CITY OF NEWARK
PLANNING COMMISSION

37101 Newark Boulevard, Newark, California 94560-3796 □ 510/578-4330 □ FAX 510/578-4265

City Administration Building
7:30 p.m.
City Council Chambers

AGENDA Tuesday, January 27, 2015

A. ROLL CALL

B. MINUTES

C. WRITTEN COMMUNICATIONS

D. ORAL COMMUNICATIONS (Anyone wishing to address the Commission on any planning item not on the Agenda may take the podium and state his/her name and address clearly for the recorder.)

E. PUBLIC HEARINGS

E.1 Hearing to consider: (1) adopting a resolution making certain findings and recommending City Council approval of an Initial Study and Mitigated Negative Declaration (E-14-44); and (2) adopting a resolution approving ASR-14-45, an Architectural and Site Plan Review, for a commercial laundry facility (Mission Linen Supply) to be located at 6590 Central Avenue (APN: 092A-2165-13-1) – from Assistant City Manager Grindall.

(RESOLUTIONS-2)

F. STAFF REPORTS

G. COMMISSION MATTERS

G.1 Report on City Council actions.

H. ADJOURNMENT

Pursuant to Government Code 54957.5: Supplemental materials distributed less than 72 hours before this meeting, to a majority of the Planning Commission, will be made available for public inspection at this meeting and at the Planning Division Counter located at 37101 Newark Boulevard, 1st Floor, during normal business hours. Materials prepared by City staff and distributed during the meeting are available for public inspection at the meeting or after the meeting if prepared by some other person. Documents related to closed session items or are exempt from disclosure will not be made available for public inspection.

E.1 Hearing to consider: (1) adopting a resolution making certain findings and recommending City Council approval of an Initial Study and Mitigated Negative Declaration (E-14-44); and (2) adopting a resolution approving ASR-14-45, an Architectural and Site Plan Review, for a commercial laundry facility (Mission Linen Supply) to be located at 6590 Central Avenue (APN: 92A-2165-13-1) – from Assistant City Manager Grindall. TG (RESOLUTIONS-2)

Background/Discussion – Mission GoldRush, LLC, has made an application to construct an 118,390 square foot commercial laundry facility (Mission Linen Supply) at 6590 Central Avenue (the former Guardian Packaging/American National Can/Alcan/Pechiney site). This property has both a zoning and General Plan designation of General Industrial. A commercial laundry facility is permitted in this district. This review is for the building design and overall site layout.

Mission Linen Supply (MLS) rents textiles such as bed sheets, gowns, tablecloths, napkins, towels, and uniforms. Delivery trucks will pick up soiled textiles from their customers (while dropping off clean product, return to the plant where they are counted, sorted, washed, dried, ironed, folded, and staged. The textiles are ultimately loaded back on to the delivery truck for the next day's deliveries.

MLS was founded around circa 1930 and is headquartered in Santa Barbara. They service California industry from a number of operational and depot distribution facilities throughout the State. The proposed Newark facility will position MLS to better serve the growing health care industry for decades to come in the greater Bay Area.

Project Design

All existing structures on-site will be demolished except for the easternmost tilt-up concrete building at 37707 Cherry Street. This building will be retained for leasing to others as a warehouse or other permitted use in the MG Zoning District.

On the portion of the property fronting Central Avenue, the proposal is for a light industrial building of typical tilt-up construction. The building would have an approximate footprint of 109,046 square feet and a second floor mezzanine around 9,344 square feet. A secondary structure with a footprint of 3,168 square feet is proposed to house the company's fleet maintenance operations. The net increase in usable building floor area for the entire project is only 41,007 square feet.

The Central Avenue façade consists of a two-story storefront framed with an articulated surface of accent color, with the balance as tilt-up concrete utilizing a three-color paint scheme. The main entry is set off from the employee entry by a feature that frames and overhangs the main entry. Mission Linen's facilities typically utilize a three color scheme consisting of light tan, darker tan, and a red accent. Additionally, typical reveals are added to the tilt-up walls to provide shadow lines to help break up the surface.

A solid screen wall will shield the truck yard from Central Avenue along with appropriate landscaping.

Environmental Determination

The Initial Study/Mitigated Negative Declaration was prepared for this project by Mr. Jerry Haag, Urban Planner out of Berkeley. The key issues analyzed were aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

Of these seventeen issues, the Initial Study found that the only new potentially significant impacts resulting from this project would include air quality/greenhouse gas emissions, hazards and hazardous materials, and transportation/circulation. These represent project-specific impacts that are specific to the location of the project site and the development proposed by the project. The study details the mitigation measures necessary to reduce these impacts to less-than-significant, which will be required as part of the project's approval.

In Section 3 (*Air Quality*) of the Attachment to the Initial Study, it is noted that construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of particular matter and fine particulate matter. The Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are employed to reduce these emissions. Mitigation Measure AIR-1 in the Attachment would implement the BAAQMD-recommended best management practices and will be required as a condition of approval.

Emissions from natural gas combustion for all pollutants and sources were calculated using U.S. EPA emission factors for natural gas combustion, except for the boilers which employ a different standard. As proposed, future natural gas emissions from this project, at the maximum output capacity of the equipment could exceed the BAAQMD significance threshold and would be considered potentially significant. However, based on how Mission Linen actually operates (which is not at maximum output of equipment) the BAAQMD significance thresholds would not be exceeded. As such, Mitigation Measure AIR-2 was developed to require a plan to monitor and record natural gas usage to compare with the anticipated usage projections. The project shall be limited in natural gas consumption per year to remain at or below the significance threshold for stationary sources.

Section 7 (*Greenhouse Gas Emissions*) notes that, at maximum condition, the Greenhouse Gas (GHG) emissions would exceed the BAAQMD threshold and would be considered potentially significant. However, as with natural gas, the operational output from Mission Linen reduces this impact to less than significant. Mitigation Measure GHG-1 will require the applicant to develop a GHG Reduction Plan for the City to review and approve prior to the issuance of any building permit. Required elements of this plan are detailed in Section 7.

Section 8 (*Hazards and Hazardous Materials*) states that the demolition of the existing building could release lead based paint particles and asbestos containing materials into the atmosphere. This could be a potentially significant impact and will be reduced to a less-than-significant level by a licensed contractor first determining if lead paint or asbestos are on the site. If found in

quantities at or above actionable levels, the materials shall be safely removed consistent with OSHA and other applicable standards and disposed of in an appropriate location as per Mitigation Measure HAZ-1.

Mitigation Measure HAZ-2 requires that, prior to issuance of a grading permit, a qualified environmental assessor shall prepare a Phase II Environmental Site Assessment to determine the presence or absence of contamination in the site soil or groundwater (if applicable) at appropriate actionable thresholds on the site. If found, as with the lead paint and asbestos, the materials will be safely removed from the site consistent with OSHA and other applicable standards.

Section 16 (*Transportation/Traffic*) notes that traffic and transportation analysis was completed by the firm of Omni-Means Ltd. Their report concluded that with the AM and PM peak hour project trips added to the existing traffic volumes, all four study intersections would be operating at acceptable Levels of Service (LOS). There will be slight vehicle delays at the intersection of Thornton Avenue and Cedar Boulevard. This intersection is projected to change from LOS C (34.7 seconds) to LOS D (35.3 seconds) with proposed project traffic. All other intersections would continue to operate at acceptable levels.

The eastern-most project driveway that will serve delivery trucks/vans has 39 feet of storage capacity for the westbound left-turn movement from Central Avenue into the project site. This is due to an existing raised landscape median on Central Avenue. The resulting 39 feet would not be adequate for large trucks and would be significant in terms of traffic hazards. As such, Mitigation Measure TRA-1 requires that all inbound large trucks shall access the project to/from the west on Central Avenue and/or restrict inbound left-turn access for large trucks to the western-most driveway. This would allow large trucks to travel eastbound on Central Avenue into the project site and avoid potential storage capacity conflicts at the eastern-most project driveway.

The 20-day review period for the Initial Study/Mitigated Negative Declaration ended on December 30, 2014, however, because of the City's December furlough, comments were accepted until January 5, 2015. The City did not receive any comments during the review period, however, a letter from the Alameda County Water District was received on January 7, 2015.

Attachments

Action – It is recommended that the Planning Commission: (1) adopt a resolution making certain findings and recommending City Council approval of an Initial Study and Mitigated Negative Declaration (E-14-44); and (2) adopt a resolution approving ASR-14-45, an Architectural and Site Plan Review, for a commercial laundry facility (Mission Linen Supply) to be located at 6590 Central Avenue (APN: 92A-2165-13-1), with Exhibit A, pages 1 through 10.

(E-14-44)

RESOLUTION NO.

RESOLUTION OF THE CITY OF NEWARK PLANNING COMMISSION MAKING CERTAIN FINDINGS AND RECOMMENDING CITY COUNCIL APPROVAL OF AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR A COMMERCIAL LAUNDRY FACILITY (MISSION LINEN SUPPLY) AT 6590 CENTRAL AVENUE (APN: 92A-2165-13-1)

WHEREAS, the Mission GoldRush LLC project ("Project"), consists of the construction of a commercial laundry facility with associated parking, landscaping and extension of utility services; and

WHEREAS, the entitlements requested include an Architectural and Site Plan Review; and

WHEREAS, pursuant to the requirements of the California Environmental Quality Act (CEQA), a project level Initial Study and Mitigated Negative Declaration has been prepared for the Project, pursuant to Section 15070 *et seq.* of the CEQA Guidelines, to analyze and mitigate the Project's potentially significant environmental impacts; and

WHEREAS, through this study, it has been determined that the Project's potentially significant environmental impacts specifically relate to impacts associated with air quality/greenhouse gas emissions, hazards and hazardous materials, and transportation/circulation; and

WHEREAS, these potentially significant impacts can be mitigated to less than significant as shown in the Attachment to the Initial Study; and

WHEREAS, a 20-day public review period for the Notice of Availability of the IS/MND was established beginning on December 11, 2014 and ending on December 30, 2014. Copies of the notice were transmitted to local agencies concerned with the Project. The notice was posted with the Office of the Alameda County Clerk on December 11, 2014; and

WHEREAS, on January 27, 2015, the Planning Commission of the City of Newark conducted a duly noticed public hearing to consider the Initial Study and Mitigated Negative Declaration of environmental impact for the proposed Project, considered all public testimony, written and oral, presented at the public hearing; and received and considered the written information and recommendation of the staff report for the January 27, 2015 meeting related to the proposed Project.

NOW, THEREFORE BE IT RESOLVED by the Planning Commission of the City of Newark that it hereby recommends that City Council consider adopting the Initial Study and the Mitigation Monitoring and Reporting Program as set forth in Exhibit A to this Resolution and

incorporated herein by reference, and approving the Mitigated Negative Declaration of environmental impact for the Architectural and Site Plan Review, making the following findings:

1. The Initial Study and corresponding Mitigated Negative Declaration of environmental impact were released for public review and said mitigation measures contained within the same would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and;

2. There is no substantial evidence in light of the whole record before the City of Newark that the project may have a significant effect on the environment.

3. The Planning Commission has read and considered the Initial Study and the Mitigated Negative Declaration, and the comments thereon, and has determined the Initial Study and the Mitigated Negative Declaration reflect the independent judgment of the City and were prepared in accordance with CEQA.

4. The Initial Study and the Mitigated Negative Declaration (including any revisions developed under 14 C.C.R § 15070(b)), all documents referenced in the same, and the record of proceedings on which the Planning Commission's decision is based is are located at City Hall for the City of Newark, located at 37101 Newark Blvd, California, and is available for public review.

This Resolution was introduced at the Planning Commission's January 27, 2015 meeting by Commissioner, seconded by Commissioner, and passed as follows:

AYES:

NOES:

ABSENT:

TERRENCE GRINDALL, Secretary

WILLIAM FITTS, Chairperson

RESOLUTION NO.

RESOLUTION APPROVING ASR-14-45, AN ARCHITECTURAL AND SITE PLAN REVIEW FOR A COMMERCIAL LAUNDRY FACILITY (MISSION LINEN SUPPY) AT 6590 CENTRAL AVENUE

WHEREAS, Mission GoldRush, LLC., has filed with the Planning Commission of the City of Newark application for an Architectural and Site Plan Review for a commercial laundry facility to locate at 6590 Central Avenue; and

PURSUANT to Municipal Code Section 17.72.060, a public hearing notice was published in The Argus on January 16, 2015 and mailed as required, and the Planning Commission held a public hearing on said application at 7:30 p.m. on January 27, 2015 at the City Administration Building, 37101 Newark Boulevard, Newark, California; and

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission does hereby approve this application as shown on Exhibit A, pages 1 through 10, subject to compliance with the following conditions:

Planning Division

a. This project is subject to the mitigation measures identified in the Initial Study/Mitigated Negative Declaration and all attachments prepared for this project.

b. California State Law (AB341) requires that all business with four (4) or more cubic yards of waste per week must make arrangements for adequate recycling. Prior to issuance of a building permit, the location and screening design for centralized garbage, refuse, and recycling collection areas (including compactors) for the project shall be submitted for the review and approval of Republic Services, Inc. and the Community Development Director, in that order. Trash enclosures shall provide signage that states that the enclosure doors shall be closed immediately after use. Enclosures must be located so that the doors, when open, do not encroach into required drive-aisles or parking spaces. No refuse, garbage or recycling shall be stored outdoors except within the approved trash and recycling enclosures.

c. The site and its improvements shall be maintained in a neat and presentable condition, to the satisfaction of the Community Development Director. This shall include, but not be limited to, repainting surfaces damaged by graffiti and site clean-up. Graffiti removal/repainting and site clean-up shall occur on a continuing, as needed basis, as required by the Community Development Director. Any vehicle or portable building brought on the site during construction shall remain graffiti free.

d. All exterior utility pipes and meters shall be painted to match and/or complement the colors of the adjoining building surface, as approved by the Community Development Director.

e. All lighting shall be directed on-site so as not to create glare off-site.

f. Prior to the issuance of a building permit, the color elevations of all dissimilar sides of the buildings as submitted as part of this application, shall be submitted for the review and approval of the Planning Commission and City Council. The building elevations shall reflect all architectural features and projections and shall specify exterior materials. A site plan showing the building locations with respect to property lines shall also show the projections.

g. Prior to the issuance of a building permit, a screening design for roof equipment shall be submitted to and approved by the Community Development Director. Roof equipment shall not be visible from public streets. All equipment shall be fully screened within the context of each building's architecture, to the satisfaction of the Community Development Director. Said screening design shall be maintained to the satisfaction of the Community Development Director. The building owner shall paint any visible portion(s) of the roof equipment and the inside of its screening wall within the context of the building's color scheme and maintain the painted areas to the Community Development Director's satisfaction. Screening panels shall not exceed six feet in height unless the screens are part of the integral design elements of the building, as determined by the Community Development Director.

h. Prior to issuance of a sign permit, all signs, other than those referring to construction, sale or future use of this site, shall be submitted to the Community Development Director for review and approval. Signs shall not be located within the public right-of-way or dedicated landscape easements.

i. Construction site trailers and buildings located on-site shall be used for office and storage purposes only, and shall not be used for living or sleeping quarters.

j. Parking lot cleaning with sweeping or vacuum equipment shall not be permitted between 7:00 p.m. and 8:00 a.m.

k. Prior to the issuance of a building permit, the developer shall pay the Community Development Maintenance Fee which is 0.5% of the construction valuation.

l. Measures to respond to and track complaints regarding construction noise shall include: (1) a procedure and phone numbers for notifying the City of Newark Building Inspection Division and Newark Police Department (during regular construction hours and off-hours); and (2) a sign posted on-site pertaining to the permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours).

m. During project construction, if historic, archeological or Native American materials or artifacts are identified, work within a 50-foot radius of such find shall cease and the City shall retain the services of a qualified archeologist and/or paleontologist to assess the significance of the find. If such find is determined to be significant by the archeologist and/or paleontologist, a resource protection plan conforming to CEQA Section 15064.5 shall be prepared by the archeologist and/or paleontologist and approved by the Community Development Director. The plan may include, but would not be limited to, removal of resources or similar actions. Project work may be resumed in compliance with such plan. If human remains are encountered, the County Coroner shall be contacted immediately and the provisions of State law carried out.

Engineering Division

n. Prior to the issuance of a building permit, the developer shall guarantee all required off-site improvements for the project. Improvements include but are not necessarily limited to completion of all sidewalk installations on the Cherry Street and Central Avenue frontages, relocated curb and gutter as necessary to provide a half-street width (street centerline to face of curb) of 39 feet on Central Avenue including construction of a full structural section with asphalt concrete street paving (TI=9.0) as necessary for the curb and gutter relocation, pavement striping, new and modified driveway aprons, two (2) new street lights on the Central Avenue frontage, any and all necessary utility relocations and tie-ins, landscaping, irrigation, and frontage screen walls.

o. This site is subject to the State of California National Pollutant Discharge Elimination System (NPDES) Program General Permit for Storm Water Discharges Associated with Construction Activity. Prior to issuance of a grading permit or a building permit, the developer needs to provide evidence that the proposed site development work is covered by said General Permit for Construction Activity. This will require confirmation that a Notice of Intent (NOI) and the applicable fee were received by the State Water Resources Control Board and the submittal of the required Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the City Engineer. In addition the grading plans need to state: "All grading work shall be done in accordance with the Storm Water Pollution Prevention Plan prepared by the developer pursuant to the Notice of Intent on file with the State Water Resources Control Board."

p. Prior to the issuance of a grading or any building permits for this project, the developer shall submit a Stormwater Pollution Prevention Plan (SWPPP) for the review and approval of the City Engineer. The plan shall include sufficient details to show how storm water quality will be protected during both: (1) the construction phase of the project and (2) the post-construction, operational phase of the project. The SWPPP shall be prepared by a Qualified SWPPP Developer (QSD) in the State of California. The construction phase plan shall include Best Management Practices from the California Storm Water Quality Best Management Practices Handbook for Construction Activities. The specific storm water pollution prevention measures to be maintained by the contractor shall be printed on the plans. The operational phase plan shall include Best Management Practices appropriate to the uses conducted on the site to effectively prohibit the entry of pollutants into stormwater runoff from the project site including, but

not limited to, low impact development stormwater treatment measures, trash and litter control, pavement sweeping, periodic storm water inlet cleaning, landscape controls for fertilizer and pesticide applications, labeling of storm water inlets with a permanent thermoplastic stencil with the wording "No Dumping - Drains to Bay," and other applicable practices.

q. The project must be designed to include appropriate source control, site design, and stormwater treatment measures to prevent stormwater runoff pollutant discharges and increases in runoff flows from the site in accordance with Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP), Order R2-2009-0074, revised November 28, 2011, issued to the City of Newark by the Regional Water Quality Control Board, San Francisco Bay Region. Examples of source control and site design requirements include, but are not limited to: properly designed trash storage areas (this includes a sanitary sewer connection), sanitary sewer connections for all non-stormwater discharges, minimization of impervious surfaces, and treatment of all runoff with Low Impact Development (LID) treatment measures. A properly engineered and maintained biotreatment system will only be allowed if it is infeasible to implement other LID measures such as harvesting and re-use, infiltration, or evapotranspiration. The stormwater treatment design shall be completed by a licensed civil engineer with sufficient experience in stormwater quality analysis and design. The design is subject to review by the City Engineer and the Regional Water Quality Control Board. The developer shall modify the site design to satisfy all elements of Provision C.3 of the MRP. The use of treatment controls for runoff requires the submittal of a Stormwater Treatment Measures Maintenance Agreement prior to the issuance of any Certificates of Occupancy.

r. The developer shall install full trash capture devices in all existing and proposed storm drain inlets on the project site. These trash capture devices shall be selected from a list of devices approved by the Regional Water Quality Control Board as meeting full trash capture requirements under the MRP. These devices shall be regularly cleaned and maintained by the property owner as part of the required Stormwater Treatment Measures Maintenance Agreement.

s. All stormwater treatment measures are subject to review and approval by the Alameda County Mosquito Abatement District. The developer shall modify the grading and drainage and stormwater treatment design as necessary to satisfy any imposed requirements from the District.

t. The developer shall submit a grading and drainage plan for review and approval by the City Engineer and the Alameda County Flood Control and Water Conservation District. This plan must be based upon a City benchmark and needs to include pad and finish floor elevations of each proposed structure, proposed on-site property grades, proposed elevations at property line, and sufficient elevations on all adjacent properties to show existing drainage patterns. All on-site pavement shall drain at a minimum of one percent. The developer shall ensure that all upstream drainage is not blocked and that no ponding is created by this development. Any construction necessary to ensure this shall be the developer's responsibility.

Hydrology and hydraulic calculations shall be submitted for review and approval by the City Engineer prior to approval of the final map. The calculations shall show that the City freeboard requirements will be satisfied (0.75 feet to grate or 1.25 feet to the top of curb under a 10-year storm duration).

u. Where a grade differential of more than a 1-foot is created along the boundary parcel lines between the proposed development and adjacent property, the developer shall install a masonry retaining wall unless a slope easement is approved by the City Engineer. Said retaining wall shall be subject to review and approval of the City Engineer. A grading permit is required by the Building Inspection Division prior to starting site grading work.

v. Prior to issuance of a building permit, the developer shall submit a pavement maintenance program for the drive aisles and parking areas on the project site. The maintenance program shall be signed by the property owner and the property owner shall follow the maintenance program at the City Engineer's direction.

w. The site operator shall ensure that all large trucks entering the site via a left-turn westbound Central Avenue do so by utilizing the westernmost driveway access at all times due to the limited two-way left-turn lane storage capacity at the easternmost driveway.

x. Prior to the issuance of a building permit, the developer shall make a contribution to the City of Newark for the cost of a future Cherry Street traffic corridor study to evaluate potential improvements between Central Avenue and Mowry Avenue that may result in improved overall traffic conditions. This contribution shall be in the amount of $10,000.

y. Prior to the issuance of a building permit, the property owner shall enter into an agreement to guarantee the future undergrounding of all existing overhead utilities along the project frontage. This agreement shall be in a form acceptable to the City Attorney and the City Engineer.

z. Any new utilities including, but not limited to, electric, telephone and cable television services shall be provided underground.

aa. Any proposed utility connections and/or underground work within structurally sound street pavement must be bored or jacked. Open street cuts will not be permitted across Central Avenue and Cherry Street.

bb. The developer shall repair and/or replace any public improvements damaged as a result of construction activity to the satisfaction of the City Engineer.

cc. The developer shall ensure that a water vehicle for dust control operations is kept readily available at all times during construction at the City Engineer's direction.

Landscape-Parks Division

dd. The developer shall install landscape improvements within the Central Avenue and Cherry Street rights-of-way and adjoining landscape easement areas as well as on-site landscaping improvements in accordance with the approved Conceptual Landscape Plan. All off-site improvements shall be guaranteed prior to the issuance of a building permit.

ee. All landscape improvements shall be subject to the existing Landscape Maintenance Agreement recorded as Alameda County Document No. 2007101486. The property owner shall be responsible for maintaining all on-site and off-site landscape improvements in accordance with the terms of this agreement.

ff. The developer shall retain a licensed landscape architect to prepare working drawings for both off-site and on-site landscape plans in accordance with City of Newark requirements, the approved Conceptual Landscape Plan, and the State of California Model Water Efficient Landscape Ordinance. The landscape plans shall be included with the full tract improvement plan set. The associated Landscape Documentation Package must be approved by the City Engineer prior to the issuance of a building permit.

gg. The developer shall implement Bay Friendly Landscaping Practices in accordance with Newark Municipal Code, Chapter 15.44.080. Prior to the issuance of a building permit, the developer shall provide sufficient information to detail the environmentally-conscious landscape practices to be used on the project.

hh. The developer's landscaping shall include minimum 30-inch high mounding or combination of mounding and low masonry screen walls to screen parking areas from Central Avenue and Cherry Street. The height of said mounding or screen walls shall be measured from the higher of adjacent on-site or off-site curb elevations. A minimum of 12 inches of any screen wall shall be above the abutting finish grade. The screening shall be located outside of the City right-of-way and screen wall design, materials, and color finish shall be approved by the Community Development Director.

ii. The plant species identified for any proposed biotreatment measures are subject to final approval of the City Engineer.

jj. Prior to installation by the developer, plant species, location, container size, quality, and quantity of all landscaping plants and materials shall be reviewed and approved by the City Engineer. Street trees shall be planted along the project frontage at 40 feet on-center. All plant replacements shall be to an equal or better standard than originally approved subject to approval by the City Engineer.

kk. Prior to the release of utilities or issuance of any Certificate of Occupancy, all landscaping and irrigation systems shall be completed or guaranteed by a cash deposit deposited with the City in an amount to cover the remainder of the work.

ll. Prior to issuance of Certificate of Occupancy or release of utilities, the developer shall guarantee all trees for a period of 6 months and all other plantings and landscape for 60

days after completion thereof. The developer shall insure that the landscape shall be installed properly and maintained to follow standard horticultural practices. All plant replacements shall be to an equal or better standard than originally approved subject to approval of the City Engineer.

Alameda County Fire Department

mm. The end of the Fire Department access road along the north end of the existing building will need to be equipped with a fire apparatus turnaround that meets the fire department requirements and templates.

nn. Additional fire hydrants will be necessary unless all portions of the buildings are within 400 feet of a hydrant.

Building Inspection Division

oo. Construction for this project, including site work and all structures, can occur only between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. The applicant may make a written request to the Building Official for extended working hours and/or days. In granting or denying any request, the Building Official will take into consideration the nature of the construction activity which would occur during the extended hours/days, the time duration of the request, the proximity to residential neighborhoods, and input by affected neighbors. All approvals shall be done so in writing.

pp. This project is subject to Chapter 15.44 of the Newark Municipal Code, Green Building and Construction and Demolition Debris Recycling. One hundred percent (100%) of all concrete and fifty percent (50%) of all remaining construction and/or demolition debris generated by this project shall be recycled. At the time a demolition permit is issued the applicant will complete the Waste Management Plan and return it to the Building Inspection office prior to the issuance of a Certificate of Occupancy.

General

qq. All proposed changes from approved exhibits shall be submitted to the Community Development Director who shall decide if they warrant Planning Commission and City Council review and, if so decided, said changes shall be submitted for the Commission's and Council's review and decision. The applicant shall pay the prevailing fee for each additional separate submittal of development exhibits requiring Planning Commission and/or City Council review and approval.

rr. If any condition of this Architectural and Site Plan Review be declared invalid or unenforceable by a court of competent jurisdiction, this Architectural and Site Plan Review shall terminate and be of no force and effect, at the election of the City Council on motion.

ss. This Architectural and Site Plan Review shall be given a public hearing before the City Council for the Council's review and approval.

tt. Prior to the submittal for building permit review, all conditions of approval of this project, as approved by the City Council, shall be printed on the plans.

uu. The developer hereby agrees to defend, indemnify, and save harmless the City of Newark, its Council, boards, commissions, officers, employees and agents, from and against any and all claims, suits, actions, liability, loss, damage, expense, cost (including, without limitation, attorneys' fees, costs and fees of litigation) of every nature, kind or description, which may be brought by a third party against, or suffered or sustained by, the City of Newark, its Council, boards, commissions, officers, employees or agents to challenge or void the permit granted herein or any California Environmental Quality Act determinations related thereto or, alternatively, the City will rescind the approval.

vv. The Conditions of Project Approval set forth herein include certain fees, dedication requirements, reservation requirements and other exactions. Pursuant to Government Code Section 66020(d)(1), these Conditions constitute written notice of a statement of the amount of such fees, and a description of the dedications, reservations and other exactions. The developer is hereby further notified that the 90-day approval period in which the developer may protest these fees, dedications, reservations and other exactions, pursuant to Government Code Section 66020(a), has begun. If the developer fails to file a protest within this 90-day period complying with all of the requirements of Section 66020, the developer will be legally barred from later challenging such exactions.

This Resolution was introduced at the Planning Commission's January 27, 2015 meeting by Commissioner, seconded by Commissioner, and passed as follows:

AYES:

NOES:

ABSENT:

TERRENCE GRINDALL, Secretary

WILLIAM FITTS, Chairperson

ALAMEDA COUNTY WATER DISTRICT

43885 SOUTH GRIMMER BOULEVARD • FREMONT, CALIFORNIA 94538
(510) 668-4200 • FAX (510) 770-1793 • www.acwd.org

January 5, 2015

Terrence Grindall
City of Newark-Community Development Department
City of Newark
37101 Newark Boulevard
Newark, CA 94560

Dear Mr. Grindall:

Subject: Draft Initial Study and Mitigated Negative Declaration for the Mission Linen Project located at the Southwest corner of Cherry Street and Central Avenue (APNs 092-2165-013-01 & 092-2165-004-02)

The Alameda County Water District (ACWD) wishes to thank you for the opportunity to comment on the Draft Initial Study and Mitigated Negative Declaration for the Mission Linen Project (Project).

ACWD staff has reviewed the Draft Initial Study and Mitigated Negative Declaration (IS/MND) and offers the following comments for your consideration:

1. Groundwater Well Protection/Destruction: ACWD has identified a water well located within the project area. In order to protect the groundwater basin, each well located within the property must be in compliance with ACWD Ordinance No. 2010-01. If the well is to remain, a letter so indicating must be sent to ACWD and will require a permit for inactive classification if the well will not be used for a period of twelve (12) months. Any abandoned wells located within the project area must be properly destroyed prior to construction activities.

2. Drilling Permit Requirement: As required by ACWD Ordinance No. 2010-01, drilling permits are required prior to the start of any subsurface drilling activities for wells, exploratory holes, and other excavations. Application for a permit may be obtained from ACWD's Engineering Department, at 43885 South Grimmer Boulevard, Fremont or online at http://www.acwd.org. Before a permit is issued, a cash or check deposit is required in a sufficient sum to cover the fee for issuance of the permit or charges for field investigation and inspection. All permitted work requires scheduling for inspection; therefore, all drilling activities must be coordinated with ACWD prior to the start of any field work.

3. Utilities and Service Systems – Water Supply:
    a. Due to the projected water demand at the proposed facility, ACWD requests the applicant coordinate closely with ACWD prior to applying for the extension of water service to the site in order to confirm all appropriate water efficiency measures have been implemented. ACWD strongly encourages internal water recycling to the extent practical for indoor and outdoor use.

    b. The ACWD service area and the State of California are currently experiencing a water supply shortage emergency. ACWD has taken steps to encourage water use reductions throughout the service area. On March 13, 2014, ACWD declared a water shortage emergency and adopted ACWD Ordinance No. 2014-01, imposing broad water use restrictions, water use prohibitions, and other measures, including restrictions on water use for purposes other than domestic use, public health, and fire protection. These restrictions will remain in place through the end of the water shortage emergency. In addition, ACWD may adopt additional water use restrictions or implement other measures should they become necessary.

4. ACWD Contacts: The following ACWD contacts are provided so that the City can coordinate with ACWD as needed during the CEQA process:
    - Stephanie Nevins, Water Conservation Supervisor at (510) 668-4207, or by e-mail at stephanie.nevins@acwd.com, for coordination regarding water supply issues.

    - Michelle Myers, Well Ordinance Supervisor, at (510) 668-4454, or by e-mail at michelle.myers@acwd.com, for coordination regarding groundwater wells and drilling permits.

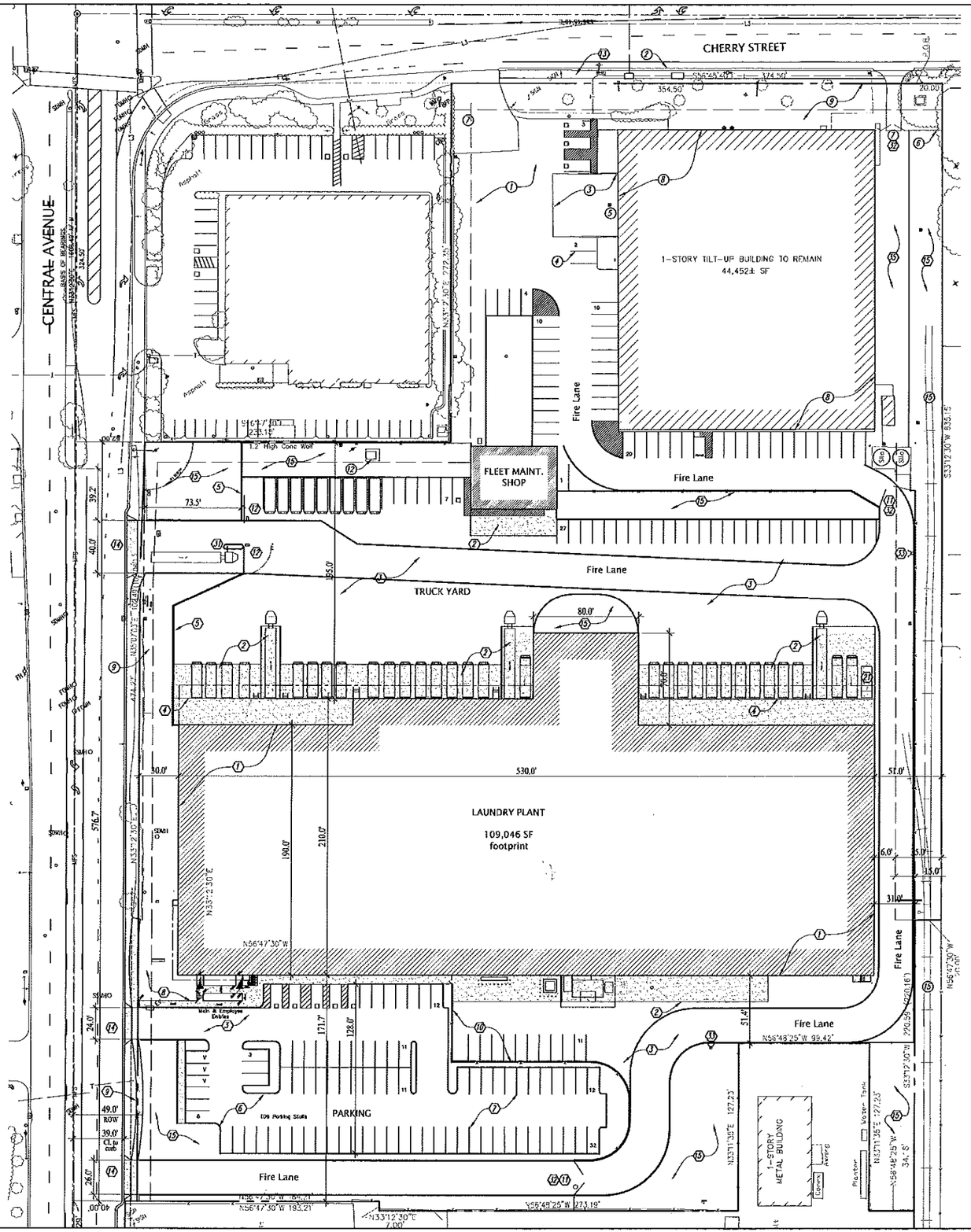
    - Ed Stevenson, Manager of Engineering and Technology Services, at (510) 668-4401, or by e-mail at ed.stevenson@acwd.com, for coordination regarding public water systems and water services.

Again, thank you for the opportunity to comment on the Draft Initial Study and Mitigated Negative Declaration for the Mission Linen Project.

Sincerely,

Steven D. Inn
Manager of Water Resources

mam/tf
By E-mail
cc: Ed Stevenson, ACWD
Leonard Ash, ACWD
Stephanie Nevins, ACWD
Michelle Myers, ACWD



KEYED NOTES

1. Proposed New Tilt-Up Building
2. Concrete paving or apron
3. Asphalt paving
4. Conc. dock edge
5. Solid screen wall, tilt-up panels, 6' hi AFF or 8' abv. yard paving, whichever is higher
6. 6" Conc. curb
7. Parking stall striping, use white traffic paint, 2" wide, 9' x 18' stalls, typ
8. Irrigated landscape area – see Landscape Plans
9. Public sidewalk to match (E) meandering style – see Civil Site Plans
10. Chain link fencing.
11. Chain link manual gate
12. Wrought iron, automatic gate
13. Public sidewalk – see Civil Site Plans
14. Driveway per City Stds.
15. Bio-retention area – see both Civil Site and Landscape Plans
16. Gate operator
17. Card reader
18. 6"ø conc. filled pipe bollard
19. Retaining wall – see Civil Site Plans Plans
20. Edge of canopy above
21. Trash compactor location
22. New curb and gutter setback per City req's. – see Civil Site Plans
23. ADA accessible parking stalls with complying signage, grades, & paint
24. Gas meter location
25. Elec. transformer pad
26. Filter press on platform and sludge refuse bin
27. Not Used.
28. Tilt-panel screen wall to canopy roofline
29. Refuse (garbage) bin
30. Parshall flume / monitoring manhole – see Civil Site Plans
31. Fire Department over-ride switch shall be provided for automatic gate operation by the FD.
32. Provide multi-padlock gate hardware at all manual gates to accomodate FD padlocks in addition to Owners.
33. Fire hydrant
34. 30" high solid screen wall per City standards.
35. Gravel paving.

EXISTING FEATURES THAT REMAIN

1. Asphalt paving
2. Curb & gutter
3. Concrete paving
4. Paint stripe for (E) parking stalls
5. Truck well dock
6. Chain link fence
7. Manual gate
8. Tilt-up concrete shell
9. Landscape area – see Landscape Plans
10. Utility box or abv. ground feature – see Civil Site Plans
11. Public sidewalk
12. Elec. service transformer
13. SD Catch basin – see Civil Site Plans
14. FH
15. Union Pacific spur track
16. 60 ft. tall metal silos with cell phone equipment on top still under lease To be removed as soon as legally feasible.
17. Metal shed bldg. with power equipment associated with cell tower.

DEMOLITION NOTES

Demolition Plans have been omitted from this submittal set

EXHIBIT A p.1

1"=40'

Project North

AEI Agee Engineering, Inc.
Agee Engineering, Inc.
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1724 Alicante St.
(530) 758-2040
Davis, CA 95618
Fax (530) 758-2047

SCOTT R. AGEE
No. C-31398
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA

Date Signed:

LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

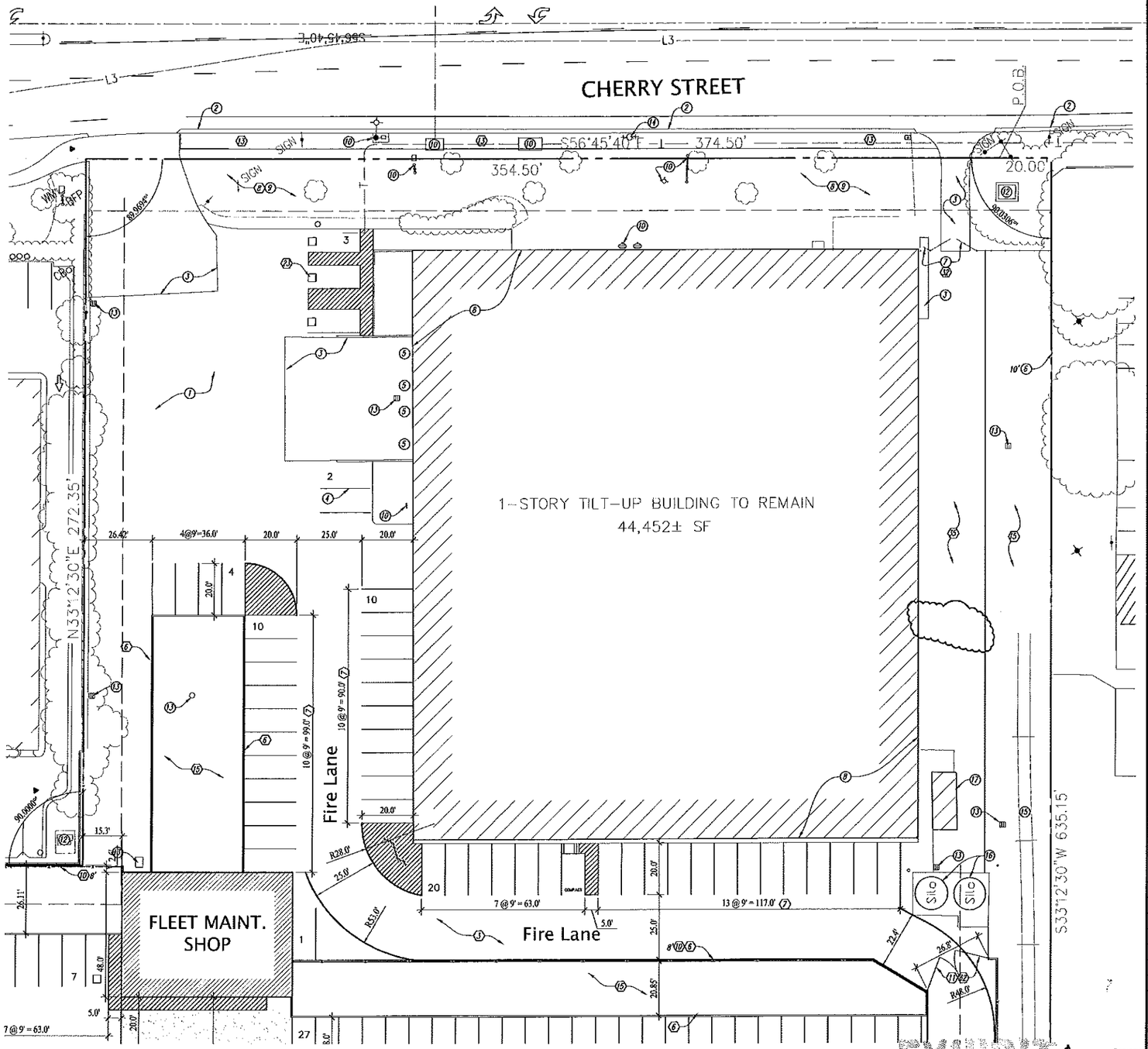
REVISIONS	
5	12-12-14
4	8-29-14
3	7-25-14
2	4-18-14
1	4-10-14

CONCEPTUAL SITE PLAN

Date	Drawn By
4-8-14	SRA
Job No. 14-02	Sheet No. A1.0

KEYED NOTES

See Dwg. A1.0 for all Keyed Notes for Dwg. A1.0 thru A1.3



SEE DWG. A1.2 FOR CONTINUATION

EXHIBIT A, 2

AEI Agee Engineering, Inc.

