT PLANS		
1450 32nd Street Oakland, CA	By: MJC	MARCH 2016
	Figure 3	

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-61





0 15

APPROX. SCALE: 1" = 15 FEET

LEGEND

3" perforated pipe

R Vent riser

N

SUB-SLAB VENTILATION SYSTEM BENEATH 5 LIVE-WORK UNITS IN (E) WAREHOUSE

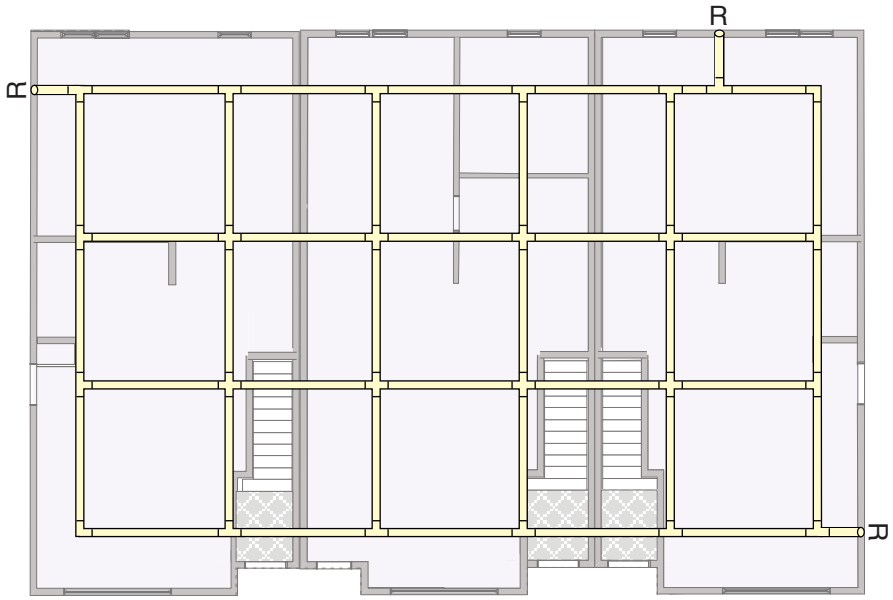
1450 32nd Street
Oakland, CA

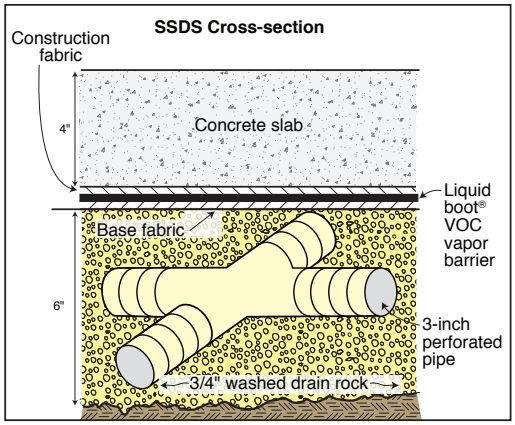
By: MJC | **MARCH 2016**

Figure 4

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-66





0 15

APPROX. SCALE: 1" = 15 FEET

LEGEND

3" perforated pipe

R Vent riser

N

SUB-SLAB VENTILATION SYSTEM BENEATH 3 RESIDENTIAL DUPLEXES SLAB ON GRADE - 3 STORY

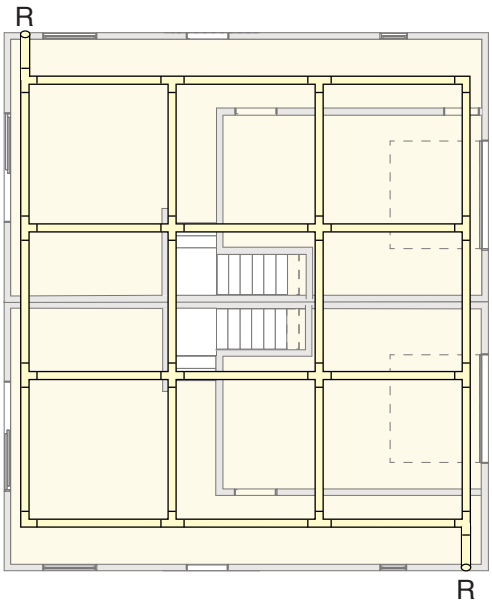
1450 32nd Street
Oakland, CA

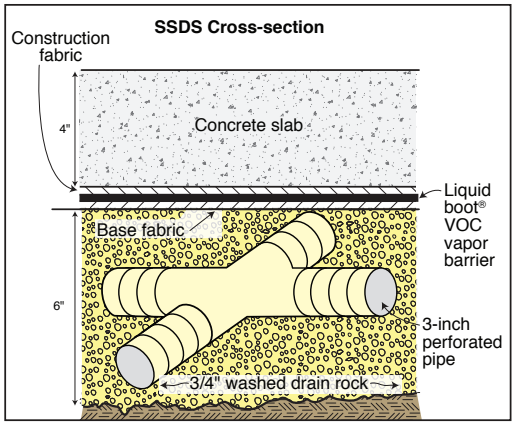
By: MJC | **MARCH 2016**

Figure 5

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-67





0 15

APPROX. SCALE: 1" = 15 FEET

LEGEND

3" perforated pipe

R Vent riser

N

SUB-SLAB VENTILATION SYSTEM BENEATH 3 TOWNHOUSES SLAB ON GRADE

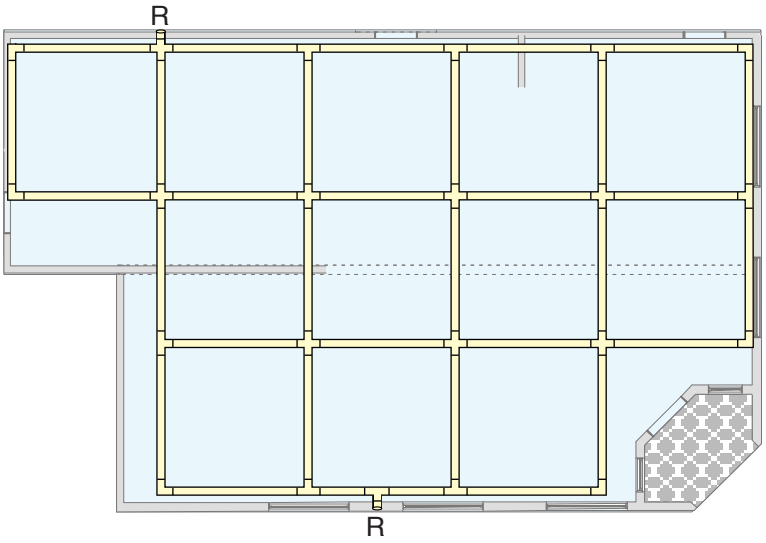
1450 32nd Street
Oakland, CA

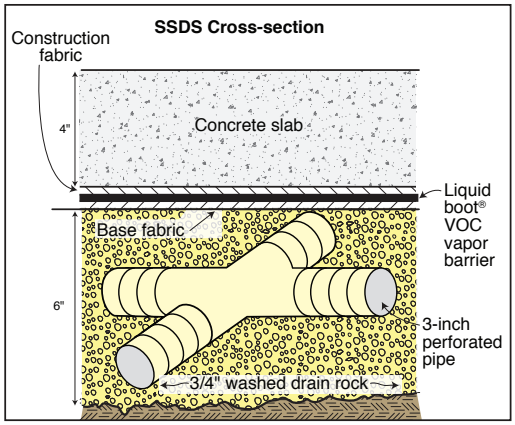
By: MJC | **MARCH 2016**

Figure 6

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2014-46-67





0 15

APPROX. SCALE: 1" = 15 FEET

LEGEND

3" perforated pipe

R Vent riser

N

SUB-SLAB VENTILATION SYSTEM BENEATH 1 COMMERCIAL UNIT IN (E) OFFICE

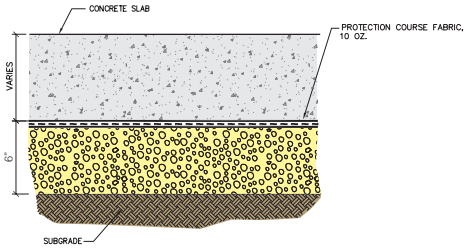
1450 32nd Street
Oakland, CA

By: MJC | **MARCH 2016**

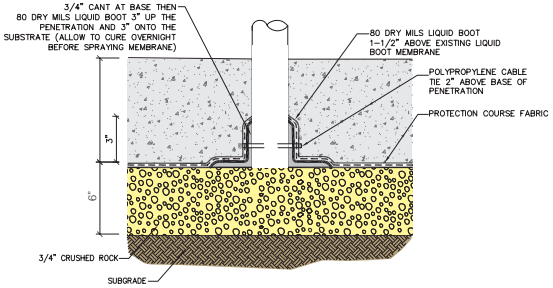
Figure 7

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

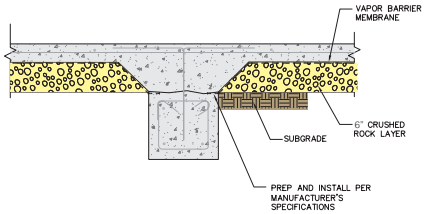
2014-46-69



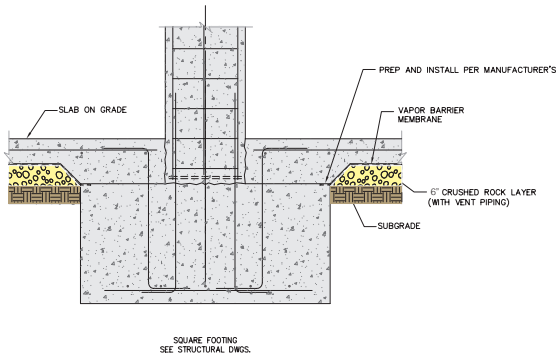
1 TYPICAL SECTION
NOT TO SCALE



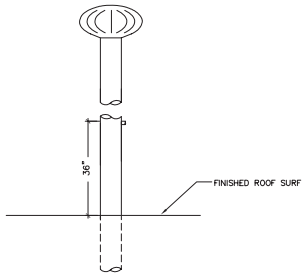
2 TYPICAL SEALING OF ALL PENETRATIONS THROUGH CONCRETE SLAB
NOT TO SCALE



3 TYPICAL TIE-IN AT INTERIOR GRADE BEAM
NOT TO SCALE



4 TIE-IN AT SPREAD FOOTING AT CONCRETE COLUMN
NOT TO SCALE



5 RISER THROUGH BUILDING INTERIOR PIPE CHASE
NOT TO SCALE

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

DETAILS OF SSVS DESIGN
1450 32nd Street, Oakland, CA

Figure 8

by: MJC | MARCH 2016

2014-46-64

APPENDIX B

Historical Analytical Summary Tables

TABLE 1
HISTORICAL SOIL and SOIL GAS SAMPLING ANALYTICAL RESULTS FOR CONTAMINANTS OF CONCERN--1995-2014
1450 32ND STREET, OAKLAND, CA
EXPLORATORY DRILLING RESULTS