Agee Engineering, Inc.
INDUSTRIAL BUILDING DESIGN
1724 Alicante St.
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REGISTERED PROFESSIONAL ENGINEER
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No. C-31306
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA
Date Signed

LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REVISIONS	
5	12-12-14
4	8-29-14
3	7-25-14
2	4-18-14
1	4-10-14

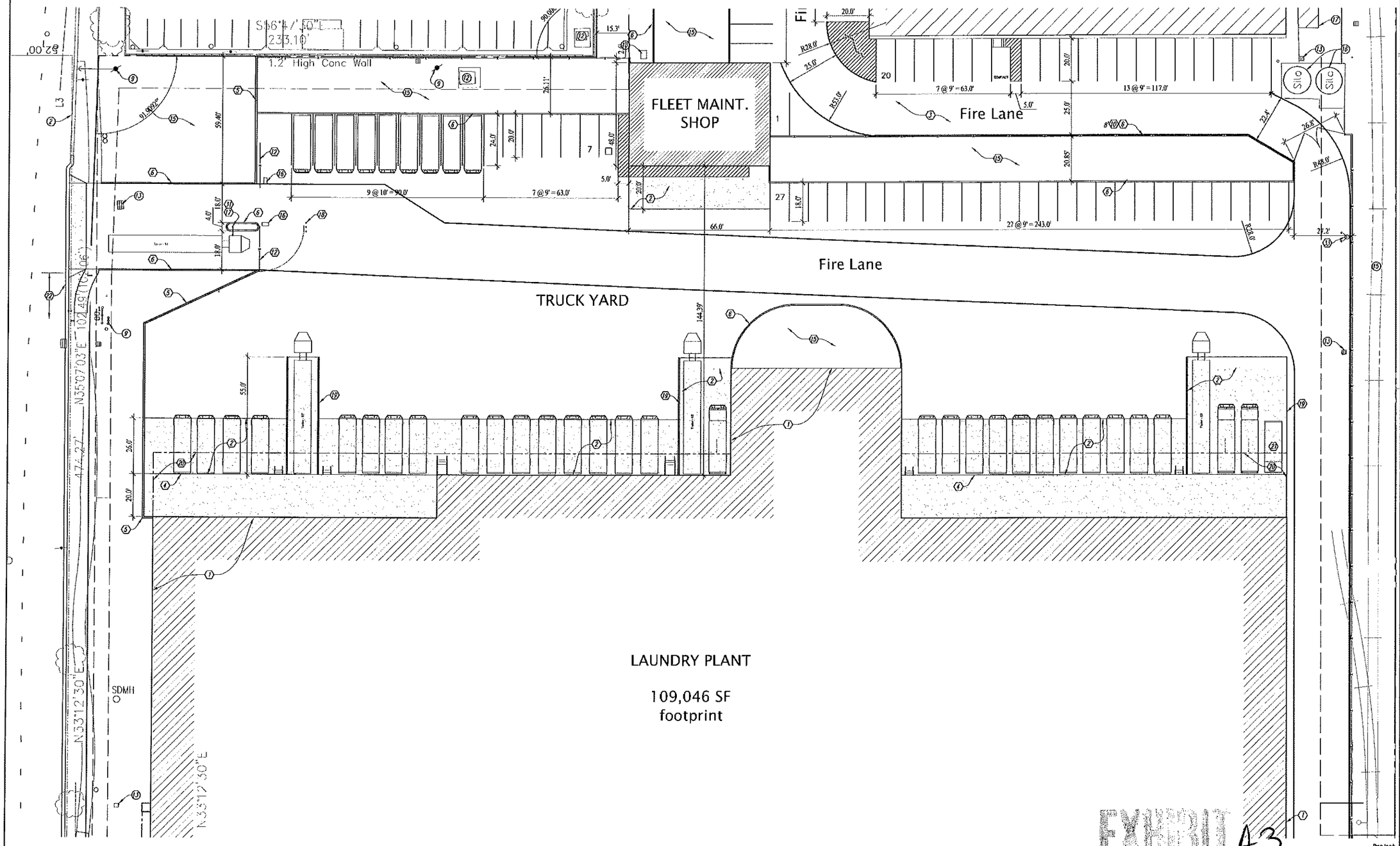
ARCHITECTURAL SITE PLAN
37707 CHERRY ST.

DATE	DRAWN BY
4-8-14	SRA
JOB NO. 14-02	SHEET NO. A1.1

KEYED NOTES

See Dwg. A1.0 for all Keyed Notes for Dwg. A1.0 thru A1.3

SEE DWG. A1.1 FOR CONTINUATION



SEE DWG. A1.3 FOR CONTINUATION

EXHIBIT A3

Project North

1"=20'

AEI
Agee Engineering, Inc.

Agee Engineering, Inc.

INDUSTRIAL BUILDING DESIGN

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Fax (530) 758-2047
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(530) 758-2040

REGISTERED PROFESSIONAL ENGINEER
SCOTT R. AGEE
No. C-31396
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA
Date Signed

LAUNDRY FACILITY for
MISSION GoldRush, LLC
6590 Central Ave. Newark, CA 94560

REVISIONS

5	12-12-14
4	8-29-14
3	7-25-14
2	4-10-14
1	4-10-14

ARCHITECTURAL SITE PLAN EASTERN SECTOR

DATE 4-8-14 | DRAWN SRA

JOB NO. 14-02 | SHEET NO. A1.2

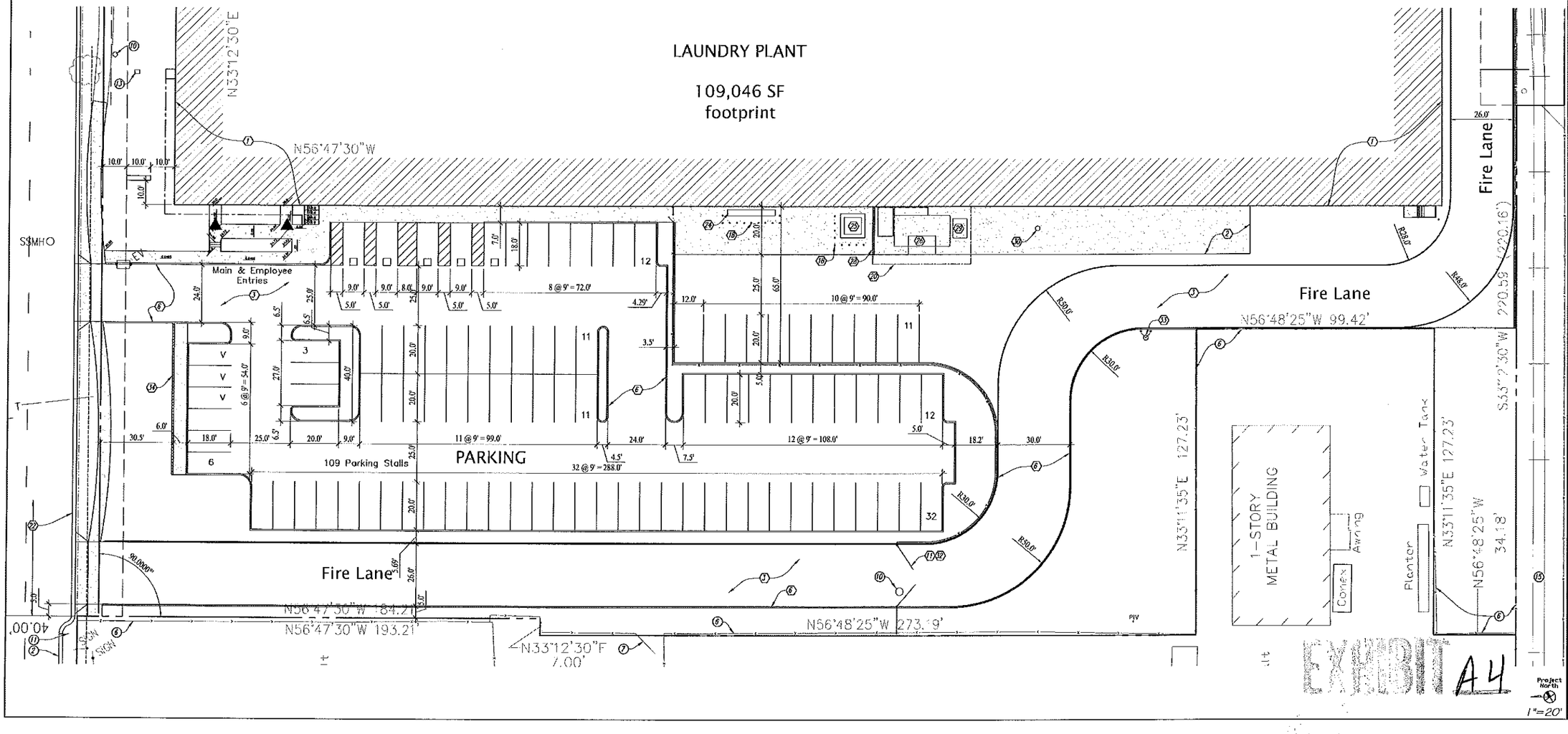
KEYED NOTES

See Dwg. A1.0 for all Keyed Notes for Dwg. A1.0 thru A1.3

SEE DWG. A1.2 FOR CONTINUATION

LAUNDRY PLANT

109,046 SF
footprint



AEI
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1724 Alicante St.
(530) 758-2040

REGISTERED PROFESSIONAL ENGINEER
SCOTT A. AGEE
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EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA
Date Signed

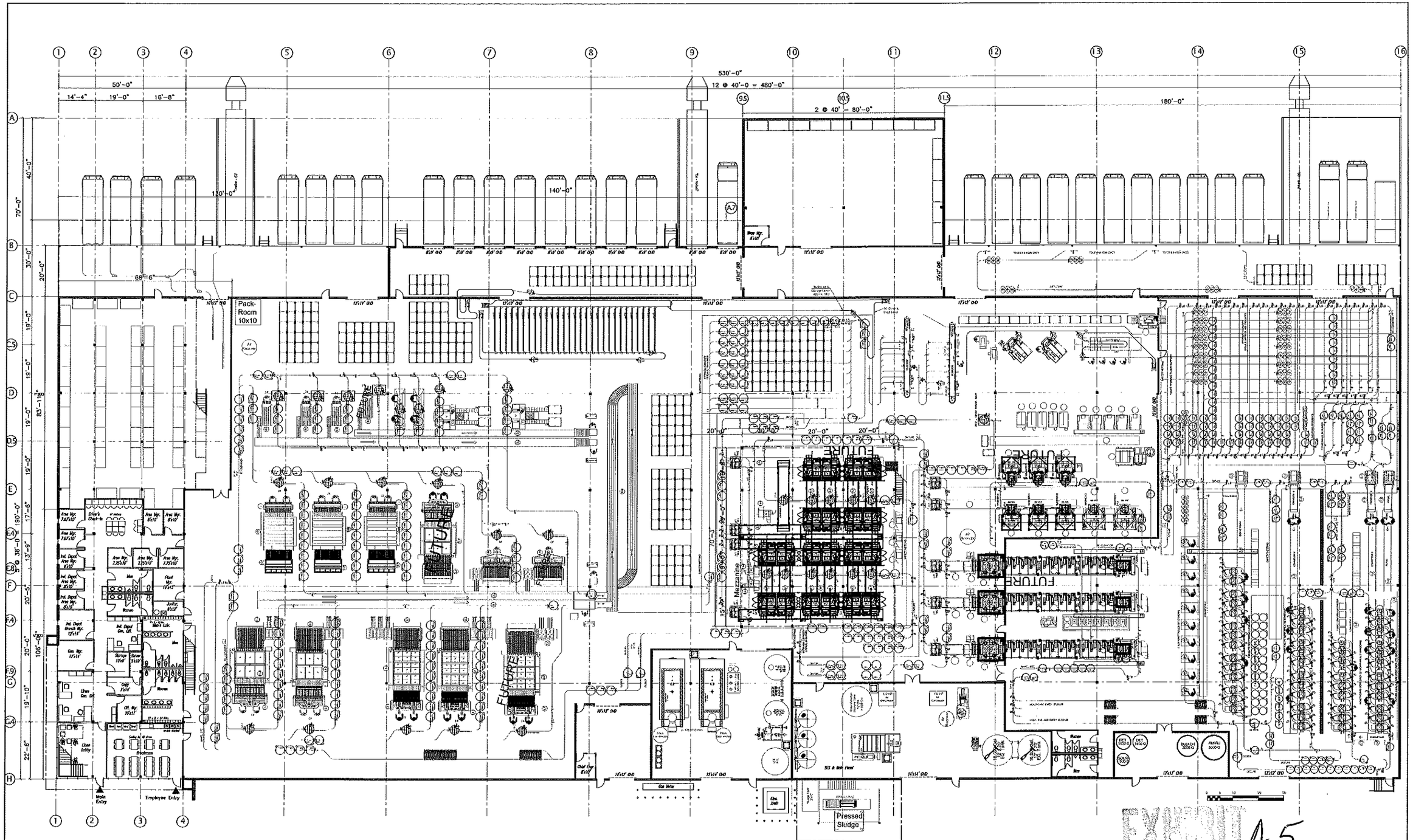
LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REVISIONS	
5	12-12-14
4	8-29-14
3	7-25-14
2	4-18-14
1	4-10-14

ARCHITECTURAL SITE PLAN WESTERN SECTOR

4-8-14	SRA
14-02	A1.3



LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REGISTERED PROFESSIONAL ENGINEER
JEFF R. AGEE
No. C-31396
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA
Date Signed

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AEI Agee Engineering, Inc.
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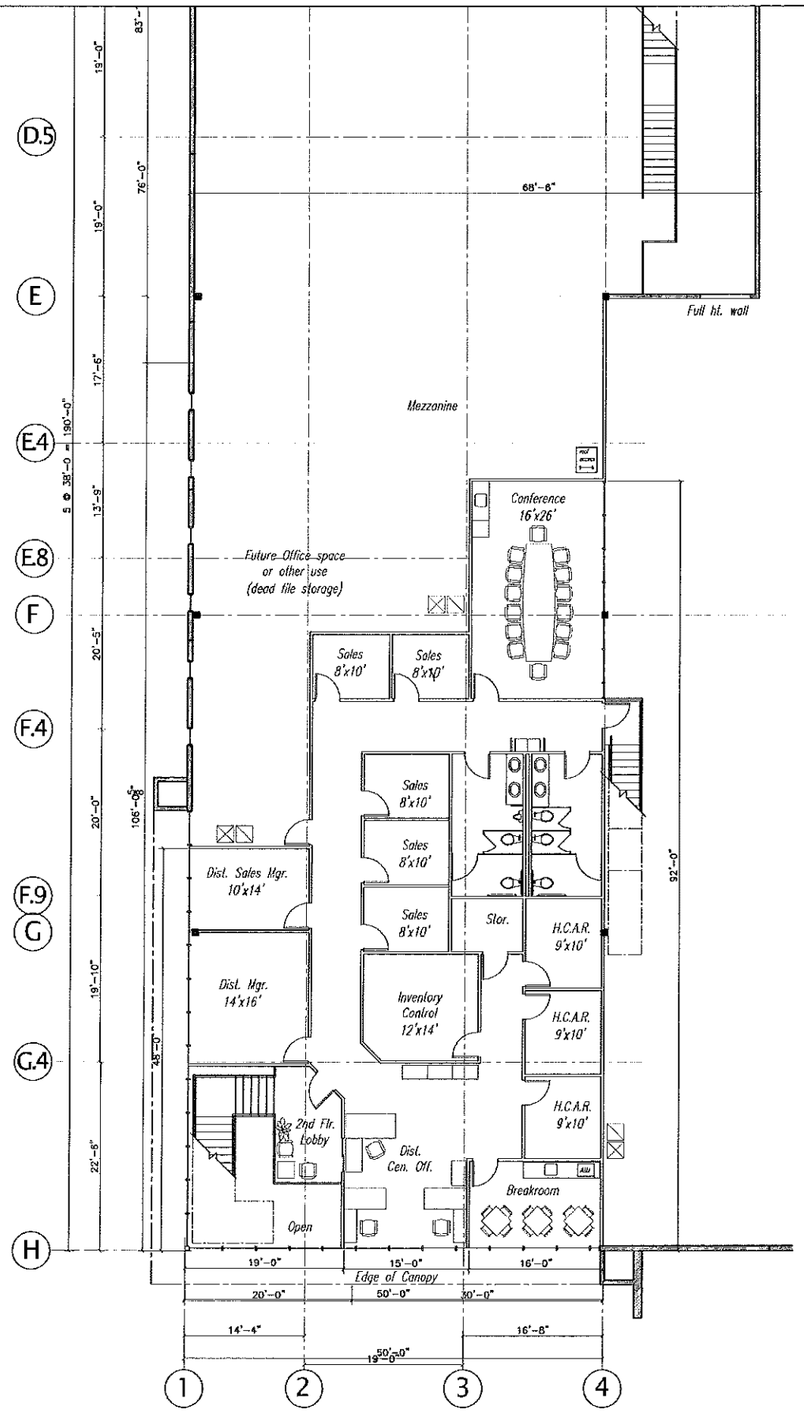
Davis, CA 95618 Fax (530) 758-2047

REVISIONS		
2	8-29-14	
1	4-17-14	

FIRST FLOOR PLAN

DATE	DRAWN BY
4-8-14	SRA
JOB NO.	SHEET NO.
14-02	A2.0



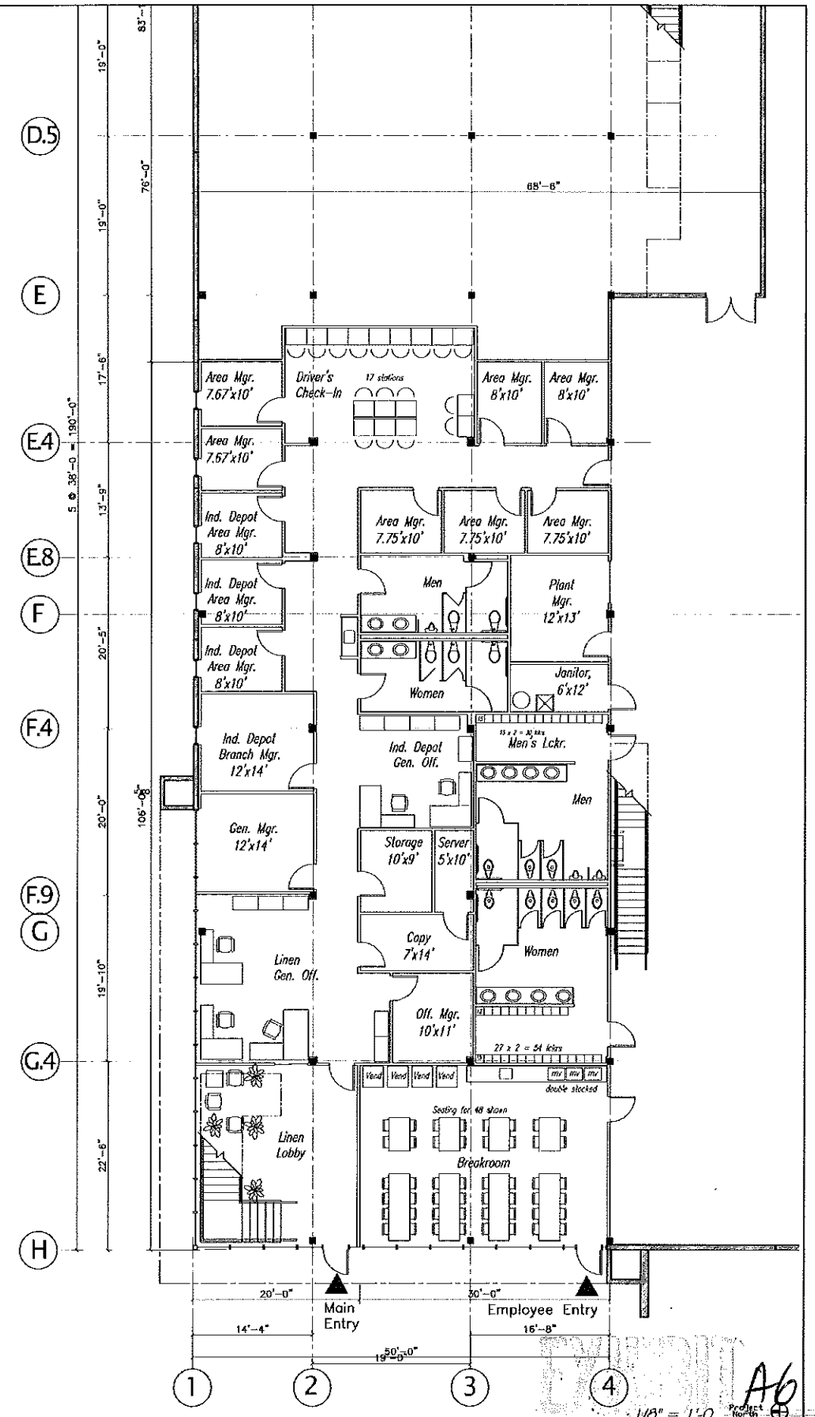


EXHIBIT A6

1/8" = 1'-0" Project North

LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REGISTERED PROFESSIONAL ENGINEER — SCOTT R. AGEE — No. C-31396 — EXP. 12-31-2014 — STATE OF CALIFORNIA — Civil

Data Speed

Agee Engineering, Inc.

AEI Agee Engineering, Inc.

INDUSTRIAL BUILDING DESIGN

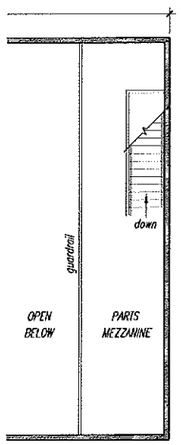
1724 Alicante St. (530) 758-2040

Davis, CA 95618 Fax (530) 758-2047

REVISIONS		
2	8-29-14	
1	4-17-14	

ENLARGED 1st & 2nd FLOOR OFFICE PLANS

DATE	DRAWN BY
4-8-14	SRA
JOB NO.	SHEET NO.
14-02	A2.1



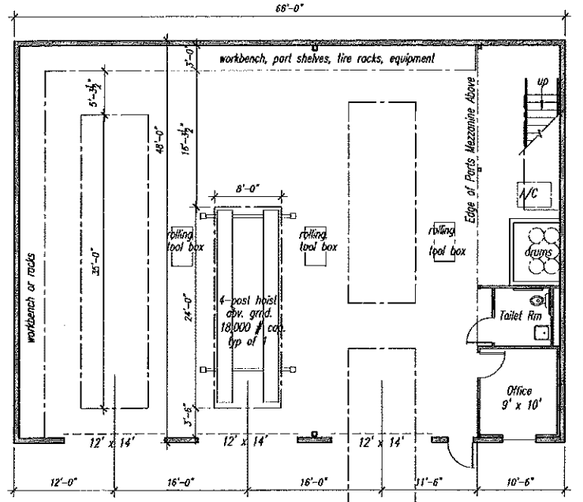


EXHIBIT A7

1/8" = 1'-0"

AEI Agee Engineering, Inc.

Agee Engineering, Inc.

INDUSTRIAL BUILDING DESIGN

1724 Alicante St.
(530) 758-2040

Davis, Ca. 95618
Fax (530) 758-2047

REGISTERED PROFESSIONAL ENGINEER
SCOTT A. AGEE
No. C-31396
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA

Date Signed

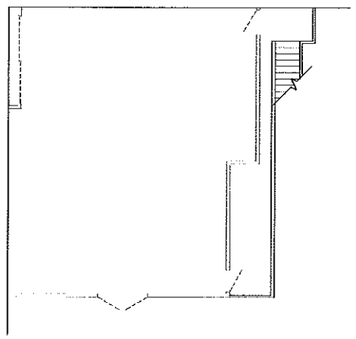
LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REVISIONS	
2	8-29-14
1	4-17-14

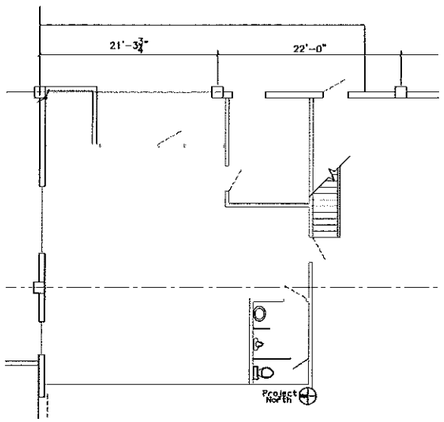
FLEET MAINTENANCE GARAGE FLOOR PLAN

DATE	DRAWN BY
4-3-14	SRA
SCALE	SHEET NO.
14-02	A2.2



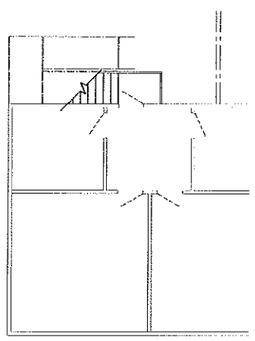
(E) 2nd FLOOR STORAGE PLAN

1/8" = 1'-0"



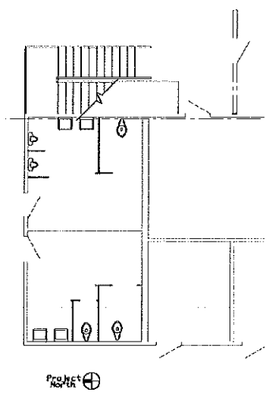
(E) MAIN OFFICE PLAN

1/8" = 1'-0"



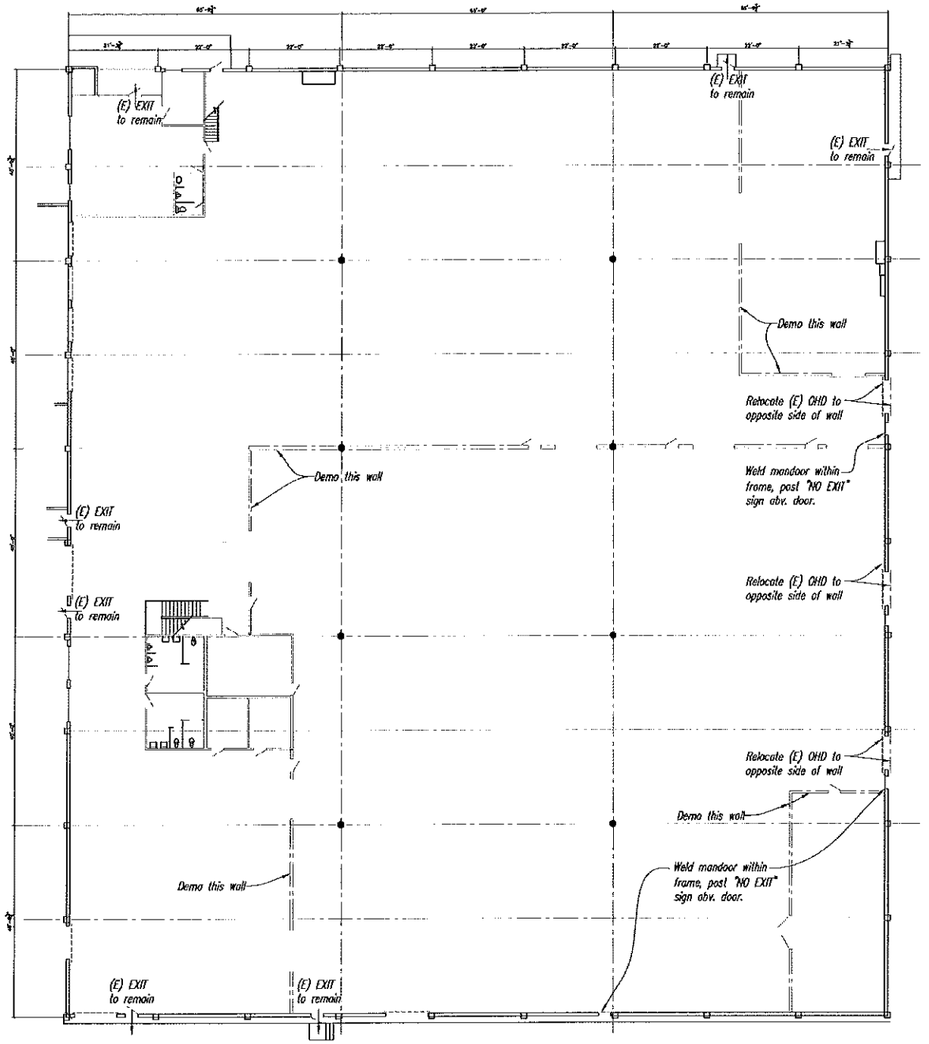
(E) 2nd FLOOR OFFICE PLAN

1/8" = 1'-0"



(E) TOILET ROOM PLAN

1/8" = 1'-0"



EXISTING WAREHOUSE - OVERALL FLOOR PLAN

1/16" = 1'-0"

A8

AEI
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REGISTERED PROFESSIONAL ENGINEER
SCOTT R. AGEE
No. C-31395
EXP. 12-31-2014
CIVIL
STATE OF CALIFORNIA
Date Signed

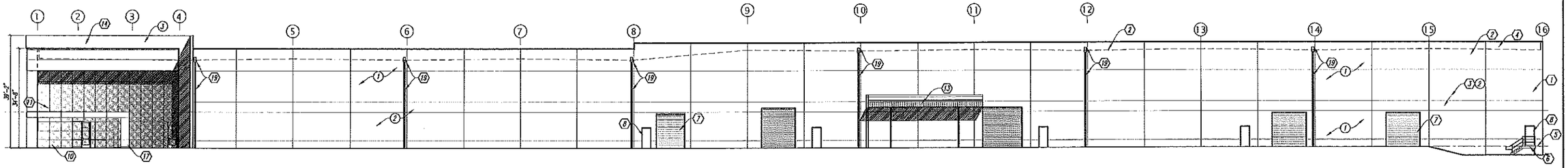
LAUNDRY FACILITY for
MISSION GoldRush, LLC
6590 Central Ave. Newark, CA 94560

REVISIONS

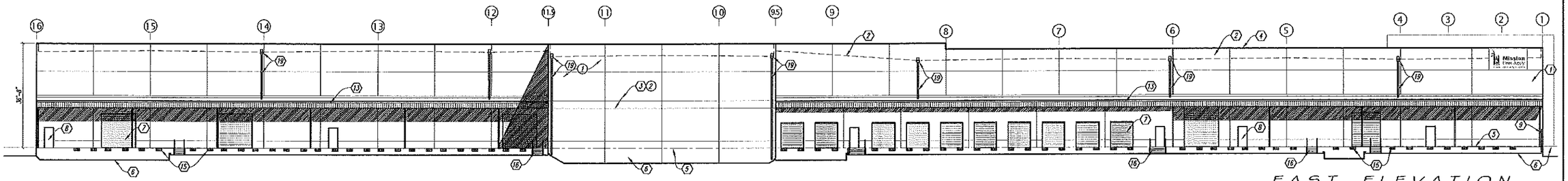
2	8-29-14
1	8-21-14

37707 CHERRY ST. FLOOR PLAN

DATE	DRAWN BY
4-8-14	SRA
JOB NO.	SHEET NO.
14-02	A2.3



WEST ELEVATION



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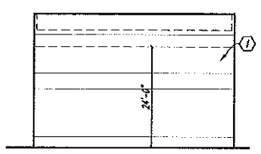
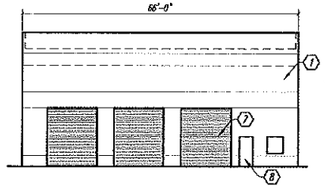
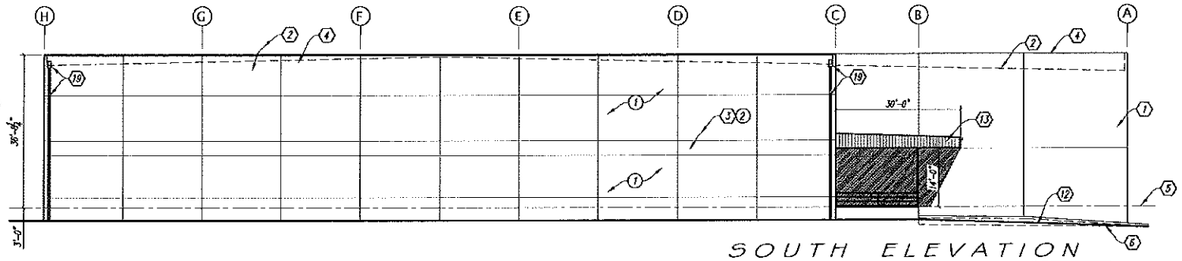


NORTH ELEV.



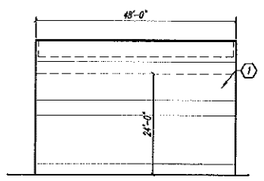
WEST ELEV.



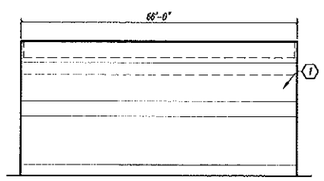
SOUTH ELEVATION

KEYED NOTES

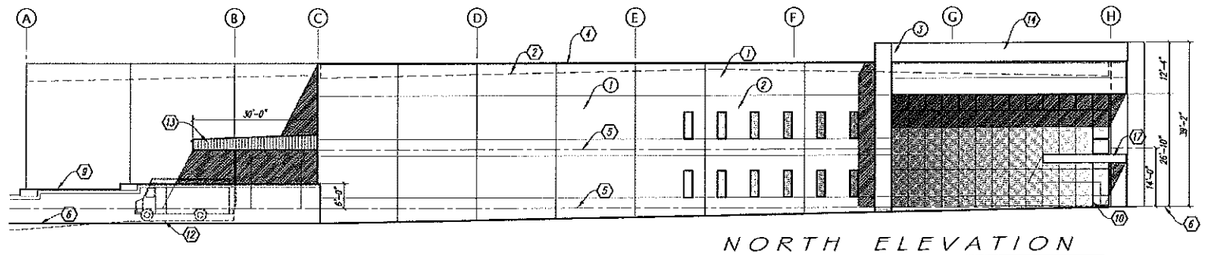
1. Tilt-Up Concrete
2. Roof line
3. Color &/or texture &/or recess break line
4. Pre-finished metal cap flashing
5. Finish Floor
6. Finish Grade
7. Rolling steel door, painted, factory finish, typ.
8. Painted hollow metal man door.
9. Solid screen wall, tilt-up concrete
10. Anodized alum. storefront system, with high performance glazing
11. Spandral (opaque) glass
12. Dock slab beyond
13. Pre-finished metal siding at truck canopy fascia
14. Plaster finish with integral color coat
15. Rubber dock bumpers
16. Steel exit stair
17. Aluminum Composite panel canopy
18. Wrought iron gate
19. Pre-finished metal rain water leader, leader head & scupper



SOUTH ELEV.



EAST ELEV.

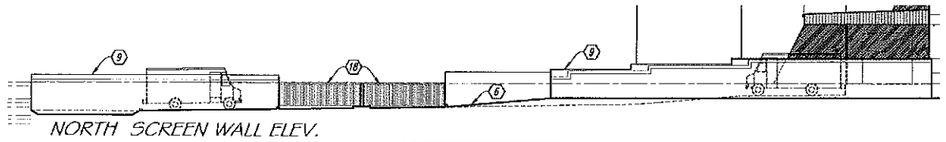


NORTH ELEVATION

EXTERIOR COLORS

1 = Snip at Tanin
2 = Swiss Coffee
3 = Seattle Red

EXHIBIT A9



NORTH SCREEN WALL ELEV.

1/16" = 1'-0

LAUNDRY FACILITY for MISSION GoldRush, LLC

6590 Central Ave. Newark, CA 94560

REGISTERED PROFESSIONAL ENGINEER — JEFF R. AGEE — No. C-31395 EXP. 12-31-2014 — STATE OF CALIFORNIA — Civil

Agee Engineering, Inc.

AEI Agee Engineering, Inc.

INDUSTRIAL BUILDING DESIGN

1724 Alicante St. (530) 758-2040

Davis, CA 95618 Fax (530) 758-2047

REVISIONS		
3	8-29-14	
2	6-6-14	
1	4-17-14	

EXTERIOR ELEVATIONS

DATE 4-8-14 — DRAWN SRA

JOB NO 14-02 — SHEET NO A4.0

BAY-FRIENDLY BASICS IMPLEMENTATION

1. MULCH
REQUIREMENT: ALL SOIL ON SITE IS PROTECTED WITH A MINIMUM OF 3 INCHES OF MULCH AFTER CONSTRUCTION.

IMPLEMENTATION: 3 INCHES OF MULCH WILL BE SPECIFIED.

2. AMEND THE SOIL WITH COMPOST BEFORE PLANTING
REQUIREMENT: COMPOST IS SPECIFIED AS THE SOIL AMENDMENT, AT THE RATES INDICATED BY A SOIL ANALYSIS TO BRING THE SOIL ORGANIC MATTER CONTENT TO A MINIMUM OF 3.5% BY DRY WEIGHT OR 1 INCH OF COMPOST. IF THE IMPORTED OR SITE SOIL MEETS THE ORGANIC CONTENT OF 3.5% OR MORE, THEN THE REQUIREMENT IS WAIVED.

IMPLEMENTATION: PROJECT CONSTRUCTION DOCUMENTS TO INCLUDE SOIL AMENDMENT SPECIFICATION WHICH INCLUDES PROVISIONS FOR HORTICULTURAL SOIL TESTING. COMPOST WILL BE ADDED AS A SOIL AMENDMENT CONSISTENT WITH THE SOILS TEST REPORT.

3.REDUCE AND RECYCLE LANDSCAPE CONSTRUCTION WASTE
REQUIREMENT: DIVERT 50% OF LANDSCAPE CONSTRUCTION AND DEMOLITION WASTE BY WEIGHT. VERIFY THE LOCAL JURISDICTION'S MINIMUM REQUIREMENT AND REPORTING PROCEDURES FOR CONSTRUCTION AND DEMOLITION (C&D) RECYCLING.

IMPLEMENTATION: REQUIREMENT WILL BE ADDED TO LANDSCAPE SPECIFICATIONS.

4. CHOOSE & LOCATE PLANTS TO GROW TO NATURAL SIZE
REQUIREMENT: SPECIES WILL BE SELECTED AND PLANTS SPACED TO ALLOW THEM TO GROW TO THEIR NATURAL SIZE AND SHAPE . PRUNING FOR STRUCTURAL INTEGRITY AND HEALTH OF PLANT IS PERMITTED. IN ADDITION, PLANTS LOCATED IN A ROW OR ADJACENT TO BUILDINGS, SIDEWALKS OR ROADS WILL BE SPACED BETWEEN THEIR MINIMUM AND MAXIMUM MATURE PLANT SPREAD ACCORDING TO A PUBLISHED REFERENCE PLANT BOOK AND STILL FIT INTO THIER PLANTING AREA WITHOUT SIGNIFICANT OVERHANG. TREES MUST MEET THE SPACING REQUIREMENTS ONLY WHEN ADJACENT TO BUILDINGS, IN A ROW OR OTHER ADJACENT TO OTHER VERTICAL OBSTRUCTIONS. VINES ARE NOT SUBJECT TO SPACING REQUIREMENTS.

IMPLEMENTATION: PLANTS WILL BE SELECTED, LOCATED AND SPACED TO ADDRESS THE REQUIREMENT.

5. DO NOT PLANT INVASIVE PLANT SPECIES
REQUIREMENT: NONE OF THE PLANT SPECIES LISTED IN CAL-IPC'S "DON'T PLANT A PEST", AS "INVASIVE" IN THE SAN-FRANCISCO BAY AREA, ARE INCLUDED IN THE PLANTING PLAN.

IMPLEMENTATION: INVASIVE PLANTS WILL NOT BE SPECIFIED.

6. GROW DROUGHT-TOLERANT CA NATIVE, MEDITERRANEAN OR CLIMATE ADAPTED PLANTS
REQUIREMENT: A MINIMUM OF 75% OF THE TOTAL NUMBER OF PLANTS IN NON-TURF AREAS MUST BE SPECIES THAT REQUIRE NO OR LITTLE SUMMER WATERING ONCE ESTABLISHED. SPECIES SHOULD BE ADAPTED TO THE CLIMATE IN WHICH THEY WILL BE PLANTED, AS REFERENCED BY A PUBLISHED PLANT REFERENCE. IF PLANTS ARE GIVEN A RANGE OF WATER NEEDS FROM "OCCASIONAL TO MODERATE" FOR EXAMPLE, THE LANDSCAPE DESIGNER MUST DETERMINE IF THE PLANT WILL REQUIRE EITHER OCCASIONAL OR MODERATE WATERING BASED ON SITE, SOIL, AND CLIMATE CONDITIONS AND CATEGORIZE THE PLANT APPROPRIATELY.

IMPLEMENTATION: PLANT SPECIES WILL BE SELECTED AND SPECIFIED TO ADDRESS THE REQUIREMENT.

7. MINIMIZE THE LAWN
REQUIREMENT: A MAXIMUM OF 25% OF TOTAL IRRIGATED AREA IS SPECIFIED AS TURF, WITH SPORTS OR MULTIPLE USE FIELDS EXEMPTED.

IMPLEMENTATION: NO NEW LAWN AREAS ARE PLANNED. THE EXISTING LAWN ON THE CHERRY STREET FRONTAGE IS BEING RETAINED; BUT REDUCED IN SIZE TO ACCOMODATE THE NEW SIDEWALK.

8. SPECIFY WEATHER-BASED IRRIGATION CONTROLLERS
REQUIREMENT: WEATHER-BASED IRRIGATION CONTROLLERS, SOIL MOISTURE BASED CONTROLLERS OR OTHER SELF-ADJUSTING IRRIGATION CONTROLLERS, SHALL BE REQUIRED FOR ALL IRRIGATION SYSTEMS.

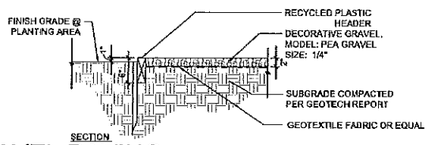
IMPLEMENTATION: A WEATHER-BASED CONTROLLER WILL BE SPECIFIED.

9. SPRINKLER & SPRAY HEADS ARE NOT SPECIFIED FOR AREAS LESS THAN 8 FEET WIDE
REQUIREMENT: SPRINKLER AND SPRAY HEADS ARE NOT SPECIFIED IN AREAS LESS THAN OR EQUAL TO 8 FEET WIDE TO PREVENT OVERSPRAY AND RUNOFF. ACCEPTABLE ALTERNATIVES INCLUDE DRIP, SUBSURFACE DRIP, BUBBLERS OR NO IRRIGATION. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER BUBBLER.

IMPLEMENTATION: THE IRRIGATION SYSTEM WILL BE DESIGNED TO THE REQUIREMENT.