Sample ID	Date	Depth (ft)	TVHg (mg/kg)	TEHd (mg/kg)	TEHmo (mg/kg)	TRPH (mg/kg)	PCE (ug/l)	TCE (ug/l)	cis-1,2-DCE (ug/l)	Freon 113	Methylene Chloride (ug/l)	Pesticides	Chromium* (mg/kg)	Lead* (mg/kg)
INTERNATIONAL GEOLOGIC														
S-1.5-B1	8/11/1995	1.5	NA	NA	NA	21	340	11	<0.5	<0.5	<0.5	NA	40	910
S-1-B2	8/11/1995	1.0	NA	NA	NA	21	<0.5	<0.5	5.6	<0.5	<0.5	NA	29	440
S-1-B3	6/25/2002	1.0	190	200	1,200	NA	2,900	<200	<200	NA	<200	NA	30	220
S-2.5-B4	6/25/2002	2.5	<1	<1	<1	NA	36	<5	<5	NA	<5	NA	27	120
NOVA														
NB1-2	12/21/2009	2.0	5.9	32	180	NA	3,400	<200	<5	<0.1	<5	NA	NA	130
NB1-5	12/21/2009	5.0	<1	2.0	12	NA	<5	<5	<5	<0.1	<5	NA	NA	6.4
NB2-2	12/21/2009	2.0	<1	<1	<5	NA	<5	<5	<5	<0.1	<5	NA	NA	18
NB3-2	12/21/2009	2.0	2.2	260	590	NA	<5	<5	<5	<0.1	<5	NA	NA	620
NB3-5	12/21/2009	5.0	<1	<1	<5	NA	<5	<5	<5	<0.1	<5	NA	NA	3.9
NB4-2	12/21/2009	2.0	<1	1.7	16	NA	18	25	<5	<0.1	<5	NA	NA	540
NB5-2	12/21/2009	2.0	<1	<1	<5	NA	57	<5	<5	<0.1	<5	NA	NA	7.9
NB5-5	12/21/2009	5.0	<1	<1	<5	NA	<5	<5	<5	<0.1	<5	NA	NA	5.4
TRC														
NB-6 @ 2	3/16/2010	2.0	630[a]	<0.759	<1.65	NA	<1.8	<3.9	<1.8	690	84	NA	NA	12
NB-7 @ 2	3/16/2010	2.0	1,100[a]	<0.759	8.2	NA	37	<3.9	140	920	140	NA	NA	440
NB-8 @ 2	3/16/2010	2.0	600a	<0.759	<1.65	NA	<1.8	<3.9	<1.8	5,800	45	NA	NA	9.3
NB-9 @ 2	3/16/2010	2.0	650[a]	<0.759	14	NA	<1.8	<3.9	<1.8	500	62	NA	NA	1,300
VS-1 (Soil Gas)	3/16/2010	5.0	<1,400[b]	NA	NA	NA	12[b]	<5.4[b]	19[b]	<7.7	<7.2[b]	NA	NA	NA
SCHUTZE														
SB-1	1/17/2014	8	<1	<1	<5.0	NA	11	<5	<5	<0.1	<5	NA	51	4.1
SB-3	1/17/2014	10.5	<1	<1	<5.0	NA	35	<5	<5	<0.1	<5	NA	58	6.7
SB-4	1/17/2014	7.5	<1	<1	<5.0	NA	13	<5	<5	<0.1	<5	NA	47	3.3
SB-5	1/17/2014	7.5	<1	<1	<5.0	NA	<5	<5	<5	<0.1	<5	NA	56	9.0
Regulatory considerations														
ESL (Soil/Soil Gas)			100/50,000[b]	100/68,000[b]	100/NV	NV/NV	0.55/210[b]	0.46/300[b]	0.19/3,700[b]	NV	0.077/2,600[b]	Varies	1,000	80
STLC			NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	5.0	5.0

Exceeds ESL
Exceeds 10 X STLC (Potentially Hazardous)
California Hazardous Waste (Failed WET)
Federal Hazardous Waste (Failed WET and TCLP)

Notes:

TEHd = Total extractable hydrocarbons as diesel
TEHmo = Total extractable hydrocarbons as motor oil
TVHg = Total volatile hydrocarbons as gasoline
All results are in milligrams per kilogram (mg/kg) unless otherwise indicated.
ESL Residential = RWQCB Final Environmental Screening Level (December 2013) for residential sites where groundwater is considered a drinking water resource.
ND = Analyte not dtected above the reporting limit; reporting limit unknown
NV = No Value Published
NA = Not Analyzed for Constituent
STLC = Soluble Threshold Limit Concentration (concentrations over 10x STLC require that Waste Extraction Test (WET) be performed for disposal purposes).
* = Total Threshold Limit Concentration (TTLC)
a = TVH result due to discrete peak of non-gasoline compound within range of c5 to c12 quantified as gasoline
b = Soil Gas reults expressed in ug/m^3

TABLE 2
SOIL SAMPLING ANALYTICAL RESULTS
1450 32nd Street, Oakland, California
January 9, 2015 BOREHOLE SAMPLING ANALYTICAL RESULTS

Analyte	BH-1-2	BH-1-3	BH-2-1	BH-2-4	BH-3-2	BH-3-3	BH-4-1	BH-4-2	BH-4-3	BH-5-2	BH-6-1	BH-6-2	BH-6-3	STLC (mg/L)	Potentially Hazardous Criteria (10 x STLC) (mg/L)	ESL (mg/kg) Residential*
HYDROCARBONS																
TPHd	21	1.7	67	ND	110	11	100	1.3	2.2	ND	5.5	ND	ND	NLP	NLP	100
TPHmo	440	10	330	ND	1500	130	1,100	9.7	31	ND	71	ND	ND	NLP	NLP	500
TPHg	ND	ND	2.1	ND	ND	ND	9.4	ND	1.6	ND	ND	ND	ND	NLP	NLP	100
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	0.023
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	0.044
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	2.9
Ethylbenzens	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	3.3
Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	2.3
VOCs Method 8260 List																
PCE	0.042	0.091	ND	ND	0.017	ND	ND	ND	ND	ND	0.53	0.86	ND	NLP	NLP	210
Acetone	ND	ND	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	1.60E+07
Freon 113	ND	ND	ND	ND	0.0092	ND	0.007	ND	ND		ND	ND	ND	NLP	NLP	NLP
MEK	ND	ND	0.022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
4-Isopropyl toluene	ND	ND	0.0084	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	0.031	ND	NLP	NLP	300
1,2,4-Trimethylbenzene	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
1,3,5-Trimethylbenzene	ND	ND	0.0055	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
PESTICIDES (Method 8081A/8082 - 8080 list) + PCBs																
Multiple	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	NLP	NLP	Mulltiple

TABLE 2 CONTINUED
SOIL SAMPLING ANALYTICAL RESULTS
1450 32nd Street, Oakland, California
January 9, 2015 BOREHOLE SAMPLING ANALYTICAL RESULTS

Analyte	BH-7-2	BH-7-3	BH-8-1	BH-8-3	BH-9-1	BH-9-2	BH-9-3	MW-2-1	MW-2-2	MW-2-3	TTLC (mg/kg)	STLC (mg/L)	Potentially Hazardous Criteria (10 x STLC) (mg/L)	ESL (mg/kg) Residential*
HYDROCARBONS														
TPHd	2.7	ND	44	1.2	52	ND	ND	7.6	ND	ND	20	NLP	NLP	100
TPHmo	34	ND	710	ND	500	ND	ND	74	ND	ND	110	NLP	NLP	500
TPHg	ND	ND	2	0.46	1.8	ND	ND	ND	ND	ND	ND	NLP	NLP	100
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	0.023
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	0.044
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	2.9
Ethylbenzens	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	3.3
Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	2.3
VOCs Method 8260 List														
PCE	ND	ND	1.5	ND	0.2	ND	ND	ND	0.058	ND	ND	NLP	NLP	210
Acetone	ND	ND	ND	ND	0.22	0.13	ND	ND	ND	ND	ND	NLP	NLP	1.60E+07
Freon 113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
MEK	ND	ND	ND	ND	0.047	0.023	ND	ND	ND	ND	ND	NLP	NLP	NLP
4-Isopropyl toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	NLP	NLP	300
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.095	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NLP	NLP	NLP
cis-1,2-Dichloroethene	ND	ND	ND	ND	0.035	0.037	0.017	ND	ND	ND	ND	NLP	NLP	3,700
Toluene	ND	ND	ND	ND	0.005	ND	ND	ND	ND	ND	ND	NLP	NLP	1.60E+05
PESTICIDES (Method 8081A/8082 - 8080 list) + PCBs														
Multiple	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NLP	NLP	Mulltiple