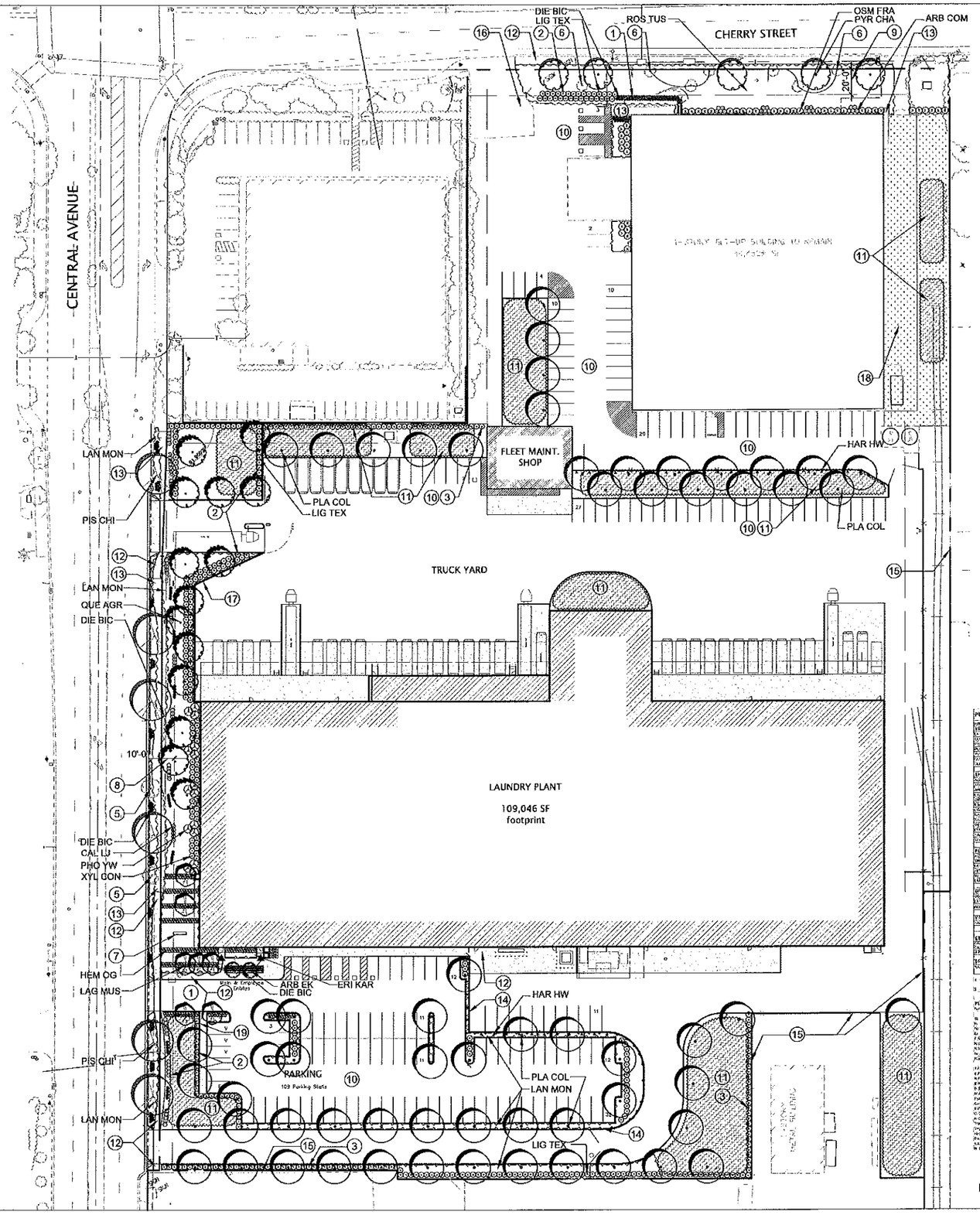
NOTES

1. FOR PROPOSED IRRIGATION DESIGN STANDARDS, SEE SHEET L-2.



1 GRAVEL PAVING

SCALE: 3/4" = 1'-0"

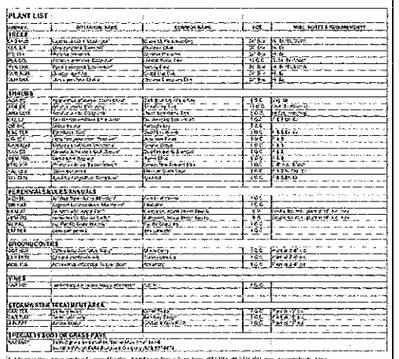


LEGEND

- EXISTING TREES TO REMAIN
- PROPOSED TREES
- SHRUB AND GROUNDCOVER AREA
- STORMWATER TREATMENT AREA

KEY NOTES

1. IDENTITY PLANTING AT ENTRY
2. SHRUBS TO SCREEN PARKING
3. SCREENING SHRUBS
4. VINES ON FENCE
5. EXISTING PLATANUS ACERIFOLIA TO REMAIN
6. EXISTING SEQUOIA SEMPERVIRENS TO REMAIN
7. MONUMENT SIGN--PROPOSED
8. 10 FT WIDE LANDSCAPE & PUBLIC UTILITY EASEMENT ON CENTRAL AVE
9. 20 FT WIDE LANDSCAPE & PUBLIC UTILITY EASEMENT ON CHERRY ST
10. PARKING AREA
11. STORMWATER TREATMENT AREA, SEE CIVIL ENG PLAN. SEE PLANTLIST FOR SWALE PLANT SPECIES
12. CONCRETE SIDEWALK--PROPOSED
13. CONCRETE SIDEWALK--EXIST TO REMAIN
14. 8 FT CHAIN LINK FENCE--PROPOSED
15. 6 FT CHAIN LINK FENCE--EXIST TO REMAIN
16. 3 FT CHAIN LINK FENCE & METAL POLE GATE TO BE REMOVED
17. TILT PANEL WALL (6 FT ABOVE FINISH FLOOR OR 8 FT ABOVE TRUCK YARD--WHICHEVER IS HIGHER)-SEE AGEE ENGINEERING PLANS
18. GRAVEL PAVING-SEE DETAIL BELOW
19. SCREEN WALL AT PARKING--SEE AGEE ENGINEERING PLANS



PROJECT NORTH

0 20' 40' 80'

A10

Agee Engineering, Inc.
INDUSTRIAL BUILDING DESIGN
1724 Alicante St. (530) 758-2040
Davis, CA 95618 Fax (530) 758-2047

Taniguchi Landscape Architecture
CA 3340
1013 South Claremont St. Ste 1
San Mateo, CA 94401
tel. 650.578.9565
fax. 650.578.9566

Date Signed

LAUNDRY FACILITY for MISSION GoldRush, LLC
6590 Central Ave. Newark, CA 94560

REVISIONS

CONCEPTUAL LANDSCAPE PLAN

DATE 12-15-14 | DRAWN BY DT | JOB NO TLA# 14008 | SHEET NO L-1

Initial Study/
Mitigated Negative Declaration

Project:
Mission Linen Project

Lead Agency:
City of Newark

December 2014

Table of Contents

City of Newark
Environmental Checklist/ Initial Study

Introduction

This Initial Study has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) and assesses the potential environmental impacts of implementing the proposed project described below. The Initial Study consists of a completed environmental checklist and a brief explanation of the environmental topics addressed in the checklist.

Contact Person

Terrence Grindall, AICP
City of Newark
Community Development Department
37101 Newark Boulevard
Newark, CA 94560
(510) 578 4208

Project Sponsor

Mission Linen Supply
Agent: Agee Engineering Inc.
1724 Alicante St.
Davis CA 95618

Attn: Scott Agee
(530) 758 2040

Project Location and Context

The project site is located within the City of Newark on the southwest corner of Central Avenue and Cherry Street. The site address is 6590 Central Avenue. The Alameda County Assessors Parcel Numbers (APNs) for the site includes: 092A-2165-013-01 and 092A-2165-004-02.

The site contains approximately 10.1-acres of land and has been developed with a two-story metal industrial building containing approximately 44,452 square feet fronting on Cherry Street just to the south of the corner building. A second building is located on the site just to the west of the building described above. The second building contains 63,191 square feet of floor space.

An on-site parking lot has also been constructed on a portion of the site. Non-native trees and shrubs have been planted within the parking lot.

No significant vegetation or other scenic features, such as water courses or major rock outcroppings, exist on the site.

Surrounding land uses consist of light industrial buildings and uses. A wireless cellular facility has been constructed on the southern portion of the site.

Exhibit 1 depicts the project site in relation to the City of Newark. **Exhibit 2** shows the project site in context of surrounding streets and other features.

Project Description

Development Plan. The applicant is proposing to construct an industrial laundry building on the southern portion of the site. **Exhibit 3** shows the proposed project site plan. The applicant currently operates a smaller laundry facility in Union City and proposes to close that facility and relocate to this site.

A proposed one- and two-story laundry building would contain up to 118,390 square feet of floor area. A majority of the building would be one-story with approximately 9,344 square feet of office located on a second story. Other improvements would include parking lots, a truck yard and a future truck service area. The building would have a maximum height of 39' 2" at the tallest portion of the building. The existing tilt-up industrial building fronting on Cherry Street would remain and be re-occupied by a use consistent with the Newark Zoning Ordinance. The existing 63,191 square foot building would be demolished to be replaced by the new building.

Proposed Use. The site user would be Mission Linen Service that provides items such as bed sheets, gowns, tablecloths, napkins, uniform and similar textile items to a range of commercial customers in the bay area. Mission Linen Service trucks would leave the site during early morning hours to dispense clean materials and pick up soiled. Once returned, these items would be laundered and then sent out again.

Internal operations would consist of large industrial boilers to launder items, packaging areas and administrative offices. Loading docks would also be constructed.

The applicant proposes to operate the facility on two shifts (daily or M-F?) from approximately 5 a.m to 9 p.m. Estimated employee count is 286 employees at full build-out, composed of administrative, production and van/truck delivery staff.

Building Elevations. The proposed Mission Linen building would be constructed as a concrete tilt-up building. Portions of the south and west elevations would contain painted steel roll-up doors. The northwest corner of the building would be enhanced by large glass panels set in aluminum frames

Circulation, Parking and Access. Vehicle access to and from the proposed laundry plant would be provided by two new driveways along Central Avenue. Parking for 99 vehicles would be provided along the south side of the laundry building. The paved area north of the laundry building would be used for laundry truck loading and unloading with an area reserved for on-site truck maneuvering.

Fleet truck maintenance would be accomplished off of the project site, but could be relocated to the site in the future

Pedestrian sidewalks have been constructed along the Central Avenue frontage and a portion of the Cherry Street frontage.

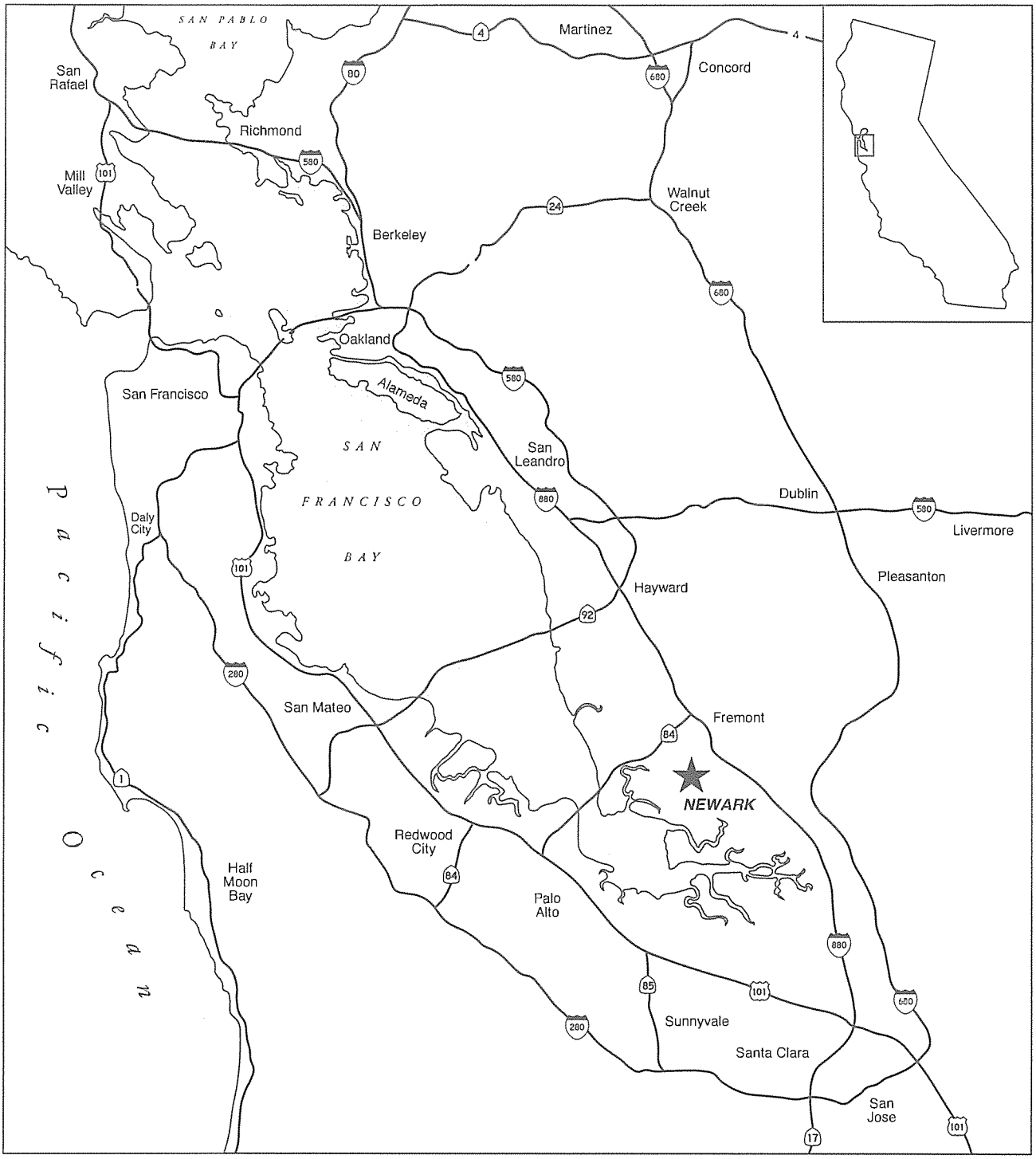
Landscaping. Existing landscaping adjacent to Central Avenue and Cherry Street would remain. Landscaping would also be installed within the proposed vehicle parking lot. Other on-site landscaping would be provided on the site.

Utilities Grading and Water Quality. Existing water and wastewater service to the site provided by the Alameda County Water District (ACWD) and Union Sanitary District (USD) would continue.

On-site water quality features, including but not limited to bio-swales, would also be provided.

Land Use Entitlements. Requested land use entitlements include the following:

- *Architectural & Site Plan Review*. Architectural and Site Plan review will be required to approve the overall layout of the proposed project, exterior building elevations, landscaping, lighting and project signs.



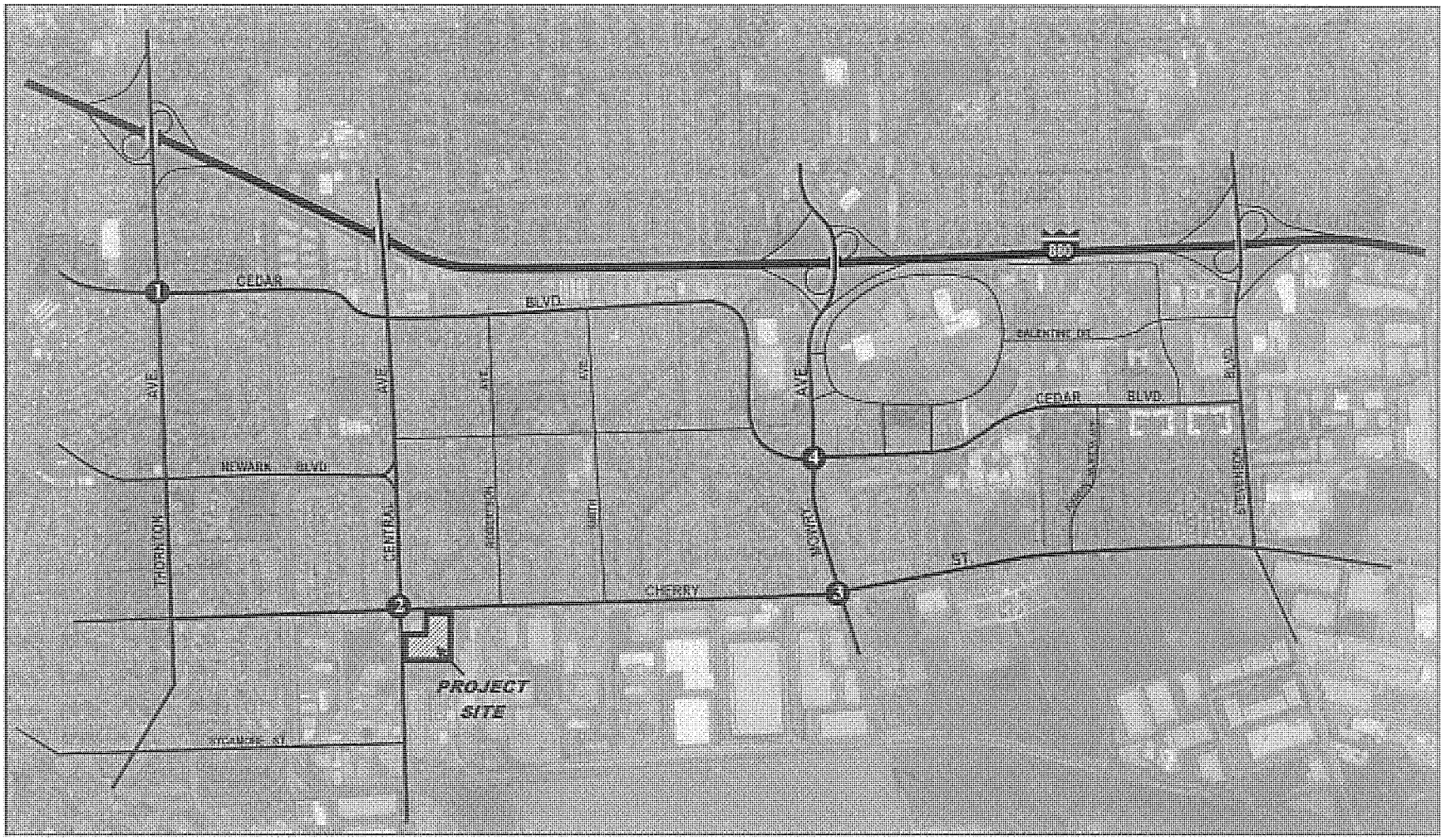
Blue Ox Associates, Berkeley, California 11-20-2014

Exhibit 1

REGIONAL LOCATION

0 2 4 6 8 10 miles

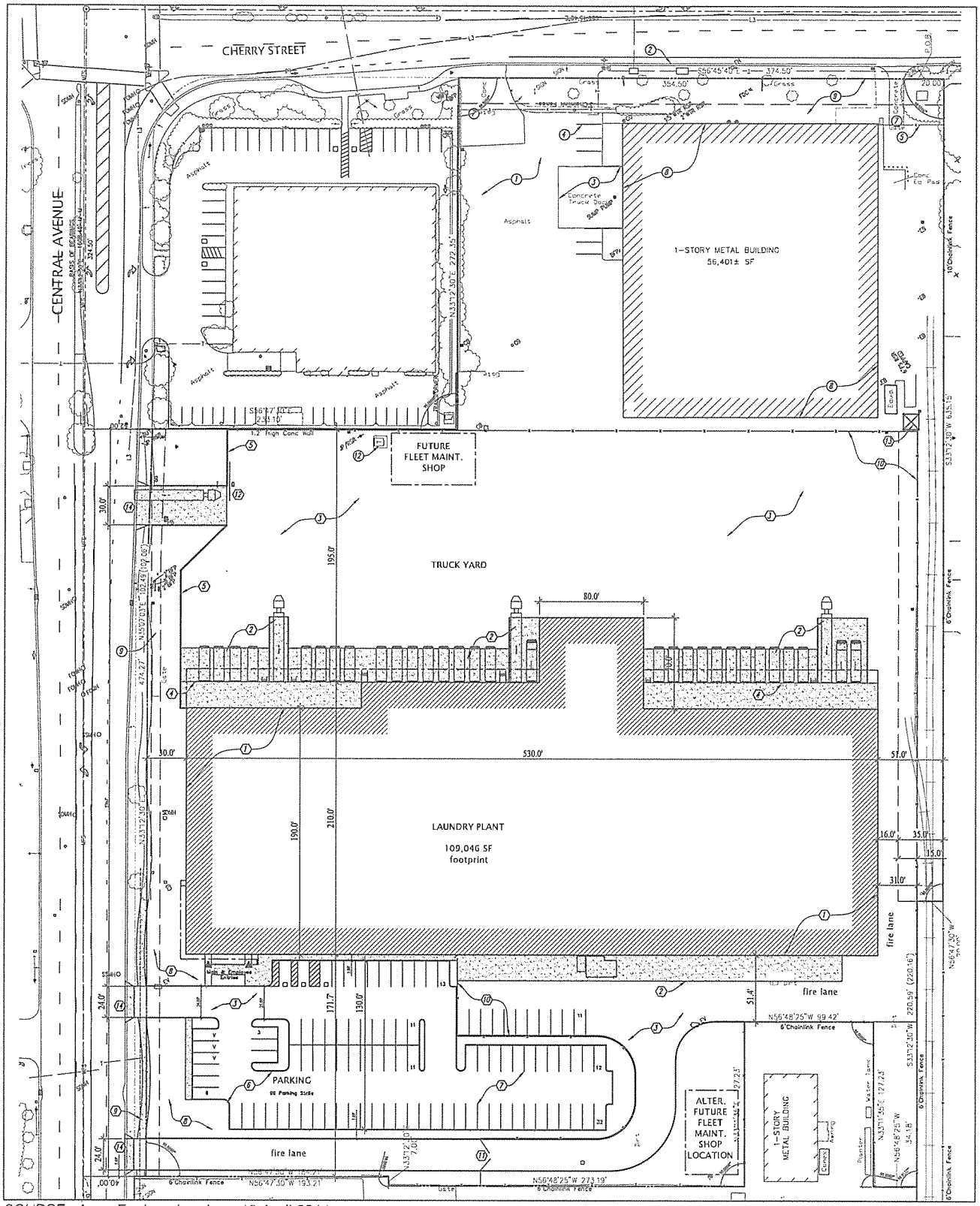
CITY OF NEWARK
MISSION LINEN PROJECT
INITIAL STUDY



SOURCE: Omni-Means.

CITY OF NEWARK
MISSION LINEN PROJECT
INITIAL STUDY

Exhibit 2
SITE CONTEXT



SOURCE: Agee Engineering, Inc., 18 April 2014.

CITY OF NEWARK
MISSION LINEN PROJECT
INITIAL STUDY

Exhibit 3
SITE CONTEXT

1.	**Project description:**	Demolition of a 63,191 square foot industrial building and construction of a 118,390 square foot industrial laundry building along with on-site parking, landscaping and related facilities. Requested City approval includes Architectural and Site Plan Review (ASR).
2.	**Lead agency:**	City of Newark
3.	**Contact person:**	Terrence Grindall, AICP, Community Development Department
4.	**Project location:**	Southwest corner of Cherry Street and Central Avenue (APNs 092-2165-013-01 & 092-2165-004-02
5.	**Project sponsor:**	Mission Linen Supply
6.	**General Plan designation:**	General Industrial
7.	**Zoning:**	MG (General Industrial)

8. **Other public agency required approvals:**

Demolition & Building Permits (City of Newark)
Encroachment Permit (City of Newark)
Water connection (Alameda County Water District)
Sewer connection (Union Sanitary District)
Stormwater quality treatment measure installations (Alameda County Mosquito Abatement District)
Notice of Intent (State Water Resources Control Board)

Environmental Factors Potentially Affected
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "potentially significant impact" as indicated by the checklist on the following pages.

-	Aesthetics	_	Agricultural Resources	X	Air Quality/ Greenhouse Gas Emissions
-	Biological Resources	_	Cultural Resources	-	Geology/Soils
X	Hazards and Hazardous Materials	-	Hydrology/Water Quality	_	Land Use/ Planning
-	Mineral Resources	-	Noise	--	Population/ Housing
--	Public Services	_	Recreation	X	Transportation/ Circulation
--	Utilities/Service Systems	-	Mandatory Findings of Significance		

Determination (to be completed by Lead Agency):
___ I find that the proposed project **could not** have a significant effect on the environment and a **Negative Declaration** will be prepared.

__X__ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **Mitigated Negative Declaration** will be prepared.

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

___ I find that although the proposed project could have a significant effect on the environment, there **will not** be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed on the proposed project.

Signature: Terrence Grindall by [signature] Date: 12/5/14

Printed Name: Terrence Grindall by [signature] For: City of Newark

Evaluation of Environmental Impacts

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

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

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

4) "Negative Declaration: Less-than-Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section 17, "Earlier Analysis," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (D). The checklist will include a response "no new impact" in these circumstances. In this case, a brief discussion should identify the following:

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

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

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

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

9) The explanation of each agency should identify the significance criteria or threshold, if any, used to evaluate each question and the mitigation measures identified, if any, to reduce the impact to a less than significant level.

Environmental Impacts (Note: Source of determination listed in parenthesis. See listing of sources at end of checklist used to determine each potential impact).

Note: A full discussion of each item is found following the checklist.	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
1. **Aesthetics.** *Would the project:*				
a) Have a substantial adverse impact on a scenic vista? (5)				X
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings and historic buildings within a state scenic highway? (Source: 1, 5)				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Source: 5)				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (Source 5)				X
2. **Agricultural Resources.** *Would the project:*				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance, as show on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use? (Source: 1, 5)				X
b) Conflict with existing zoning for agriculture use or a Williamson Act contract? (4)				X
c) Conflict with existing zoning for, or cause rezoning of forestland (as defined by PRC Sec. 12220(g), timberland (as defined in PRC Sec. 4526), or timberland zoned Timberland Production (as defined in PRC Sec. 51104 (g)? (Source: 4)				X
d) Result in the loss of forest land or conversion of forest land to non-forest use? (Source: 5)				X
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to a non-agricultural use or conversion of forestland to a non-forest use? (Source: 1, 5)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
3. **Air Quality** (Where available, the significance criteria established by the applicable air quality management district may be relied on to make the following determinations). *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan? (Source 2)			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Source: 2)		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors? (2)		X		
d) Expose sensitive receptors to substantial pollutant concentrations? (Source: 2)				X
e) Create objectionable odors affecting a substantial number of people? (2)				X
4. **Biological Resources**. *Would the project*				
a) Have a substantial adverse effect, either directly through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service? (1)				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service? (1)				X
c) Have a substantial adverse impact 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? (1, 5)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (5)				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan? (1, 6)				X
5. Cultural Resources. *Would the project*				
a) Cause a substantial adverse impact in the significance of a historical resource as defined in Sec. 15064.5? (1, 5)				X
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to Sec. 15064.5 (1)			X	
c) Directly or indirectly destroy a unique paleontological resource or unique geologic feature? (1)			X	
d) Disturb any human remains, including those interred outside of a formal cemetery? (1)			X	
6. Geology and Soils. *Would the project*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Fault Zoning Map issued by the State Geologist or based on other known evidence of a known fault ? (1)				X
ii) Strong seismic ground shaking? (1)				X
iii) Seismic-related ground failure, including liquefaction? (1)			X	
iv) Landslides? (1, 5)				X
b) Result in substantial soil erosion or the loss of topsoil? (1)			X	

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- and off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (1)			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (1)			X	
e) Have soils capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for wastewater disposal?				X
7. **Greenhouse Gas Emissions.** *Would the project*:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (2)		X		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		
8. **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? (6)				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous into the environment? (5)		X		
c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (1, 5)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Sec. 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (6)				X
e) For a project located within an airport land use plan or, where such plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?)1)				X
f) For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area? (1)				X
g) Impair implementation of or physically interfere with the adopted emergency response plan or emergency evacuation plan? (6)				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
9. Hydrology and Water Quality. *Would the project*:				
a) Violate any water quality standards or waste discharge requirements? (4)			X	
b) 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 existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (4)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (4, 5)			X	
d) Substantially alter the existing drainage pattern of the site or areas, including through the alteration of a course or stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (4, 5)			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (4, 5)			X	
f) Otherwise substantially degrade water quality? (4)			X	
g) Place housing within a 100-year flood hazard area as mapped on a Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map? (4)				X
h) Place within a 100-year flood hazard area structures which impede or redirect flood flows? (4)				X
i) Expose people or structures to a significant risk of loss, injury, and death involving flooding, including flooding as a result of the failure of a levee or dam? (6)				X
j) Inundation by seiche, tsunami or mudflow?				X
10. Land Use and Planning. *Would the project:*				
a) Physically divide an established community? (5)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
b) 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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (1, 7)				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan? (1)				X
11. Mineral Resources. *Would the project*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (1)				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (1)				X
12. Noise. *Would the proposal result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the general plan or noise ordinance, or applicable standards of other agencies? (1, 5)			X	
b) Exposure of persons or to generation of excessive groundborne vibration or groundborne noise levels? (1,6)				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the project? (1, 5)			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels without the project? (1)			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working n the project area to excessive noise levels? (1)				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (1)				X
13. Population and Housing. *Would the project*				
a) Induce substantial population growth in an area, either directly or indirectly (for example, through extension of roads or other infrastructure)? (1, 5)				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (5)				X
c) Displace substantial numbers of people, necessitating the replacement of housing elsewhere? (5)				X
14. Public Services. *Would the proposal*:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services? (4)				
Fire protection?			X	
Police protection?			X	
Schools?				X
Parks?				X
Other public facilities			X	
15. Recreation:				
a) Would the project 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? (1)			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
16. Transportation and Traffic. *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and all non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit? (3)			X	
b) Conflict with an applicable congestion management program, including but not limited to, level of service and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (3)			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses, such as farm equipment?		X		
e) Result in inadequate emergency access? (3)				X
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities or otherwise decrease the performance of safety of such facilities? (3)				X
17. Utilities and Service Systems. *Would the project*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (4)			X	

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (4)			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (4)			X	
d) Have sufficient water supplies available to serve the project from existing water entitlements and resources, or are new or expanded entitlements needed? (4)			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the providers existing commitments? (4)			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (4)			X	
g) Comply with federal, state and local statutes and regulations related to solid waste? (4)			X	
18. Mandatory Findings of Significance.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number of or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects).				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

Sources used to determine potential environmental impacts

1. General Plan Tune Up EIR (2013)
2, Project Air Quality/GHG Analysis (2014)
3. Traffic Impact Analysis (2014)
4. Discussion with City staff or service provider
5 Site Visit
6. Other Source

XVII. Earlier Analyses

a) **Earlier analyses used.** Identify earlier analyses and state where they are available for review.

This document relies on the City of Newark General Plan Tune Up EIR, SCH #2013012052, October 2013. This document is available for review at the City of Newark Community Development Department during normal business hours.

Attachment to Initial Study

Discussion of Checklist

Legend
PS: Potentially Significant
LS/M: Less Than Significant After Mitigation
LS: Less Than Significant Impact
NI: No Impact

1. Aesthetics

Environmental Setting
The project site is located in an urbanized, industrially developed portion of Newark, near the central portion of the community. The site has been developed with industrial buildings and parking lots and contains no City parks, public playgrounds, public trails or other places of public gathering. No native trees, unusual rock outcroppings or historic structures exist on the site. either Central Avenue or Cherry Street is identified as a scenic highway by the City of Newark or the State of California (source: http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm).

Several sources of light and glare are present on adjacent sites, including building and parking lot lights associated industrial uses on adjacent sites.

Project Impacts

a) *Have a substantial adverse impact on a scenic vista*? **NI.** There are no public places on the project site for viewing scenic vistas. Construction of the proposed industrial building would not restrict views of nearby foothills east of the project site. There would be no impact with regard to impacts to scenic vistas.

b) *Substantially damage scenic resources, including but not limited to trees, rock outcroppings and historic buildings within a state scenic highway*? **NI.** There are no native trees, rock outcroppings or historic buildings on the site that would be lost should the project be constructed. The site is also not located near any state or locally designated scenic highways. No impacts are with regard to damage to scenic resources adjacent to a scenic highway.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings*? **NI.** The proposed project would allow construction of up to a 109,046 square foot industrial building on the site. The proposed building would replace a smaller building now on the site. The proposed building and related site improvements is subject to design review by the Planning Commission and City Council to determine if the overall site design, exterior building elevations, colors, materials and landscaping are appropriate for the site. Although the visual character of the site would change, the scenic and visual quality of the site would not significantly be degraded and no impact would result with respect to this topic.

d) *Create light or glare?* NI. Approval of the proposed project would add new light sources associated with the proposed development that would be in different locations and heights from existing parking lot fixtures. However, surrounding uses are all industrial and there are no sensitive light receptors in the immediate vicinity of the site, such as residences. No impacts are therefore anticipated with respect to this topic.

2. Agricultural and Forestry Resources

Environmental Setting

The project site is located in an urbanized portion of Newark, is not used for agricultural cultivation, is not zoned for agricultural and is not encumbered with a Williamson Act Land Conservation Agreement (source: Newark Community Development Department, 2/4/14). Similarly, no forestry resources are present on the site.

Project Impacts

a,c) *Convert prime farmland to a non-agricultural use or involve other changes which could result in conversion of farmland to a non-agricultural use?* NI. The site is not zoned or used for agricultural purposes. Approval and construction of the proposed industrial project would therefore have no impact on prime farmland or convert existing farmland to a non-farm use.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?* NI. No Williamson Act contract or agricultural zoning is present on the site, so there would be no impact with respect to this topic.

d) *Result in the loss of forest land or conversion of forest land to a non-forest use?* NI. No forest land exists on the project site and no impact would result with respect to this topic.

e) *Involve other changes which, due to their location or nature, could result of forest land to a non-forest use?* NI. See item "d," above.

3. Air Quality

(This section of the Initial Study is based on a report entitled "Mission Linen, 6590 Central Avenue Air Quality and Greenhouse Gas Emissions Assessment, Newark CA," dated November 24, 2014, prepared by the firm of Illingworth & Rodkin. This report is summarized below and is included as Attachment 1 to this Initial Study.)

Environmental Setting

The project is located in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and Federal level. The Bay Area meets

all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. Highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The climate of Newark is characterized by warm dry summers and cool moist winters. The proximity of the San Francisco Bay and Pacific Ocean has a moderating influence on the climate. Newark is located in the climate sub region of the Bay Area known as Southwestern Alameda County.

The major large-scale weather feature controlling the area's climate is a large high pressure system located in the eastern Pacific Ocean, known as the Pacific High. The strength and position of the Pacific High varies seasonally. It is strongest during summer and located off the west coast of the United States.

Precipitation is generally lowest along the Bay with much higher amounts occurring along south and west facing slopes. Newark, which lies adjacent to the Bay, receives about 20 inches of precipitation. About 90 percent of this rainfall occurs from November through April. High-pressure systems are also common in winter and can produce cool stagnant conditions. Fog and haze are common during winter when high-pressure systems influence the weather

The proximity of the eastern Pacific High and relatively lower pressure inland produces a prevailing westerly sea breeze along the central and northern California coast for most of the year. As this wind is channeled through the Golden Gate and other topographical gaps, it branches off to the northeast and southeast, following the general orientation of the San Francisco Bay system. Newark is generally flat, with the southern extent of the

Bay to the west and mountains to the east. Marine air penetrates from the Bay; however, it is moderated by bayside conditions as it reaches Newark. The prevailing wind is primarily from the northwest, especially during spring and summer. In winter, winds become variable with more of a southeasterly orientation. Nocturnal winds and land breezes during the colder months of the year prevail with variable drainage out of the mountainous areas. Wind speeds are highest during the spring and early summer and lightest in fall. Winter storms bring relatively short episodes of strong southerly winds.

Temperatures in Newark tend to be less extreme compared to inland locations due to the moderating effect of the Pacific Ocean and the Bay. In summer, high temperatures are generally in the high 70's, and in the 50's during winter. Low temperatures range from the 50's in summer to the 30's in winter.

During the fall and winter months, the Pacific High can combine with high pressure over the interior regions of the western United States (known as the Great Basin High) to produce extended periods of light winds and low-level temperature inversions. Fair weather and very warm temperatures are common to the Bay Area with this weather pattern. This condition frequently produces poor atmospheric mixing that results in degraded regional air quality. Ozone standards traditionally are exceeded when this condition occurs during the warmer months of the year.

National and State Ambient Air Quality Standards. The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

As required by the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter, including respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. Pursuant to the California Clean Air Act, the State of California has established the California Ambient Air Quality Standards (CAAQS). Relevant State and Federal standards are summarized in Table 1. CAAQS are generally the same or more stringent than NAAQS.

Table 1. Relevant California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone	8-hour	0.070 ppm ($137\ \mu g/m^3$)	0.075 ppm ($147 \mu g/m^3$)
	1-hour	0.09 ppm ($180\ \mu g/m^3$)	—
Carbon monoxide	1-hour	20 ppm ($23\ mg/m^3$)	35 ppm ($40\ mg/m^3$)
	8-hour	9.0 ppm ($10\ mg/m^3$)	9 ppm ($10\ mg/m^3$)

Pollutant	Averaging Time	California Standards	National Standards
Nitrogen dioxide	1-hour	0.18 ppm (339 $\mu g/m^3$)	0.100 ppm (188 $\mu g/m^3$)
	Annual	0.030 ppm (57 $\mu g/m^3$)	0.053 ppm (100 $\mu g/m^3$)
Sulfur Dioxide	1-hour	0.25 ppm (655 $\mu g/m^3$)	0.075 ppm (196 $\mu g/m^3$)
	24-hour	0.04 ppm (105 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)
	Annual	—	0.03 ppm (56 $\mu g/m^3$)
Particulate Matter (PM_{10})	Annual	20 $\mu g/m^3$	—
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$
Particulate Matter ($PM_{2.5}$)	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
	24-hour	—	35 $\mu g/m^3$

Notes: ppm = parts per million mg/m3 = milligrams per cubic meter $\mu g/m^3$ = micrograms per cubic meter
Source: Illingworth & Rodkin, 2014

Sensitive Receptors and Toxic Air Contaminants

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest sensitive receptors are residences located to the north of the project construction site on the west side of Cherry Street north of Central Avenue (see Figure 1).

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and Federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[1] The regulation requires affected vehicles to meet specific performance requirements between 2012 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, CARB (a part of the California Environmental Protection Agency) oversees regional air district activities and regulates air quality at the State level. The BAAQMD published CEQA Air Quality Guidelines are used in this assessment to evaluate air quality impacts of projects.[2]

Significance Threshold. In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. However, this litigation remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

[1] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: July 31, 2012.
[2] BAAQMD, 2011, op. cit.

Table 2. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average $PM_{2.5}$	0.3 $\mu g/m^3$		
Health Risks and Hazards for Sensitive Receptors (Cumulative from all sources within 1,000 foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average $PM_{2.5}$	0.8 $\mu g/m^3$		
Greenhouse Gas Emissions			
GHG Annual Emissions	1,100 metric tons or 4.6 metric tons per capita per year		
Stationary Sources	10,000 metric tons per year		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (μm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5μm or less; and GHG = greenhouse gas.

Source: Illingworth & Rodkin, 2014

Project Impacts

a, b) *Would the project conflict or obstruct implementation of an air quality plan or violate any air quality standard or contribute substantially to an existing or projected air quality violation?* **LS.** The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* (Clean Air Plan) that was adopted by BAAQMD in September 2010. This plan addresses air quality impacts with respect to obtaining ambient air quality standards for non-attainment pollutants (i.e., ozone and particulate matter or PM_{10} and $PM_{2.5}$), reducing exposure of sensitive receptors to TACs, and reducing

greenhouse gas emissions such that the region can meet AB 32 goals of reducing emissions to 1990 levels by 2020.

Emissions of non-attainment criteria air pollutants are addressed below.

Clean Air Plan Projections. The consistency of the proposed project with the Clean Air Plan is primarily a question of maintaining consistency with the population/employment assumptions utilized in the CAP. Changes that would affect the CAP's underlying assumptions (e.g., increases in employment or population), could increase emission projections. Because the proposed project does not include a change to the City's General Plan or rezoning, the assumption made under the CAP will not be changed. The proposed project would not substantially affect population or traffic forecasts, therefore, the project is consistent with the Clean Air Plan.

Consistency with Clean Air Plan Control Measures. The CAP includes emissions control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. The control measures are divided in to five categories that include:

- Measures to reduce stationary and area sources;
- Mobile source measures;
- Transportation control measures;
- Land use and local impact measures; and
- Energy and climate measures

In developing the control measures, BAAQMD identified the full range of tools and resources available, both regulatory and non-regulatory, to address emissions. Implementation of each control measure will rely on some combination of the following:

- Adoption and enforcement of rules to reduce emissions from stationary sources, area sources, and indirect sources;
- Revisions to BAAQMD's permitting requirements for stationary sources;
- Enforcement of CARB rules to reduce emissions from heavy-duty diesel engines;
- Allocation of grants and other funding by the Air District and/or partner agencies;
- Promotion of best policies and practices that can be implemented by local agencies through guidance documents, model ordinances, etc.;
- Partnerships with local governments, other public agencies, the business community, non-profits, etc.;
- Public outreach and education;
- Enhanced air quality monitoring;
- Development of land use guidance and CEQA guidelines, and Air District review and comment on Bay Area projects pursuant to CEQA; and
- Leadership and advocacy.

This approach relies upon lead agencies to assist in implementing some of the control measures. A key tool for local agency implementation is the development of land use policies and implementing measures that address new development or redevelopment in local communities. The proposed project is consistent with the existing General Plan land use designations and would not require a General Plan Amendment.

Stationary and Area Source Control Measures. The CAP includes Stationary Source Control measures that BAAQMD adopts as rules or regulations through their authority to control emissions from stationary and area sources. The BAAQMD is the implementing agency, since these control measures are applicable to sources of air pollution that must obtain District permits. Any new stationary sources would be required to obtain proper permits through BAAQMD. In addition, the City uses BAAQMD's CEQA Air Quality Guidelines to evaluate air pollutant emissions from new sources.

The proposed project would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from natural gas fired boilers and dryers used by the project. The project would also generate emissions from vehicles traveling to and from the project site.

Certain emission sources would be subject to BAAQMD Regulations and Rules. The District's rules and regulations that may apply to the project include:

- Regulation 2 – Permits
  Rule 2-1: General Requirements
  Rule 2-2: New Source Review
  Rule 5: New Source Review of Toxic Air Contaminants
- Regulation 6 – Particulate Matter and Visible Emissions
  Rule 1: General Requirements
- Regulation 9 – Inorganic Gaseous Pollutants
  Rule 7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters

Permits – Regulation 2-1-301 requires that any person installing, modifying, or replacing any equipment, the use of which may reduce or control the emission of air contaminants, shall first obtain an authority to construct (ATC). Regulation 2-1-302 requires that written authorization from the BAAQMD in the form of a permit to operate (PTO) be secured before any equipment is used or operated.

Regulation 2-1-114 lists sources that are exempt from permitting. For external combustion equipment such as boilers and dryers, sources with a rated heat input of less than 1 MMBtu per hour and sources with a rated heat input of less than 10 MMBtu per hour that are fired exclusively on natural gas are exempt from the permitting requirements of 2-1-301 and 302.

At the proposed facility, a number of the dryers and the garment finishing tunnel would meet the exemption conditions and are expected to be exempt from permitting. However, the boilers would be subject to permitting requirements.

New Source Review - Regulation 2-2, New Source Review (NSR), applies to all new and modified sources or facilities that are subject to the requirements of Rule 2-1-301. The purpose of the rule is to provide for review of such sources and to provide mechanisms by which no net increase in emissions will result.

Regulation 2-2-301 requires that an applicant for an Authority to Construct or Permit to Operate apply best available control technology (BACT) to any new or modified source that results in an increase in emissions and has the potential to emit emissions (based on maximum operating conditions and equipment capacity) of precursor organic compounds (POC), non-precursor organic compounds (NPOC), NOx, or SO_2 of 10 pounds or more per highest day.

Based on the estimated emissions from the proposed project under maximum operating conditions (year 2021 operating schedule), BACT would not be required for any of the equipment since each source's emissions would be less than 10 pounds per day.

Offsets - Regulations 2-2-302 an 2-2-303 require that offsets be provided for a new or modified source that emits more than 10 tons per year of NO_x or precursor organic compounds. If the facility has potential emissions above 10 but below 35 tons per year of POC or NO_x, then the District shall provide the offsets from the Small Facility Bank, if the facility or its parent company doesn't already own emission reduction credits held in a Banking Certificate. For PM10, offsets will need to be provided if the cumulative increase in emissions is greater than 100 tons per year.

It is not expected that emissions of any pollutant would exceed the offset thresholds. Thus, it is not expected that offsets for the proposed project would be required.

New Source Review of *Toxic Air Contaminants* - Regulation 2-5 is designed to provide for the review of new and modified sources of TAC emissions in order to evaluate potential public exposure and health risk and to mitigate potentially significant health risks resulting from these exposures.

A source is exempt from the requirements of Regulation 2-5 if, for each toxic air contaminant emitted, the increase in emissions from the project is below the trigger levels listed in Table 2-5-1 of the regulation. Sources subject to this regulation are required to conduct a health risk screening analysis (HSRA) according to District guidelines. If a new or modified source of TACs has a cancer risk greater than 1.0 in one million and/or a chronic hazard index greater than 0.20 it is required to apply best available control technology for toxics (TBACT).

At maximum operating conditions and equipment capacity TAC emissions of formaldehyde would exceed the trigger levels specified in Table 2-5-1 and a HRSA would be required and TBACT would be required if the cancer risk is greater than 1.0 in one million. This would be determined by BAAQMD during the permit process.

Prohibitory Rules - Regulation 6 pertains to particulate matter and Regulation 9 addresses emissions of inorganic gaseous pollutants.

Regulation 6-1 provides general requirements for sources with emission of particulate matter. It includes limitations on opacity of the discharge from exhaust stacks, limitation on the concentration of particulate matter in exhaust gas, and allowable emission rates based on process rates for general operations.

The facility emission sources are expected to comply with the particulate matter requirements of this regulation.

Regulation 9-7 prescribes NOx and CO emission limits for boilers, steam generators, and process heaters. It also includes requirements for emission source testing, monitoring and recordkeeping of operating parameters and fuel use.

The proposed 19.95 MMBtu per hour boilers for the project would be fired exclusively on natural gas. The applicable emission limits for the rated heat input of these boilers are 15 parts per million by volume (15 ppmv), dry at 3 percent oxygen for NOx and 400 ppmv, dry at 3 percent oxygen for CO. The boiler would be designed to meet these emissions limits and would use an ultra low NOx burner to achieve NOx emissions below the required limits.

Mobile Source Measure. The CAP includes Mobile Source Measures that would reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment through programs such as the BAAQMD's Vehicle Buy-Back and Smoking Vehicle Programs, and promoting advanced technology vehicles that reduce emissions. The implementation of these measures relies heavily upon incentive programs, such as the Carl Moyer Program and the Transportation Fund for Clean Air, to achieve voluntary emission reductions in advance of, or in addition to, CARB requirements. CARB has new regulations that require the replacement or retrofit of on-road trucks, construction equipment and other specific equipment that is diesel powered.

Transportation Control Measure. The CAP includes transportation control measures (TCMs) that are strategies meant to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. While most of the TCMs are implemented at the regional level (e.g., by MTC or Caltrans), there are measures that the CAP relies upon local communities to assist with implementation. In addition, the CAP includes land use measures and energy and climate measures where implementation is aided by proper land use planning decisions. The City's General Plan, with which the

project is consistent, includes measures to reduce vehicle travel that are generally consistent with the CAP TCMs.

TAC Exposure. The CAP includes measures to reduce TAC exposure to sensitive receptors. The project site does not introduce any new sensitive receptors into the area, though it could expose existing receptors to TACs from construction activity and operation. The City, as Lead CEQA Agency, uses the BAAQMD CEQA Air Quality Thresholds to identify significant risks and develop appropriate mitigation measures. TAC exposure from construction and operational activities are addressed below.

Overall, the project would not conflict with or obstruct implementation of the regional clean air plan or violate air quality standard.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?* **LS/M.** The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter ($PM_{2.5}$) under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}) under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NOx), PM_{10} and $PM_{2.5}$ and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2013.2.2 was used to predict emissions from construction of the site and operation of the project. The project land use types and size, and trip generation rate were input to CalEEMod. Emissions from natural gas combustion for all pollutants and sources were calculated using U.S. EPA emission factors for natural gas combustion. NO_X emissions from project boilers were calculated using emissions factors from the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Construction period emissions. CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling and vendor traffic. The model default construction build-out scenario, including equipment list was based on the type and size of the project. The anticipated 63,191 s.f. for building demolition was entered into the model. Attachment 1 to the full air quality analysis includes the CalEEMod input and output values for construction emissions.

The proposed project land use was input into CalEEMod, which was 109,046 s.f. entered as "General Light Industry" on the 9-acre site.

Based on the type and size of the project, the modeling scenario assumes that the project would be built out over a period of approximately 15 months beginning in 2015, or an estimated 320 construction workdays. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 3 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted project emissions would not exceed the BAAQMD significance thresholds.

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. Mitigation Measure AIR-1 would implement BAAQMD-recommended best management practices.

Table 3. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction emissions (tons)	1.37 tons	5.18 tons	0.32 tons	0.30 tons
Average daily emissions (pounds)[1]	8.6 lbs.	32.4 lbs.	2.0 lbs.	1.9 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	No	No	No	No

Notes:
[1] Assumes 320 workdays.
Source: Illingworth & Rodkin, 2014

Mitigation Measure AQ-1. During any construction ground disturbance, the following measures shall be implemented to control dust and exhaust. The contractor shall implement the following Best Management Practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operational Period Emissions. Operational air emissions from the project would be generated primarily from autos driven by future employees and from delivery and service trucks. Emissions would also be generated by stationary equipment, such as boilers and dryers that use natural gas. Evaporative emissions from architectural coatings and cleaning/maintenance products are other typical emissions from light industrial uses. CalEEMod was used to predict emissions from operation of the site for both the first full operational year (2017) and full build-out of the project (2021). The project land use type and size, anticipated energy use, and trip generation rate were input to CalEEMod. Stationary equipment emissions were calculated using emissions factors from the U.S. EPA and the SJVAPCD. Adjustments to the model are described below. Model output worksheets are included in Attachment 1 to the full report (Attachment 1).

Year of Analysis. CalEEMod uses CARB's EMFAC2011 mobile emission factors. Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates CalEEMod uses. The earliest full year the project could possibly be constructed and begin operating would be 2017. Use of the this date is considered conservative, as emissions associated with build-out later than 2017 would be lower. In addition, a full build-out 2021 model run was conducted. Project operations are expected to be five days a week (Monday through Friday or approximately 260 days per year) in 2017 and seven days a week in 2021.

Land Use Description. The proposed land use and size was input to CalEEMod as 109,046 s.f. of "General Light Industrial." An existing run was also modeled to represent the current Mission Linen operations in Union City, which would close after the Newark project became operational. The existing Union City site was entered as 31,500 s.f. of "General Light Industrial."

Trip Generation Rates and Types. CalEEMod allows the user to enter specific trip generation rates. Omni Means provided the trip generation rate for the project and the existing Union City site, which were entered into the model. Model default trip types and distances were used.

Energy and Water Use. The project applicant provided anticipated electricity, natural gas, and water consumption projections. Project-specific electricity and water use were input to the model, whereas the model was used to calculate only emissions associated with Title 24 natural gas consumption. Natural gas consumption associated with proposed stationary equipment (i.e., non-Title 24 sources such as boilers, dryers, and the finishing tunnel) was calculated separate from the model, as described below. Separate significance thresholds for GHGs (*Impact 6*) exist for direct emissions from stationary equipment (i.e., natural gas combustion), which is why emissions were calculated in this manner. See *Attachment 2* for project-specific data. The 2013 Title 24 Building Standards recently became effective July 1, 2014 and are predicted to use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards

that CalEEMod is based on.[3] Therefore, the CalEEMod runs were adjusted to account for the greater energy efficiency. By the nature of the model, these reductions must be included in the "mitigated" output. CalEEMod defaults for energy and water use were used for the Existing model run.

Stationary Equipment. The proposed project would include several stationary sources, such as boilers, dryers and garment finishing tunnel. All equipment would be fueled using natural gas. Emissions were calculated for two conditions during the project years 2017 and 2021. The first scenario, considered to be maximum operating conditions, assumed all the combustion sources would be operated at their maximum firing rates (i.e., at maximum equipment rated heat input) for applicant-specified hours of operation during 2017 and 2021. This is not a realistic scenario since the equipment firing cycles and rarely attains the maximum firing rate. The second scenario was for expected operating conditions in 2017 and 2021 based on applicant supplied natural gas use and hours of facility operation. These projections are based on historical records for similar equipment.

Emissions from the project boilers and the garment finishing tunnel would be solely due to the combustion of natural gas. For the dryers, emissions would be due to natural gas combustion in addition to particulate matter (PM_{10} and $PM_{2.5}$) generated during the drying process. Particulate matter emissions from the dryers are from lint generated during the drying process that is not collected by dryer lint screens.

Emissions from natural gas combustion for all pollutants and sources were calculated using U.S. EPA emission factors for natural gas combustion, except for the NO_X emissions from the boilers.[4] Boiler NO_X emissions were calculated based on the use of ultra-low NO_X burners that would be included with the boilers. Particulate matter emissions from the dryers were calculated using an emission factor from the SJVAPCD based on emission source testing of similar dryers and manufacturer particulate mater control efficiencies for lint screens.[5] Details of the emission calculations are provided in Attachment 3 of the full air quality analysis (Attachment 1).

Table 4 reports the predicted average daily 2017 operational net emissions and Table 5 reports 2017 annual net emissions. Table 6 reports the predicted average daily 2021 operational net emissions and Table 7 reports 2021 annual net emissions. As shown in Tables 6 and 7, average daily and annual 2021 maximum net emissions of NO_X would exceed BAAQMD thresholds. Year 2021 net operational NO_X emissions from stationary equipment (natural gas combustion) alone are predicted to be 10.45 tons per year or 65 pounds per average day under the maximum firing potential of the equipment, which would exceed the BAAQMD significance threshold and would be considered potentially significant. However, as shown in Tables 4 – 7, operational emissions of ROG, NO_X, PM_{10}

[3] California Energy Commission, 2012. *2013 Building Energy Efficiency Standards FAQ*. May.
[4] U.S. Environmental Protection Agency, 1998. *AP-42 Section 1.4 Natural Gas Combustion*. July 1998.
[5] SJVAPCD, 2014. *Notice of Issuance of Authorities to Construct Project Number: N-1141499*. June 2, 2014.

exhaust, or $PM_{2.5}$ exhaust associated with operation would not exceed the BAAQMD significance thresholds. Assuming the maximum firing rate of stationary equipment, emissions of NO_X would be considered significant unless mitigation measure AQ-2 is implemented.

Table 4. Daily Air Pollutant Emissions from Operation of the 2017 Project (pounds/day)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2017[1]	7.1	11.5	5.4	1.5
Stationary Equipment (max.)	4.8	45.2	12.1	8.0
Stationary Equipment (expected)	1.7	16.0	7.8	3.7
Existing	1.6	3.0	1.0	0.3
Net Emissions (max.)	10.3	53.7	16.5	9.2
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No
Net Emissions (expected)	7.2	24.5	12.2	4.9
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas. Based on 260 days per year.
Source: Illingworth & Rodkin, 2014

Table 5. Annual Air Pollutant Emissions from Operation of the 2017 Project (tons/year)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2017[1]	0.92	1.49	0.70	0.20
Stationary Equipment (max.)	0.62	5.87	1.57	1.04
Stationary Equipment (expected)	0.22	2.08	1.02	0.48
Existing	0.29	0.54	0.19	0.06
Net Emissions (max.)	1.25	6.82	2.08	1.18
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No
Net Emissions (expected)	0.85	3.03	1.53	0.62
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.
Source: Illingworth & Rodkin, 2014

Table 6. Daily Air Pollutant Emissions from Operation of the 2021 Project (pounds/day)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2021[1]	5.3	7.8	5.3	1.5
Stationary Equipment (max.)	6.4	60.2	14.7	10.2
Stationary Equipment (expected)	2.3	21.5	9.0	4.6
Existing	1.6	3.0	1.0	0.3
Net Emissions (max.)	10.1	65.0	19.0	11.4
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	*Yes*	No	No
Net Emissions (expected)	6.0	26.3	13.3	5.8

Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.
Source: Illingworth & Rodkin, 2014

Table 7. Annual Air Pollutant Emissions from Operation of the 2021 Project (tons/year)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2021[1]	0.96	1.42	0.97	0.28
Stationary Equipment (max.)	1.16	10.99	2.68	1.87
Stationary Equipment (expected)	0.42	3.92	1.64	0.84
Existing	0.29	0.54	0.19	0.06
Net Emissions (max.)	1.83	11.87	3.46	2.09
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	*Yes*	No	No
Net Emissions (expected)	1.09	4.80	2.42	1.06
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.
Source: Illingworth & Rodkin, 2014

This impact would be significant and will be reduced to a less-than-significant level by adherence to the following mitigation measure:

> **Mitigation Measure AIR-2.** The project applicant shall develop a plan to monitor and record natural gas usage to compare with the anticipated usage projections supplied for this assessment. It is estimated that the project could use 3.57 million therms of natural gas consumption per year to remain at or below the NO_X significance threshold, compared with the full build-out projection of about 1.54 million therms. The project shall be limited to no more than 1.88 million therms of natural gas consumption per year to remain at or below the GHG significance threshold for stationary sources.

c) *Would the project result in cumulatively considerable air pollutants?* **LS.** Vehicle trips generated by the project would result in air pollutant emissions affecting the entire San Francisco Bay Air Basin. As noted in the recently certified General Plan EIR, development under the General Plan would not contribute to a cumulatively considerable air pollutant condition and a less-than-significant impact would result.

d,e) *Expose sensitive receptors to substantial pollutant concentrations or create objectionable odors affecting a substantial number of people?* **NI.** Project impacts related to increased health risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk

from siting a new sensitive receptor or a new source of TACs. In this case, the project would be a new source of TAC emissions. Impacts would occur during both construction and operation.

Construction Impacts. During excavation, grading and some building construction activities, substantial amounts of dust could be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and would be dependent on the size of the area disturbed at any given time, amount of activity, soil conditions and meteorological conditions. To address fugitive dust emissions that lead to elevated PM_{10} and $PM_{2.5}$ levels near construction sites the BAAQMD CEQA Air Quality Guidelines identify best control measures. Implementation of Mitigation Measure AIR-1 would reduce these impacts to a level of less than significant.

In addition, construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a TAC. A health risk assessment of the project construction activities was conducted that evaluated construction emissions of DPM and associated health risks to nearby residential areas. A dispersion model was used to predict the off-site concentrations resulting from project construction so that lifetime cancer risks could be predicted.

The CalEEMod model was used to calculate annual emissions from construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker and vendor traffic.

The CalEEMod model results provided total annual $PM_{2.5}$ exhaust emissions (assumed to be diesel particulate matter) for the off-road construction equipment and for exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles), with total emissions of 0.30 tons (600 pounds) for the entire construction period. The on-road emissions are a result of haul trucks, vendor deliveries, and worker travel and during the various phases of construction. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. In modeling the on-road emissions it was assumed that these emissions from vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.0886 tons (177 pounds) for the overall construction period. The project emission calculations are provided in Attachment 1.

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction area. The ISCST3 dispersion model is one of several BAAQMD-recommended models for use in modeling analysis of these types of emission activities for CEQA projects.[6] Emission sources for the construction site were grouped into two categories, exhaust emissions of DPM and fugitive $PM_{2.5}$

[6] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

dust emissions. The ISCST3 modeling utilized two area sources to represent the on-site construction emissions, one for DPM exhaust emissions and the other for fugitive $PM_{2.5}$ dust emissions. For the exhaust emissions from construction equipment an emission release height of six meters was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases.[7] For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of two meters was used for the area source. Emissions from vehicle travel in and around the project site were included in the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. and 4 p.m.

The modeling used a one-year data set of hourly meteorological data from 1999 for the HP Newark monitoring station prepared by BAAQMD. This station was previously located about 1.2 miles southeast of the project site. Annual DPM and $PM_{2.5}$ concentrations from construction activities in 2015 and 2016 were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors at a receptor height of 1.5 meters (4.9 feet) and 4.5 meters (14.8 feet) were used to represent the breathing heights of residents of single family homes and second level residents in apartments, respectively. Figure 1 (see attachment 1) shows the construction area modeled and locations of nearby sensitive receptors.

The maximum modeled DPM and $PM_{2.5}$ concentrations from construction occurred at a residence north of the project site on Central Avenue just south of the intersection of Central Avenue and Cherry Street. The location of this receptor is identified on Figure 1 (see Attachment 1). Increased cancer risks were calculated using the modeled concentrations and BAAQMD recommended risk assessment methods for both a child exposure (3rd trimester through 2 years of age) and adult exposure.[8] The cancer risk calculations were based on applying the BAAQMD recommended age sensitivity factors to the DPM exposures. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD recommended exposure parameters were used for the cancer risk calculations.[9] Infant and child exposures were assumed to occur at all residences during the entire construction period.

Results of this assessment indicate that for project construction the incremental residential child cancer risk at the maximally exposed individual (MEI) receptor would be 8.5 in one million and the incremental residential adult cancer risk would be 0.4 in one million. These increased cancer risks would be lower than the BAAQMD significance threshold of a cancer risk of 10 in one million or greater and would be considered a less than significant impact.

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[7] Califronia Air Resources Board (CARB), 2007. *Technical Support Document: Proposed Regulation for In-use Off-Road Diesel Vehicles, Appendix D Health Risk Assessment Methodology.* April 2007.

[8] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May.

[9] Bay Area Air Quality Management District (BAAQMD), 2010, *Air Toxics NSR Program Health Risk Screening Analysis Guidelines*, January.

The maximum modeled annual $PM_{2.5}$ concentration was 0.12 $\mu g/m^3$ occurring at the same location as the maximum cancer risk. This $PM_{2.5}$ concentration is lower than the BAAQMD significance threshold of 0.3 $\mu g/m^3$ used to judge the significance of health impacts from $PM_{2.5}$. This would be considered a less than significant impact.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). California's Office of Environmental Health and Hazards (OEHHA) has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is 5 $\mu g/m^3$. The maximum modeled annual residential DPM concentration was 0.087 $\mu g/m^3$, which is much lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.02 which is much lower than the BAAQMD significance criterion of a hazard index greater than 1.0. This would be considered a less than significant impact

The attached air quality report (Attachment 1) includes the construction emission calculations used for the ISCST3 area source modeling and the construction cancer risk calculations.

Based on the above results, the project would be below significance thresholds for construction community risk. However, best management practices are necessary during construction trenching and grading activities to avoid generation of fugitive dust that may affect nearby sensitive receptors. Best Management Practices for controlling construction-period air pollutant emissions are identified as Mitigation Measure AIR-1.

Operational Delivery Trucks. Emissions for project-related trucks were calculated assuming that there would be 41,610 trucks trips annually at full project build-out. 40,880 of these trips would be from large delivery vans and 730 daily trips would be from a large truck (semi-tractor/trailer). Delivery vans were modeled as medium-duty diesel trucks (MDT) and the large trucks were modeled as heavy-duty diesel trucks (HDT). This was done to provide a worst-case scenario in terms of modeling operational TAC risk. However, acknowledging that not all Mission vehicles will be diesel-powered, actual operational risk from delivery trucks would be expected to be less than predicted. Emissions of DPM and $PM_{2.5}$ from these trucks were calculated using emission factors from EMFAC2011 for 2017 operation. Emissions were calculated for trucks traveling Central Avenue and Cherry Street within about 1,000 feet of the project facility. As previously discussed, use of vehicle emissions for 2017 provides a conservative estimate of emissions from project vehicles since emission factors for trucks are anticipated to be less in future years. The distribution of truck travel on these roads was based on information provided in the traffic report for this project. Details of the delivery truck DPM emissions are provided in *Attachment 4*.

Dispersion modeling was conducted with the ISCST3 model using one year of meteorological data (1999) from the HP Newark monitoring site available from the BAAQMD. This modeling used line sources (made up of a series of volume sources along the travel route) to represent the truck emissions from nearby roads. Figure 1 shows the truck routes used in the modeling. DPM concentrations were calculated at receptors along the travel routes at a height of 1.5 meters.

The maximum annual DPM concentration was 0.0009 ug/m^3. The cancer risk was calculated using the maximum modeled DPM concentration and applying the BAAQMD's 70 year average age sensitivity factor of 1.7. The maximum cancer risk occurred at a the same residential location where the maximum cancer risk from construction occurred, a residence on Central Avenue just south of the intersection of Central Avenue and Cherry Street. Figure 1 (found in Attachment 1) shows the location of the receptor with the maximum impact. For operational risks from project related trucks, the increased cancer risk would be 0.49 in one million for a 70-year exposure period, which is below the BAAQMD significance threshold. This is based on project operation in 2017 and assuming that emissions at the 2017 levels would occur for the entire 70-year exposure period even though the EMFAC2011 model predicts that emission rates of DPM from trucks will decrease in the future. The maximum modeled $PM_{2.5}$ concentration was 0.002 $\mu g/m^3$ which is well below the BAAQMD significance threshold. The project would have a less-than-significant impact with respect to community risk caused by operational delivery activities.

Operational Stationary Sources. Stationary TAC sources for the project would include the natural gas-fired boilers, dryers and garment finishing tunnel. TACs are generated during the combustion of natural gas. As recommended in the BAAQMD Permitting Handbook, TAC emissions from natural gas combustion should include emissions of benzene, formaldehyde, and toluene.[10] Benzene and formaldehyde are carcinogenic TAC compounds, in addition to also causing acute and chronic non-cancer health effects. Toluene only causes non-cancer health effects.

Potential health risks to nearby residents from project natural gas combustion sources were evaluated for maximum operating conditions at full build-out (2021) conditions. Emissions of benzene, formaldehyde, and toluene were calculated for each emission source using BAAQMD-recommended emission factors (BAAQMD Permit Handbook) and combustion equipment maximum heat input rates. Details of the stationary source TAC emission calculations are shown in *Attachment 4*.

Modeling of TACs from the project's combustion sources was conducted with the ISCST3 model using one year of meteorological data (1999) from the HP Newark monitoring site available from the BAAQMD. All of the boilers, dryers, and garment finishing tunnel will discharge their combustion exhaust through

[10] BAAQMD, 2014. *BAAQMD Permit Handbook*, Section 2.1 Boilers, Steam Generators & Process Heaters. July 9, 2014.

individual stacks terminating about two feet above the roof level of the facility building and were modeled as stack type sources. Information on building dimensions, stack heights and stack exhaust information were provided by the applicant and are included in Attachment 4 to the full air quality analysis.

Hourly and annual average benzene, formaldehyde, and toluene concentrations were calculated at the nearby residential receptor locations, as described above for the delivery truck DPM modeling. Based on the maximum annual average concentrations for benzene and formaldehyde, cancer risks were calculated using BAAQMD recommended methods which include applying a 70 year average age sensitivity factor of 1.7. The maximum increased cancer risk from benzene and formaldehyde emissions would be 0.022 in one million. When combined with the maximum cancer risk from delivery truck DPM emissions the total increased project cancer risk would be 0.51 in one million. This total increased cancer risk is well below the BAAQMD significance threshold for increased cancer risk of 10 in one million and would be considered a less-than-significant *impact*.

Potential acute and chronic non-cancer health effects were evaluated using the BAAQMD recommended hazard index approach. In this case the individual HI values for each TAC (DPM, benzene, formaldehyde, and toluene) were calculated based the maximum modeled TAC concentration and TAC specific REL. Acute HIs were calculated using maximum 1-hour TAC concentrations and RELs for acute effects and the chronic HIs were calculated using the maximum annual average TAC concentrations and RELs for chronic effects. The sum of the individual chronic and acute HIs were then calculated to get a total chronic HI and total acute HI.

The total chronic HI from all project operational TAC emissions would be 0.0004 and the total acute HI would be 0.002. These HIs are well below the BAAQMD significance threshold of a HI of 1.0 or greater. Thus, non-cancer health impacts from project operation would be considered a *less-than-significant impact.*

The maximum modeled annual $PM_{2.5}$ concentration from the project's stationary sources was 0.22 $\mu g/m^3$, occurring at a residence on the north side of Cherry Street, north of the project site. The maximum $PM_{2.5}$ concentration is below the BAAQMD significance threshold would be considered a less-than-significant impact.

In terms of generating significant objectionable odors, construction activities may cause localized odors that would be temporary and are not anticipated to result in frequent odor complaints.

Examples of odor-generating land uses include wastewater treatment plants, solid waste landfills and transfer stations, composting facilities, oil refineries, asphalt batch plants, chemical manufacturing plants, and coffee roasters, among others. Industrial linen facilities are not identified by BAAQMD as land use types that cause odor complaints. Therefore, operation of the proposed project is not expected to generate odors that would result in confirmed odor complaints.

4. Biological Resources

Environmental Setting

The project site is located in an urbanized, developed portion of Newark and contains existing industrial buildings and parking lots. Existing vegetation includes a number of ornamental trees, shrubs and other groundcover adjacent to buildings and within parking lots.

No wetlands or other waters have been observed on the site.

Figure 4.3-2 contained in the General Plan EIR does not identify the potential presence of sensitive biological resources on or near the project site.

Project Impacts

a) *Have a substantial adverse impact on a candidate, sensitive, or special-status species?* **NI.** The project site and surrounding area is largely developed with buildings, paved parking areas and streets, although the property to the north, across Central Avenue, is vacant. Due to the developed nature of the site, no impacts to candidate, special-status or other protected species are anticipated.

b, c) *Have a substantial adverse impact on riparian habitat or federally protected wetlands?* **NI.** The site is inland and surrounded by urban land uses. No wetlands, waters of the United States or waters of the state have been observed on the site. There would be no impact on riparian habitat or federally or state protected wetlands.

d) *Interfere with movement of native fish or wildlife species*? **NI.** The project site and surrounding areas are developed with industrial and roadways. No streams or watercourses exist on the site. Therefore, no impacts are anticipated with regard to blockage of fish or wildlife corridors.

e, f) *Conflict with local policies or ordinances protecting biological resources or any adopted Habitat Conservation Plans or Natural Community Conservation Plans?* **LS.** The site is not located within the boundaries of any Habitat Conservation Plan or Natural Community Conservation Plan so no impacts would result with respect to this topic. In terms of trees, development of the proposed site would remove many of the existing trees due to the location of the trees and proposed site grading. Loss of trees would be offset by planting of replacement trees along project frontages and within parking areas. This impact would be less-than-significant.

5. Cultural Resources

Environmental Setting

The project site contains two industrial buildings. Due to the recent construction of the buildings (under 50 years) they are not considered a historic resource.

The City of Newark is relatively flat and lies near San Francisco Bay. Based on the General Plan EIR, there is a moderate potential for encountering archeological, prehistoric and/or Native American artifacts during grading and trenching operations associated with the proposed project.

Project Impacts

a) *Cause substantial adverse change to significant historic resources?* **NI.** Since the existing buildings are not considered historic resources, the site contains no historic above ground resources. No impacts are anticipated with respect to this topic.

b, c) *Cause a substantial adverse impact or destruction to archeological or paleontological resources?* **LS.** Based information contained in the Newark General Plan EIR, there is a low to moderate probability of encountering buried archeological, paleontological or Native American artifacts on the project area. A condition of project approval will require that construction of the project be halted within a 50-foot wide radius of any discovery of historic, archeological or Native American artifacts by the project contractor. If this occurs, the City will select a qualified professional to evaluate such resources and prepare a resource protection plan that complies with CEQA standards; work could not be restarted until the resource protection plan is fully implemented. If human remains are encountered, the County Coroner will be immediately notified. Based on this condition of project approval, impacts to significant cultural resources will be less-than-significant.

d) *Disturb any human remains, including those interred outside of a formal cemetery?* **LS.** Based on previous environmental documentation in the Newark area, there is low to moderate potential of encountering human remains as part of project construction and adherence to the condition of project approval outlines in section "b" and "c" above, this impact would be less-than-significant.

6. Geology and Soils

Environmental Setting

The project site is topographically flat and contains no unique rock outcroppings. Table 4.5-1 contained in the General Plan EIR notes that the site and area soils consist of Pescadero clay, drained.

No known active seismic faults have been identified in the Newark planning area, however, the area is subject to moderate to severe ground shaking from the nearby Hayward, San Andreas, Monte Vista-Shannon and Calaveras Faults.

Project Impacts

a) *Expose people or structures to potential substantial adverse impacts, including loss, injury or death related to ground rupture, seismic ground shaking, ground failure, or landslides?* **LS.** Proposed improvements on the site would be subject to moderate to severe

ground shaking during seismic events on nearby fault zones. In the absence of an Earthquake Safety Zone on the site, as documented in the General Plan EIR, the risk of ground rupture is considered low. With adherence to construction techniques identified in the California Building Code and other applicable State of California standards, less-than-significant seismic impacts to humans or structures are anticipated. As part of the normal development review process, the City of Newark will require submittal of a soils and geotechnical report prepared by an engineering professional to ensure that the final design of project improvements will ensure that impacts from seismic activity and other soil hazards would be reduced to a less-than-significant level

No impacts related to landslide hazard are anticipated since the project site contains minimal topographic relief.

b) *Is the site subject to substantial erosion and/or the loss of topsoil?* **LS.** There is a possibility that grading activities and stockpiling of trench spoils could erode into nearby streets, Alameda County Flood Control and Water Conservation District regional drainage channels and ultimately into San Francisco Bay. This would be a significant impact and would be mitigated to a less-than-significant impact by adherence to standard Newark Engineering Division conditions that require conformance with Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) permit standards, enforced by the City of Newark, that mandates reduction of erosion off of all project sites in the community. Adherence to NPDES during construction and post construction periods will reduce the potential for soil erosion to a less-than-significant level.

c-d) *Is the site located on soil that is unstable or expansive or could result in potential lateral spreading, liquefaction, landslide or collapse?* **LS.** The geotechnical report that will be required as a part of the normal and customary review process will contain site-specific recommendation to reduce lateral spreading, liquefaction and unstable soils conditions to a less-than-significant level. These recommendations will be included in final building plans and specifications. This impact will be less-than-significant.

e) *Have soils incapable of supporting on-site septic tanks if sewers are not available?* **NI.** The proposed buildings will be connected to the Union Sanitary District (USD) sanitary sewer system under existing City ordinance and USD policy. There would, therefore, be no impact with regard to septic tanks.

7. Greenhouse Gas Emissions

Environmental Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor,

but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900 (one hundred year). Methane and nitrous oxide have GWPs of 21 and 310, respectively.[11] In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of equivalent CO_2 (CO_2e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

The City of Newark has adopted a Climate Action Plan (CAP) to investigate and identify feasible measures that could be taken on a local level to reduce GHGs emissions. The CAP establishes a target for a 5% reduction of municipal emissions by July 2012, a 5% reduction of community wide GHG reductions by July 2015 and a 15% reduction by 2020.

[11] These are the GWP values used for methane and nitrous oxide in the California Emissions Estimator Model (CalEEMod) version 2013.2.2, a land use development air quality emissions model recommended for use by BAAQMD. The model used GWP values from the IPCC Second Assessment Report (SAR), since it was the basis used in regulations and international protocols at the time (e.g., California and Federal GHG Reporting Programs, The Climate Registry). SAR available online: https://www.ipcc.ch/ipccreports/sar/wg_I/ipcc_sar_wg_I_full_report.pdf

Even if the GHG reduction targets are met the General Plan found that building out of all land uses included in the General Plan would exceed GHG emissions thresholds established by the Bay Area Air Quality Management District and would result in a significant and unavoidable impact.

Table 2 contained in the Air Quality section of this Initial Study (Section 3) identifies regional, state and federal greenhouse gas emission standards.

Project Impacts

a,b) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?* **LS/M.** The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a "bright-line" emissions level of 1,100 metric tons per year for land-use type projects and 10,000 metric tons per year for stationary sources. Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant. The proposed project would include several stationary sources, such as boilers, dryers and garment finishing tunnels.

CalEEMod Modeling. CalEEMod was also used to predict GHG emissions from operation of the site. Operational emissions from the project would be generated primarily from autos driven by future employees and from delivery and service trucks. Emissions would also be generated by stationary equipment, such as boilers and dryers. CalEEMod was used to predict emissions from operation of the site for both the first full opening year (2017) and full build out of the project (2021). Unless otherwise noted below, the CalEEMod model defaults to predict GHG emissions for Alameda County were used. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. Adjustments to the model are described below. Model output worksheets are included in the full air quality report

Land Use Descriptions. The proposed land use and size was input to CalEEMod as 109,046 s.f. of "General Light Industrial." The existing Union City site was entered as 31,500 s.f. of "General Light Industrial."

Trip Generation Rates and Types. CalEEMod allows the user to enter specific trip generation rates. Omni Means traffic engineers provided the trip generation rate for the project and the existing Union City site, which were entered into the model. Model default trip types and distances were used.

Model Year. The model uses mobile emission factors from the California Air Resources Board's EMFAC2011 model. This model is sensitive to the year selected, since vehicle emissions have and continue to be reduced due to fuel efficiency standards and low carbon fuels. The year 2017 was analyzed as the first full year that the project could conceivably be occupied. A year 2021 full build-out

model run was also conducted.

Energy and Water Use. The project applicant provided anticipated electricity and water consumption values that were input to the model. CalEEMod was used to calculate only emissions associated with Title 24 natural gas consumption. Natural gas consumption associated with proposed stationary equipment (i.e., boilers, dryers, and finishing tunnels) was calculated separate from the model, as described below. Separate significance thresholds for GHGs exist for direct emissions from stationary equipment (i.e., natural gas combustion), which is why emissions were calculated in this manner. See *Attachment 2* for project-specific data. The 2013 Title 24 Building Standards recently became effective July 1, 2014 and are predicted to use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards that CalEEMod is based on.[12] Therefore, the CalEEMod runs were adjusted to account for the greater energy efficiency. By the nature of the model, these reductions must be included in the "mitigated" output. CalEEMod defaults for energy and water use were used for the Existing model run.

Emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric utility's (PG&E) projected 2017 and 2021 CO_2 intensity rate. The rates are based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641.35 pounds of CO_2 per megawatt of electricity produced. The derived 2017 rate for PG&E was estimated at 348.86 pounds of CO_2 per megawatt of electricity delivered and is based on the California Public Utilities Commission (CPUC) GHG Calculator.[13] The derived 2021 rate for PG&E was estimated at 289.84 pounds of CO_2 per megawatt of electricity delivered and is based on the published 2020 rate since this is the latest year available in the Calculator.

Other Inputs. Default model assumptions for GHG emissions associated with area sources and solid waste generation were applied to the project.

Construction Emissions. GHG emissions associated with construction were computed to be 497 MT of CO_2e, anticipated to occur over the entire construction period. These are the emissions from on-site operation of construction equipment, hauling and vendor truck trips, and worker trips. BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions, though the District recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

[12] California Energy Commission, 2012. *2013 Building Energy Efficiency Standards FAQ*. May.
[13] California Public Utilities Comissions GHG Calculator version 3c, October 7, 2010. Available on-line at: http://ethree.com/public_projects/cpuc2.php. Accessed: November 10, 2014.

Operational Emissions. The CalEEMod model was used to predict daily emissions associated with operation of the first full year of operation (2017) and the fully-developed site (2021) under the proposed project. In 2017, annual net emissions resulting from operation of the proposed project are predicted to be 1,210 MT of CO_2e. In 2021, annual net emissions resulting from operation of the proposed project are predicted to be 1,587 MT of CO_2e. These emissions would exceed the BAAQMD threshold of 1,100 MT of CO_2e/yr and would be considered significant. Implementation of Mitigation Measure GHG-1 would reduce this impact to a level of less than significant.

Table 8. Annual Project GHG Emissions in Metric Tons

Source Category	Existing Emissions	2017 Emissions	2021 Emissions
Area	<1	<1	<1
Electricity	49	559	699
Natural Gas	43	82[1]	82[1]
Mobile	227	800	1,014
Solid Waste	18	62	62
Water	16	60	83
Total	354	1,564	1,941
Net	NA	1,210	1,587
BAAQMD Threshold	*1,100 MT CO_2e/year*		

Note: [1]Title 24 only

Operational Stationary Sources. The project would include several stationary sources, such as boilers, dryers and garment finishing tunnel. All equipment would be fueled using natural gas. GHG emissions would be produced from the combustion of natural gas. GHG emissions from natural gas combustion include CO_2, nitrous oxide (N_2O), and methane (CH_4). Emissions for these compounds were calculated for expected operating conditions in 2017 and 2021 based on applicant-provided natural gas use and hours of facility operation, and for the maximum condition as well. Emissions from all stationary project combustion equipment sources were calculated using emission factors from the California Climate Action Registry (CCAR) for natural gas combustion.[14]

The total GHG emissions for project operation in 2017 would be 4,341 MT CO_2e/year and 8,189 MT CO_2e/year in 2021 based on the expected condition. Total GHG emissions for the project based on the maximum condition would be 8,189 MT CO_2e/year in 2017 and 22,950 MT CO_2e/year in 2021. Therefore, stationary source GHG emissions from the proposed project could exceed the BAAQMD threshold of 10,000 MT CO_2e/year and would be considered potentially significant. Implementation of Mitigation Measure GHG-2 would reduce this impact to a level of less than significant.

Mitigation Measure GHG-1. The Applicant shall develop and submit a Greenhouse Gas (GHG) Reduction Plan to the City of Newark and receive

[14] California Climate Action Registry, *General Reporting Protocol*, Version 3.1, January 2009.

approval by the Community Development Director prior to issuance of a building permit. The Plan shall show that operational GHG emissions would be reduced below BAAQMD thresholds and, at minimum, shall include the following items:

a) Vehicular Trip Reduction Methods. Specific methods to reduce auto trips shall be identified, including but not limited to:

   1) A rideshare program for employees to reduce single-occupant vehicle commuting;

   2) Preferential parking for carpool and vanpool vehicles;

   3) Carpool and vanpool matching for employees;

   4 Provision of enhanced on-site enhanced bicycle facilities. This includes bicycle lockers, locker rooms and showers and similar facilities;

   5) Employee subsidy of public transit use. This includes BART and AC Transit modes of transportation; and

   6) Annual monitoring and record keeping made available to the City of Newark Community Development Department to demonstrate that trip reduction methods have proven effective in reducing single-occupant vehicle commute trips to meet GHG reduction targets. If targets are not met, the Plan shall be modified to include additional methods to achieve targets.

b) Electric Vehicle Charging Stations. A minimum of four electric vehicle charging stations shall be provided and dedicated to electric vehicle recharging. The design of the station shall be compatible with recharging technology used by the most common types of electric vehicles.

c) Use of Solar and Alternative Power Sources. The roof of the proposed laundry building and the electrical system shall be designed to accommodate electric photovoltaic panels. A minimum of 50 percent of the roof surface of the building shall be dedicated to such panels and this energy shall replace and supplement normal electric grid power.

e) Alternatively Fueled Delivery Vehicles. At least 25 percent of the Mission Linen delivery trucks shall be fueled by hydrogen, CNG, LPG, or similar alternative fuels (i.e., non-gasoline, non- diesel fuel).

f) Offset Project Registry. If Mission Linen is not able to reduce GHG emissions below the BAAQMD significance threshold through the use

of the above listed measures alone, the project applicant shall purchase GHG offset credits from an established Offset Project Registry (OPR) to offset the difference.

Implementation of Mitigation Measure GHG-1 would require development of a GHG Reduction Plan to demonstrate that mitigated project operational GHG emissions would be below the BAAQMD significance threshold of 1,100 MT of CO_2e/year. Therefore, this impact would be less than significant with mitigation.

Adherence to Mitigation Measure AIR-2 would also assist in reducing this impact to a less-than-significant level.

If actual natural gas usage approaches or exceeds 1.88 million therms per year, the project applicant shall implement all reasonable and feasible control technology to reduce natural gas usage and demonstrate reduction of operational GHG emissions from stationary sources below the BAAQMD significance threshold of 10,000 MT of CO_2e/year.

Consistency with Adopted Plans to Reduce GHG Emissions. The project will be subject to new requirements under rule making developed at the State and local level, including the City of Newark Climate Action Plan Initial Framework, regarding greenhouse gas emissions and be subject to local policies that may affect emissions of greenhouse gases.

8. Hazards and Hazardous Materials

Environmental Setting

The project site is not listed as a Hazardous Materials site on Figure 4.7-1 of the General Plan EIR and is not listed as a contaminated site on the Cortese List of contaminated sites (http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm).

The site contains an older industrial building containing 63,191 square feet that is proposed for demolition. There is a possibility that the building could contain lead-based paint, asbestos or other potentially hazardous materials. Soils on the project site and groundwater under the site could also contain hazardous materials.

The site is not within an airport planning area of any public or private airport or airstrip.

Project Impacts

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* **LS.** The proposed project, if approved, would include normal and customary transport, use and storage of building materials, paints, solvents and lawn care chemicals, many of which are considered hazardous or potentially hazardous in sufficient quantity. These materials would be used for building and site maintenance. The applicant, Mission Linen, would also use industrial-grade detergents and similar material as part of the linen cleaning

process. Use of such materials is not anticipated to result in a significant hazard to the public and a less-than-significant impact would exist.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous material into the environment?* **LS/M.** The demolition of the existing industrial building could be release lead based paint particles and asbestos containing materials into the atmosphere. This could be a potentially significant impact and will be reduced to a less-than-significant level through adherence to the following measure.

> **Mitigation Measure HAZ-1.** Prior to issuance of a demolition permit for the site, a licensed contractor shall determine the presence or absence of lead based paints or asbestos material on the site. If found in quantities at or above actionable levels as determined by the Alameda County Fire Department, Newark Building Department or other regulatory agencies, these materials shall be safely removed consistent with OSHA and other applicable standards and disposed of in an appropriate location. Necessary permits and approvals shall be secured from appropriate regulatory agencies.

Grading of the project site to allow for the installation of utility lines, building foundations and similar facilities would disturb the existing ground surface and possibly the local water table. Previous uses of the site may have left chemical and other residue in the soil or groundwater that would be disturbed with grading activities. This would be a significant impact. Adherence to the following measure will reduce this impact to a less-than-significant level:

> **Mitigation Measure HAZ-2.** Prior to issuance of a grading permit, a qualified environmental assessor shall prepare a Phase II Environmental Site Assessment to determine the presence or absence of contamination in the site soil or groundwater (if applicable) at appropriate actionable thresholds on the site. If found in quantities at or above actionable levels as determined by the Alameda County Fire Department or other regulatory agency with jurisdiction over site contaminants, these materials shall be safely removed consistent with OSHA and other applicable standards and disposed of in an appropriate location. Necessary permits and approvals shall be secured from appropriate regulatory agencies. Remediation plans shall include worker safety plans.

c) *Emit hazardous materials or handle hazardous or acutely hazardous materials, substances, waste within one-quarter mile of a school?* **NI.** No public schools are located less than one-quarter mile from the project site. No impact is anticipated with regard to emitting acutely hazardous materials near a school site.

d) *Is the site listed as a hazardous materials site?* **NI.** The project site is not listed on the State of California Department of Toxics Substances Control list (the Cortese List) as of August 7, 2014. No impacts are anticipated with respect to this topic.

e,f) *Is the site located within an airport land use plan of a public airport or private airstrip?* **NI.** No public or private airstrips or airfields exist within or immediately adjacent to the City of Newark, so there would be no conflict with airport land use plans or local airport activities.

g) *Interference with an emergency evacuation plan?* **NI.** The proposed project is not designed in such a manner as to block vehicular traffic along Central Avenue or Cherry Street, which provides normal and emergency access to and from the site. Therefore, no impacts are anticipated with regard to interference with emergency evacuation plans.

h) *Expose people or structures to significant risk due to wildlife fire, including where residences are intermixed with wildlife?* **NI.** The project site is located in an urban area, with industrial land uses or major roadways land uses on all sides. No impacts are, therefore, anticipated with respect to significant risk of the proposed project to wildland fire.