Notes:
Sample ID = Boring number and depth in feet bgs where sample was collected (e.g., B1-0-2 represents a soil sample composited from Boring B1 at the depth interval of 0 to 2 feet bgs
TEHd = Total extractable hydrocarbons as diesel
TEHmo = Total extractable hydrocarbons as motor oil
TVHg = Total volatile hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene and total xylenes
All results are in milligrams per kilogram (mg/kg) unless otherwise indicated
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration (concentrations over 10x STLC require that WET be performed)
ESL Residential = RWQCB Environmental Screening Level (May 2013) for residential sites where groundwater is considered a drinking water resource
NLP = No level published.
* = Aquatic Habitat Goal

BOLD type and Highlighted box (see below) indicates exceeds one or more criteria

10 X STLC
Exceeds ESL
Failed WET

NA = Not Anayzed for the constituent indicated
ND = Below the laboratory detection limit.
BOLD type inicates exceedence of one or more criteria

TABLE 3
METALS IN SOIL ANALYTICAL RESULTS
1450 32nd Street, Oakland, California

Analyte	BH-1-2	BH-1-3	BH-2-1	BH-2-4	BH-3-2	BH-3-3	BH-4-1	BH-4-2	BH-4-3	BH-5-2	BH-6-1	BH-6-2	TTLC (mg/kg)	STLC (mg/L)	Potentially Hazardous Criteria (10 x STLC) (mg/L)	ESL (mg/kg) Residential *
TITLE 22 (CAM 17) METALS																
Antimony	0.57	0.73	28	ND	ND	1.0	ND	ND	ND	0.51	0.75	0.6	500	15	150	20
Arsenic	**5.4**	**6.1**	**17.0**	**4.6**	**4.2**	**11.0**	**4.3**	**5.1**	**3.7**	**3.9**	**9.3**	**3.2**	500	5	50	0.39
Barium	130	180	**3200**	160	91	760	150	160	160	180	250	130	10,000	100	1,000	750
Beryllium	ND	0.53	0.59	0.51	ND	0.57	ND	0.5	0.6	ND	0.6	ND	100	0.8	8	4
Cadmium	1.10	0.33	**73**	ND	1.1	0.98	0.46	ND	ND	ND	0.38	ND	500	1	10	12
Chromium	15	48	**180**	41	27	**67**	38	44	43	42	38	30	2,500	5	50	1,000
Cr- WET	NA	NA	0.76	NA	NA	0.81	NA	NA	NA	NA	NA	NA	NA	5	5	NLP
Cobalt	12	6.6	10	10	9.2	7.6	6.6	12.0	10	7	8	4.0	8,000	80	800	23
Copper	21	37	84	15	34	32	24	17	18	18	57	28	2,500	25	250	230
Lead (Pb)	**150**	43	**11000**	7.6	19	**1000**	120	13	8	7.5	**430**	**55**	1,000	5	50	80
Pb WET	**22**	NA	**100**	NA	NA	**290**	**5.2**	NA	NA	NA	**15**	0.55	NA	5	5	NLP
Pb TCLP	0.4	NA	0.5	NA	NA	6.6	ND	NA	NA	NA	ND	NA	NA	5	5	NLP
Mercury	0.21	0.11	0.3	ND	0.07	0.15	0.07	ND	ND	<0.05	0.15	0.12	20	0.2	2	6.7
Mo	1.1	1.1	2.7	0.8	3.6	0.8	0.6	0.6	0.8	0.9	0.6	ND	3,500	350	3,500	40
Nickel	9.1	34	48	36	35	46	26	36	36	32	36	20	2,000	20	200	150
Selenium	ND	0.54	0.65	ND	5.2	0.56	ND	0.5	0.56	ND	ND	ND	100	1	10	10
Silver	ND	ND	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	5	50	20
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	7	70	0.78
Vanadium	53	47	48	41	63	45	46	40	40	39	34	27	2,400	24	240	200
Zinc	280	150	**3500**	35	120	500	84	37	38	40	160	47	5,000	250	2,500	600

Analyte	BH-6-3	BH-7-2	BH-7-3	BH-8-1	BH-8-3	BH-9-1	BH-9-2	BH-9-3	MW-2-1	MW-2-2	MW-2-3		TTLC (mg/kg)	STLC (mg/L)	Potentially Hazardous Criteria (10 x STLC) (mg/L)	ESL (mg/kg) Residential *
TITLE 22 (CAM 17) METALS																
Antimony	ND	0.62	ND	ND	ND	10	ND	ND	ND	ND	ND		500	15	150	20
Arsenic	**3.2**	**4.4**	**3.9**	**6.7**	**3.6**	**12.0**	**4.5**	**4.5**	**7.0**	**4**	**3.6**		500	5	50	0.39
Barium	100	340	150	190	77	1800	150	200	240	110	110		10,000	100	1,000	750
Beryllium	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	ND		100	0.8	8	4
Cadmium	ND	ND	ND	1.20	ND	25	ND	ND	0.6	ND	ND		500	1	10	12
Chromium	38	29	**32**	46	39	81	40	44	37	41	37		2,500	5	50	1,000
Cr- WET	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA		NA	5	5	NLP
Cobalt	5	8	11.0	14	4.6	8	6.2	8	8.0	5	5		8,000	80	800	23
Copper	16	25	14	32	18.0	79	19	20	20.0	18	16		2,500	25	250	230
Lead (Pb)	**6**	**150**	6.4	190	7	**6700**	17	11	110.0	**6**	5.6		1,000	5	50	80
Pb-WET	NA	1.9	NA	7.9	NA	630	NA	NA	4.6	NA	NA		NA	5	5	NLP
Pb-TCLP	NA	NA	NA	ND	NA	66	NA	NA	NA	NA	NA		NA	5	5	NLP
Mercury	0.06	0.32	ND	0.4	ND	0.5	ND	ND	0.1	ND	ND		20	0.2	2	6.7
Mo	ND	ND	ND	ND	ND	2.4	ND	ND	0.7	ND	ND		3,500	350	3,500	40
Nickel	28.0	24.0	23	110	29	23	24	33	47	29	29		2,000	20	200	150
Selenium	ND	ND	ND	ND	ND	ND	0.6	0.5	ND	0.5	ND		100	1	10	10
Silver	ND	ND	ND	ND	ND	0.9	ND	ND	ND	ND	ND		500	5	50	20
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		700	7	70	0.78
Vanadium	33	30	32	66	36	31	41	47	36	37	35		2,400	24	240	200
Zinc	31	75	27	210	35	2000	38	38	180	**36**	31		5,000	250	2,500	600