9. Hydrology and Water Quality

Environmental Setting

Surface water. Surface water flows within channelized creeks maintained by the Alameda County Flood Control and Water Conservation District. No channels are located on or adjacent to the project site.

Groundwater. The Newark planning area overlays a major aquifer known as the Niles Cone. Niles Cone has historically provided water to the Newark and Fremont areas and continues to play a part in satisfying the overall water demand from the region.

Surface water quality. The City of Newark, along with all other cities in Alameda County and Alameda County itself, is a participant in the Alameda Countywide Clean Water Program that was formed in 1989 to control urban runoff. The City of Newark enforces the most recent C.3 and C.6 requirements set forth in the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) permit issued to the City by the San Francisco Bay Regional Water Quality Control Board in October 2009. The C.3 and C.6 requirements state that development projects are to provide site design measures, source controls, Low Impact Development (LID) treatment measures, hydromodification management, and construction best management practices that are appropriate for the type and size of the project to control stormwater pollution. Treatment measures could include biotreatment systems that are designed subject to established numeric sizing criteria. Each development project is required to complete a Stormwater Requirements Checklist and prepare Stormwater Treatment Design Plans and a Stormwater Pollution Prevention Plan that collectively establish how the project will satisfy NPDES water quality standards.

Flooding. No portions of the site are subject to 100-year flooding intervals.

Project Impacts

a) *Violate any water quality standards or waste discharge requirements?* **LS.** The proposed project would dispose of normal wastewater and industrial wastewater from the laundry operation through Union Sanitary District treatment facilities, which can accommodate the additional amount of wastewater generated by the proposed project. The project will also be required to comply with NPDES surface water quality standards as enforced by the City of Newark, so that less-than-significant impacts will result with regard to violation of water quality standards or waste discharge requirements (source: Alex Paredes, USD engineer, 7/1/14).

b) *Substantially deplete groundwater recharge areas or lowering of water table?* **NI.** The existing buildings on the site are connected to Alameda County Water District (ACWD) water lines and have historically received water from the District. Additional water would likely be required for the proposed industrial laundry facility proposed the site. The ACWD obtains water from a combination of sources including delivery of imported water during normal years supplemented by locally pumped groundwater. There would therefore be no covering of an existing groundwater recharge area or lowering of the water table.

c) *Substantially alter drainage patterns, including streambed courses such that substantial siltation or erosion would occur?* **LS.** The project site is developed with three building, outbuildings and a large paved parking lot. Construction of the proposed project would likely not increase the amount of impervious surfaces on the site. The amount, velocity and rate of increased stormwater runoff from the site is unknown; however, the amount of increased runoff would likely not be significant, especially since the project will be required to comply with C.3 hydromodification requirements to meter peak runoff flows from the site This impact would be less-than-significant.

d) *Substantially alter drainage patterns or result in flooding, either on or off the project site?* **LS.** See item "c" above.

e) *Create stormwater runoff that would exceed the capacity of drainage systems or add substantial amounts of polluted runoff?* **LS.** See items "c" and "d" above.

f) *Substantially degrade water quality?* **LS.** Construction of the proposed project has the potential to degrade surface water quality through runoff of polluted stormwater and debris from the site. To reduce this impact to a less-than-significant level, the Newark Engineering Division will require that the developer prepare and implement a Stormwater Treatment Design Plan and a Stormwater Pollution Prevention Plan to ensure that the subdivision will comply with C.3 and C.6 Municipal Regional Stormwater NPDES water quality standards and other applicable standards.

g-i) *Place housing within a 100-year flood hazard area as mapped by a Flood Insurance Rate Map, or impede or redirect flood flow, including dam failure?* **LS.** The project site is not included within a 100-year flood hazard area. The site may be subject to inundation of flood water from upstream failure of Del Valle, Calaveras and

Turner dams and reservoirs, but this is anticipated to be less-than-significant (source: http://www.abag.ca.gov/cgi-bin/pickdamx.pl)

j) *Result in inundation by seiche, tsunami or mudflows*? **NI.** There are expected to be no impacts with regard to seiche, or tsunamis since the project site is located a sufficiently large distance east of San Francisco Bay. The site and surrounding properties are relatively flat so there would be no impact with respect to mudflows.

10. Land Use and Planning

Environmental Setting
The project site is developed with three industrial buildings, outbuildings and parking lots. The site has been planned and zoned for industrial land uses by the City of Newark.

Project Impacts
a) *Physically divide an established community*? **NI.** The project site is presently developed with industrial buildings surrounded by industrial uses. Approval of the proposed industrial laundry facility would result in a continuation of existing land uses in the area and would not result in disruption of an established community. There would be no impact with respect to this topic.

b) *Conflict with any applicable land use plan, policy or regulation*? **NI.** The proposed project complies with the existing General Plan land use designations. No applications have been made to change or delete any City land use policy or regulation affecting environmental protection. There would be no impact with regard to land use regulatory conflicts.

c) *Conflict with a habitat conservation plan or natural community conservation plan*? **NI.** No impacts would result regarding Habitat Conservation Plans or Natural Community Conservation Plans since none of these preserves have been created on the project site nor are such plans being contemplated.

11. Mineral Resources

Environmental Setting
The Newark General Plan does not indicate the project site contains any significant sources of minerals.

Project Impacts
a, b) *Result in the loss of availability of regionally or locally significant mineral resources*? **NI.** No impacts would occur to any mineral resources since none have been identified on this site in the General Plan.

12. Noise

Environmental Setting

The project site is located near the corner of Central Avenue and Cherry Street. Noise sources in the vicinity include vehicular noise from passing vehicles, mechanical noise from nearby industrial uses and railroad noise.

The City of Newark has adopted a standard of 60 decibels (CNEL or Ldn scale) as the normally acceptable exterior noise exposure level. Exterior noise exposure if up to 70 decibels is considered conditionally acceptable.

Figure 4.10-2 contained in the Noise Element of the General Plan shows that the project site is subject to exterior noise levels ranging between 60 and 70 decibels (CNEL). The Noise Element establishes an exterior noise exposure level of up to 75 decibels (CNEL or dBA) to be "normally acceptable" and noise up to 80 decibels (same scale) to be "conditionally acceptable/"

Project Impacts

a) *Would the project result in exposure of persons to, or generate noise levels in excess of standards established by the General Plan or noise ordinance or applicable standards of other agencies*? **LS.** The project site is located within an established industrial area in Newark with normal and customary ambient noise sources. Proposed industrial laundry facilities would be located within an enclosed building to limit spillover of noise. A number of delivery trucks would be associated with the proposed use, including on-site loading and maneuvering of trucks. Given the absence of nearby sensitive noise receptors, including but not limited to residences, parks, schools, libraries and similar uses, localized noise increases associated with the project would be less-than-significant.

b) *Exposure of people to excessive groundborne vibration or groundborne noise levels*? **NI.** No major pile driving or other activities that would result in excessive groundborne vibration would be created as part of project construction. Once constructed, operation of the project would include typical retail commercial and office uses that would not result in vibration. No impacts are anticipated related to groundborne vibration.

c) *Substantial permanent increases in ambient noise levels*? **LS.** The site currently generates minimal noise since existing buildings are vacant. Approval and construction of the proposed replacement industrial building would increase noise due to industrial operation and vehicle trips to and from the site but likely not to a level that would exceed City exterior noise exposure level of 80 decibels. In addition, no sensitive noise receptors are located near the site, including but not limited to residences, parks, schools, hospitals and similar land uses. This impact is anticipated to be less-than-significant.

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels without the project*? **LS.** Demolition and construction would likely occur in one phase and could result in short-term noise levels in excess of 80 decibels on

the CNEL scale. However, due to an absence of sensitive noise receptors in the project area, this impact is expected to be less-than-significant.

e,f) *Be located within an airport land use plan area, within two miles of a public or private airport or airstrip?* **NI.** No public or private airports or airstrips exist within or near the City of Newark. No impact would result.

13. Population and Housing

Environmental Setting
Newark is a balanced community consisting of stable residential neighborhoods, shopping districts, and a large industrial and research and development base.

The project site is developed with industrial uses and the property is shown in the General Plan as industrial.

Project Impacts

a) *Induce substantial population growth in an area, either directly or indirectly?* **NI.** The proposed project would result in the construction of an industrial laundry facility within the Newark industrial area. Since the site is depicted for industrial uses in the Newark General Plan and the site has been developed with existing industrial buildings the project would not result in a substantial population in this portion of the community. No impacts would result.

b,c) *Would the project displace substantial numbers of existing housing units or people?* **NI.** The project site contains industrial buildings. No dwellings or residents would be displaced to accommodate the proposed project. No impacts would, therefore, result.

14. Public Services

Environmental Setting
Services to the City of Newark are provided by the following:

Fire and Emergency Services: The City of Newark contracts with the Alameda County Fire department for fire suppression, emergency medical, fire inspection, hazardous materials response and similar services. The project site is served by Alameda County Fire Station No. 27, located at 39039 Cherry Street.

Police Services: Police and emergency response is provided by the Newark Police Department, headquartered at the Newark Civic Center.

Public Educational Service: The Newark Unified School District operates a number of K-12 schools within the community.

Solid Waste Collection and Disposal: Republic Services of Alameda County.

Project Impacts

a) *Fire protection?* **LS.** The closest fire station to the project area is Alameda County Station No, 27 at the southwest corner of Cherry Street and Mowry Avenue. Approval of the proposed project would increase the number of calls for service to the Fire Department based on occupancy of additional dwellings on the site. Based on discussions with Fire Department staff, construction of the proposed project would not require the construction of new or expanded Fire Department facilities (source: Holly Guier, ACFD, 2/6/14). This would be less-than-significant.

b) *Police protection*? **LS.** The Newark Police Station is located approximately 1 to 1.5 miles north of the project site. Based on information provided by the Newark Police Department, construction of the proposed subdivision could be served by the existing police facility without the need for additional facilities so that impacts to the Police Department would be less-than-significant (source: Sgt. Arguello, Newark Police Department, 2/12/14).

c) *Schools?* **NI.** There would be no impact to the Newark Unified School District since payment of mandated school impact fees to the District will off-set potentially higher student enrollment generated by the proposed project.

d) *Other governmental service, including maintenance of public facilities?* **NI.** There would be no impact to maintenance services provided by the City since the project involves private improvements on private property. On-site roads would be privately maintained.

e) *Solid waste generation?* **LS.** Less-than-significant impacts regarding generation of solid waste are anticipated since any additional staffing and equipment to collect solid waste and recycling by Waste Management, Inc. would be offset by user fees charged to commercial customers. The amount of solid waste generated from the site is anticipated to be reduced in the future as the requirements of AB 939 take effect. This law, adopted in 1989, mandates a reduction in the municipal waste stream.

15. Recreation

Environmental Setting

The City of Newark maintains a wide range of parks and associated recreational services for residents. The nearest neighborhood park to the project site is Birch Grove Park located north of the project site.

Regional park facilities in Newark and surrounding communities are provided by the East Bay Regional Park District.

Project Impacts

a) *Would the project increase the use of existing neighborhood or regional parks?* **LS**. The proposed project includes construction of an industrial building and would likely add a small amount of new residents to the City of Newark associated with the project that could increase the need for local park and recreational facilities. This impact is anticipated to be less-than-significant.

b) *Does the project include recreational facilities or require the construction of recreational facilities?* **NI**. The proposed project does not include a recreational component. Since it would involve an industrial project, no recreational facilities are required.

16. Transportation/Traffic

(Note: A traffic and transportation analysis for the proposed project was completed by the firm of Omni Means Ltd. A copy of the analysis is included as Attachment 2 to the Initial Study. The results of the traffic report are summarized below.)

Environmental Setting

The project site is served by the following major roadways:

Central Avenue extends in an east-west direction between Willow Street and I-880. Between Willow Street and Filbert Street, Central Avenue is a two-lane arterial street. Once east of Filbert Street, Central Avenue extends as a four-lane arterial street through I-880. Between Willow Street and Cherry Street, Central Avenue provides access mainly to commercial and light industrial areas. East of Cherry Street, the roadway provides access to both commercial and residential areas. Central Avenue would provide direct access to the proposed project site.

Cherry Street is another arterial street extending in a north-south direction between Stevenson Boulevard and Mirabeau Street. A four-lane roadway, Cherry Street has a two-way-left-turn lane between Mowry Avenue and Thornton Avenue and provides access to commercial, light-industrial, and residential areas. North of Thornton Avenue, Cherry Street narrows to two travel lanes and provides access to residential areas.

Mowry Avenue is located south of Central Avenue and extends in an east-west direction. The roadway has four travel lanes between Cherry Street and Cedar Boulevard. East of Cedar Boulevard, Mowry Avenue widens to six travel lanes as it crosses over I-880. Mowry Avenue provides access to recreational, residential, and commercial areas of the City and is a major arterial street.

Cedar Boulevard is a major north-south arterial street extending through most of Newark. Beginning at Haley Street, Cedar Boulevard extends east past Newark Boulevard before turning south past Thornton Avenue, Central Avenue, and Mowry Avenue before terminating at Stevenson Boulevard. A four-lane roadway, Cedar Boulevard serves commercial, light-industrial, and residential areas throughout Newark.

Thornton Avenue is an arterial street that aligns mostly east-west through the City of Newark between State Route 84 and Interstate 880 extending into the City of Fremont. From SR 84, Thornton Avenue extends south and east as a two or four lane arterial street to Willow Street. Between Willow Street and Sycamore Street, Thornton Avenue has two travel lanes and a two-way-left-turn-lane. East of Sycamore Street, Thornton Avenue widens to three travel lanes (1 westbound, 2 eastbound) to Cherry Street. Finally, the roadway extends east for four-travel lanes all the way through I-880 into the City of Fremont. Thornton Avenue provides access to residential, light industrial, and commercial areas in the western part of Newark. Thornton Avenue becomes Paseo Padre Parkway north of SR 84.

Regional access to the City of Newark is provided by State Route 84 and Interstate 880.

State Route 84 (SR 84) extends in an east-west direction along the northern limits of the City. A six-lane facility, SR 84 has five mixed-flow lanes and one high-occupancy vehicle (HOV) lane in the eastbound direction. Full-access interchanges are located at the Thornton Avenue/Paseo Padre Parkway and Newark Boulevard/Ardenwood Boulevard locations. SR 84 provides access east to Livermore (I-580) and west to San Gregorio and Highway 1.

Interstate 880 (I-880) extends north-south along the eastern border of the City and is an eight-lane facility with six mixed flow lanes and one HOV lane in each direction. Full access interchanges are located at the Thornton Avenue, Mowry Avenue, and Stevenson Boulevard locations. I-880 provides primary access north to Oakland and south to San Jose.

Existing intersection operations. The following list of study intersections have been reviewed by Newark Engineering staff for both existing and proposed project operating conditions. Intersection operation is usually considered a key factor in determining the traffic handling capacity of a local street circulation system. Based on discussions with City of Newark Engineering staff, four (4) key intersections (in addition to the main access driveways) were selected for evaluation of current operational characteristics on Thornton Avenue, Cedar Boulevard, Cherry Street, Central Avenue, and Mowry Boulevard as follows:[15]

1. Thornton Avenue/Cedar Boulevard — Signalized
2. Central Avenue/Cherry Street — Signalized
3. Mowry Avenue/Cherry Street — Signalized
4. Mowry Avenue/Cedar Boulevard — Signalized

With the proposed project being light-industrial in nature, a portion of the project's trip generation would occur during the weekday AM and PM commute periods when office and/or truck employees arrive or leave work (production employees would work shifts outside of the peak commute periods). Therefore, traffic impact analyses have focused on the weekday AM and PM peak periods between 7:00-9:00 a.m. and 4:00-6:00 p.m.

[15] *Soren Fajeau, City Engineer, City of Newark, Project study intersections—personal communication, December, 2013.*

when both on-street traffic and vehicle trip generation from the project would combine to potentially affect traffic flow.

PM peak hour signalized and non-signalized intersection LOS have been calculated using the *Transportation Research Board (TRB), Highway Capacity Manual 2000, Chapters 16 and 17, Signalized and Unsignalized Intersections.* Synchro-Simtraffic software has been used to model intersection operations based on "operations" methodology.

A method of measuring intersection operation is to apply a Level-of-Service (LOS) scale of operational performance. At a signalized intersection, LOS is determined by calculating the volume of conflicting turning movements at the intersection during a one-hour peak period. This total is then divided by the design capacity calculated to accommodate those turning movements. This calculation yields a volume/capacity ratio (v/c) ratio and vehicle delay in seconds. The resulting output corresponds to LOS ratings between "A" to "F" that describe increasing levels of traffic demand and increases in vehicle delay and deterioration of service.

As an example, LOS A represents free-flow conditions with little or no delay. LOS E represents unstable flow conditions with volumes at or near design capacity. Motorists are likely to experience major delays (40 to 60 seconds) to clear an intersection. LOS F represents "jammed" conditions where traffic flows exceed the design capacity of the intersection.

At non-signalized intersections, LOS usually refers to the minor street movement controlled by a stop-sign. While overall intersection LOS from the major street may be C or better, a minor street turning movement may be functioning at LOS D or E. For all-way-stop-control intersections, intersection LOS refers to the average delay of all approaches. However, if one of the intersections' approach legs is substantially unbalanced (volume), that specific leg may experience proportionately longer delays.

As shown in **Table 9**, the four project study intersections are operating at acceptable levels (LOS D or better) during the AM and PM peak hours. Periodic vehicle queuing was observed during peak commute periods at all four study intersections. Field observations indicate that peak directional traffic volumes on SR 84 and I-880 in the study area can experience congestion due to accidents, interchange operations, or just significant directional traffic flow. In addition, on-ramps at to I-880 at the Thornton Avenue, Mowry Avenue, and Stevenson Boulevard are all metered and vehicles can queue on these on-ramps. However, this vehicle queuing does not typically affect operation of the signalized off-ramp intersections. In addition, off-ramps have also been observed to experience vehicle queuing depending on commute direction. This occurs during the AM commute hour on the SR 84 eastbound off-ramp at Thornton Avenue. Other arterial corridors within the City of Newark also can experience congestion and these are as follows:

Thornton Avenue between I-880 and Cedar Boulevard; Significant traffic flows in the eastbound and westbound directions. Vehicle queues have been observed for the westbound left-turn movement from Thornton Avenue onto Cedar Boulevard and southbound left-turn movements from Cedar Boulevard onto Thornton Avenue. It is

noted that the westbound left-turn storage lane from Thornton Avenue onto Cedar Boulevard was lengthened as part of the Home Depot development to the west some years ago to provide greater vehicle storage.

Thornton Avenue-Willow Street-Central Avenue-Cherry Boulevard-Automall Parkway; During periods of congestion on SR 84 and I-880, these arterials serve as an alternate commute route in order to bypass the freeway congestion and can experience increased congestion at the study intersections along this route. This also can occur along the Thornton Avenue corridor and it's intersections between SR 84 and I-880.

Table 9. Existing Conditions-Weekday AM & PM Peak Hour Level of Service

	Intersection	Control Type	AM Peak Hour			PM Peak Hour		
			Delay	LOS		Delay	LOS	
1	Thornton Avenue/Cedar Boulevard	Signal	45.2	D		35.1	D	
2	Central Avenue/Cherry Street	Signal	46.5	D		36.4	D	
3	Mowry Avenue/Cherry Street	Signal	30.1	C		30.5	C	
4	Mowry Avenue/Cedar Boulevard	Signal	25.8	C		30.9	C	

Intersection LOS is expressed in seconds of vehicle delay based on HCM 2000 Operations methodology
Source: Omni Means, 2014

Near-Term Project Operations. Near-term (no project) conditions represent approved/pending projects approved by the City of Newark prior to proposed project development combined with increases in regional traffic growth. This would represent a 2– year period consistent with previous studies. The proposed project development would likely represent a 1–2 year horizon. However, near-term (no project) conditions are conservative in nature. Approved/pending projects likely to affect traffic flows in the general study areas were identified from the recent studies conducted for the City of Newark General Plan Tune Up EIR.[16]

Based on overall growth projections discussed in the EIR Transportation and Traffic section, buildout of the Plan would include an increase of 16,580 residents, 6,208 housing units, and 2,882 jobs over existing Year 2012 base levels. Using these growth estimates, the Alameda County Transportation Commission (ACTC) transportation model was updated to provide Year 2035 traffic volume forecasts. Using the difference between existing Year 2012 baseline volumes and Year 2035 model volumes at each study intersection, existing volumes were increased by a two-year growth ratio based on the uniform 23-year increase in model volumes.

In addition to near-term background growth, the project parcel includes a vacant light-industrial building located on the northeast portion of the parcel. Vehicle access to this site would be gained to/from Cherry Street (only). Although not a portion of the proposed project description, the project applicant could lease this 44,452 square foot

[16] *Planning Center / DC&E, General Plan Tune UP EIR, Chapter 4, Transportation and Traffic, City of Newark, 2013*

building out for other light-industrial type uses. For the purpose of this analysis, this building was assumed to be leased for near-term (no project) conditions. Based on the Institute of Transportation Engineers (ITE) trip research on light-industrial uses, the vacant building would generate 310 daily trips with 41 AM peak hour trips and 43 PM peak hour trips.[17]

With near-term (no project) traffic added to existing peak-hour traffic volumes, all study intersections would operating at acceptable levels (LOS D or better) during both the AM and PM peak hours.

Pedestrian and Public Transportation. Bus transit in the project study area is provided by the Alameda-Contra Costa Transit. The closest Bay Area Rapid Transit District (BART) station is located to the east, in Fremont.

Sidewalks have been constructed along the project frontages.

Standards of Significance. The following standards of significance criteria have been used in this transportation analysis:

- A reduction in intersection service levels below LOS D for signalized intersections. This is based on the City of Newark standard for Level of Service included in the Transportation Element of the General Plan;

- For those intersections operating below LOS D (pre-project), an increase of 1% or more of project-related traffic to an already congested intersection would be considered a significant impact;

- Based on Alameda County Congestion Management Agency (ACCMA) guidelines, should the proposed Mission Linen Light-Industrial Facility project generate over 100 PM peak hour trips *and* represent a General Plan Amendment and/or require a Project Specific Environmental Impact Report (PSEIR), a comprehensive traffic analysis would be conducted on all MTS routes in the study area. The Congestion Management Plan (CMP) requires conducting a supplemental traffic analysis using the latest Countywide Transportation Demand Model for projection years 2015 and 2030.

Project Impacts

a,b) *Conflict with applicable plans related to the effectiveness of the circulation system, including all modes of travel, including intersections, streets, highways and other components or conflict with an applicable congestion management program, including level of service standards, travel demand measures and other applicable standard or conflict with an applicable congestion management program including but not limited to level of service standards and travel demand measures or other standards established by the CMA for designated roads or highways?* **LS.** Daily and peak hour vehicle trip generation for the proposed project has been based on accepted rates found in the Institute of Transportation Engineers (ITE) trip research manual for light-industrial uses. ITE

[17] *Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Light-Industrial (#110), 2012.*

has conducted extensive research on the trip generation characteristics of both light and heavy industrial uses. Consequently, established rates for proposed project uses are an industry standard used by both consultants and public agencies for measuring the impacts of light industrial uses.

Vehicle trip generation for the proposed project is broken down by daily vehicle trips and "peak hour" vehicle trips. Daily trips are the total vehicle trips generated by the project over a 24-hour period. The peak hour trips are typically generated during the highest hour of the morning (7:00-9:00 a.m.) and evening (4:00-6:00 p.m.) commute periods when weekday traffic is significant. The peak hour rates reflect the amount of traffic that would be generated by the proposed project during the "peak hour of adjacent street traffic." However, it is possible the proposed project could generate a higher amount of trips during some other period during the day. Regardless, the combination of peak hour project trips combined with the peak hour of adjacent street traffic commonly yields a "worst case" scenario for measuring project impacts and vehicle congestion. Typically, the PM peak hour period yields the greatest combination of project trip generation and vehicle congestion.

Specific to proposed project trip generation, it is likely that calculated AM and PM peak hour light-industrial project trips using ITE research are conservative in nature. The project description indicates that the bulk of the employees would be made up of production staff. Production staff work would be accommodated in two work shifts starting at 5:00 a.m. and ending at 9:00 p.m. These work/shift hours would preclude production staff from commuting during the peak hours of adjacent street traffic between 7:00-9:00 a.m. and 4:00-6:00 p.m. In addition, a majority of the route drivers (56 total) would be leaving the facility prior to 7:00 a.m. on their delivery runs. Each driver would complete one delivery route per day returning to the facility prior to 5:00 p.m. Therefore, calculated peak hour trip generation would be conservative.

With AM and PM peak hour project trips added to existing (no project) traffic volumes, study intersection LOS have been calculated and are shown in **Table 10**. With existing plus project volumes, all four project study intersections would be operating at acceptable levels (LOS D or better) during the AM and PM peak hours. There would be slight increases in vehicle delays at specific intersections. The intersection of Thornton Avenue/Cedar Boulevard would change from LOS C (34.7 seconds) to LOS D (35.3 seconds) with proposed project traffic. However, all intersections would continue to operate at acceptable levels.

Table 10. Existing and Exiting + Project Conditions-Intersection LOS, Weekday AM and PM Peak Hour

	Intersection	Control Type	Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
			Existing (No Project)	Existing Plus Project	Existing (No Project)	Existing Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	C 33.8	C 34.9	C 34.7	D 35.3
2	Central Avenue/Cherry Street	Signal	D 46.5	D 50.6	D 36.4	D 38.5
3	Mowry Avenue/Cherry Street	Signal	C 30.1	C 30.1	C 30.5	C 31.4
4	Mowry Avenue/Cedar Boulevard	Signal	C 25.8	C 25.9	C 30.9	C 31.2

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.
Source: Omni-Means, 2014

Near-Term Plus Project Intersection Operations. **Table 11** shows near-term plus project study intersection LOS. With near-term plus project volumes, the four project study intersections would be operating at acceptable levels (LOS D or better) during the AM and PM peak hours. As with existing plus project conditions, there would be slight increases in vehicle delays at selected intersections. However, the addition of proposed project trips would not be considered significant.

Table 11. Near-Term and Near-Term + Project Conditions-Intersection LOS, Weekday AM and PM Peak Hour

	Intersection	Control Type	Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
			Near-Term (No Project)	Near-Term Plus Project	Near-Term (No Project)	Near-Term Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	D 38.8	D 40.5	D 36.5	D 36.6
2	Central Avenue/Cherry Street	Signal	D 51.2	D 53.4	D 38.7	D 40.2
3	Mowry Avenue/Cherry Street	Signal	C 32.4	C 32.9	C 33.8	C 34.7
4	Mowry Avenue/Cedar Boulevard	Signal	C 26.3	C 26.6	C 32.7	C 33.5

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.

Based on 286 employees (maximum), the proposed project is expected to generate 864 daily trips with 126 AM peak hour trips and 120 PM peak hour trips. These calculations are based on total employment result in a more conservative trip generation calculation as compared to trip rates based on building square footage.

Cumulative Traffic Conditions. As shown in **Table 12**, all project study intersections would continue to operate at LOS D or better during the AM and PM peak hours with slight increases in vehicle delays due to proposed project traffic.

Table 12. Cumulative and Cumulative + Project Conditions-
Intersection LOS, Weekday AM and PM Peak Hour

	Intersection	Control Type	Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
			Cumulative (No Project)	Cumulative Plus Project	Cumulative (No Project)	Cumulative Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	D 53.6	D 54.5	D 47.9	D 48.6
2	Central Avenue/Cherry Street	Signal	D 45.8	D 49.3	D 45.3	D 47.8
3	Mowry Avenue/Cherry Street	Signal	D 40.3	D 41.4	D 46.3	D 48.2
4	Mowry Avenue/Cedar Boulevard	Signal	C 34.7	C 34.7	D 54.1	D 54.3

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.
Source: Omni Means, 2014

In sum, the proposed Mission Linen project would not conflict with the effectiveness of the local or regional circulation system, including all modes of travel, local standards of significance or conflict with the regional congestion management plan. Traffic impacts would be less-than-significant.

c) *Result in a change of air traffic patterns*? **NI.** The proposed project would have no impact on air traffic patterns, since it consists of approval and construction of a light industrial facility.

d) *Substantially increase hazards due to a design feature or incompatible use*? **LS/M.** All vehicle and truck/van access to the project site would be gained from Central Avenue. The proposed project site would be served by three full-access driveways to serve both vehicular and truck/van traffic. The eastern-most project driveway would be located approximately 330 feet south of Cherry Street. With a 40-foot width, this driveway would be designated for all truck/van access and could also be used by vehicle traffic. The mid-site driveway would be located approximately 685 south of Cherry Street and would serve the primary employee parking areas. Delivery trucks and vans associated with the facility would not use this driveway to access the site. Finally, the western-most driveway would be located approximately 800 feet south of Cherry Street. This driveway would provide access to a wide fire lane (26-feet) that would extend around the entire building on its south side linking the western portion of the site with truck/van loading and parking areas on the east side of the site.

All three driveways would be served by an existing two-way-left-turn-lane on Central Avenue. Originating 285 feet west of Cherry Street (after an existing raised landscaped median), the left-turn lane extends for the entire 560-foot length of the project frontage and continues west well beyond the project boundary (+1,000 ft.).

The eastern-most project driveway that would serve proposed delivery truck/van access would have 39 feet of storage capacity for the westbound left-turn

movement from Central Avenue into the project site. This is due to the existing raised landscaped median on Central Avenue that extends west from Cherry Street. Due to the location of the eastern project driveway and raised median on Central Avenue, there is only 39 feet of storage in the existing left-turn lane for westbound project traffic wishing to access the site. The existing westbound storage capacity on Central Avenue of 39 feet would not be adequate for large trucks (CA-45 or CA-65). This would be a significant impact in terms of traffic hazards and would be reduced to a less-than-significant level by adherence to the following measure.

> **Mitigation Measure TRA-1.** All inbound large trucks shall access the project to/from the west on Central Avenue and/or restrict inbound left-turn access for large trucks to the western-most driveway. This would allow large trucks to travel eastbound on Central Avenue into the project site and avoid potential storage capacity conflicts at the eastern-most project driveway.

Proposed project driveway operation has been evaluated for existing plus project conditions for both the AM and PM peak hour. All project driveways on Central Avenue would operate at acceptable conditions (LOS C or better) during the peak hours with proposed project traffic. The middle (mid-block) driveway providing access to the main employee parking areas would experience the highest driveway volumes and would be operating at LOS C (15.3 seconds of delay) during the PM peak hour. The existing two-way-left-turn-lane on Central Avenue would allow employee traffic to decelerate and/or merge into through volumes on Central Avenue without disrupting north-south through-traffic on Central Avenue.

From the project's eastern-most access driveway off Central Avenue, delivery trucks/vans would turn south into the driveway. All truck/van loading docks and would be located against the eastern side of building facility. Additional truck/van parking areas would be located along the northeast portion of the site where the fleet maintenance shop building is located. South of the fleet maintenance shop building, additional perpendicular parking stalls would located along the project's eastern frontage and these would could accommodate vehicular parking. Truck and van turning radii would be adequate between the facility building's loading docks and eastern frontage areas (to be determined by project applicant's civil engineers).

Vehicle access to the project's mid-block driveway would be adequate with at least 300 feet of storage capacity within the existing left-turn lane for westbound left-turn movements. This driveway would primarily serve the project employees main parking field. Employees and/or visitors would enter the parking field area and circulate through the parking areas in either a clockwise or counter-clockwise direction to access perpendicular (90 degree) parking spaces. An enclosed internal loop with 24-foot drive aisles, all vehicles would be required to access outbound the same mid-block driveway after leaving the parking areas. To promote vehicle circulation within the parking areas, the short east-west parking aisle adjacent to

Central Avenue could be stop-sign controlled. This is not considered a significant impact.

The western-most driveway would serve vehicular and/or truck traffic and provide access to the fire lane that would extend around the entire facility in addition to providing access to a limited parking area (west side). Vehicle storage on Central Avenue for westbound left-turn movements would be adequate (120 feet) given the relatively low volume traffic to/from this driveway. No vehicle or truck parking would be allowed along this internal fire lane.

The majority of truck traffic to/from the project site would be made up of large delivery vans (41 vans; 18-feet in length). At full operation, the project applicant estimates there would be 56 delivery vans. The remaining delivery trucks would be made up of 40-foot bobtail box trucks. The facility would have one large truck (semi-tractor/trailer 65-feet length). With respect to delivery vans, these vans would have one route per day and generate two daily trips (1 inbound, 1 outbound). Delivery vans would leave the facility within the first two hours of the morning shift and would return from their routes over the afternoon period (typically before 5:00 p.m.). The large semi-tractor/trailer truck would generate two daily trips. However, this large truck would generally operate outside the peak commute periods arriving at the facility around 9:30 p.m. and leaving the facility at 12:00 midnight. With adherence to the above mitigation measure, circulation design features and incompatible uses would be less-than-significant.

e) *Result in inadequate emergency access?* **NI.** No impacts would occur with regard to emergency access since the proposed project would not block any City streets or emergency access routes.

f) *Conflict with adopted policies, plans or programs regarding public transit, pedestrian facilities or otherwise decrease the performance or safety of such facilities?* **NI.** No conflicts to plans, policies or programs that promote public transit, pedestrian use or similar features would occur for this project. City sidewalks exist along the site's project frontage and both Central Avenue and Cherry Street could be used by bicyclists.

17. Utilities and Service Systems

Environmental Setting

The following utility providers serve the City of Newark and the project site.

Water Service: Alameda County Water District (ACWD)

Wastewater Service: Union Sanitary District (USD)

Public Educational Service: Newark Unified School District

Solid Waste Collection and Disposal: Republic Services

Project Impacts

a) *Exceed wastewater treatment requirements of the RWQCB?* **LS.** The Union Sanitary District (USD) provides wastewater services to the City of Newark as well as a number of surrounding communities. The existing building on the project site is connected to USD wastewater facilities. Wastewater flows via local sewer laterals and main trunk sewers to Newark's pump station and then on to USD's Alvarado Treatment Plant, which has the treatment capacity of approximately 32 million gallons per day (mgd). USD staff has indicated that the treatment plant has the capacity to handle the anticipated small net increment of wastewater generated from new housing units as proposed as part of the project (source: Al Bunyi, USD, 2/25/14). Treated effluent is disposed of into San Francisco Bay through facilities operated by the East Bay Dischargers Authority. Overall, based on a discussion with USD staff representatives, a less-than-significant impact is anticipated with regard to exceeding Regional Water Board discharge requirements.

b) *Require new water or wastewater treatment facilities or expansion of existing facilities?* **LS.** The Alameda County Water District (ACWD) provides water service to the City of Newark and surrounding communities. The existing building on the project site is connected to the ACWD system. Currently, ACWD relies on three sources of water: the State Water Project, groundwater aquifers and water supplies from the San Francisco Water Department via the Hetch Hetchy aqueduct. Although minor upgrades and improvements may need to be made in the local water distribution system, less-than-significant changes would result in terms of long-term water service (source: Ed Stevenson, ACWD, 2/13/14).

c) *Require new storm drainage facilities?* **LS.** As noted in Section 9 of this Initial Study, this impact would be less-than-significant.

d) *Are sufficient water supplies available?* **LS.** The Alameda County Water District staff has indicated that sufficient water supplies are available to serve future development within the project area. Less-than-significant impacts would result.

e) *Adequate wastewater capacity to serve the proposed project?* **LS.** The staff of the Union Sanitary District has indicated that adequate capacity exists to serve future commercial development within the project area as per the zoning and General Plan. A less-than-significant impact would result.

f,g) *Adequate solid waste disposal?* **LS.** Operation of the proposed project would generate solid waste based on residential use. Residents would participate in the City's recycling program for paper, glass, plastic and other material to reduce the project's contribution to the waste stream as required by AB 939. Overall, impacts related to solid waste generation are anticipated to be less-than-significant.

18. Mandatory Findings of Significance

a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number of or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?* **No.** The preceding analysis indicates that the proposed project would not have a significant adverse impact on overall environmental quality, including biological resources or cultural resources with adherence to mitigation measures contained in this Initial Study.

b) *Does the project have impacts that are individually limited, but cumulatively considerable?* ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects). **No.** Although additional traffic would be added to local and regional roadways as a result of this project and contributions would be made to regional air emissions and increases in the quantity of stormwater runoff, these impacts have not been found in the Initial Study to be cumulatively considerable. Less-than-significant impacts have been identified in the Initial Study to public services and utilities.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?* **No.** No such impacts have been discovered in the course of preparing this Initial Study.

Initial Study Preparers

Jerry Haag, Urban Planner, *project manager and principal author*
Peter Galloway, Omni Means, *traffic*
James Reyeff, Illingworth & Rodkin, *air quality and greenhouse gas analysis*
Josh Carman, Illingworth & Rodkin, *air quality and greenhouse gas analysis*
Jane Maxwell, *exhibits*

Agencies and Organizations Consulted

The following agencies and organizations were contacted in the course of this Initial Study:

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Soren Fajeau, Senior Civil Engineer
Sgt. Arguello, Newark Police Department
Holly Guier, Alameda County Fire Department

Union Sanitary District
Andrew Baile
Al Bunyi

Alameda County Water District
Ed Stevenson
Thomas Niesar

Applicant Representative
Scott Agee, Agee Engineering

References

Archaeological Records Search, Northwest Information Center, August 2006

CEQA Guidelines, Bay Area Air Quality Management District, May 2011

Department of Toxic Substances Control State of California, website, January 2014

General Plan Tune Up EIR (SCH #2013012052), City of Newark, October 2013

Attachment 1-Air Quality & GHG Analysis (Illingworth & Rodkin)

MISSION LINEN
6590 CENTRAL AVENUE
AIR QUALITY AND GREENHOUSE GAS EMISSIONS ASSESSMENT
NEWARK, CALIFORNIA

November 24, 2014

♦ ♦ ♦

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Project: 14-096

Introduction

This report addresses air quality and greenhouse gas emissions impacts associated with the proposed Mission Linen project in the City of Newark. The project would involve the demolition of an existing 63,191 square foot (s.f.) building and the development of a new 109,046 s.f. industrial linen facility. The project would change travel patterns in the area and water and energy consumption that would affect air pollutant and greenhouse gas emissions. In addition, construction of the project would emit air pollutants and greenhouse gases. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Setting

The project is located in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and Federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. Highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The climate of Newark is characterized by warm dry summers and cool moist winters. The proximity of the San Francisco Bay and Pacific Ocean has a moderating influence on the climate. Newark is located in the climate sub region of the Bay Area known as Southwestern Alameda County.

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[1] BAAQMD, 2011. *BAAQMD CEQA Air Quality Guidelines*. May.

The major large-scale weather feature controlling the area's climate is a large high pressure system located in the eastern Pacific Ocean, known as the Pacific High. The strength and position of the Pacific High varies seasonally. It is strongest during summer and located off the west coast of the United States.

Precipitation is generally lowest along the Bay with much higher amounts occurring along south and west facing slopes. Newark, which lies adjacent to the Bay, receives about 20 inches of precipitation. About 90 percent of this rainfall occurs from November through April. High-pressure systems are also common in winter and can produce cool stagnant conditions. Fog and haze are common during winter when high-pressure systems influence the weather

The proximity of the eastern Pacific High and relatively lower pressure inland produces a prevailing westerly sea breeze along the central and northern California coast for most of the year. As this wind is channeled through the Golden Gate and other topographical gaps, it branches off to the northeast and southeast, following the general orientation of the San Francisco Bay system. Newark is mostly flat, with the southern extent of the Bay to the west and mountains to the east. Marine air penetrates from the Bay; however, it is moderated by bayside conditions as it reaches Newark. The prevailing wind is primarily from the northwest, especially during spring and summer. In winter, winds become variable with more of a southeasterly orientation. Nocturnal winds and land breezes during the colder months of the year prevail with variable drainage out of the mountainous areas. Wind speeds are highest during the spring and early summer and lightest in fall. Winter storms bring relatively short episodes of strong southerly winds.

Temperatures in Newark tend to be less extreme compared to inland locations due to the moderating effect of the Pacific Ocean and the Bay. In summer, high temperatures are generally in the high 70's, and in the 50's during winter. Low temperatures range from the 50's in summer to the 30's in winter.

During the fall and winter months, the Pacific High can combine with high pressure over the interior regions of the western United States (known as the Great Basin High) to produce extended periods of light winds and low-level temperature inversions. Fair weather and very warm temperatures are common to the Bay Area with this weather pattern. This condition frequently produces poor atmospheric mixing that results in degraded regional air quality. Ozone standards traditionally are exceeded when this condition occurs during the warmer months of the year.

National and State Ambient Air Quality Standards

The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

As required by the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter, including respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. Pursuant to the California Clean Air Act, the State of California has established the California Ambient Air Quality Standards (CAAQS). Relevant State and Federal standards are summarized in Table 1. CAAQS are generally the same or more stringent than NAAQS.

Table 1. Relevant California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone	8-hour	0.070 ppm (137 $\mu g/m^3$)	0.075 ppm (147$\mu g/m^3$)
	1-hour	0.09 ppm (180 $\mu g/m^3$)	—
Carbon monoxide	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
Nitrogen dioxide	1-hour	0.18 ppm (339 $\mu g/m^3$)	0.100 ppm (188 $\mu g/m^3$)
	Annual	0.030 ppm (57 $\mu g/m^3$)	0.053 ppm (100 $\mu g/m^3$)
Sulfur Dioxide	1-hour	0.25 ppm (655 $\mu g/m^3$)	0.075 ppm (196 $\mu g/m^3$)
	24-hour	0.04 ppm (105 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)
	Annual	—	0.03 ppm (56 $\mu g/m^3$)
Particulate Matter (PM_{10})	Annual	20 $\mu g/m^3$	—
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$
Particulate Matter ($PM_{2.5}$)	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
	24-hour	—	35 $\mu g/m^3$

Notes: ppm = parts per million mg/m3 = milligrams per cubic meter $\mu g/m^3$ = micrograms per cubic meter

Sensitive Receptors and Toxic Air Contaminants

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest sensitive receptors are residences located to the north of the project construction site on the west side of Cherry Street north of Central Avenue (see Figure 1).

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and Federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[2] The regulation requires affected vehicles to meet specific performance requirements between 2012 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, CARB (a part of the California Environmental Protection Agency) oversees regional air district activities and regulates air quality at the State level. The BAAQMD published CEQA Air Quality Guidelines are used in this assessment to evaluate air quality impacts of projects.[3]

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[2] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: July 31, 2012.
[3] BAAQMD, 2011, op. cit.