Exceeds ESL
Exceeds TTLC (Hazradous Waste)
Exceeds 10 X STLC (Potentially Hazardous)
California Hazardous Waste (Failed WET or TTLC)
Federal Hazardous Waste (Failed WET and TCLP)
Arsenic exceeding ESL and below 12 mg/kg

Notes:

TEHd = Total extractable hydrocarbons as diesel
TEHmo = Total extractable hydrocarbons as motor oil
TVHg = Total volatile hydrocarbons as gasoline
All results are in milligrams per kilogram (mg/kg) unless otherwise indicated.
ESL Residential = RWQCB Final Environmental Screening Level (December 2013) for residential sites where groundwater is considered a drinking water resource.
ND = Analyte not dtected above the reporting limit; reporting limit unknown
NV = No Value Published
NA = Not Analyzed for Constituent
STLC = Soluble Threshold Limit Concentration (concentrations over 10x STLC require that Waste Extraction Test (WET) be performed for disposal purposes).
* = Total Threshold Limit Concentration (TTLC)
a = TVH result due to discrete peak of non-gasoline compound within range of c5 to c12 quantified as gasoline
b = Soil Gas reults expressed in ug/m^3
Mo = Molybdenum
NLP= No limit published

Stellar Environmental Solutions, Inc.

Table 4
Groundwater Monitoring Well Construction and Groundwater Elevation Data
1450 32nd Street, Oakland, California

Well	Well Depth (feet bgs)	Screened Interval (feet bgs)	Top of Well Casing Elevation	Depth to Groundwater in feet below top of casing (2/10/2015)	Groundwater Elevation (2/10/2015)
MW-1	20	10 to 20	15.34	4.60	10.74
MW-2	20	10 to 20	16.62	5.33	10.87
MW-3	20	10 to 20	16.14	5.31	10.83
MW-4	20	10 t0 20	15.66	5.65	9.66

Notes:

Elevations are in feet above mean sea level (amsl).
Wells are 2-inch PVC.

TABLE 5
HISTORIC AND CURRENT GROUNDWATER SAMPLING ANALYTICAL RESULTS
1450 32ND STREET, OAKLAND, CA
EXPLORATORY DRILLING RESULTS

Sample ID	Date	TVHg	TEHd	TEHmo	Benzene/MTBE	PCE	TCE	1,1-DCE	cis/trans-1,2-DCE	Freon 113	Dichloro-diflouromethane	Naphthalene	Acetone
NOVA													
NB-1	12/21/2009	<250	<50	<50	NR	2.9	<0.5	NR	<0.5/<0.5	<0.5	ND	0.52	10
NB-3	12/21/2009	1,500	110	290	NR	330	22	NR	81/<0.5	630	ND	ND	ND
NB-5	12/21/2009	<250	<50	<50	NR	<0.5	<0.5	NR	<0.5/<0.5	<10	ND	ND	ND
TRC													
NB-6	3/16/2010	1,100*	<40	<90	NR	350	48	NR	130/1.3	690	<0.5	<1.2	NR
NB-7	3/16/2010	1,700*	<80	<730	NR	230	23	NR	83/<0.40	920	<0.53	<1.3	NR
NB-8	3/16/2010	6,700*	<40	<220	NR	390	44	NR	90/<0.34	5,800	<0.45	<1.1	NR
NB-9	3/16/2010	800*	<40	<380	NR	200	9.8	NR	21/<0.34	500	1.9	<1.1	NR
SCHUTZE													
SB-1	1/17/2014	<50	140	1,200	<0.10/<0.50	1.6	<0.5	<0.5	<0.5/NR	25	NR	NR	NR
SB-2	1/17/2014	180	80	580	<10/<10	340	15	<10	20/NR	170	NR	NR	NR
SB-3	1/17/2014	<50	<50	<250	<5.0/<5.0	<5.0	<5.0	<5.0	18/NR	160	NR	NR	NR
SB-4	1/17/2014	140	<50	730	<10/<10	270	22	<10	57/NR	370	NR	NR	NR
SB-5	1/17/2014	<50	95	540	<0.50/<0.50	4.1	<0.5	0.66	<0.5/NR	2.6	NR	NR	NR
STELLAR ENVIRONMENTAL													
BH-1-W	1/6/2015	37,000	270	410	<500/<500	16,000	1,400	<500	<500/<500	17,000	<500	<500	<10,000
BH-2-W	1/6/2015	210	160	<250	<5/113	140	16	<5.0	<5.0/<5.0	330	<5.0	<5.0	<100
BH-3-W	1/6/2015	340	120	<250	<5.0/<5.0	370	200	<5.0	28/<5.0	200	<5.0	<5.0	<100
BH-4-W	1/6/2015	340	770	650	<5.0/<5.0	330	19	<5.0	<5.0/<5.0	210	<5.0	<5.0	<100
BH-5-W	1/6/2015	160	160	<250	<10/<10	12	1.7	<0.5	<0.5/<0.5	4.7	<0.5	<0.5	<10
MW-1	1/20/2015	170	ND	ND	ND	85.0	11	ND	42/ND	630	ND	ND	NR
MW-2	1/20/2015	ND	ND	ND	ND	ND	ND	ND	ND/ND	ND	ND	ND	NR
MW-3	1/20/2015	320	ND	ND	ND	240	24	ND	58/NR	740	ND	ND	NR
MW-3grab	1/7/2015	140	87	710	NR	280	22	<5.0	<5.0/<5.0	120	<5.0	NR	NR
MW-4	1/20/2015	ND	ND	ND	ND	0.8	2.6	1.1	.53/ND	5.9	ND	ND	NR
ESL		100	100	100	1.0/5.0	5.0	5.0	6.0	6.0/10	NV	NV	6.1	1,500

Notes: Exceeds ESL

TEHd = Total extractable hydrocarbons as diesel
TEHmo = Total extractable hydrocarbons as motor oil
TVHg = Total volatile hydrocarbons as gasoline
All results are in micrograms per kilogram (ug/l) unless otherwise indicated.
ESL Residential = RWQCB Final Environmental Screening Level (December 2013) for residential sites where groundwater is considered a drinking water resource.
ND = Analyte not dtected above the reporting limit; reporting limit unknown
NR = Not Reported
NV = No Value published.

TABLE 6: INDOOR AIR AND SOIL GAS RESULTS
1450 32nd Street, Oakland, California

Analyte	Indoor Air Locations		ESL	
	IA1	IA2	Residential	Commercial
Carbon Tetrachloride	*0.44*	*0.43*	0.058	0.29
Chloroform	*0.096*	*0.14*	0.46	2.3
Chloromethane	*0.6*	*0.66*	94	390
1,4-Dichlorobenzene	*0.035*	*0.039*	0.22	1.1
Dichlorodifluoromethane	*1.8*	*1.8*	NLP	NLP
1,2-Dichloroethane	*0.045*	*0.043*	0.12	0.58
1,2-Dichloropropane	*0.027*	*0.024*	0.24	1.2
Methylene chloride	*0.62*	*0.83*	5.2	26
Tetrachloroethylene	*0.24*	*0.22*	0.41	2.1
Trichloroethene	*0.05*	*0.064*	0.59	3
Trichlorofluoromethane	*1.5*	*1.5*	NLP	NLP
Vinyl chloride	*<.0026*	*<.0026*	0.031	0.16

Analyte	Soil Gas Locations		ESL	
	SG-1	SG-2	Residential	Commercial
TPHg	*3600*	*7300*	50,000	
Tetrachloroethylene	*950*	*2700*	210	
Trichloroethene	*700*	*210*	300	
cis-1,2-Dichlorethlene	*21*	*51*	700	
Freon-113	*140*	*4300*	NLP	
Methylene chloride	*<1.8*	*<1.8*	2,600	

Notes:

NA = not applicable
NLP = no level published
Exceeds ESL for residential sites
Exceeds ESL forcommercial sites
ESLs = Water Board Environmental Screening Levels for commercial/industrial sites

Indoor air samples were collected in the breathing zone between 3–5.feet above the top of the floor or ground surface.

All concentrations are reported in micrograms per cubic meter (µg/m³).
*Area contains trace amounts of chloroform and benzene

April 7, 2017
File No. 01S0760 (RL)

M Squared Development, LLC
Attn: Mr. Richard Millikan
1834 Fourth Street
Berkeley, CA 94710
rmillikan@me.com

SUBJECT: No Further Action, M Squared Development site located at 1450 32nd Street, Oakland, Alameda County

Dear Mr. Millikan:

This letter confirms the completion of site investigation and remedial action for the pollutant releases at the subject site. The attached Case Closure Summary describes remedial activities and our case-closure rationale. We sent a public notification of the proposed case closure to all interested parties, which included a 30-day public comment period. No comments were received.

Based upon the available information, including the current and proposed land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant releases at the subject site is required beyond implementation of an approved Risk Management Plan dated March 2016, and any amendments thereto.

If you have any questions concerning this letter, please contact Randy Lee of my staff at (510) 622 2375, [e-mail: rylee@waterboards.ca.gov].

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment: Case Closure Summary
cc w/attachment: Mailing List

Mailing List

Alameda County Environmental Health Services
Local Oversight Program
Attn: Mr. Dilan Roe dilan.roe@acgov.org
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Mr. Richard S. Makdisi rmakdisi@stellar-environmental.com
& Mr. Steve Bittman sbittman@stellar-environmental.com
Stellar Environmental Solutions, Inc.
2198 Sixth Street, Suite 201
Berkeley, CA 94710

CASE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: April 7, 2017

Agency Name: SF Bay Regional Water Quality Control Board	Address: 1515 Clay Street, Suite 1400
City/State/Zip: Oakland, CA 94612	Phone: 510-622-2375
Responsible Staff Person: Randy Lee, P.E.	Title: Water Resource Control Engineer

II. SITE INFORMATION

Site Facility Name: M-Squared		
Site Facility Address: 1450 32nd Street, Oakland, California, 94608		
RB Case No.: 01-S0760	GeoTracker ID: T10000006297	Priority: Medium
Responsible Parties (include addresses and phone numbers):		
Mr. Rick Millikan (Tel: 510-526-3071) or Matt Millikan (Tel 773.597.7635) 1834 4th Street, Berkeley, CA 94710, Rick Millikan email: rmillikan@me.com		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
NA	NA	NA	NA	NA

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Surface VOC spills to groundwater; non-point source lead in near surface soil		
Site characterization complete? Yes	Date Approved by Oversight Agency: RMP : June 10, 2016	
Monitoring wells installed? Yes	Number: 6	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 2.7	Lowest Depth: 11.5	Flow Direction: Southwest
Most Sensitive Current Use: Industrial, no drinking water use known		
Most Sensitive Potential Use and Probability of Use: Mixed use residential condo/townhouses		
Are drinking water wells affected? No	Aquifer Name: East Bay Plain	
Is surface water affected? No	Nearest surface water name: San Francisco Bay	
Off-Site Beneficial Use Impacts (Addresses/Locations): None		
Report(s) on file? yes, with RWQCB	Where is report(s) filed? RWQCB GeoTracker fileserver	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Soil	88 tons	Removed; Asbestos Management Group (Oakland, CA)	8/25/2015
Trench Purge Water	300 gallons	Removed: Belshire Environmental (Novato, CA)	9/2015
Well Purge Water	275 gallons	Stored in 300 gallon AST. Removal pending	

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP						
Pollutant	**Soil (ppm)**		**Water (ppb)**		**Soil Vapor (µg/m^3)**	
	On or Before 1/2015	**After 11/2016**	**On or Before 1/2015**	**After 11/2016**	**Before None Collected**	**After 1/2015**
TPH Gas	1,100*	ND	37,000	160	NA	7,300
TPH -Diesel	260*	2.9	770	ND	NA	NA
TPH Motor Oil	1,500	ND	1,200	ND	NA	NA
BTEX	ND	ND	ND	ND	NA	32
PCE	3.4	0.017	16,000	380	NA	2,700
TCE	0.031	ND	1,400	22	NA	700
cis-1,2-DCE	0.14	ND	130	58	NA	51
Naphthalene	NA	NA	ND	ND	NA	NA
Lead	11,000	820	ND	ND	NA	NA

Comments:

MTBE = methyl tert butyl ether; TPH = total petroleum hydrocarbons
ND = none detected; NA = not analyzed * = 2009 data

Soil and groundwater containing residual chemicals of concern (COCs) above the applicable ESLs was documented during the site investigation with a potential source area identified as the former Zero Waste process/storage area in the east and northeast portion of the property.