Greenhouse Gases

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor, but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900 (one hundred year). Methane and nitrous oxide have GWPs of 21 and 310, respectively.[4] In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of equivalent CO_2 (CO_2e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-

[4] These are the GWP values used for methane and nitrous oxide in the California Emissions Estimator Model (CalEEMod) version 2013.2.2, a land use development air quality emissions model recommended for use by BAAQMD. The model used GWP values from the IPCC Second Assessment Report (SAR), since it was the basis used in regulations and international protocols at the time (e.g., California and Federal GHG Reporting Programs, The Climate Registry). SAR available online: https://www.ipcc.ch/ipccreports/sar/wg_I/ipcc_sar_wg_I_full_report.pdf

sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. However, this litigation remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

Table 2. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average $PM_{2.5}$	0.3 $\mu g/m^3$		
Health Risks and Hazards for Sensitive Receptors (Cumulative from all sources within 1,000 foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average $PM_{2.5}$	0.8 $\mu g/m^3$		
Greenhouse Gas Emissions			
GHG Annual Emissions	1,100 metric tons or 4.6 metric tons per capita per year		
Stationary Sources	10,000 metric tons per year		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

Impact 1: Conflict with or obstruct implementation of the applicable air quality plan? ***Less than significant***

The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* (Clean Air Plan) that was adopted by BAAQMD in September 2010. This plan addresses air quality impacts with respect to obtaining ambient air quality standards for non-attainment pollutants (i.e., ozone and particulate matter or PM_{10} and $PM_{2.5}$), reducing exposure of sensitive receptors to TACs, and reducing greenhouse gas emissions such that the region can meet AB 32 goals of reducing emissions to 1990 levels by 2020.

Emissions of non-attainment criteria air pollutants are addressed under Impacts 2 and 3. Exposure of existing sensitive receptors is addressed under Impact 4.

Clean Air Plan Projections

The consistency of the proposed project with the Clean Air Plan is primarily a question of maintaining consistency with the population/employment assumptions utilized in the CAP. Changes that would affect the CAP's underlying assumptions (e.g., increases in employment or population), could increase emission projections. Because the proposed project does not include a change to the City's General Plan or rezoning, the assumption made under the CAP will not be changed. The proposed project would not substantially affect population or traffic forecasts, therefore, the project is consistent with the Clean Air Plan.

Consistency with Clean Air Plan Control Measures

The CAP includes emissions control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. The control measures are divided in to five categories that include:

- Measures to reduce stationary and area sources;
- Mobile source measures;
- Transportation control measures;
- Land use and local impact measures; and
- Energy and climate measures

In developing the control measures, BAAQMD identified the full range of tools and resources available, both regulatory and non-regulatory, to address emissions. Implementation of each control measure will rely on some combination of the following:

- Adoption and enforcement of rules to reduce emissions from stationary sources, area sources, and indirect sources;
- Revisions to BAAQMD's permitting requirements for stationary sources;
- Enforcement of CARB rules to reduce emissions from heavy-duty diesel engines;

- Allocation of grants and other funding by the Air District and/or partner agencies;
- Promotion of best policies and practices that can be implemented by local agencies through guidance documents, model ordinances, etc.;
- Partnerships with local governments, other public agencies, the business community, non-profits, etc.;
- Public outreach and education;
- Enhanced air quality monitoring;
- Development of land use guidance and CEQA guidelines, and Air District review and comment on Bay Area projects pursuant to CEQA; and
- Leadership and advocacy.

This approach relies upon lead agencies to assist in implementing some of the control measures. A key tool for local agency implementation is the development of land use policies and implementing measures that address new development or redevelopment in local communities. The proposed project is consistent with the existing General Plan land use designations and would not require a General Plan Amendment.

Stationary and Area Source Control Measures

The CAP includes Stationary Source Control measures that BAAQMD adopts as rules or regulations through their authority to control emissions from stationary and area sources. The BAAQMD is the implementing agency, since these control measures are applicable to sources of air pollution that must obtain District permits. Any new stationary sources would be required to obtain proper permits through BAAQMD. In addition, the City uses BAAQMD's CEQA Air Quality Guidelines to evaluate air pollutant emissions from new sources.

The proposed project would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from natural gas fired boilers and dryers used by the project. The project would also generate emissions from vehicles traveling to and from the project site.

Certain emission sources would be subject to BAAQMD Regulations and Rules. The District's rules and regulations that may apply to the project include:

- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
  - Rule 5: New Source Review of Toxic Air Contaminants
- Regulation 6 – Particulate Matter and Visible Emissions
  - Rule 1: General Requirements
- Regulation 9 – Inorganic Gaseous Pollutants
  - Rule 7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters

Permits – Regulation 2-1-301 requires that any person installing, modifying, or replacing any equipment, the use of which may reduce or control the emission of air contaminants, shall first obtain an authority to construct (ATC). Regulation 2-1-302 requires that written authorization from the BAAQMD in the form of a permit to operate (PTO) be secured before any equipment is used or operated.

Regulation 2-1-114 lists sources that are exempt from permitting. For external combustion equipment such as boilers and dryers, sources with a rated heat input of less than 1 MMBtu per hour and sources with a rated heat input of less than 10 MMBtu per hour that are fired exclusively on natural gas are exempt from the permitting requirements of 2-1-301 and 302.

At the proposed facility, a number of the dryers and the garment finishing tunnel would meet the exemption conditions and are expected to be exempt from permitting. However, the boilers would be subject to permitting requirements.

New Source Review - Regulation 2-2, New Source Review (NSR), applies to all new and modified sources or facilities that are subject to the requirements of Rule 2-1-301. The purpose of the rule is to provide for review of such sources and to provide mechanisms by which no net increase in emissions will result.

Regulation 2-2-301 requires that an applicant for an Authority to Construct or Permit to Operate apply best available control technology (BACT) to any new or modified source that results in an increase in emissions and has the potential to emit emissions (based on maximum operating conditions and equipment capacity) of precursor organic compounds (POC), non-precursor organic compounds (NPOC), NOx, or SO_2 of 10 pounds or more per highest day.

Based on the estimated emissions from the proposed project under maximum operating conditions (year 2021 operating schedule), BACT would not be required for any of the equipment since each source's emissions would be less than 10 pounds per day.

Offsets - Regulations 2-2-302 an 2-2-303 require that offsets be provided for a new or modified source that emits more than 10 tons per year of NO_x or precursor organic compounds. If the facility has potential emissions above 10 but below 35 tons per year of POC or NO_x, then the District shall provide the offsets from the Small Facility Bank, if the facility or its parent company doesn't already own emission reduction credits held in a Banking Certificate. For PM10, offsets will need to be provided if the cumulative increase in emissions is greater than 100 tons per year.

It is not expected that emissions of any pollutant would exceed the offset thresholds. Thus, it is not expected that offsets for the proposed project would be required.

New Source Review of *Toxic Air Contaminants* - Regulation 2-5 is designed to provide for the review of new and modified sources of TAC emissions in order to evaluate potential public

exposure and health risk and to mitigate potentially significant health risks resulting from these exposures.

A source is exempt from the requirements of Regulation 2-5 if, for each toxic air contaminant emitted, the increase in emissions from the project is below the trigger levels listed in Table 2-5-1 of the regulation. Sources subject to this regulation are required to conduct a health risk screening analysis (HSRA) according to District guidelines. If a new or modified source of TACs has a cancer risk greater than 1.0 in one million and/or a chronic hazard index greater than 0.20 it is required to apply best available control technology for toxics (TBACT).

At maximum operating conditions and equipment capacity TAC emissions of formaldehyde would exceed the trigger levels specified in Table 2-5-1 and a HRSA would be required and TBACT would be required if the cancer risk is greater than 1.0 in one million. This would be determined by BAAQMD during the permit process.

Prohibitory Rules - Regulation 6 pertains to particulate matter and Regulation 9 addresses emissions of inorganic gaseous pollutants.

Regulation 6-1 provides general requirements for sources with emission of particulate matter. It includes limitations on opacity of the discharge from exhaust stacks, limitation on the concentration of particulate matter in exhaust gas, and allowable emission rates based on process rates for general operations.

The facility emission sources are expected to comply with the particulate matter requirements of this regulation.

Regulation 9-7 prescribes NOx and CO emission limits for boilers, steam generators, and process heaters. It also includes requirements for emission source testing, monitoring and recordkeeping of operating parameters and fuel use.

The proposed 19.95 MMBtu per hour boilers for the project would be fired exclusively on natural gas. The applicable emission limits for the rated heat input of these boilers are 15 parts per million by volume (15 ppmv), dry at 3 percent oxygen for NOx and 400 ppmv, dry at 3 percent oxygen for CO. The boiler would be designed to meet these emissions limits and would use an ultra low NOx burner to achieve NOx emissions below the required limits.

Mobile Source Measures

The CAP includes Mobile Source Measures that would reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment through programs such as the BAAQMD's Vehicle Buy-Back and Smoking Vehicle Programs, and promoting advanced technology vehicles that reduce emissions. The implementation of these measures relies heavily upon incentive programs, such as the Carl Moyer Program and the Transportation Fund for Clean Air,

to achieve voluntary emission reductions in advance of, or in addition to, CARB requirements. CARB has new regulations that require the replacement or retrofit of on-road trucks, construction equipment and other specific equipment that is diesel powered.

Transportation Control Measures

The CAP includes transportation control measures (TCMs) that are strategies meant to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. While most of the TCMs are implemented at the regional level (e.g., by MTC or Caltrans), there are measures that the CAP relies upon local communities to assist with implementation. In addition, the CAP includes land use measures and energy and climate measures where implementation is aided by proper land use planning decisions. The City's General Plan, with which the project is consistent, includes measures to reduce vehicle travel that are generally consistent with the CAP TCMs.

TAC Exposure

The CAP includes measures to reduce TAC exposure to sensitive receptors. The project site does not introduce any new sensitive receptors into the area, though it could expose existing receptors to TACs from construction activity and operation. The City, as Lead CEQA Agency, uses the BAAQMD CEQA Air Quality Thresholds to identify significant risks and develop appropriate mitigation measures. TAC exposure from construction and operational activities are addressed under Impact 4.

Impact 2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ***Less than significant with construction- and operational-period mitigation***

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter ($PM_{2.5}$) under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}) under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NOx), PM_{10} and $PM_{2.5}$ and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2013.2.2 was used to predict emissions from construction of the site and operation of the project. The project land use types and size, and trip generation rate were input to CalEEMod. Emissions from natural gas combustion for all pollutants and sources were calculated using U.S. EPA emission factors for

natural gas combustion. NO_X emissions from project boilers were calculated using emissions factors from the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Construction period emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling and vendor traffic. The model default construction build-out scenario, including equipment list was based on the type and size of the project. The anticipated 63,191 s.f. for building demolition was entered into the model. *Attachment 1* includes the CalEEMod input and output values for construction emissions.

The proposed project land use was input into CalEEMod, which was 109,046 s.f. entered as "General Light Industry" on a 9-acre site.

Based on the type and size of the project, the modeling scenario assumes that the project would be built out over a period of approximately 15 months beginning in 2015, or an estimated 320 construction workdays. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 3 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted project emissions would not exceed the BAAQMD significance thresholds.

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. *Mitigation Measure 1 would implement BAAQMD-recommended best management practices.*

Table 3. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction emissions (tons)	1.37 tons	5.18 tons	0.32 tons	0.30 tons
Average daily emissions (pounds)[1]	8.6 lbs.	32.4 lbs.	2.0 lbs.	1.9 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**
Notes: [1] Assumes 320 workdays.				

Mitigation Measure AQ-1: Include measures to control dust and exhaust during construction.

During any construction ground disturbance, implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant. The contractor shall implement the following Best Management Practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. 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.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future employees and from delivery and service trucks. Emissions would also be generated by stationary equipment, such as boilers and dryers that use natural gas. Evaporative emissions from architectural coatings and cleaning/maintenance products are other typical emissions from light industrial uses. CalEEMod was used to predict emissions from operation of the site for both the first full operational year (2017) and full build-out of the project (2021). The project land use type and size, anticipated energy use, and trip generation rate were input to CalEEMod. Stationary equipment emissions were calculated using emissions factors from the U.S. EPA and the SJVAPCD. Adjustments to the model are described below. Model output worksheets are included in *Attachment 1*.

Year of Analysis

CalEEMod uses CARB's EMFAC2011 mobile emission factors. Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates CalEEMod uses. The earliest full year the project could possibly be constructed and begin operating would be 2017. Use of the this date is considered conservative, as emissions associated with build-out later than 2017 would be lower. In addition, a full build-out 2021 model run was conducted. Project operations are expected to be five days a week (Monday through Friday or approximately 260 days per year) in 2017 and seven days a week in 2021.

Land Use Descriptions

The proposed land use and size was input to CalEEMod as 109,046 s.f. of "General Light Industrial." An existing run was also modeled to represent the current Mission Linen operations in Union City, which would close after the Newark project became operational. The existing Union City site was entered as 31,500 s.f. of "General Light Industrial."

Trip Generation Rates and Types

CalEEMod allows the user to enter specific trip generation rates. Omni Means provided the trip generation rate for the project and the existing Union City site, which were entered into the model. Model default trip types and distances were used.

Energy and Water Use

The project applicant provided anticipated electricity, natural gas, and water consumption projections. Project-specific electricity and water use were input to the model, whereas the model was used to calculate only emissions associated with Title 24 natural gas consumption. Natural gas consumption associated with proposed stationary equipment (i.e., non-Title 24 sources such as boilers, dryers, and the finishing tunnel) was calculated separate from the model, as described below. Separate significance thresholds for GHGs (*Impact 6*) exist for direct emissions from stationary equipment (i.e., natural gas combustion), which is why emissions were calculated in this manner. See *Attachment 2* for project-specific data. The 2013 Title 24 Building Standards recently became effective July 1, 2014 and are predicted to use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards that CalEEMod is based on.[5] Therefore, the CalEEMod runs were adjusted to account for the greater energy efficiency. By the nature of the model, these reductions must be included in the "mitigated" output. CalEEMod defaults for energy and water use were used for the Existing model run.

Stationary Equipment

The proposed project would include several stationary sources, such as boilers, dryers and garment finishing tunnel. All equipment would be fueled using natural gas. Emissions were calculated for two conditions during the project years 2017 and 2021. The first scenario, considered to be maximum operating conditions, assumed all the combustion sources would be operated at their maximum firing rates (i.e., at maximum equipment rated heat input) for applicant-specified hours of operation during 2017 and 2021. This is not a realistic scenario since the equipment firing cycles and rarely attains the maximum firing rate. The second scenario was for expected operating conditions in 2017 and 2021 based on applicant supplied natural gas use and hours of facility operation. These projections are based on historical records for similar equipment.

Emissions from the project boilers and garment finishing tunnel would be solely due to the combustion of natural gas. For the dryers, emissions would be due to natural gas combustion in addition to particulate matter (PM_{10} and $PM_{2.5}$) generated during the drying process. Particulate matter emissions from the dryers are from lint generated during the drying process that is not collected by dryer lint screens.

Emissions from natural gas combustion for all pollutants and sources were calculated using U.S. EPA emission factors for natural gas combustion, except for the NO_X emissions from the boilers.[6] Boiler NO_X emissions were calculated based on the use of ultra-low NO_X burners that would be included with the boilers. Particulate matter emissions from the dryers were calculated using an emission factor from the SJVAPCD based on emission source testing of similar dryers

[5] California Energy Commission, 2012. *2013 Building Energy Efficiency Standards FAQ*. May.
[6] U.S. Environmental Protection Agency, 1998. *AP-42 Section 1.4 Natural Gas Combustion*. July 1998.

and manufacturer particulate mater control efficiencies for lint screens.[7] Details of the emission calculations are provided in *Attachment 3*.

Table 4 reports the predicted average daily 2017 operational net emissions and Table 5 reports 2017 annual net emissions. Table 6 reports the predicted average daily 2021 operational net emissions and Table 7 reports 2021 annual net emissions. As shown in Tables 6 and 7, average daily and annual 2021 maximum net emissions of NO_X would exceed BAAQMD thresholds. 2021 net operational NO_X emissions from stationary equipment (natural gas combustion) alone are predicted to be 10.45 tons per year or 65 pounds per average day under the maximum firing potential of the equipment, which would exceed the BAAQMD significance threshold and would be considered potentially significant. However, as shown in Tables 4 – 7, operational emissions of ROG, NO_X, PM_{10} exhaust, or $PM_{2.5}$ exhaust associated with operation would not exceed the BAAQMD significance thresholds. Assuming the maximum firing rate of stationary equipment, emissions of NO_X would be considered significant unless mitigation measure AQ-2 is implemented.

[7] SJVAPCD, 2014. *Notice of Issuance of Authorities to Construct Project Number: N-1141499*. June 2, 2014.

Table 4. Daily Air Pollutant Emissions from Operation of the 2017 Project (pounds/day)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2017[1]	7.1	11.5	5.4	1.5
Stationary Equipment (max.)	4.8	45.2	12.1	8.0
Stationary Equipment (expected)	1.7	16.0	7.8	3.7
Existing	1.6	3.0	1.0	0.3
Net Emissions (max.)	10.3	53.7	16.5	9.2
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No
Net Emissions (expected)	7.2	24.5	12.2	4.9
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas. Based on 260 days per year.

Table 5. Annual Air Pollutant Emissions from Operation of the 2017 Project (tons/year)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2017[1]	0.92	1.49	0.70	0.20
Stationary Equipment (max.)	0.62	5.87	1.57	1.04
Stationary Equipment (expected)	0.22	2.08	1.02	0.48
Existing	0.29	0.54	0.19	0.06
Net Emissions (max.)	1.25	6.82	2.08	1.18
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No
Net Emissions (expected)	0.85	3.03	1.53	0.62
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.

Table 6. Daily Air Pollutant Emissions from Operation of the 2021 Project (pounds/day)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2021[1]	5.3	7.8	5.3	1.5
Stationary Equipment (max.)	6.4	60.2	14.7	10.2
Stationary Equipment (expected)	2.3	21.5	9.0	4.6
Existing	1.6	3.0	1.0	0.3
Net Emissions (max.)	10.1	65.0	19.0	11.4
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	***Yes***	No	No
Net Emissions (expected)	6.0	26.3	13.3	5.8
Daily Emission Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.

Table 7. Annual Air Pollutant Emissions from Operation of the 2021 Project (tons/year)

Scenario	ROG	NO_X	PM_{10}	$PM_{2.5}$
Proposed Project 2021[1]	0.96	1.42	0.97	0.28
Stationary Equipment (max.)	1.16	10.99	2.68	1.87
Stationary Equipment (expected)	0.42	3.92	1.64	0.84
Existing	0.29	0.54	0.19	0.06
Net Emissions (max.)	1.83	11.87	3.46	2.09
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	***Yes***	No	No
Net Emissions (expected)	1.09	4.80	2.42	1.06
Annual Emission Thresholds	10	10	15	10
Exceed Threshold?	No	No	No	No

Note: [1]Includes mobile, area, applicant-estimated electricity, applicant-estimated water usage, waste, and Title 24 natural gas.

Mitigation Measure AQ-2: Limit project natural gas usage.

The project applicant shall develop a plan to monitor and record natural gas usage to compare with the anticipated usage projections supplied for this assessment. It is estimated that the project could use 3.57 million therms of natural gas consumption per year to remain at or below the NO_X significance threshold, compared with the full build-out projection of about 1.54 million therms. However, as discussed under Impact 6, the project shall use no more than 1.88 million therms of natural gas consumption per year to remain at or below the GHG significance threshold for stationary sources. Therefore, 1.88 million therms of natural gas consumption shall be the limit for future facility operations to remain below all BAAQMD significance thresholds.

Impact 3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? ***Less than significant***

As discussed under Impact 2, the project would have emissions that would be below significance thresholds adopted by BAAQMD for evaluating impacts to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and Federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There was an ambient air quality monitoring station in Fremont that measured carbon monoxide concentrations. Though the monitoring station is now closed, the highest measured level over any 8-hour averaging period during the 3 year period from 2008 to 2010 was less than 2.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. The roadways affected by the proposed project have relatively low traffic volumes compared to the busier intersections in the Bay Area. BAAQMD screening guidance indicates that projects would have a less than significant impact to carbon monoxide levels if project traffic projections indicate traffic levels would not increase

at any affected intersection to more than 44,000 vehicles per hour. The intersections affected by the proposed project have much lower traffic volumes (less than 10,000 vehicles per hour). Therefore, the change in traffic caused by the proposed project would be minimal and the project would not cause or contribute to a violation of an ambient air quality standard.

Impact 4: Expose sensitive receptors to substantial pollutant concentrations? ***Less-than- significant with construction-period mitigation***

Project impacts related to increased health risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. In this case, the project would be a new source of TAC emissions. Impacts would occur during both construction and operation.

Construction Impacts

During excavation, grading and some building construction activities, substantial amounts of dust could be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and would be dependent on the size of the area disturbed at any given time, amount of activity, soil conditions and meteorological conditions. To address fugitive dust emissions that lead to elevated PM_{10} and $PM_{2.5}$ levels near construction sites the BAAQMD CEQA Air Quality Guidelines identify best control measures. Implementation of Mitigation Measure AQ-1 would reduce these impacts to a level of less than significant.

In addition, construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a TAC. A health risk assessment of the project construction activities was conducted that evaluated construction emissions of DPM and associated health risks to nearby residential areas. A dispersion model was used to predict the off-site concentrations resulting from project construction so that lifetime cancer risks could be predicted.

The CalEEMod model was used to calculate annual emissions from construction, as discussed under *Impact 2*. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker and vendor traffic.

The CalEEMod model provided total annual $PM_{2.5}$ exhaust emissions (assumed to be diesel particulate matter) for the off-road construction equipment and for exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles), with total emissions of 0.30 tons (600 pounds) for the entire construction period. The on-road emissions are a result of haul trucks, vendor deliveries, and worker travel and during the various phases of construction. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. In modeling the on-road emissions it was assumed that these emissions from vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated

by CalEEMod as 0.0886 tons (177 pounds) for the overall construction period. The project emission calculations are provided in *Attachment 1*.

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction area. The ISCST3 dispersion model is one of several BAAQMD-recommended models for use in modeling analysis of these types of emission activities for CEQA projects.[8] Emission sources for the construction site were grouped into two categories, exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. The ISCST3 modeling utilized two area sources to represent the on-site construction emissions, one for DPM exhaust emissions and the other for fugitive $PM_{2.5}$ dust emissions. For the exhaust emissions from construction equipment an emission release height of six meters was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases.[9] For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of two meters was used for the area source. Emissions from vehicle travel in and around the project site were included in the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. and 4 p.m.

The modeling used a one year data set of hourly meteorological data from 1999 for the HP Newark monitoring station prepared by BAAQMD. This station was previously located about 1.2 miles southeast of the project site. Annual DPM and $PM_{2.5}$ concentrations from construction activities in 2015 and 2016 were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors at a receptor height of 1.5 meters (4.9 feet) and 4.5 meters (14.8 feet) were used to represent the breathing heights of residents of single family homes and second level residents in apartments, respectively. Figure 1 shows the construction area modeled and locations of nearby sensitive receptors.

The maximum modeled DPM and $PM_{2.5}$ concentrations from construction occurred at a residence north of the project site on Central Avenue just south of the intersection of Central Avenue and Cherry Street. The location of this receptor is identified on Figure 1. Increased cancer risks were calculated using the modeled concentrations and BAAQMD recommended risk assessment methods for both a child exposure (3rd trimester through 2 years of age) and adult exposure.[10] The cancer risk calculations were based on applying the BAAQMD recommended age sensitivity factors to the DPM exposures. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD recommended

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[8] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

[9] Califronia Air Resources Board (CARB), 2007. *Technical Support Document: Proposed Regulation for In-use Off-Road Diesel Vehicles, Appendix D Health Risk Assessment Methodology.* April 2007.

[10] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May.

exposure parameters were used for the cancer risk calculations.[11] Infant and child exposures were assumed to occur at all residences during the entire construction period.

Results of this assessment indicate that for project construction the incremental residential child cancer risk at the maximally exposed individual (MEI) receptor would be 8.5 in one million and the incremental residential adult cancer risk would be 0.4 in one million. These increased cancer risks would be lower than the BAAQMD significance threshold of a cancer risk of 10 in one million or greater and would be considered a *less than significant impact*.

The maximum modeled annual $PM_{2.5}$ concentration was 0.12 $\mu g/m^3$ occurring at the same location as the maximum cancer risk. This $PM_{2.5}$ concentration is lower than the BAAQMD significance threshold of 0.3 $\mu g/m^3$ used to judge the significance of health impacts from $PM_{2.5}$. This would be considered a *less than significant* impact.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). California's Office of Environmental Health and Hazards (OEHHA) has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is 5 $\mu g/m^3$. The maximum modeled annual residential DPM concentration was 0.087 $\mu g/m^3$, which is much lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.02 which is much lower than the BAAQMD significance criterion of a hazard index greater than 1.0. This would be considered a *less than significant* impact

Attachment 4 includes the construction emission calculations used for the ISCST3 area source modeling and the construction cancer risk calculations.

Based on the above results, the project would be below significance thresholds for construction community risk. However, best management practices are necessary during construction trenching and grading activities to avoid generation of fugitive dust that may affect nearby sensitive receptors. Best management practices for controlling construction-period air pollutant emissions are identified as Mitigation Measure AQ-1.

Operational Delivery Trucks

Emissions for project-related trucks were calculated assuming that there would be 41,610 trucks trips annually at full project build-out. 40,880 of these trips would be from large delivery vans and 730 daily trips would be from a large truck (semi-tractor/trailer). Delivery vans were modeled as medium-duty diesel trucks (MDT) and the large trucks were modeled as heavy-duty diesel trucks (HDT). This was done to provide a worst-case scenario in terms of modeling operational TAC risk.

[11] Bay Area Air Quality Management District (BAAQMD), 2010, *Air Toxics NSR Program Health Risk Screening Analysis Guidelines*, January.

However, acknowledging that not all Mission vehicles will be diesel-powered, actual operational risk from delivery trucks would be expected to be less than predicted. Emissions of DPM and $PM_{2.5}$ from these trucks were calculated using emission factors from EMFAC2011 for 2017 operation. Emissions were calculated for trucks traveling Central Avenue and Cherry Street within about 1,000 feet of the project facility. As previously discussed, use of vehicle emissions for 2017 provides a conservative estimate of emissions from project vehicles since emission factors for trucks are anticipated to be less in future years. The distribution of truck travel on these roads was based on information provided in the traffic report for this project. Details of the delivery truck DPM emissions are provided in *Attachment 4*.

Dispersion modeling was conducted with the ISCST3 model using one year of meteorological data (1999) from the HP Newark monitoring site available from the BAAQMD. This modeling used line sources (made up of a series of volume sources along the travel route) to represent the truck emissions from nearby roads. Figure 1 shows the truck routes used in the modeling. DPM concentrations were calculated at receptors along the travel routes at a height of 1.5 meters.

The maximum annual DPM concentration was 0.0009 ug/m^3. The cancer risk was calculated using the maximum modeled DPM concentration and applying the BAAQMD's 70 year average age sensitivity factor of 1.7. The maximum cancer risk occurred at a the same residential location where the maximum cancer risk from construction occurred, a residence on Central Avenue just south of the intersection of Central Avenue and Cherry Street. Figure 1 shows the location of the receptor with the maximum impact. For operational risks from project related trucks, the increased cancer risk would be 0.49 in one million for a 70-year exposure period, which is below the BAAQMD significance threshold. This is based on project operation in 2017 and assuming that emissions at the 2017 levels would occur for the entire 70-year exposure period even though the EMFAC2011 model predicts that emission rates of DPM from trucks will decrease in the future. The maximum modeled $PM_{2.5}$ concentration was 0.002 $\mu g/m^3$ which is well below the BAAQMD significance threshold. The project would have a *less-than-significant impact* with respect to community risk caused by operational delivery activities.

Operational Stationary Sources

Stationary TAC sources for the project would include the natural gas-fired boilers, dryers and garment finishing tunnel. TACs are generated during the combustion of natural gas. As recommended in the BAAQMD Permitting Handbook, TAC emissions from natural gas combustion should include emissions of benzene, formaldehyde, and toluene.[12] Benzene and formaldehyde are carcinogenic TAC compounds, in addition to also causing acute and chronic non-cancer health effects. Toluene only causes non-cancer health effects.

Potential health risks to nearby residents from project natural gas combustion sources were evaluated for maximum operating conditions at full build-out (2021) conditions. Emissions of benzene, formaldehyde, and toluene were calculated for each emission source using BAAQMD-recommended

[12] BAAQMD, 2014. *BAAQMD Permit Handbook*, Section 2.1 Boilers, Steam Generators & Process Heaters. July 9, 2014.

emission factors (BAAQMD Permit Handbook) and combustion equipment maximum heat input rates. Details of the stationary source TAC emission calculations are shown in *Attachment 4*.

Modeling of TACs from the project's combustion sources was conducted with the ISCST3 model using one year of meteorological data (1999) from the HP Newark monitoring site available from the BAAQMD. All of the boilers, dryers, and garment finishing tunnel will discharge their combustion exhaust through individual stacks terminating about two feet above the roof level of the facility building and were modeled as stack type sources. Information on building dimensions, stack heights and stack exhaust information were provided by the applicant and are included in *Attachment 4*.

Hourly and annual average benzene, formaldehyde, and toluene concentrations were calculated at the nearby residential receptor locations, as described above for the delivery truck DPM modeling. Based on the maximum annual average concentrations for benzene and formaldehyde, cancer risks were calculated using BAAQMD recommended methods which include applying a 70 year average age sensitivity factor of 1.7. The maximum increased cancer risk from benzene and formaldehyde emissions would be 0.022 in one million. When combined with the maximum cancer risk from delivery truck DPM emissions the total increased project cancer risk would be 0.51 in one million. This total increased cancer risk is well below the BAAQMD significance threshold for increased cancer risk of 10 in one million and would be considered a *less-than-significant impact*.

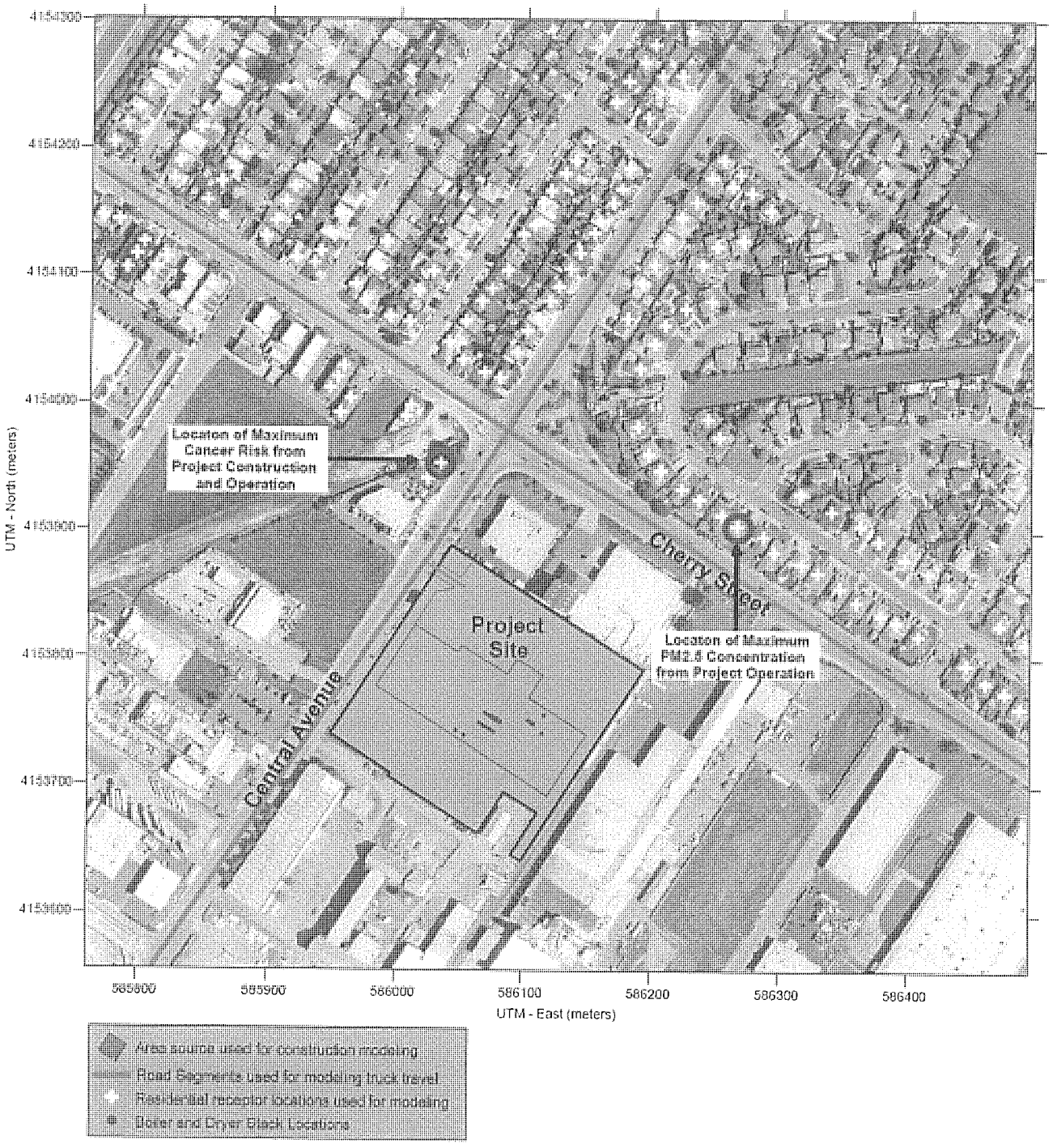
Potential acute and chronic non-cancer health effects were evaluated using the BAAQMD recommended hazard index approach. In this case the individual HI values for each TAC (DPM, benzene, formaldehyde, and toluene) were calculated based the maximum modeled TAC concentration and TAC specific REL. Acute HIs were calculated using maximum 1-hour TAC concentrations and RELs for acute effects and the chronic HIs were calculated using the maximum annual average TAC concentrations and RELs for chronic effects. The sum of the individual chronic and acute HIs were then calculated to get a total chronic HI and total acute HI.

The total chronic HI from all project operational TAC emissions would be 0.0004 and the total acute HI would be 0.002. These HIs are well below the BAAQMD significance threshold of a HI of 1.0 or greater. Thus, non-cancer health impacts from project operation would be considered a *less-than-significant impact.*

The maximum modeled annual $PM_{2.5}$ concentration from the project's stationary sources was 0.22 $\mu g/m^3$, occurring at a residence on the north side of Cherry Street, north of the project site (see Figure 1). The maximum $PM_{2.5}$ concentration is below the BAAQMD significance threshold would be considered a *less-than-significant impact.*

Details of the operational cancer and non-cancer health risk calculations are provided in *Attachment 4*.

Figure 1 – Project Site, Construction and Operation Emission Sources Modeled, and Locations of Sensitive Receptors and Maximum Cancer Risk



Impact 5: Create objectionable odors affecting a substantial number of people? ***Less than Significant***

Construction activities may cause localized odors that would be temporary and are not anticipated to result in frequent odor complaints.

Examples of odor-generating land uses include wastewater treatment plants, solid waste landfills and transfer stations, composting facilities, oil refineries, asphalt batch plants, chemical manufacturing plants, and coffee roasters, among others. Industrial linen facilities are not identified by BAAQMD as land use types that cause odor complaints. Therefore, operation of the proposed project is not expected to generate odors that would result in confirmed odor complaints.

Impact 6: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***Less than Significant with Mitigation***

The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a "bright-line" emissions level of 1,100 metric tons per year for land-use type projects and 10,000 metric tons per year for stationary sources. Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant. The proposed project would include several stationary sources, such as boilers, dryers and garment finishing tunnels.

CalEEMod Modeling

CalEEMod was also used to predict GHG emissions from operation of the site (see description under *Impact 2*). Operational emissions from the project would be generated primarily from autos driven by future employees and from delivery and service trucks. Emissions would also be generated by stationary equipment, such as boilers and dryers. CalEEMod was used to predict emissions from operation of the site for both the first full opening year (2017) and full build out of the project (2021). Unless otherwise noted below, the CalEEMod model defaults to predict GHG emissions for Alameda County were used. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. Adjustments to the model are described below. Model output worksheets are included in *Attachment 1*.

Land Use Descriptions

The proposed land use and size was input to CalEEMod as 109,046 s.f. of "General Light Industrial." The existing Union City site was entered as 31,500 s.f. of "General Light Industrial."

Trip Generation Rates and Types

CalEEMod allows the user to enter specific trip generation rates. Omni Means provided the trip generation rate for the project and the existing Union City site, which were entered into the model. Model default trip types and distances were used.

Model Year
The model uses mobile emission factors from the California Air Resources Board's EMFAC2011 model. This model is sensitive to the year selected, since vehicle emissions have and continue to be reduced due to fuel efficiency standards and low carbon fuels. The year 2017 was analyzed as the first full year that the project could conceivably be occupied. A year 2021 full build-out model run was also conducted.

Energy and Water Use

The project applicant provided anticipated electricity and water consumption values that were input to the model. CalEEMod was used to calculate only emissions associated with Title 24 natural gas consumption. Natural gas consumption associated with proposed stationary equipment (i.e., boilers, dryers, and finishing tunnels) was calculated separate from the model, as described below. Separate significance thresholds for GHGs exist for direct emissions from stationary equipment (i.e., natural gas combustion), which is why emissions were calculated in this manner. See *Attachment 2* for project-specific data. The 2013 Title 24 Building Standards recently became effective July 1, 2014 and are predicted to use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards that CalEEMod is based on.[13] Therefore, the CalEEMod runs were adjusted to account for the greater energy efficiency. By the nature of the model, these reductions must be included in the "mitigated" output. CalEEMod defaults for energy and water use were used for the Existing model run.

Emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric utility's (PG&E) projected 2017 and 2021 CO_2 intensity rate. The rates are based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641.35 pounds of CO_2 per megawatt of electricity produced. The derived 2017 rate for PG&E was estimated at 348.86 pounds of CO_2 per megawatt of electricity delivered and is based on the California Public Utilities Commission (CPUC) GHG Calculator.[14] The derived 2021 rate for PG&E was estimated at 289.84 pounds of CO_2 per megawatt of electricity delivered and is based on the published 2020 rate since this is the latest year available in the Calculator.

Other Inputs

Default model assumptions for GHG emissions associated with area sources and solid waste

[13] California Energy Commission, 2012. *2013 Building Energy Efficiency Standards FAQ*. May.
[14] California Public Utilities Comissions GHG Calculator version 3c, October 7, 2010. Available on-line at: http://ethree.com/public_projects/cpuc2.php. Accessed: November 10, 2014.

generation were applied to the project.

Construction Emissions

GHG emissions associated with construction were computed to be 497 MT of CO_2e, anticipated to occur over the entire construction period. These are the emissions from on-site operation of construction equipment, hauling and vendor truck trips, and worker trips. BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions, though the District recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

Operational Emissions

The CalEEMod model was used to predict daily emissions associated with operation of the first full year of operation (2017) and the fully-developed site (2021) under the proposed project. In 2017, annual net emissions resulting from operation of the proposed project are predicted to be 1,210 MT of CO_2e. In 2021, annual net emissions resulting from operation of the proposed project are predicted to be 1,587 MT of CO_2e. These emissions would exceed the BAAQMD threshold of 1,100 MT of CO_2e/yr and would be considered significant. *Implementation of Mitigation Measure GHG-1 would reduce this impact to a level of less than significant.*

Table 8. Annual Project GHG Emissions in Metric Tons

Source Category	Existing Emissions	2017 Emissions	2021 Emissions
Area	<1	<1	<1
Electricity	49	559	699
Natural Gas	43	82[1]	82[1]
Mobile	227	800	1,014
Solid Waste	18	62	62
Water	16	60	83
Total	354	1,564	1,941
Net	NA	1,210	1,587
BAAQMD Threshold			*1,100 MT CO_2e/year*

Note: [1]Title 24 only

Operational Stationary Sources

The project would include several stationary sources, such as boilers, dryers and garment finishing tunnel. All equipment would be fueled using natural gas. GHG emissions would be produced from the combustion of natural gas. GHG emissions from natural gas combustion include CO_2, nitrous oxide (N_2O), and methane (CH_4). Emissions for these compounds were

calculated for expected operating conditions in 2017 and 2021 based on applicant-provided natural gas use and hours of facility operation, and for the maximum condition as well. Emissions from all stationary project combustion equipment sources were calculated using emission factors from the California Climate Action Registry (CCAR) for natural gas combustion.[15]

The total GHG emissions for project operation in 2017 would be 4,341 MT CO_2e/year and 8,189 MT CO_2e/year in 2021 based on the expected condition. Total GHG emissions for the project based on the maximum condition would be 8,189 MT CO_2e/year in 2017 and 22,950 MT CO_2e/year in 2021. Therefore, stationary source GHG emissions from the proposed project could exceed the BAAQMD threshold of 10,000 MT CO_2e/year and would be considered potentially significant. *Implementation of Mitigation Measure GHG-2 would reduce this impact to a level of less than significant.*

Mitigation Measure GHG-1: The Applicant shall develop and submit a Greenhouse Gas (GHG) Reduction Plan to the City of Newark and receive approval by the Community Development Director prior to issuance of a building permit. The Plan shall show that operational GHG emissions would be reduced below BAAQMD thresholds and, at minimum, shall include the following items:

a) Vehicular Trip Reduction Methods. Specific methods to reduce auto trips shall be identified, including but not limited to:

1) A rideshare program for employees to reduce single-occupant vehicle commuting;

2) Preferential parking for carpool and vanpool vehicles;

3) Carpool and vanpool matching for employees;

4 Provision of enhanced on-site enhanced bicycle facilities. This includes bicycle lockers, locker rooms and showers and similar facilities;

5) Employee subsidy of public transit use. This includes BART and AC Transit modes of transportation; and

6) Annual monitoring and record keeping made available to the City of Newark Community Development Department to demonstrate that trip reduction methods have proven effective in reducing single-occupant vehicle commute trips to meet GHG reduction targets. If targets are not met, the Plan shall be modified to include additional methods to achieve targets.

[15] California Climate Action Registry, *General Reporting Protocol*, Version 3.1, January 2009.

b) Electric Vehicle Charging Stations. A minimum of four electric vehicle charging stations shall be provided and dedicated to electric vehicle recharging. The design of the station shall be compatible with recharging technology used by the most common types of electric vehicles.

c) Use of Solar and Alternative Power Sources. The roof of the proposed laundry building and the electrical system shall be designed to accommodate electric photovoltaic panels. A minimum of 50 percent of the roof surface of the building shall be dedicated to such panels and this energy shall replace and supplement normal electric grid power.

e) Alternatively Fueled Delivery Vehicles. At least 25 percent of the Mission Linen delivery trucks shall be fueled by hydrogen, CNG, LPG, or similar alternative fuels (i.e., non-gasoline, non- diesel fuel).

f) Offset Project Registry. If Mission Linen is not able to reduce GHG emissions below the BAAQMD significance threshold through the use of the above listed measures alone, the project applicant shall purchase GHG offset credits from an established Offset Project Registry (OPR) to offset the difference.