The principal chemical of concern for soil contamination at the property is the metal lead (Pb). Grid sampling across the site identified hotspots, particularly associated with the former Zero Waste processing and storage areas. Based on that discovery, focused excavations were completed to remove the hotspots. Four impacted areas containing TTLC lead concentrations up to 4,800 mg/kg were excavated to depths of up to 4 feet bgs to remove the lead- impacted soil. However, since one of the possible sources for the lead in soil may also be the imported fill, there is a risk that additional lead-impacted soil may be found during the redevelopment stage. The approved March, 2016, Risk Management Plan contains soil management procedures and protocols to address any potential residual soil contamination.

The trenching conducted in the location of the former source area on the east side of the property in August 2015 has removed a significant quantity of PCE impacted soil. 300 gallons of impacted groundwater was removed from the trench. 175 gallons of emulsified zero-valent iron product were introduced into the trench before backfill in an attempt to create a suitable environment for natural bio-attenuation of any residual VOC or TPH in the former source area.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? yes
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? yes
Does corrective action protect public health for current land use? yes
Site Management Requirements: A sub-slab ventilation system (SSVS) and liquid boot vapor barrier will be installed underneath each of the four proposed buildings as part of the planned construction to mitigate potential vapor intrusion risk resulting from residual VOCs in the groundwater and soil vapor. The building footprint and hardscape will cover the entire site with the exception of raised beds for landscaping. This site will require deed restriction to prohibit groundwater use. Future occupants will have to comply with a Risk Management Plan.

Monitoring Wells Decommissioned: Yes	Number Decommissioned: 6	Number Retained: 0
List Enforcement Actions Taken: none		
List Enforcement Actions Rescinded: none		

V. TECHNICAL REPORTS, CORRESPONDENCE, ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Phase I Environmental Site Assessment	10/1/2014
Data Gap Investigation and Impediments to Site Closure	3/21/2015
Soil and Groundwater Contamination Corrective Action Report	12/3/2015
Preferential Pathway and Sensitive Receptor Documentation	12/3/2015
Risk Management Plan for M Squared Development Phase	May 2016
Quarterly Groundwater Monitoring Reports	January 2015-November 2016
Soil and Groundwater Contamination Low Threat Closure Policy Evaluation	12/14/2016

VI. ADDITIONAL COMMENTS, DATA, ETC.

The specific criteria of the Low Threat Closure Policy (LTCP) have been analyzed in detail in the December 14, 2016, Soil and Groundwater Contamination Low Threat Closure Policy Evaluation report, and are summarized below.

a. **Pollutant sources are identified and evaluated**: Satisfied. The unauthorized release includes both VOCs as well as petroleum-based products, along with heavy metals in the soil. However, the primary risk driver and remedy has focused on the residual VOCs, specifically PCE that is considered to be the primary COC.

b. **The site is adequately characterized:** Satisfied. Site investigation, source area identification, remediation and post remediation groundwater monitoring have been completed.

c. **Exposure pathways, receptors, and potential risks, threats, and other environmental concerns are identified and assessed:** Satisfied. The unauthorized release source near the former process and waste storage area was identified and remediated. Pathways of exposure have been evaluated and remediation measures for potential future pathways for shallow soil impact and vapor intrusion risk will be addressed in the RMP during the construction phase and in perpetuity in the deed restriction.

d. **Pollutant sources are remediated to the extent feasible:** Satisfied. The primary VOC and hydrocarbon source was removed during the trenching activity on the east side of the property, associated with the former process area. Soil and groundwater at the source area were remediated to the maximum extent possible and the shallow soil with high lead was also removed.

e. **Unacceptable risks to human health, ecological health, and sensitive receptors, considering current and future land and water uses, are mitigated**: Satisfied. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed. A sensitive receptor survey (Stellar Environmental, Dec 2015) found no pathways of concern. The principal pathway of exposure of vapor intrusion onsite will be mitigated by the SSVS/liquid boot vapor barrier remedy during the construction phase.

f. **Unacceptable threats to groundwater and surface water resources, considering existing and potential beneficial uses, are mitigated.** Satisfied. No surface water impacts are apparent. Groundwater plume has been stabilized and showing overall decreasing trend. Groundwater concentrations of the COCs above the ESLs will attenuate over time though natural attenuation without any significant impacts apparent. Use of groundwater onsite will be prohibited through the institutional control of deed restriction.

g. **Groundwater plumes are decreasing**. Satisfied. The historical data shows attenuation of the groundwater plume downgradient by two orders of magnitude compared to the original pre-remediation concentrations in the groundwater.

h. **Cleanup standards can be met within a reasonable timeframe**. Satisfied. Evaluation has been attempted to predict the timeframe to meet the primary COC PCE's ESL. The meeting of the 63 µg/L PCE ESL for risk of vapor intrusion is likely achievable in 5 to 10 years when extrapolating the attenuation observed across the site, northeast to southwest. Further reduction to 5 µg/L (the PCE drinking water ESL) will take longer, but will be within a reasonable time frame. No nuisance conditions are present at the site.

i. **Risk management measures are appropriate, documented, and do not require future Water Board oversight.** Satisfied. The deed restrictions and the engineering controls committed to in the RMP will provide adequate residual risk management without needing Water Board oversight.

ATTACHMENT D: SCREENING ANALYSIS FOR AIR QUALITY AND GREENHOUSE GAS EMISSIONS

1450 32nd Street Project Air Quality and GHG Emissions Screening

Operational Air Quality (AQ) and Greenhouse Gas (GHG), and Construction AQ - Comparison to BAAQMD Screening Levels

		Operational AQ			Operational GHG			Construction AQ		
Development Type	Project Proposal	Screening Size	% Screening Size	Over Threshold?	Screening Size	% Screening Size	Over Threshold?	Screening Size	% Screening Size	Over Threshold?
Mid rise Residential (ur	19	494	4%	No	172	11%	No	240	8%	No
Commercial (ksf)	1.6	33	5%	No	7	23%	No	277	1%	No
				No			No			No
				No			No			No
				No			No			No
				No			No			No
Total			9%	No		34%	No		8%	No

Screening sizes from Table 3-1 of BAAQMD's CEQA Air Quality Guidelines, May 2012 version, except the GHG screening size of 172 units, which was developed based on the analysis in the City's 2007-2014 Housing Element EIR. "high turnover restaurant" used in the BAAQMD table were used for unspecified commercial use.

ATTACHMENT E: TRIP GENERATION MEMO

FEHR PEERS

MEMORANDUM

Date: July 28, 2017

To: Bruce Kaplan, Lamphier-Gregory

From: Sam Tabibnia and Natalie Chyba

Subject: 1450 32nd Street – Preliminary Transportation Impact Analysis

OK17-0193

This memorandum summarizes our assessment of vehicle trip generation for the proposed development at 1450 32nd Street in Oakland. The project would consist of 19 residential units (10 live/work units, seven multi-family residential units, and two townhouses) at the northwest corner of the 32nd Street/Louise Street intersection in Oakland. The site is currently occupied by an existing office building and metal warehouse, both of which are vacant.

Trip generation estimates were developed in accordance with the City of Oakland's *Transportation Impact Review Guidelines* (April 2017). According to the guidelines, a detailed Transportation Impact Study is required if a project is expected to generate 50 or more peak hour automobile trips. For most projects generating fewer than 50 peak hour automobile trips, only a trip generation analysis documenting the project's trip generation characteristics is required. However, the ultimate decision to conduct a Transportation Impact Study and the potential content of that study rests with City of Oakland staff.

Based on our analysis, the proposed project would generate approximately 115 daily, 12 morning peak hour, and 15 evening peak hour trips on a typical weekday. Since the project is estimated to generate fewer than 50 peak hour trips, a Transportation Impact Study may not be required.

The remainder of this memorandum presents our trip generation analysis in more detail.

TRIP GENERATION

Trip generation is the process of estimating the number of vehicles that would likely access the project. Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual* (Ninth Edition) was used as a starting point to estimate the project vehicle trip generation.

The ITE data is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, the project site is in an urban environment where many trips are walk, bike, or transit trips. Since the proposed project is about 1.5 miles from both the MacArthur and West Oakland BART Stations, the City of Oakland's *Transportation Impact Review Guidelines* recommends a 23.1-percent reduction from the ITE-based trip generation to account for the non-automobile trips. This reduction is based on Census commute data for Alameda County from the 2014 5-Year Estimates of the American Community Survey (ACS), which shows that the non-automobile mode share for urban[1] areas more than 1.0 mile from a BART Station is about 23.1-percent.

Trip generation for the seven multi-family residential units was estimated using the ITE land use category "Apartments" (land use code 210), and trip generation for the two townhouses was estimated using the ITE land use category "Residential Condominium/Townhouse" (land use code 230). Each live/work unit would have a residential component and a non-residential component with allowable business uses, primarily office-type uses. Since ITE does not provide specific data for live/work units, this analysis assumes that each live/work unit would consist of one apartment and that approximately 40-percent of each unit's square-footage would be allocated to office space. It is expected that one or more residents of each live/work unit would also be the primary user of the non-residential component of the unit. To account for this, adjustments were derived using the Alameda County Transportation Commission (ACTC) Countywide Travel Demand Model and assuming 50-percent internalization of home-based work trips. These adjustments were then applied to the live/work units' trip generation.

Table 1 summarizes the trip generation for the proposed project. The project would generate approximately 115 daily, 12 morning peak hour, and 15 evening peak hour trips.

[1]The project vicinity is categorized as "urban" based on the City of Oakland's *Transportation Impact Review Guidelines*, which defines "urban" areas as having a density of more than 10,000 people per square mile.

TABLE 1: AUTOMOBILE TRIP GENERATION SUMMARY

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Live/Work (Residential)	10 DU	220[3]	67	1	5	6	5	2	7
Live/Work (Office)	3.4 KSF[2]	710[4]	37	5	1	6	1	5	6
Townhouses	2 DU	230[5]	12	1	2	3	2	1	3
Apartments	7 DU	220[3]	47	1	3	4	3	2	5
Subtotal			163	8	11	19	11	10	21
Live/Work Internalization[6]			-14	-2	-2	-4	-1	-1	-2
Non-Auto Reduction (-23.1%)[7]			-34	-1	-2	-3	-2	-2	-4
Net New Project Trips			**115**	**5**	**7**	**12**	**8**	**7**	**15**

Notes:

1. DU = Dwelling Units; KSF = 1,000 square-feet.
2. Assumes that 40-percent of each live/work unit would be allocated to office uses
3. ITE *Trip Generation Manual* (9th Edition) land use category 220 (Apartment):
   Daily: $T = 6.65 * X$
   AM Peak Hour: $T = 0.51 * X$ (20% in, 80% out)
   PM Peak Hour: $T = 0.62 * X$ (65% in, 35% out)
   Where $T = Trips\ Generated$ and $X = Number\ of\ Units$
4. ITE Trip Generation Manual (9th Edition) land use category 710 (General Office Building):
   Daily: $T = 11.03 * X$
   AM Peak Hour: $T = 1.56 * X$ (88% in, 12% out)
   PM Peak Hour: $T = 1.49 * X$ (17% in, 83% out)
   Where $T = Trips\ Generated$ and $X = Number\ of\ Units$
5. ITE *Trip Generation Manual* (9th Edition) land use category 230 (Residential Condominium/Townhouse):
   Daily: $T = 5.81 * X$
   AM Peak Hour: $Ln(T) = 0.80 * Ln(X) + 0.26$ (17% in, 83% out)
   PM Peak Hour: $Ln(T) = 0.82 * Ln(X) + 0.32$ (67% in, 33% out)
   Where $T = Trips\ Generated$ and $X = Number\ of\ Units$
6. Adjustment of -20% (daily), -44% (AM), and -24% (PM) assumed to account for 50% internalization of home-based work trips. Per the Alameda County Transportation Commission Countywide Travel Demand Model, home-based work trips comprise 20% of the daily trips, 44% of the AM peak period trips and 24% of the PM peak period trips for multifamily dwelling units.
7. Adjustment of -23.1% assumed based on the City of Oakland's *Transportation Impact Review Guidelines* data for development in an urban environment more than 1.0 mile from a BART Station.

Source: Fehr & Peers, 2017.

Please contact us with questions or comments.