Effectiveness of Mitigation Measure GHG-1

Implementation of Mitigation Measure GHG-1 would require development of a GHG Reduction Plan to demonstrate that mitigated project operational GHG emissions would be below the BAAQMD significance threshold of 1,100 MT of CO_2e/year. Therefore, this impact would be less than significant with mitigation.

Mitigation Measure GHG-2: Implement Mitigation Measure AQ-2.

If actual natural gas usage approaches or exceeds 1.88 million therms per year, the project applicant shall implement all reasonable and feasible control technology to reduce natural gas usage and demonstrate reduction of operational GHG emissions from stationary sources below the BAAQMD significance threshold of 10,000 MT of CO_2e/year.

Consistency with Adopted Plans to Reduce GHG Emissions

The project would be subject to new requirements under rule making developed at the State and local level, including the City of Newark Climate Action Plan Initial Framework, regarding greenhouse gas emissions and be subject to local policies that may affect emissions of greenhouse gases.

Attachment 1: CalEEMod Output Worksheets

Attachment 2: Project-Specific Water, Electricity, and Natural Gas Usage Estimates

Attachment 3: Calculations

Project Stationary Source Criteria Pollutant and GHG Emissions

Operational Criteria Pollutant Emissions - Project Equipment
at Maximum and Expected Equipment Capacity

Maximum Operation - Criteria Pollutant Emissions

Year/Emission Source	Average Daily Emissions (lb/day)				Annual Emissions (tons/year)			
	NOx	ROG	PM10	PM2.5	NOx	ROG	PM10	PM2.5
2017 Emissions								
Natural Gas Combustion	45.18	4.78	6.61	6.61	5.87	0.62	0.86	0.86
Drying Operations	-	-	5.47	1.37	-	-	0.71	0.18
Total	**45.18**	**4.78**	**12.08**	**7.97**	**5.87**	**0.62**	**1.57**	**1.04**
2021 Emissions								
Natural Gas Combustion	60.24	6.37	8.81	8.81	10.99	1.16	1.61	1.61
Drying Operations	-	-	5.86	1.46	-	-	1.07	0.27
Total	**60.24**	**6.37**	**14.67**	**10.27**	**10.99**	**1.16**	**2.68**	**1.87**

Expected Operation - Criteria Pollutant Emissions

Year/Emission Source	Average Daily Emissions (lb/day)				Annual Emissions (tons/year)			
	NOx	ROG	PM10	PM2.5	NOx	ROG	PM10	PM2.5
2017 Emissions								
Natural Gas Combustion	16.00	1.69	2.34	2.34	2.08	0.22	0.30	0.30
Drying Operations	-	-	5.47	1.37	-	-	0.71	0.18
Total	**16.00**	**1.69**	**7.81**	**3.71**	**2.08**	**0.22**	**1.02**	**0.48**
2021 Emissions								
Natural Gas Combustion	21.49	2.27	3.14	3.14	3.92	0.42	0.57	0.57
Drying Operations	-	-	5.86	1.46	-	-	1.07	0.27
Total	**21.49**	**2.27**	**9.00**	**4.61**	**3.92**	**0.42**	**1.64**	**0.84**

Operational GHG Emissions - Project Equipment
at Expected Equipment Capacity

Expected Operation - GHG Emissions

Year/Emission Source	CO_2e Annual (MT/year)			Total CO_2e (MT /year)
	CO_2	CH_4	N_2O	
2017 Emissions				
Natural Gas Combustion	4,330	8.6	2.5	4,341
2021 Emissions				
Natural Gas Combustion	8,168	16.2	4.8	8,189

2017 and 2021 Criteria Pollutant Emissions

Mission Linen Supply, Newark, CA
Criteria Pollutant Emissions: Combustion Equipment - Maximum & Expected Equipment Operation
2017 Operation

Expected Annual Natural Gas Use and Process Rates	
Total Gas Use (therms) =	815,988
Total Gas Use MMBtu) =	81,599
Material Processed (clean dry lbs) =	37,835,602

Operation Schedule			
(hr/day)	(day/week)	(hr/year)	day/year
12	5	3,120	260

Equipment	No. of Equip	Maximum Heat Input per Unit (MMBtu/hr)	Fracion of Total Maximum Heat Input	Total Heat Input - Maximum Firing Rate[1]			Total Heat Input - Expected Gas Use[2]			Emission Factors[3] (lb/MMCF)			Maximum Emission Rates[4]									Expected Emission Rates[5]								
													Hourly (lb/hr)			Daily (lb/day)			Annual (tons/year)			Hourly (lb/hr)			Daily (lb/day)			Annual (tons/year)		
				(MMBtu/hr)	(MMBtu/year)	(therms/year)	(MMBtu/hr)	(MMBtu/year)	(therms/year)	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM
Hurst Series 500 boiler with sub 9 ppm ultra low NOx burner	2	19.95	0.540	39.9	124,488	1,244,880	14.1	44,072	440,716	11.1	5.5	7.6	0.43	0.22	0.30	5.2	2.6	3.6	0.7	0.3	0.5	0.15	0.08	0.11	1.8	0.9	1.3	0.2	0.1	0.2
Milnor Model 6458 Gas Dryer	16	1.8	0.390	28.8	89,856	898,560	10.2	31,811	318,111	100	5.5	7.6	2.82	0.16	0.21	33.9	1.9	2.6	4.4	0.2	0.3	1.00	0.05	0.08	12.0	0.7	0.9	1.6	0.1	0.1
Brim 74/78G Gas Dryer	1	2.5	0.034	2.5	7,800	78,000	0.9	2,761	27,614	100	5.5	7.6	0.25	0.01	0.02	2.9	0.2	0.2	0.4	0.0	0.0	0.09	0.00	0.01	1.0	0.1	0.1	0.1	0.0	0.0
ADC/Pony Gas Dryer - 125 lb capacity	5	0.375	0.025	1.9	5,850	58,500	0.7	2,071	20,710	100	5.5	7.6	0.18	0.01	0.01	2.2	0.1	0.2	0.3	0.0	0.0	0.07	0.00	0.00	0.8	0.0	0.1	0.1	0.0	0.0
Colmax CTU240 Garment Finishing Tunnel	1	0.800	0.011	0.8	2,496	24,960	0.3	884	8,836	100	5.5	7.6	0.08	0.00	0.01	0.9	0.1	0.1	0.1	0.0	0.0	0.03	0.00	0.00	0.3	0.0	0.0	0.0	0.0	0.0
Total		25.425	1.00	73.9	230,490	2,304,900	26.2	81,599	815,988				3.77	0.40	0.55	45.2	4.8	6.6	5.9	0.6	0.9	1.33	0.14	0.19	16.0	1.7	2.3	2.1	0.2	0.3

[1] Calculated based on maximum equipment firing rates and fraction of total maximum heat input.
[2] Calculated based on projected actual facility total gas use and fraction of total maximum heat input.
[3] See emission factor summary table for basis of emission factors.
[4] Maximum emission rates based on equipment maximum firing rates.
[5] Expected emission rates based on expected equipment gas use.

Natural Gas Values
Heating Value = 1,020 Btu/SCF
1 therm = 100,000 Btu

Mission Linen Supply, Newark, CA
Criteria Pollutant Emissions: Combustion Equipment - Maximum & Expected Equipment Operation
2021 Operation

Expected Annual Natural Gas Use and Process Rates	
Total Gas Use (therms) =	1,539,322
Total Gas Use MMBtu) =	153,932
Material Processed (clean dry lbs) =	71,375,060

Operation Schedule			
(hr/day)	(day/week)	(hr/year)	day/year
16	7	5,840	365

Equipment	No. of Equip	Maximum Heat Input per Unit (MMBtu/hr)	Fracion of Total Maximum Heat Input	Total Heat Input - Maximum Firing Rate[1]			Total Heat Input - Expected Gas Use[2]			Emission Factors[3] (lb/MMCF)			Maximum Emission Rates[4]									Expected Emission Rates[5]								
													Hourly (lb/hr)			Daily (lb/day)			Annual (tons/year)			Hourly (lb/hr)			Daily (lb/day)			Annual (tons/year)		
				(MMBtu/hr)	(MMBtu/year)	(therms/year)	(MMBtu/hr)	(MMBtu/year)	(therms/year)	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM
Hurst Series 500 boiler with sub 9 ppm ultra low NOx burner	2	19.95	0.540	39.9	233,016	2,330,160	14.2	83,139	831,390	11.1	5.5	7.6	0.43	0.22	0.30	6.9	3.4	4.8	1.3	0.6	0.9	0.15	0.08	0.11	2.5	1.2	1.7	0.5	0.2	0.3
Milnor Model 6458 Gas Dryer	16	1.8	0.390	28.8	168,192	1,681,920	10.3	60,010	600,101	100	5.5	7.6	2.82	0.16	0.21	45.2	2.5	3.4	8.2	0.5	0.6	1.01	0.05	0.08	16.1	0.9	1.2	2.9	0.2	0.2
Brim 74/78G Gas Dryer	1	2.5	0.034	2.5	14,600	146,000	0.9	5,209	52,092	100	5.5	7.6	0.25	0.01	0.02	3.9	0.2	0.3	0.7	0.0	0.1	0.09	0.00	0.01	1.4	0.1	0.1	0.3	0.0	0.0
ADC/Pony Gas Dryer - 125 lb capacity	5	0.375	0.025	1.9	10,950	109,500	0.7	3,907	39,059	100	5.5	7.6	0.18	0.01	0.01	2.9	0.2	0.2	0.5	0.0	0.0	0.07	0.00	0.00	1.0	0.1	0.1	0.2	0.0	0.0
Colmax CTU240 Garment Finishing Tunnel	1	0.800	0.011	0.8	4,672	46,720	0.3	1,667	16,669	100	5.5	7.6	0.08	0.00	0.01	1.3	0.1	0.1	0.2	0.0	0.0	0.03	0.00	0.00	0.4	0.0	0.0	0.1	0.0	0.0
Total		25.425	1.00	73.9	431,430	4,314,300	26.4	153,932	1,539,322				3.77	0.40	0.55	60.2	6.4	8.8	11.0	1.2	1.6	1.34	0.14	0.20	21.5	2.3	3.1	3.9	0.4	0.6

[1] Calculated based on maximum equipment firing rates and fraction of total maximum heat input.
[2] Calculated based on projected actual facility total gas use and fraction of total maximum heat input.
[3] See emission factor summary table for basis of emission factors.
[4] Maximum emission rates based on equipment maximum firing rates.
[5] Expected emission rates based on expected equipment gas use.

Natural Gas Values
Heating Value = 1,020 Btu/SCF
1 therm = 100,000 Btu

MISSION LINEN SUPPLY, NEWARK - ESTIMATED EMISSIONS FACTORS FROM NATURAL GAS FIRED EQUIPMENT

Equipment		Emissions Factor	per Unit	Emissions Factor Reference
Hurst Series 500 boiler with Power Flame Nova Plus Burner, sub 9 ppm Nox				
	NOx	*11.1*	*lb/ MMCF*	*9 ppmvd at 3% O2 (burner guarantee level)*
	ROG (VOC)	5.5	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	PM	7.6	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
Milnor Model 64058 dryer				
	NOx	100	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	ROG (VOC)	5.5	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	PM	7.6	lb/MMCF	SJVAPCD Application Review for dryer ATC
Brim 74/78G Gas Dryer				
	NOx	100	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	ROG (VOC)	5.5	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	PM	7.6	lb/MMCF	SJVAPCD Application Review for dryer ATC
Pony Dryer				
	NOx	100	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	ROG (VOC)	5.5	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	PM	7.6	lb/MMCF	SJVAPCD Application Review for dryer ATC
Colmac CTU240 Garment Finishing Tunnel				
	NOx	100	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	ROG (VOC)	5.5	lb/MMCF	AP-42, combustion of nat gas, uncontrolled
	PM	7.6	lb/MMCF	AP-42, combustion of nat gas, uncontrolled

Mission Linen Newark - Estimated Annual Production and Natural Gas Use

Production Estimate Year	Emissions Analysis Year	Operation Schedule			Annual Pounds (clean dry weight)	% Growth	Annual Nat Gas	
		Hours per Day	Days per Week	Days per Year			Therms	MMBtus
2015	2016	9	5	260	29,065,000		626,835	62,684
2016	2017	12	5	260	37,835,602	30%	815,988	81,599
2017	2018	13	6	312	47,475,275	25%	1,023,883	102,388
2018	2019	15	6	312	57,240,405	21%	1,234,485	123,448
2019	2020	15	7	365	65,617,533	15%	1,415,151	141,515
2020	2021	16	7	365	71,375,060	9%	1,539,322	153,932

Mission Linen Newark - PM10 and PM2.5 Emission Estimates From Drying Operations Operation in 2017

Production Estimate Year = 2017

Classification	Mix	Annual Lbs	Dry/Condition	Dry Annual Lbs	Condition Annual Lbs
APRONS		1,829,427	Condition[1]		1,829,427
BAR MOPS		3,931,636	Dry	3,931,636	
GARMENTS		963,716	Condition		963,716
LARGE TERRY		1,786,959	Dry	1,786,959	
LAUNDRY BAGS		416,521	Dry	416,521	
MATS		1,929,066	Dry	1,929,066	
MOPS		27,768	Dry	27,768	
NAPKINS		11,870,044	Condition		11,870,044
SHEETS		6,518,969	Condition		6,518,969
SLIPS		743,205	Condition		743,205
SMALL TERRY		800,374	Dry	800,374	
TOPS		7,152,734	Condition		7,152,734
UTIL TOWELS		132,307	Dry	132,307	
Subtotal		*38,102,726*			
HEALTHCARE		*9,372,549*			
BLANKETS	33%	3,056,226	Dry	3,056,226	
GOWNS	9%	847,123	Dry	847,123	
MOPS	1%	137,062	Dry	137,062	
PADS	4%	363,418	Dry	363,418	
SHEETS	28%	2,635,493	Condition		2,635,493
SCRUBS	6%	592,689	Dry	592,689	
SLIPS	4%	392,130	Condition		392,130
TOWELS	14%	1,348,408	Dry	1,348,408	
Total	100.0%	47,475,275		15,369,557	32,105,718

(1) Conditioned goods are tumbled for a short time to remove wrinkles and some moisture. Goods are still damp so PM10 emissions would not be expected to occur.

PM Emissions

Dryer Type	Number of Dryers	Annual Lbs Dried by Dryer Type	Annual Emissions (lb/year)		Average Daily Emissions (lb/day)*	
			PM10	PM2.5	PM10	PM2.5
Milnor Dryers + Dryvac	16	13,414,363	1301.19	325.30	5.00	1.25
Brim Dryer	1	1,929,066	119.60	29.90	0.46	0.12
ADC Dryers	5	26,128	1.62	0.40	0.01	0.00
Total		15,369,557	1422.4	355.6	5.47	1.37

* Maximum production of 47,475,275 pounds clean dry weight

* Average daily emissions based on 260 days per year

*** ADC Dryers process 0.5% of annual production, of which 34% is dried

Emission Factors (pounds per ton of clean dry weight material)

PM10	PM2.5
0.194	0.049
0.124	0.031
0.124	0.031

Assumptions:

Dryer lint screen control efficiency =	85%
Dryvac lint collection system control efficiency =	90%
PM10 fraction of PM =	0.5
PM2.5 fraction of PM10 =	0.25
Ratio of material clean dry weight to soiled weight =	0.833

Emission Factor Calculations:

Dryer PM10 EF (lb PM10/ton-clean dry weight) = 1.372 lb/soiled ton x 0.5 lb-PM10/lb-PM x (ton soiled/0.833 ton clean) x (1-0.85) = 0.124

Dryer PM2.5 EF (lb PM2.5/ton-clean dry weight) = 0.124 lb PM10/ton-clean dry weight x 0.25 lb-PM2.5/lb-PM10 = 0.031

Dryvac PM10 EF (lb PM10/ton-clean dry weight) = 1.372 lb/soiled ton x 0.85 x 0.5 lb-PM10/lb-PM x (ton soiled/0.833 ton clean) x (1-0.90) = 0.070

Dryvac PM2.5 EF (lb PM2.5/ton-clean dry weight) = 0.070 lb PM10/ton-clean dry weight x 0.25 lb-PM2.5/lb-PM10 = 0.0175

Mission Linen Newark - PM10 and PM2.5 Emission Estimates From Drying Operations Operation in 2021

Production Estimate Year = 2021

Classification	Mix	Annual Lbs	Dry/Condition	Dry Annual Lbs	Condition Annual Lbs
APRONS		2,750,389	Condition[(1)]		2,750,389
BAR MOPS		5,910,881	Dry	5,910,881	
GARMENTS		1,448,866	Condition		1,448,866
LARGE TERRY		2,686,541	Dry	2,686,541	
LAUNDRY BAGS		626,205	Dry	626,205	
MATS		2,900,187	Dry	2,900,187	
MOPS		41,747	Dry	41,747	
NAPKINS		17,845,607	Condition		17,845,607
SHEETS		9,800,718	Condition		9,800,718
SLIPS		1,117,346	Condition		1,117,346
SMALL TERRY		1,203,295	Dry	1,203,295	
TOPS		10,753,531	Condition		10,753,531
UTIL TOWELS		198,912	Dry	198,912	
Subtotal		***57,284,226***			
HEALTHCARE		***14,090,834***			
BLANKETS	33%	4,594,778	Dry	4,594,778	
GOWNS	9%	1,273,577	Dry	1,273,577	
MOPS	1%	206,060	Dry	206,060	
PADS	4%	546,369	Dry	546,369	
SHEETS	28%	3,962,240	Condition		3,962,240
SCRUBS	6%	891,058	Dry	891,058	
SLIPS	4%	589,534	Condition		589,534
TOWELS	14%	2,027,218	Dry	2,027,218	
Total	100.0%	71,375,060		23,106,829	48,268,231

(1) Conditioned goods are tumbled for a short time to remove wrinkles and some moisture. Goods are still damp so PM10 emissions would not be expected to occur.

PM Emissions*

Dryer Type	Number of Dryers	Annual Lbs Dried by Dryer Type	Annual Emissions (lb/year)		Average Daily Emissions (lb/day)**	
			PM10	PM2.5	PM10	PM2.5
Milnor Dryers + Dryvac	16	20,167,360	1956.23	489.06	5.36	1.34
Brim Dryer	1	2,900,187	179.81	44.95	0.49	0.12
ADC Dryers	5	39,282	2.44	0.61	0.01	0.00
Total		**23,106,829**	**2138.5**	**534.6**	**5.9**	**1.5**

* Maximum production of 71,375,060 pounds clean dry weight

** Average daily emissions based on 365 days per year

*** ADC Dryers process 0.5% of annual production, of which 34% is dried

Emission Factors (pounds per ton of clean dry weight material)

PM10	PM2.5
0.194	0.049
0.124	0.031
0.124	0.031

Assumptions:

Dryer lint screen control efficiency =	85%
Dryvac lint collection system control efficiency =	90%
PM10 fraction of PM =	0.5
PM2.5 fraction of PM10 =	0.25
Ratio of material clean dry weight to soiled weight =	0.833

Emission Factor Calculations:

Dryer PM10 EF (lb PM10/ton-clean dry weight) = 1.372 lb/soiled ton x 0.5 lb-PM10/lb-PM x (ton soiled/0.833 ton clean) x (1-0.85) = 0.124

Dryer PM2.5 EF (lb PM2.5/ton-clean dry weight) = 0.124 lb PM10/ton-clean dry weight x 0.25 lb-PM2.5/lb-PM10 = 0.031

Dryvac PM10 EF (lb PM10/ton-clean dry weight) = 1.372 lb/soiled ton x 0.85 x 0.5 lb-PM10/lb-PM x (ton soiled/0.833 ton clean) x (1-0.90) = 0.070

Dryvac PM2.5 EF (lb PM2.5/ton-clean dry weight) = 0.070 lb PM10/ton-clean dry weight x 0.25 lb-PM2.5/lb-PM10 = 0.0175

2017 and 2021 GHG Emissions

Mission Linen Supply, Newark, CA
GHG Emissions: Combustion Equipment - Expected Project Operation
2017 Operation

Expected Annual Natural Gas Use and Process Rates	
Total Gas Use (therms) =	815,988
Total Gas Use MMBtu) =	81,599
Material Processed (clean dry lbs) =	37,835,602

Operation Schedule			
(hr/day)	(day/week)	(hr/year)	day/year
12	5	3,120	260

Equipment	No. of Equip	Maximum Heat Input per Unit (MMBtu/hr)	Total Maximum Heat Input (MMBtu/hr)	Fracion of Total Maximum Heat Input	Total Heat Input - Expected Gas Use[1]			Emission Factors (kg/MMBtu)[2]			Emission Rates						
											Annual (kg/year)			CO_2e Annual (MT/year)			Total CO_2e
					(MMBtu/hr)	(MMBtu/year)	(therms/year)	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	(MT /year)
Hurst Series 500 boiler with sub 9 ppm ultra low NOx burner	2	19.95	39.90	0.540	14.1	44,072	440,716	53.06	0.005	0.0001	2,338,440	220	4	2,338	5	1	2,344
Milnor Model 6458 Gas Dryer	16	1.8	28.8	0.390	10.2	31,811	318,111	53.06	0.005	0.0001	1,687,897	159	3	1,688	3	1	1,692
Brim 74/78G Gas Dryer	1	2.5	2.5	0.034	0.9	2,761	27,614	53.06	0.005	0.0001	146,519	14	0	147	0	0	147
ADC/Pony Gas Dryer - 125 lb capacity	5	0.375	1.875	0.025	0.7	2,071	20,710	53.06	0.005	0.0001	109,889	10	0	110	0	0	110
Colmax CTU240 Garment Finishing Tunnel	1	0.800	0.800	0.011	0.3	884	8,836	53.06	0.005	0.0001	46,886	4	0	47	0	0	47
Total		25.43	73.88	1.00	26.2	81,599	815,988				4,329,631	408	8	4,330	9	3	4,341

[1] Calculated based on projected actual facility total gas use and fraction of total maximum heat input.
[2] Emission factor from California Climate Action Registry, General Reporting Protocol, Version 3.1, January 2009

Natural Gas Values		
Heating Value =	1,020	Btu/SCF
1 therm =	100,000	Btu

Global Warming Potential (GWP)		
CO2	CH4	N20
1	21	310

Mission Linen Supply, Newark, CA
GHG Emissions: Combustion Equipment - Expected Project Operation
2017 Operation

Expected Annual Natural Gas Use and Process Rates	
Total Gas Use (therms) =	1,539,322
Total Gas Use MMBtu) =	153,932
Material Processed (clean dry lbs) =	71,375,060

Operation Schedule			
(hr/day)	(day/week)	(hr/year)	day/year
16	7	5,840	365

Equipment	No. of Equip	Maximum Heat Input per Unit (MMBtu/hr)	Total Maximum Heat Input (MMBtu/hr)	Fracion of Total Maximum Heat Input	Total Heat Input - Expected Gas Use[1]			Emission Factors (kg/MMBtu)[2]			Emission Rates						
											Annual (kg/year)			CO_2e Annual (MT/year)			Total CO_2e
					(MMBtu/hr)	(MMBtu/year)	(therms/year)	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	(MT /year)
Hurst Series 500 boiler with sub 9 ppm ultra low NOx burner	2	19.95	39.90	0.540	14.2	83,139	831,390	53.06	0.005	0.0001	4,411,357	416	8	4,411	9	3	4,423
Milnor Model 6458 Gas Dryer	16	1.8	28.8	0.390	10.3	60,010	600,101	53.06	0.005	0.0001	3,184,137	300	6	3,184	6	2	3,192
Brim 74/78G Gas Dryer	1	2.5	2.5	0.034	0.9	5,209	52,092	53.06	0.005	0.0001	276,401	26	1	276	1	0	277
ADC/Pony Gas Dryer - 125 lb capacity	5	0.375	1.875	0.025	0.7	3,907	39,069	53.06	0.005	0.0001	207,301	20	0	207	0	0	208
Colmax CTU240 Garment Finishing Tunnel	1	0.800	0.800	0.011	0.3	1,667	16,669	53.06	0.005	0.0001	88,448	8	0	88	0	0	89
Total		25.43	73.88	1.00	26.4	153,932	1,539,322				8,167,643	770	15	8,168	16	5	8,189

[1] Calculated based on projected actual facility total gas use and fraction of total maximum heat input.
[2] Emission factor from California Climate Action Registry, General Reporting Protocol, Version 3.1, January 2009

Natural Gas Values		
Heating Value =	1,020	Btu/SCF
1 therm =	100,000	Btu

Global Warming Potential (GWP)		
CO2	CH4	N20
1	21	310

Attachment 4: TAC Emission Calculations and Health Risk Impacts for Project Construction and Operation

Construction Emissions and Health Impact Calculations

Mission Linnen, Newark, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2015	Construction	0.2688	CON_DPM	537.6	0.16365	2.06E-02	30,622	6.73E-07
2016	Construction	0.0312	CON_DPM	62.4	0.01900	2.39E-03	30,622	7.82E-08
Total		***0.300***		***600***	***0.1826***	***0.0230***		

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2015	Construction	CON_FUG	0.0885	177.0	0.05388	6.79E-03	30,622	2.22E-07
2016	Construction	CON_FUG	0.00006	0.1	0.00004	4.60E-06	30,622	1.50E-10
Total			***0.0886***	***177.1***	***0.0539***	***0.0068***		

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Mission Linnen, Newark, CA - Construction Health Impact Summary

Maximum Residential Impacts

Construction Year	Maximum Concentrations: Exhaust PM2.5/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2015	0.0873	0.0312	7.64	0.40	0.017	0.118
2016	0.0101	0.0000	0.89	0.05	0.002	0.010
Total	-	-	8.5	0.4	-	-
Maximum Annual	0.0873	0.0312	-	-	0.017	0.12

Mission Linnen, Newark, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction
Off-Site Residential Receptor Locations - 1.5 meters

Cancer Risk (per million) = CPF x Inhalation Dose x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$

Inhalation Dose = C_{air} x DBR x A x EF x ED x 10^{-6} / AT

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
AT = Averaging time period over which exposure is averaged.
10^{-6} = Conversion factor

Values

Parameter	Child	Adult
CPF =	1.10E+00	1.10E+00
DBR =	581	302
A =	1	1
EF =	350	350
AT =	25,550	25,550

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information		Exposure Adjust Factor	Child Cancer Risk (per million)	Adult - Exposure Information		Exposure Adjust Factor	Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
		DPM Conc (ug/m3)				Modeled DPM Conc (ug/m3)					
		Year	Annual			Year	Annual				
1	1	2015	0.0873	10	7.64	2015	0.0873	1	0.40	0.0312	0.118
2	1	2016	0.0101	10	0.89	2016	0.0101	1	0.05	0.0000	0.010
3	1		0.0000	4.75	0.00		0.0000	1	0.00		
4	1		0.0000	3	0.00		0.0000	1	0.00		
5	1		0.0000	3	0.00		0.0000	1	0.00		
6	1		0.0000	3	0.00		0.0000	1	0.00		
7	1		0.0000	3	0.00		0.0000	1	0.00		
8	1		0.0000	3	0.00		0.0000	1	0.00		
9	1		0.0000	3	0.00		0.0000	1	0.00		
10	1		0.0000	3	0.00		0.0000	1	0.00		
11	1		0.0000	3	0.00		0.0000	1	0.00		
12	1		0.0000	3	0.00		0.0000	1	0.00		
13	1		0.0000	3	0.00		0.0000	1	0.00		
14	1		0.0000	3	0.00		0.0000	1	0.00		
15	1		0.0000	3	0.00		0.0000	1	0.00		
16	1		0.0000	3	0.00		0.0000	1	0.00		
17	1		0.0000	1.5	0.00		0.0000	1	0.00		
18	1		0.0000	1	0.00		0.0000	1	0.00		
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.	.	.	.	.	.	.	.	.	.		
65	1		0.0000	1	0.00		0.0000	1	0.00		
66	1		0.0000	1	0.00		0.0000	1	0.00		
67	1		0.0000	1	0.00		0.0000	1	0.00		
68	1		0.0000	1	0.00		0.0000	1	0.00		
69	1		0.0000	1	0.00		0.0000	1	0.00		
70	1		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk					**8.53**				**0.44**		

Operation – TAC Emissions, Modeling Parameters, and Health Impact Calculations

Delivery Truck Emissions and Health Impacts

Mission Linnen, Newark, CA - Truck Travel DPM Emissions - 2017

Truck Route	Percent Trucks on Road	Vehicle Type[1]	Daily Trucks Trips[2]	Total Annual Trips[3]	Operation Hours per Day[4]	Travel Speed (mph)	DPM Emission Factor[5] (g/mi)	Travel Distance (feet)	Travel Distance (miles)	DPM Emissions Total Annual (lb/year)	DPM Emissions Average Hourly (lb/hr)
Total Truck Trips	100%	HDT	2	730	3	-	-	-	-	-	-
		MDT	112	40,880	12	-	-	-	-	-	-
Off-Site Truck Travel											
Central Ave - North	19%	HDT	0.4	139	3	25	0.0594	1061	0.20	0.00	3.33E-06
		MDT	21.3	7,767	12	25	0.0666	1061	0.20	0.23	5.23E-05
			21.7	7,906						0.23	5.56E-05
Central Ave - South	25%	HDT	0.5	183	3	30	0.0571	1253	0.24	0.01	4.98E-06
		MDT	28.0	10,220	12	30	0.0622	1253	0.24	0.33	7.60E-05
			28.5	10,403						0.34	8.09E-05
Central & Cherry to Site Entrance	75%	HDT	1.5	548	3	20	0.0609	392	0.07	0.01	4.99E-06
		MDT	84.0	30,660	12	20	0.0740	392	0.07	0.37	8.48E-05
			85.5	31,208						0.38	8.98E-05
Cherry St - East	19%	HDT	0.4	139	3	35	0.0574	1585	0.30	0.01	4.81E-06
		MDT	21.3	7,767	12	35	0.0609	1585	0.30	0.31	7.14E-05
			21.7	7,906						0.32	7.63E-05
Cherry St - West	37%	HDT	0.7	270	3	25	0.0594	1246	0.24	0.01	7.61E-06
		MDT	41.4	15,126	12	25	0.0666	1246	0.24	0.52	1.20E-04
			42.2	15,396						0.53	1.27E-04
Total										*1.42*	*3.40E-04*

[1] HDT = heavy duty truck, MDT = medium duty truck

[2] Assumes that 56 large delivery vans are MDT and 1 semi-tractor/trailer is HDT, with 2 trips per vehicle per day.

[3] Annual trucks - Based on 365 days of operation

[4] Delivery trucks (MDT) woudl operate from around 5 am to 5 pm and semi-truck (HDT) would operate from about 9 pm to 12 am.

[5] Emission factors from EMFAC2011 for Alameda Co. for operation in 2017 and assumes all trucks are diesel.

Mission Linnen, Newark, CA - Truck Travel PM2.5 Emissions - 2017

Truck Route	Percent Trucks on Road	Vehicle Type[1]	Daily Trucks Trips[2]	Total Annual Trips[3]	Operation Hours per Day[4]	Travel Speed (mph)	PM2.5 Emission Factor[4] (g/mi)	Travel Distance (feet)	Travel Distance (miles)	PM2.5 Emissions Total Annual[5] (lb/year)	PM2.5 Emissions Average Hourly (lb/hr)
Total Truck Trips	100%	HDT	2	730	3	-	-	-	-	-	-
		MDT	112	40,880	12	-	-	-	-	-	-
Off-Site Truck Travel											
Central Ave - North	19%	HDT	0.4	139	3	25	0.0940	1061	0.20	0.01	5.28E-06
		MDT	21.3	7,767	12	25	0.1254	1061	0.20	0.43	9.86E-05
			21.7	7,906						0.44	1.04E-04
Central Ave - South	25%	HDT	0.5	183	3	30	0.0918	1253	0.24	0.01	8.00E-06
		MDT	28.0	10,220	12	30	0.1211	1253	0.24	0.65	1.48E-04
			28.5	10,403						0.66	1.56E-04
Central & Cherry to Site Entrance	75%	HDT	1.5	548	3	20	0.0956	392	0.07	0.01	7.82E-06
		MDT	84.0	30,660	12	20	0.1329	392	0.07	0.67	1.52E-04
			85.5	31,208						0.68	1.60E-04
Cherry St - East	19%	HDT	0.4	139	3	35	0.0921	1585	0.30	0.01	7.72E-06
		MDT	21.3	7,767	12	35	0.1197	1585	0.30	0.62	1.40E-04
			21.7	7,906						0.62	1.48E-04
Cherry St - West	37%	HDT	0.7	270	3	25	0.0940	1246	0.24	0.01	1.21E-05
		MDT	41.4	15,126	12	25	0.1254	1246	0.24	0.99	2.25E-04
			42.2	15,396						1.00	2.37E-04
Total										***2.72***	***6.45E-04***

[1] HDT = heavy duty truck, MDT = medium duty truck

[2] Assumes that 56 large delivery vans are MDT and 1 semi-tractor/trailer is HDT, with 2 trips per vehicle per day.

[3] Annual trucks - Based on 365 days of operation

[4] Delivery trucks (MDT) woudl operate from around 5 am to 5 pm and semi-truck (HDT) would operate from about 9 pm to 12 am.

[5] Emission factors from EMFAC2011 for Alameda Co. for operation in 2017 and assumes all trucks are diesel. PM2.5 emission factors include tire and brake wear

Mission Linen, Newark, CA - Operational Truck Impacts
Maximum DPM Cancer Risk and Annual PM2.5 Impacts From Delivery Trucks

DPM Emission Rates	
Source Type(s)	Annual DPM (lb/yr)
Off-site Delivery Trucks	1.42

Modeling Information	
Model:	ISCST3
Source	Off-site Delivery Trucks
Source Type	10 Line-Volume Sources
Meteorological Data	Newark - HP 1999 Data (from BAAQMD)
Line-Volume Source Parameters	
Line Source Lengths	variable (refer to emissions table)
Volume Plume Height	6.8 meters
Volume Plume Width	24 ft
Volume Release Height	11.2 ft (3.4 m)
Hourly Emission Rate (lb/hr)	variable (refer to emissions table)
Receptors	
Number of Receptors	147
Receptor Spacing	(refer to emissions table)
Receptor Height	1.5 m (4.9 ft)

Cancer Risk Calculation Method

Inhalation Dose = C_{air} x DBR x A x HD x EF x ED x 10^{-6} / AT

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
HD = daily exposure (hours/day/24)
ED = Exposure duration (years)
AT = Averaging time period over which exposure is averaged.
10^{-6} = Conversion factor

Inhalation Dose Factors

	Value[1]							
Exposure Type	DBR (L/kg BW-day)	A (-)	Exposure (hr/day)	Exposure (days/week)	Exposure (week/year)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	302	1	24	7	50	350	70	25,550

[1] Default values recommended by OEHHA& Bay Area Air Quality Management District

Cancer Risk (per million) = Inhalation Dose x CRAF x CPF x 10^6
= URF x Cair

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
CRAF = Cancer Risk Adjustment Factor
URF =Unit risk factor (cancer risk per $\mu g/m^3$)

Unit Risk Factor for DPM

Exposure Type	CPF $(mg/kg\text{-}day)^{-1}$	CRAF (-)	URF *DPM*
Residential (70-Yr Exposure)	1.10E+00	1.7	**541.5**

Model Results and Cancer Risks

	Maximum		Maximum
Exposure Type	DPM Annual Ave ($\mu g/m^3$)	DPM Cancer Risk (per million)	PM2.5[a] Annual Ave ($\mu g/m^3$)
Residential (70-Yr Exposure)	0.00091	**0.49**	**0.002**

Stationary Source PM2.5 and TAC Emissions and Health Impacts

Mission Linen Supply - Newark
Summary of PM2.5 Emission Rates and Stack Parameter Information for Modeling

Maximum PM2.5 Emission Rates

Equipment	No. of Units	Maximum Heat Input (Btu/hr)	Maximum Heat Input (MMBtu/hr)	2017 PM2.5 Emissions per Unit (lb/hour)	g/s	2021 PM2.5 Emissions per Unit (lb/hour)	g/s	Stack Height Above Ground level (ft)	Stack Diameter (in)	Exhaust Gas Temp. (F)	Exhaust Gas Flow Rate (acfm)
Hurst Series 500 Boiler	2	19,950,000	19.95	0.1059	0.01334	0.1486	0.01873	38	24	150	4,180
Milnor Model 6458 Gas Dryer	16	1,800,000	1.8	0.0142	0.00179	0.0186	0.00235	38	26	170	8,844
Brim 74/78G Gas Dryer	1	2,500,000	2.5	0.0201	0.00253	0.0263	0.00332	38	30	170	8,000
Pony Gas Dryer	5	375,000	0.35	0.0020	0.00025	0.0028	0.000355	38	14	170	2,150
Colmac CTU240 Garment Finishing Tunnel	1	800,000	0.8	0.0042	0.00054	0.0060	0.00075	38	16	250	2,476

2017 Daily Operation Hours = 12 5am - 5 pm
2021 Daily Operation Hours = 16 5am - 9 pm

Expected PM2.5 Emission Rates

Equipment	No. of Units	Maximum Heat Input (Btu/hr)	Maximum Heat Input (MMBtu/hr)	2017 PM2.5 Emissions per Unit (lb/hour)	g/s	2021 PM2.5 Emissions per Unit (lb/hour)	g/s	Stack Height Above Ground level (ft)	Stack Diameter (in)	Exhaust Gas Temp. (F)	Exhaust Gas Flow Rate (acfm)
Hurst Series 500 Boiler	2	19,950,000	19.95	0.0375	0.004723	0.0530	0.00668	38	24	150	4,180
Milnor Model 6458 Gas Dryer	16	1,800,000	1.8	0.0080	0.0010	0.0100	0.00126	38	26	170	8,844
Brim 74/78G Gas Dryer	1	2,500,000	2.5	0.0115	0.0015	0.0143	0.00181	38	30	170	8,000
Pony Gas Dryer	5	375,000	0.35	0.0007	0.000091	0.0010	0.000128	38	14	170	2,150
Colmac CTU240 Garment Finishing Tunnel	1	800,000	0.8	0.0015	0.00019	0.0021	0.00027	38	16	250	2,476

2017 Daily Operation Hours = 12 5am - 5 pm
2021 Daily Operation Hours = 16 5am - 9 pm

Mission Linen Supply - Newark
Summary of Stack Parameter Information for Modeling
2021 TAC Emissions

Maximum TAC Emission Rates

Equipment	No. of Units	2021 Average Hourly TAC Emissions (per unit)						Stack Parameters			
		Benzene (lb/hour)	Formaldehyde (lb/hour)	Toluene (lb/hour)	Benzene g/s	Formaldehyde g/s	Toluene g/s	Stack Height Above Ground level (ft)	Stack Diameter (in)	Exhaust Gas Temp. (F)	Exhaust Gas Flow Rate (acfm)
Hurst Series 500 Boiler	2	4.11E-05	1.47E-03	6.65E-05	5.18E-06	1.85E-04	8.38E-06	38	24	150	4,180
Milnor Model 6458 Gas Dryer	16	3.71E-06	1.32E-04	6.00E-06	4.67E-07	1.67E-05	7.56E-07	38	26	170	8,844
Brim 74/78G Gas Dryer	1	5.15E-06	1.84E-04	8.33E-06	6.49E-07	2.32E-05	1.05E-06	38	30	170	8,000
Pony Gas Dryer	5	7.72E-07	2.76E-05	1.25E-06	9.73E-08	3.47E-06	1.58E-07	38	14	170	2,150
Colmac CTU240 Garment Finishing Tunnel	1	1.65E-06	5.88E-05	2.67E-06	2.08E-07	7.41E-06	3.36E-07	38	16	250	2,476

Emission factors from BAAQMD: Based on September 7, 2005 Memorandum from Brian Bateman (Subj: Emission Factors for Toxic Air Contamintants

2021 Daily Operation Hours = 16 5am - 9 pm

Mission Linen Supply, Newark, CA
Toxic Air Contaminant Emissions: Combustion Equipment - Maximum & Expected Equipment Operation
2021 Operation

Expected Annual Natural Gas Use and Process Rates	
Total Gas Use (therms) =	1,539,322
Total Gas Use MMBtu) =	153,932
Material Processed (clean dry lbs) =	71,375,060

Operation Schedule			
(hr/day)	(day/week)	(hr/year)	day/year
16	7	5,840	365

Equipment	No. of Equip	Maximum Heat Input per Unit (MMBtu/hr)	Fracion of Total Maximum Heat Input	Total Heat Input - Maximum Firing Rate[1]			Total Heat Input - Expected Gas Use[2]			Emission Factors[3] (lb/MMCF)			Maximum Emission Rates[4]						Expected Emission Rates[5]					
													Hourly (lb/hr)			Annual (lbs/year)			Hourly (lb/hr)			Annual (lbs/year)		
				(MMBtu/hr)	(MMBtu/year)	(therms/year)	(MMBtu/hr)	(MMBtu/year)	(therms/year)	Benzene	Formaldehyde	Toluene	Benzene	Formaldehyde	Toluene	Benzene	Formaldehyde	Toluene	Benzene	Formaldehyde	Toluene	Benzene	Formaldehyde	Toluene
Hurst Series 500 boiler with sub 9 ppm ultra low NOx burner	2	19.95	0.540	39.9	233,016	2,330,160	14.2	83,139	831,390	0.0021	0.075	0.0034	8.21E-05	2.93E-03	1.33E-04	4.80E-01	1.71E+01	7.77E-01	2.93E-05	1.05E-03	4.75E-05	1.71E-01	6.11E+00	2.77E-01
Milnor Model 6458 Gas Dryer	16	1.8	0.390	28.8	168,192	1,681,920	10.3	60,010	600,101	0.0021	0.075	0.0034	5.93E-05	2.12E-03	9.60E-05	3.46E-01	1.24E+01	5.61E-01	2.12E-05	7.56E-04	3.43E-05	1.24E-01	4.41E+00	2.00E-01
Brim 74/78G Gas Dryer	1	2.5	0.034	2.5	14,600	146,000	0.9	5,209	52,092	0.0021	0.075	0.0034	5.15E-06	1.84E-04	8.33E-06	3.01E-02	1.07E+00	4.87E-02	1.84E-06	6.56E-05	2.97E-06	1.07E-02	3.83E-01	1.74E-02
ADC/Pony Gas Dryer - 125 lb capacity	5	0.375	0.025	1.9	10,950	109,500	0.7	3,907	39,069	0.0021	0.075	0.0034	3.86E-06	1.38E-04	6.25E-06	2.25E-02	8.05E-01	3.65E-02	1.38E-06	4.92E-05	2.23E-06	8.04E-03	2.87E-01	1.30E-02
Colmax CTU240 Garment Finishing Tunnel	1	0.800	0.011	0.8	4,672	46,720	0.3	1,667	16,669	0.0021	0.075	0.0034	1.65E-05	5.88E-05	2.67E-06	9.62E-03	3.44E-01	1.56E-02	5.88E-07	2.10E-05	9.51E-07	3.43E-03	1.23E-01	5.56E-03
Total		25.425	1.00	73.9	431,430	4,314,300	26.4	153,932	1,539,322				1.52E-04	5.43E-03	2.46E-04	8.88E-01	3.17E+01	1.44E+00	5.43E-05	1.94E-03	8.79E-05	3.17E-01	1.13E+01	5.13E-01

[1] Calculated based on maximum equipment firing rates and fraction of total maximum heat input.
[2] Calculated based on projected actual facility total gas use and fraction of total maximum heat input.
[3] Emission factors from BAAQMD: Based on September 7, 2005 Memorandum from Brian Bateman (Subj: Emission Factors for Toxic Air Contaminants
[4] Maximum emission rates based on equipment maximum firing rates.
[5] Expected emission rates based on expected equipment gas use.

Natural Gas Values
Heating Value = 1,020 Btu/SCF
1 therm = 100,000 Btu

Mission Linen Supply, Newark, CA - Maximum Health Impacts from Operation
Cancer Risk, Hazard Index, and PM2.5 From Maximum Operation TAC Emissions

Modeling Information	
Model:	ISCST3
Sources	Traffic and Facility Combustion Sources
Source Type	Volume and point
Number of Sources	25 Point & 10 Line-Volume Sources
Receptor Height (m)	1.5 m
Meteorological Data	Newark - HP 1999 Data (from BAAQMD)

Cancer Risk Calculation Method

Inhalation Dose = C_{air} x DBR x A x HD x EF x ED x 10^{-6} / AT

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
HD = daily exposure (hours/day/24)
ED = Exposure duration (years)
AT = Averaging time period over which exposure is averaged.
10^{-6} = Conversion factor

Inhalation Dose Factors

Exposure Type	Value[1] DBR (L/kg BW-day)	A (-)	Exposure (hr/day)	Exposure (days/week)	Exposure (week/year)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	302	1	24	7	50	350	70	25,550

[1] Default values recommended by Bay Area Air Quality Management District

Cancer Risk (per million) = Inhalation Dose x CRAF x CPF x 10^6
= URF x Cair

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
CRAF = Cancer Risk Adjustment Factor
URF =Unit risk factor (cancer risk per million per $\mu g/m^3$)

Unit Risk Factor for 70-Year Residential Exposure

Exposure Type	CPF $(mg/kg\text{-}day)^{-1}$	CRAF (-)	URF *(cancer risk/ug/m³)*
DPM	1.10E+00	1.7	**541.5**
Benzene	1.00E-01	1.7	**49.2**
Formaldehyde	2.10E-02	1.7	**10.3**

Model Results and Maximum Cancer Risks - Residential Receptor (70-Year Exposure)

TAC	Maximum Concentrations 1-Hour ($\mu g/m3$)	Annual Ave ($\mu g/m3$)	Cancer Risk (per million)	Chronic Hazard Index	Acute Hazard Index
DPM	-	0.00091	**0.493**	**0.0002**	-
Benzene	0.00314	0.00005	**0.002**	**0.0000**	**0.0000**
Formaldehyde	0.11226	0.00188	**0.019**	**0.0002**	**0.0020**
Toluene	0.00509	0.00009	-	**0.0000**	**0.0000**
PM2.5	-	0.22	-	-	-
Total			**0.51**	**0.0004**	**0.0020**

Reference Exposure Levels (REL)

Compound	Reference Exposure Level ($\mu g/m^3$) Acute (1-hour)	Chronic (annual average)
DPM	-	5
Benzene	1,300	60
Formaldehyde	55	9
Toluene	37,000	300

Source: BAAQMDRegulation 2, Rule 5, Table 2-5-1 Toxic Air Contaminant Trigger levels

Attachment 2-Traffic Analysis (Omni Means)

Mission Linen Service
Light-Industrial Project
Traffic Impact Analysis

Prepared For:
The City of Newark

September 19, 2014
Final Report

Prepared By:

MISSION LINEN SERVICE LIGHT-INDUSTRIAL PROJECT
TRAFFIC IMPACT ANALYSIS

FINAL REPORT

PREPARED FOR:
THE CITY OF NEWARK

PREPARED BY:

OMNI-MEANS, LTD.
ENGINEERS & PLANNERS
1901 OLYMPIC BOULEVARD, SUITE 120
WALNUT CREEK, CALIFORNIA 94596
(925) 935-2230

SEPTEMBER 19, 2014

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Technical Appendices (Separate Document)

INTRODUCTION

This report presents the results of a traffic impact analysis performed by OMNI-MEANS for the proposed Mission Linen Facility project in the City of Newark. The proposed project would consist of a light-industrial building of 109,000 square feet to facilitate the processing of linens (primarily from health care facilities). The proposed project site is located immediately south of Central Avenue and west of Cherry Street on the southwest quadrant of the Cherry Street/Central Avenue intersection (see Figure 1-- Project Location and Vicinity Map). Based on discussions with City Engineering staff, the traffic issues for this development relate to operations at key intersections relating to freeway/truck route, project trip generation characteristics, as well as more localized operations regarding vehicle access to/from the site. Some of the key components of the analysis include the following:

- Weekday peak hour traffic operations at intersections in the project area along Cherry Street, Central Avenue, Mowry Avenue, and Thornton Avenue;
- *Highway Capacity Manual* (HCM) *2000* intersection Level-of-Service (LOS) methodologies;
- Proposed project trip generation relative to linen processing, employee shifts, and truck traffic;
- Cumulative Year 2035 traffic conditions;
- Consistency with recent transportation analyses conducted for the Newark General Plan Update Environmental Impact Report (EIR) and the adjacent Fremont projects in the study area.

Based on communication with City Planning staff, the following six scenarios have been analyzed as part of a comprehensive transportation and circulation analysis:

- Existing Traffic Conditions: Represents existing traffic flow conditions collected through new field counts. Points of congestion and vehicle delays are noted for both the AM and PM weekday commute peak hour;

- Existing Plus Project Conditions: Proposed project trips added to existing traffic volumes to determine project specific impacts;

- Near-Term Conditions: Represents existing traffic plus traffic from anticipated approved/pending projects over the next 2-3 year period. Approved/pending developments may not have begun construction, may be under construction but not occupied, or may be partially occupied;

- Near-Term Plus Project Conditions: Proposed project trips added to near-term traffic volumes to determine project-specific impacts;

- Cumulative Year 2035 (No Project) Conditions: Year 2035 conditions were derived by using recent transportation studies for the Newark General Plan Update Draft EIR;

- Cumulative Year 2035 Plus Project Conditions: Year 2035 conditions adjusted to include proposed project volumes.

STUDY CONDITIONS

Existing conditions describe the existing transportation and bicycle/pedestrian facilities serving the project site. For the purposes of this analysis, Interstate 880 is considered north-south facility in the project study area with local streets consistent with this orientation (i.e. Cherry Street extends in a north-south direction).

EXISTING ROADWAYS

A base map with existing study intersection locations, surrounding street network, and project site is shown in Figure 1. Streets that provide local and sub-regional access into and around the proposed project vicinity include Central Avenue, Cherry Street, Mowry Avenue, Thornton Avenue, and Cedar Boulevard. Regional access to the project site is provided by Interstate 880 and State Route 84. A brief description of each roadway follows:

Central Avenue extends in an east-west direction between Willow Street and I-880. Between Willow Street and Filbert Street, Central Avenue is a two-lane arterial street. Once east of Filbert Street, Central Avenue extends as a four-lane arterial street through I-880. Between Willow Street and Cherry Street, Central Avenue provides access mainly to commercial and light industrial areas. East of Cherry Street, the roadway provides access to both commercial and residential areas. Central Avenue would provide direct access to the proposed project site.

Cherry Street is another arterial street extending north-south between Stevenson Boulevard and Mirabeau Street. A four-lane roadway, Cherry Street has a two-way-left-turn lane between Mowry Avenue and Thornton Avenue and provides access to commercial, light-industrial, and residential areas. North of Thornton Avenue, Cherry Street narrows to two travel lanes and provides access to residential areas.

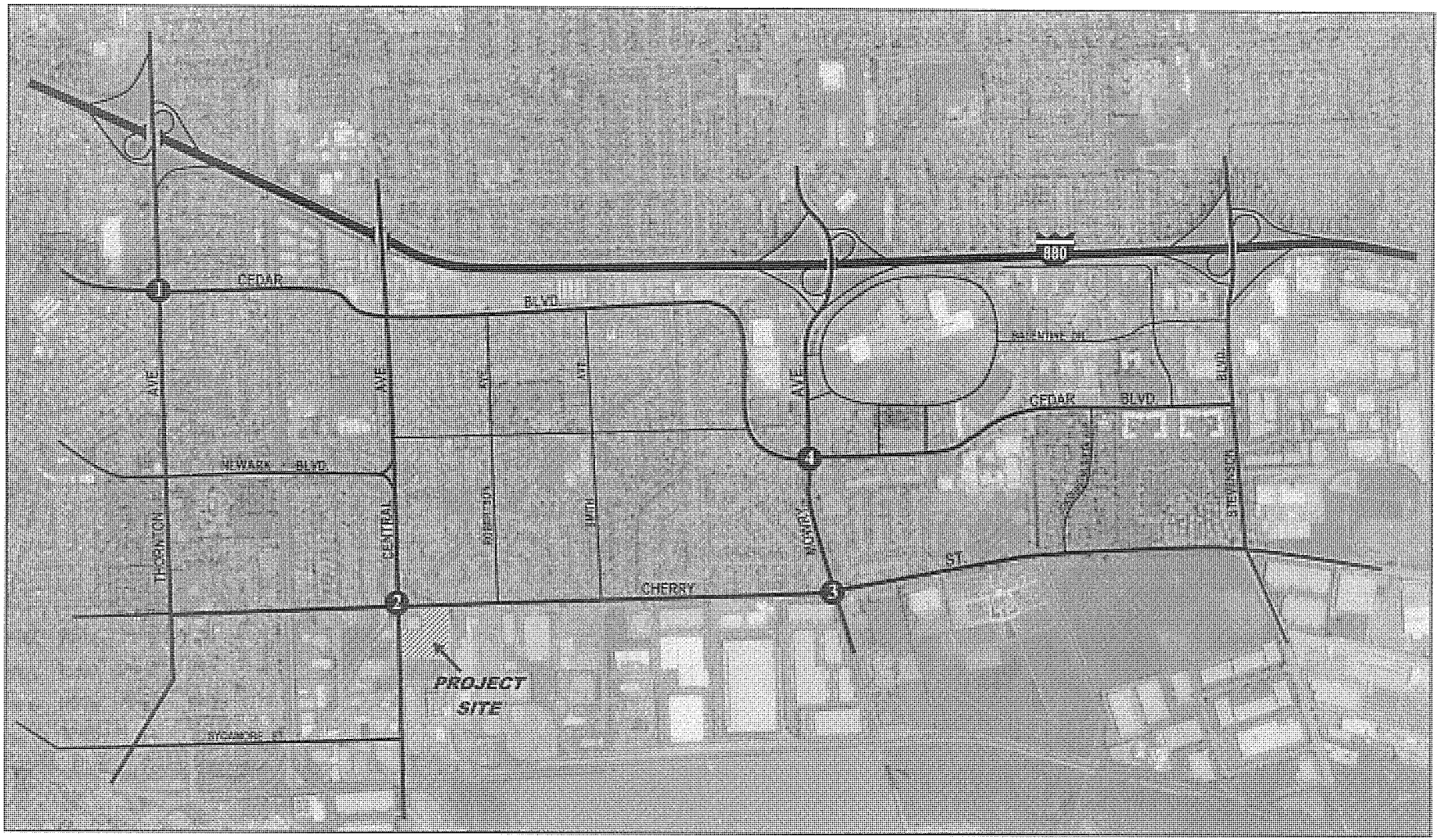
Mowry Avenue is located south of Central Avenue and extends in an east-west direction. The roadway has four travel lanes between Cherry Street and Cedar Boulevard. East of Cedar Boulevard, Mowry Avenue widens to six travel lanes as it crosses over I-880. Mowry Avenue provides access to recreational, residential, and commercial areas of the City and is a major arterial street.

Cedar Boulevard is a major north-south arterial street extending through most of Newark. Beginning at Haley Street, Cedar Boulevard extends east past Newark Boulevard before turning south past Thornton Avenue, Central Avenue, and Mowry Avenue before terminating at Stevenson Boulevard. A four-lane roadway, Cedar Boulevard serves commercial, light-industrial, and residential areas throughout Newark.

Thornton Avenue is an arterial street that aligns mostly east-west through the City of Newark between State Route 84 and Interstate 880 extending into the City of Fremont. From SR 84, Thornton Avenue extends south and east as a two or four lane arterial street to Willow Street. Between Willow Street and Sycamore Street, Thornton Avenue has two travel lanes and a two-way-left-turn-lane. East of Sycamore Street, Thornton Avenue widens to three travel lanes (1 westbound, 2 eastbound) to Cherry Street. Finally, the roadway extends east for four-travel lanes all the way through I-880 into the City of Fremont. Thornton Avenue provides access to residential, light industrial, and commercial areas in the western part of Newark. Thornton Avenue becomes Paseo Padre Parkway north of SR 84.

Regional access to the City of Newark is provided by State Route 84 and Interstate 880:

State Route 84 (SR 84) extends in an east-west direction along the northern limits of the City. A six-lane facility, SR 84 has five mixed-flow lanes and one high-occupancy vehicle (HOV) lane in the eastbound direction. Full-access interchanges are located at the Thornton Avenue/Paseo Padre Parkway and Newark



Project Vicinity Map

Reference North

omni-means

figure 1

Boulevard/Ardenwood Boulevard locations. SR 84 provides access east to Livermore (I-580) and west to San Gregorio and Highway 1. Interstate 880 (I-880) extends north-south along the eastern border of the City and is an eight-lane facility with six mixed flow lanes and one HOV lane in each direction. Full access interchanges are located at the Thornton Avenue, Mowry Avenue, and Stevenson Boulevard locations. I-880 provides primary access north to Oakland and south to San Jose.

Existing Intersections

The following list of study intersections have been reviewed by Newark Engineering staff for both existing and proposed project operating conditions. Intersection operation is usually considered a key factor in determining the traffic handling capacity of a local street circulation system. Based on discussions with City of Newark Engineering staff, four (4) key intersections (in addition to the main access driveways) were selected for evaluation of current operational characteristics on Thornton Avenue, Cedar Boulevard, Cherry Street, Central Avenue, and Mowry Boulevard as follows:[1]

1. Thornton Avenue/Cedar Boulevard — Signalized
2. Central Avenue/Cherry Street — Signalized
3. Mowry Avenue/Cherry Street — Signalized
4. Mowry Avenue/Cedar Boulevard — Signalized

Existing study intersections' AM and PM peak hour traffic volumes are shown on Figure 2.

Intersection Level-of-Service (LOS) Concept/Methodologies

A method of measuring intersection operation is to apply a Level-of-Service (LOS) scale of operational performance. At a signalized intersection, LOS is determined by calculating the volume of conflicting turning movements at the intersection during a one-hour peak period. This total is then divided by the design capacity calculated to accommodate those turning movements. This calculation yields a volume/capacity ratio (v/c) ratio and vehicle delay in seconds. The resulting output corresponds to LOS ratings between "A" to "F" that describe increasing levels of traffic demand and increases in vehicle delay and deterioration of service (please refer to LOS Definitions, show in Table 1).

As an example, LOS A represents free-flow conditions with little or no delay. LOS E represents unstable flow conditions with volumes at or near design capacity. Motorists are likely to experience major delays (40 to 60 seconds) to clear an intersection. LOS F represents "jammed" conditions where traffic flows exceed the design capacity of the intersection.

At non-signalized intersections, LOS usually refers to the minor street movement controlled by a stop-sign. While overall intersection LOS from the major street may be C or better, a minor street turning movement may be functioning at LOS D or E. For all-way-stop-control intersections, intersection LOS refers to the average delay of all approaches. However, if one of the intersections' approach legs is substantially unbalanced (volume), that specific leg may experience proportionately longer delays.

Highway Capacity Manual 2000 (*HCM 2000*) operations methodology was used to calculate signalized and non-signalized intersection LOS and delay using Synchro/SimTraffic software. These "field level" intersection LOS calculations incorporate appropriate heavy vehicle adjustment factors, peak hour factors, and shared/non-shared lane factors. A standard peak hour factor (PHF) of 0.92 is typically applied to all non-signalized analysis scenarios in this study (PHF refers to traffic approach progression through the intersection) except where previously recommended mitigation applies.

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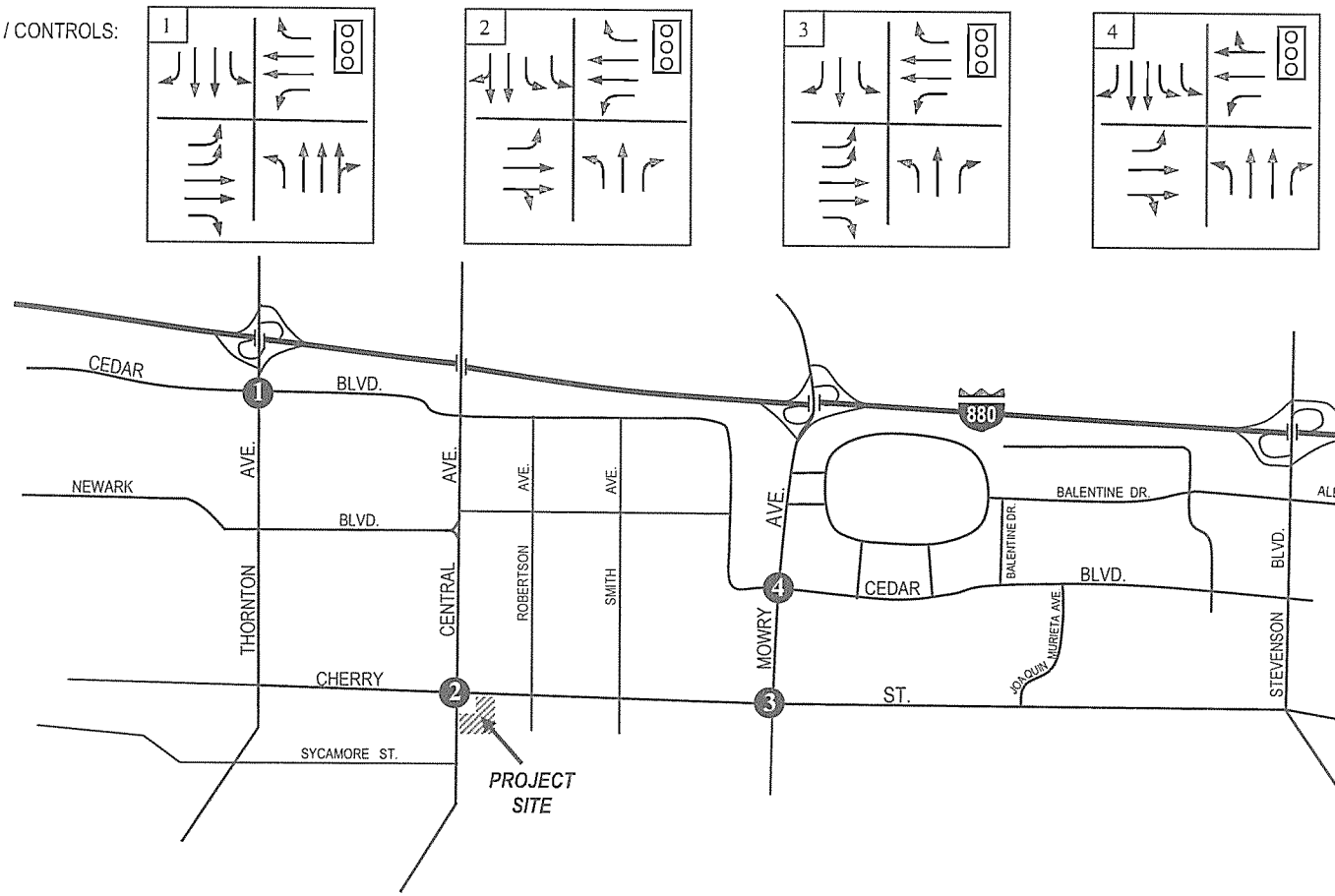
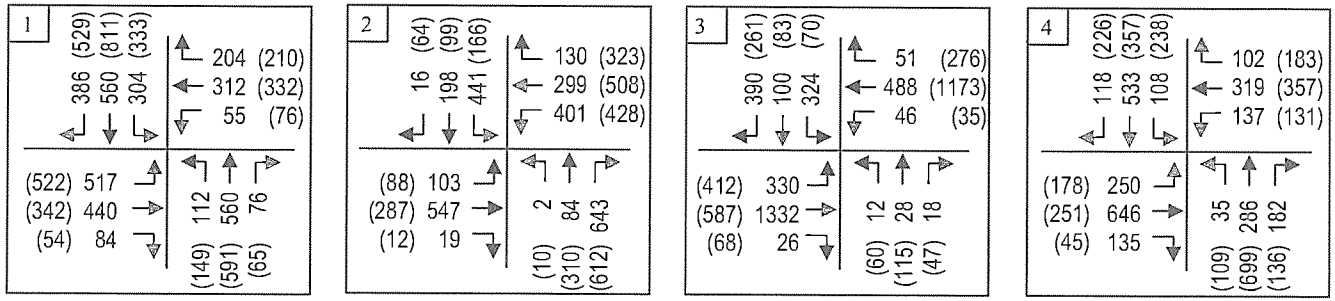
1 Soren Fajeau, City Engineer, City of Newark, Project study intersections—personal communication, December, 2013.

GEOMETRIES / CONTROLS:





Existing Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 2

TABLE 1
LEVELS-OF-SERVICE (LOS) CRITERIA FOR INTERSECTIONS

Level of Service	Type of Flow	Delay	Maneuverability	Control Delay (seconds/vehicle) Signalized	Unsignalized	All-Way Stop
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10.0 secs. ≤ 0.60 v/c	≤ 10.0	≤ 10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤ 20.0 secs. 0.61 – 0.70 v/c	>10 and ≤ 15.0	>10 and ≤ 15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and ≤ 35.0 secs. 0.71 – 0.80 v/c	>15 and ≤ 25.0	>15 and ≤ 25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles of stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤ 55.0 secs. 0.81 – 0.90 v/c	>25 and ≤ 35.0	>25 and ≤ 35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤ 80.0 secs. 0.91 – 1.00 v/c	>35 and ≤ 50.0	>35 and ≤ 50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	> 80.0 secs. > 1.00 v/c	> 50.0	> 50.0

References: 1. Highway Capacity Manual, Fourth Edition, Transportation Research Board, 2000, Contra Costa Transportation Authority (CCTA), Technical Procedures Update, Final, July 9, 2006

EXISTING INTERSECTION OPERATION

With the proposed project being light-industrial in nature, a portion of the project's trip generation would occur during the weekday AM and PM commute periods when office and/or truck employees arrive or leave work (production employees would work shifts outside of the peak commute periods). Therefore, traffic impact analyses have focused on the weekday AM and PM peak periods between 7:00-9:00 a.m. and 4:00-6:00 p.m. when both on-street traffic and vehicle trip generation from the project would combine to potentially affect traffic flow.

New AM and PM peak period intersection counts were conducted at the four project study intersections.[2] From these peak period counts, AM and PM peak hour volumes were derived and are shown in Figure 2.

PM peak hour signalized and non-signalized intersection LOS have been calculated using the *Transportation Research Board (TRB), Highway Capacity Manual 2000, Chapters 16 and 17, Signalized and Unsignalized Intersections.* Synchro-Simtraffic software has been used to model intersection operations based on "operations" methodology.

As shown in Table 2, the four project study intersections are operating at acceptable levels (LOS D or better) during the AM and PM peak hours. Periodic vehicle queuing was observed during peak commute periods at all four study intersections. Field observations indicate that peak directional traffic volumes on SR 84 and I-880 in the study area can experience congestion due to accidents, interchange operations, or just significant directional traffic flow. In addition, on-ramps at to I-880 at the Thornton Avenue, Mowry Avenue, and Stevenson Boulevard are all metered and vehicles can queue on these on-ramps. However, this vehicle queuing does not typically affect operation of the signalized off-ramp intersections. In addition, off-ramps have also been observed to experience vehicle queuing depending on commute direction. This occurs during the AM commute hour on the SR 84 eastbound off-ramp at Thornton Avenue. Other arterial corridors within the City of Newark also can experience congestion and these are as follows:

Thornton Avenue between I-880 and Cedar Boulevard; Significant traffic flows in the eastbound and westbound directions. Vehicle queues have been observed for the westbound left-turn movement from Thornton Avenue onto Cedar Boulevard and southbound left-turn movements from Cedar Boulevard onto Thornton Avenue. It is noted that the westbound left-turn storage lane from Thornton Avenue onto Cedar Boulevard was lengthened as part of the Home Depot development to the west some years ago to provide greater vehicle storage.

Thornton Avenue-Willow Street-Central Avenue-Cherry Boulevard-Automall Parkway; During periods of congestion on SR 84 and I-880, these arterials serve as an alternate commute route in order to bypass the freeway congestion and can experience increased congestion at the study intersections along this route. This also can occur along the Thornton Avenue corridor and it's intersections between SR 84 and I-880.

NEAR-TERM (APPROVED/PENDING) PROJECTS METHODOLOGY

Near-term (no project) conditions represent approved/pending projects approved by the City of Newark prior to proposed project development combined with increases in regional traffic growth. This would represent a 2– year period consistent with previous studies. The proposed project development would likely represent a 1–2 year horizon. However, near-term (no project) conditions are conservative in nature. Approved/pending projects likely to affect traffic flows in the general study areas were identified from the

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2 Baymetrics Traffic Resources, AM and PM peak period (7:00-9:00 a.m. and 4:00-6:00 p.m.) intersection turning movement counts on Thornton Avenue, Cherry Street, and Mowry Avenue, City of Newark, June 4, 2014.

TABLE 2
EXISTING CONDITIONS: WEEKDAY AM AND PM PEAK HOUR INTERSECTION LOS

#	Intersection	Control Type	AM Peak Hour Delay	AM Peak Hour LOS	PM Peak Hour Delay	PM Peak Hour LOS
1	Thornton Avenue/Cedar Boulevard	Signal	45.2	D	35.1	D
2	Central Avenue/Cherry Street	Signal	46.5	D	36.4	D
3	Mowry Avenue/Cherry Street	Signal	30.1	C	30.5	C
4	Mowry Avenue/Cedar Boulevard	Signal	25.8	C	30.9	C

Intersection LOS is expressed in seconds of vehicle delay based on HCM 2000 Operations methodology.

recent studies conducted for the City of Newark General Plan Tune Up EIR.[3]

Based on overall growth projections discussed in the EIR Transportation and Traffic section, buildout of the Plan would include an increase of 16,580 residents, 6,208 housing units, and 2,882 jobs over existing Year 2012 base levels. Using these growth estimates, the Alameda County Transportation Commission (ACTC) transportation model was updated to provide Year 2035 traffic volume forecasts.[4] Using the difference between existing Year 2012 baseline volumes and Year 2035 model volumes at each study intersection, existing volumes were increased by a two-year growth ratio based on the uniform 23-year increase in model volumes.

In addition to near-term background growth, the project parcel includes a vacant light-industrial building located on the northeast portion of the parcel. Vehicle access to this site would be gained to/from Cherry Street (only). Although not a portion of the proposed project description, the project applicant could lease this 44,452 square foot building out for other light-industrial type uses. For the purpose of this analysis, this building was assumed to be leased for near-term (no project) conditions. Based on the Institute of Transportation Engineers (ITE) trip research on light-industrial uses, the vacant building would generate the following daily and peak hour trips as shown in Table 3. As calculated, the vacant building would generate 310 daily trips with 41 AM peak hour trips and 43 PM peak hour trips.[5]

NEAR-TERM (NO PROJECT) TRAFFIC VOLUMES

AM and PM peak-hour near-term (no project) volumes have been added to existing intersection volumes based on trip assignments established in the General Plan Tune Up EIR and other light-industrial projects located in Newark and Fremont.

AM and PM peak-hour near-term (no project) traffic volumes have been shown in Figure 3 for the weekday peak hours.

NEAR-TERM (NO PROJECT) INTERSECTION/ROADWAY IMPROVEMENTS

Based on discussions with the City of Newark Engineering staff, selected improvements are being considered for the Mowry Avenue/Cherry Street intersection that could involve increased capacity and circulation for the westbound direction. No other immediate circulation improvements planned in the study area (that would be completed in a one–two year horizon period).[6]

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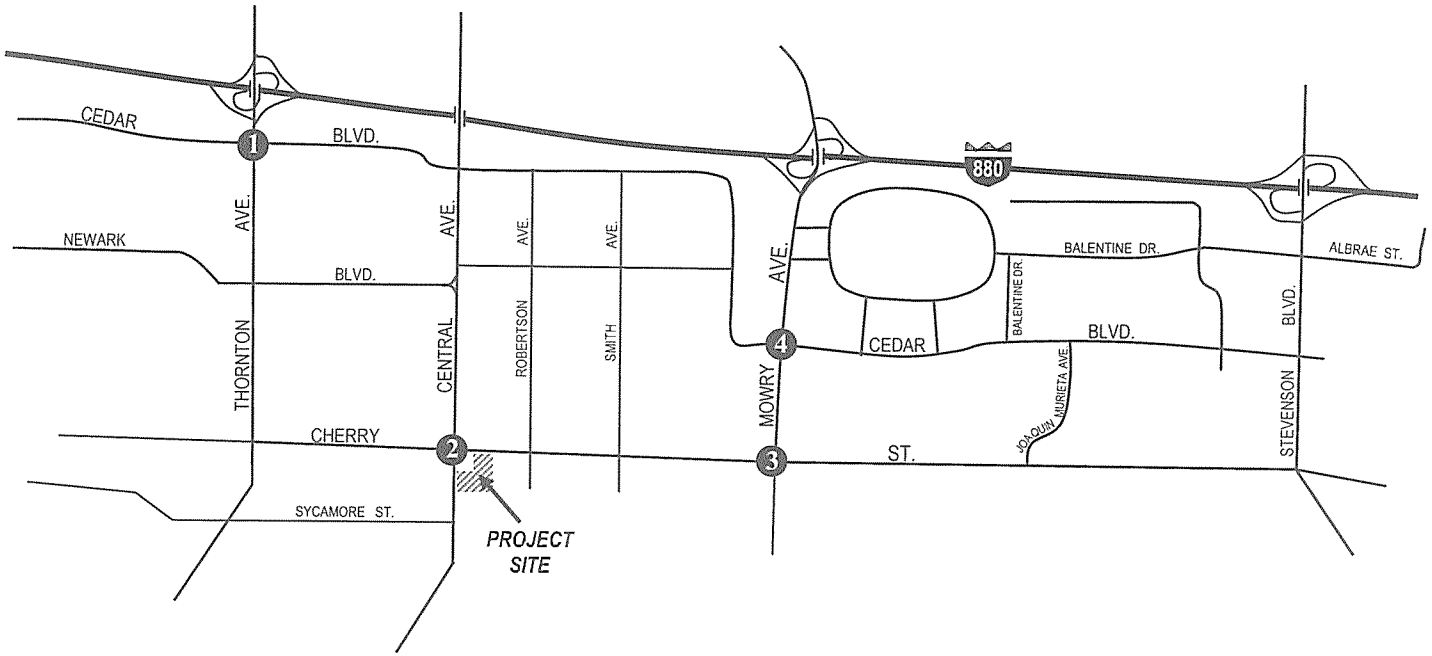
3 Planning Center / DC&E, General Plan Tune UP EIR, Chapter 4, Transportation and Traffic, City of Newark, 2013
4 The Planning Center / DC&E, General Plan Tune Up EIR, Ibid... ... .
5 Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Light-Industrial (#110), 2012.
6 Mr. Soren Fajaeu, City Engineer, City of Newark, Planned roadway improvements, Personal communication, September 11, 2014.



1

	404 (549)	204 (224)
	572 (812)	314 (336)
	351 (342)	55 (76)
(550) 535	113	(149)
(348) 446	562	(600)
(55) 85	76	(65)

2

	17 (64)	133 (333)
	199 (99)	349 (634)
	450 (168)	405 (440)
(88) 103	3	(11)
(390) 617	85	(310)
(12) 20	652	(615)

3

	417 (295)	57 (316)
	104 (85)	530 (1208)
	342 (78)	47 (35)
(435) 356	14	(61)
(662) 1366	31	(116)
(71) 27	18	(48)

4

	124 (226)	102 (183)
	570 (359)	320 (419)
	108 (238)	139 (181)
(181) 256	47	(137)
(261) 708	288	(724)
(50) 149	214	(148)

Near Term Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 3

TABLE 3
NEAR-TERM NO PROJECT TRIP GENERATION; DAILY, AM, AND PM PEAK HOUR

		Daily Trip	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
Land Use Category	Size	Rate	Total	In %	Out %	Total	In %	Out%
Light-Industrial (#110)	1,000 s.f.	6.97	0.92	80	12	0.97	12	88
	Size	Daily	AM Peak Hour Trips			PM Peak Hour Trips		
Proposed Uses	KSF	Trips	Total	In	Out	Total	In	Out
Light-Industrial	44.45 ksf	310	41	33	8	43	5	38
Net New Project Trips		**310**	**41**	**33**	**8**	**43**	**5**	**38**

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Light-Industrial (#110), Daily and peak hour generation based on average trip rates. s.f. = square feet, ksf = 1,000 square feet

NEAR-TERM (NO PROJECT) INTERSECTION OPERATION

With near-term (no project) traffic added to existing peak-hour traffic volumes, baseline intersection LOS have been calculated and are shown in Table 4. With near-term (no project) volumes, all study intersections would be operating at acceptable levels (LOS D or better) during both the AM and PM peak hours.

TABLE 4
EXISTING AND NEAR-TERM (NO PROJECT) CONDITIONS: INTERSECTION LEVELS-OF-SERVICE
WEEKDAY AM AND PM PEAK HOUR

			Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
#	Intersection	Control Type	Existing (No Project)	Near-Term (No Project)	Existing (No Project)	Near-Term (No Project)
1	Thornton Avenue/Cedar Boulevard	Signal	C 33.8	D 38.8	C 34.7	D 36.5
2	Central Avenue/Cherry Street	Signal	D 46.5	D 51.2	D 36.4	D 38.7
3	Mowry Avenue/Cherry Street	Signal	C 30.1	C 32.4	C 30.5	C 33.8
4	Mowry Avenue/Cedar Boulevard	Signal	C 25.8	C 26.3	C 30.9	C 32.7

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.

SIGNIFICANCE CRITERIA

The following standards of significance criteria have been used in this transportation analysis:

- A reduction in intersection service levels below LOS D for signalized intersections. This is based on the City of Newark standard for Level of Service included in the Transportation Element of the General Plan;

- For those intersections operating below LOS D (pre-project), an increase of 1% or more of project-related traffic to an already congested intersection would be considered a significant impact;

- Based on Alameda County Congestion Management Agency (ACCMA) guidelines, should the proposed Mission Linen Light-Industrial Facility project generate over 100 PM peak hour trips *and* represent a General Plan Amendment and/or require a Project Specific Environmental Impact Report (PSEIR), a comprehensive traffic analysis would be conducted on all MTS routes in the study area. The Congestion Management Plan (CMP) requires conducting a supplemental traffic analysis using the latest Countywide Transportation Demand Model for projection years 2015 and 2030.

PROPOSED PROJECT IMPACTS

PROJECT DESCRIPTION

The proposed project would consist of a light-industrial (LI) linen processing facility totaling 109,046 square feet. At full production, the facility could be expected to employ 286 workers made up of administrative, production, and truck/van delivery staff. The project site would be located on the southwest quadrant of the Center Street/Cherry Street intersection (see Project Site Plan – Figure 6). Proposed vehicle access to the project site would be gained from three planned full-access driveways off Central Avenue that would serve truck/van, employee parking, and fire lane access. The processing building would be oriented in a north-south direction on the site with truck access and parking on the east side of the facility and employee parking primarily located on the west side of the building.

PROJECT TRIP GENERATION

Daily and peak hour vehicle trip generation for the proposed project has been based on accepted rates found in the Institute of Transportation Engineers (ITE) trip research manual for light-industrial uses.[7] ITE has conducted extensive research on the trip generation characteristics of both light and heavy industrial uses. Consequently, established rates for proposed project uses are an industry standard used by both consultants and public agencies for measuring the impacts of light industrial uses.

Vehicle trip generation for the proposed project is broken down by daily vehicle trips and "peak hour" vehicle trips. Daily trips are the total vehicle trips generated by the project over a 24-hour period. The peak hour trips are typically generated during the highest hour of the morning (7:00-9:00 a.m.) and evening (4:00-6:00 p.m.) commute periods when weekday traffic is significant. The peak hour rates reflect the amount of traffic that would be generated by the proposed project during the "peak hour of adjacent street traffic." However, it is possible the proposed project could generate a higher amount of trips during some other period during the day. Regardless, the combination of peak hour project trips combined with the peak hour of adjacent street traffic commonly yields a "worst case" scenario for measuring project impacts and vehicle congestion. Typically, the PM peak hour period yields the greatest combination of project trip generation and vehicle congestion.

Specific to proposed project trip generation, it is likely that calculated AM and PM peak hour light-industrial project trips calculated using ITE research are conservative in nature. The project description indicates that the bulk of the employees would be made up of production staff. Production staff work would be accommodated in two work shifts starting at 5:00 a.m. and ending at 9:00 p.m. These work/shift hours would preclude production staff from commuting during the peak hours of adjacent street traffic between 7:00-9:00 a.m. and 4:00-6:00 p.m. In addition, a majority of the route drivers (56 total) would be leaving the facility prior to 7:00 a.m. on their delivery runs. Each driver would complete one delivery route per day returning to the facility prior to 5:00 p.m. Therefore, calculated peak hour trip generation would be conservative.

Daily and peak hour proposed project trip generation is shown in Table 5. Based on 286 employees (maximum), the proposed project is expected to generate 864 daily trips with 126 AM peak hour trips and 120 PM peak hour trips. It is noted these calculations based on total employment result in a more conservative trip generation calculation as compared to trip rates based on building square footage.

[7] *Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Apartments,(land use #220), 2012.*

TABLE 5
PROPOSED PROJECT TRIP GENERATION; DAILY, AM, AND PM PEAK HOUR

		Daily Trip	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
Land Use Category	**Size**	**Rate**	**Total**	**In %**	**Out %**	**Total**	**In %**	**Out%**
Light-Industrial (#110)	# employees	3.02	0.44	83	17	0.42	21	79
	Size	**Daily**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
Proposed Uses	**Employees**	**Trips**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Light-Industrial	286	864	126	106	20	120	25	95
Net New Project Trips		**864**	**126**	**106**	**20**	**120**	**25**	**95**

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Light-Industrial (#110), Daily and peak hour generation based on average trip rate using totals.

PROJECT TRIP ASSIGNMENT

Peak hour trip distribution has been based on existing peak hour traffic volumes at key intersections around the site, area demographics, previous/recent transportation studies for other light-industrial development in the surrounding area, and applicant data related to likely truck delivery areas.[8][9][10] Consideration was also given to project access driveways, access to Interstate 880 and SR084, and adjacent intersections. Based on these factors, the project's peak hour trip distribution is estimated as follows:

Macro Distribution:

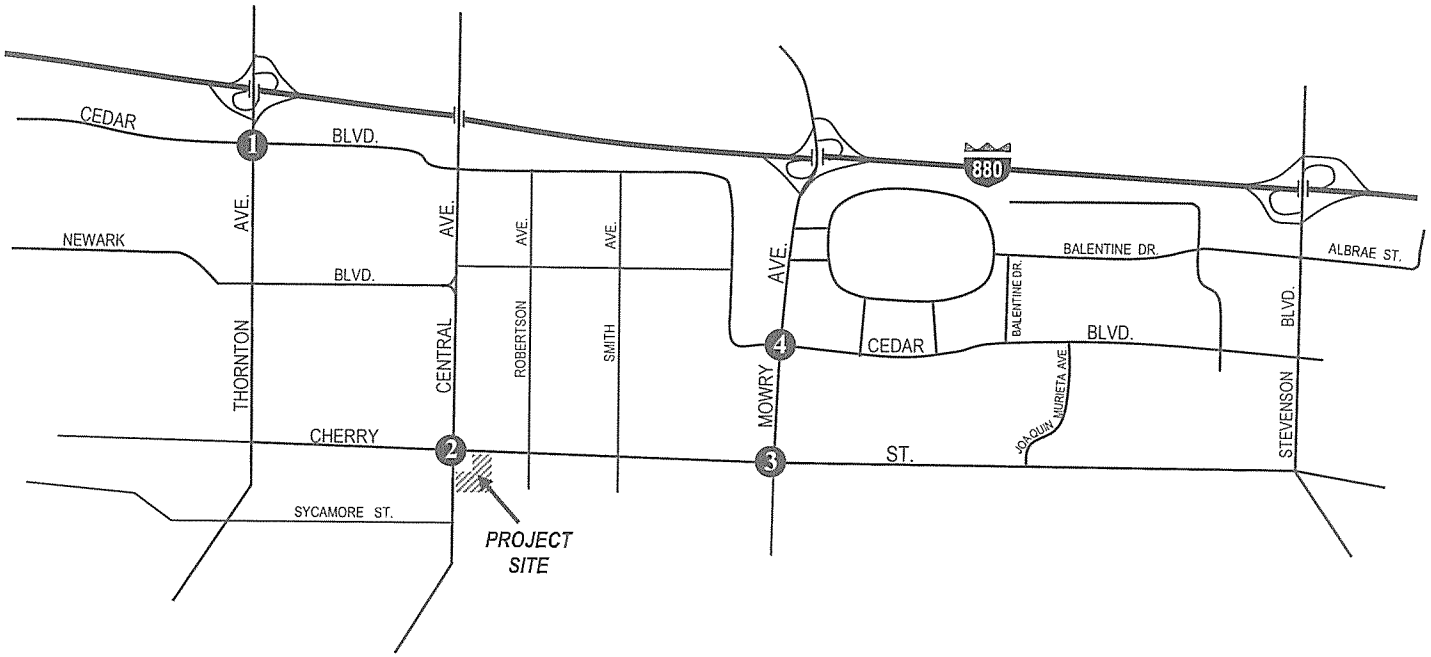
Interstate 880 to/from the north:	28%
Central Avenue to/from the east:	5%
Mowry Avenue to/from the east:	2%
Interstate 880 to/from the south:	20%
Stevenson Boulevard to/from the east:	5%
Boyce Road to/from the south:	10%
SR-84 to/from the west:	25%
Newark Boulevard to/from the north:	5%
Total:	**100%**

***Micro Distribution*:**

Cherry Street to/from the north:	19%
Cherry Street to/from the south:	37%
Central Avenue to/from the east:	19%
Central Avenue to/from the west:	25%
Total:	**100%**

AM and PM peak hour project trips have been added to existing intersection volumes and are shown in Figure 4.

8 Planning Center / DC&E, General Plan Tune UP EIR, Chapter 4, Transportation and Traffic, City of Newark, 2013
9 Fehr & Peers, Transportation Impact Analysis: Warm Springs/South Fremont Community Plan, City of Fremont, December 2013.
10 Mr. Scott Agee, Agee Engineering, Inc., Proposed Newark Mission Linen Facility, Projections for route direction based on existing routes, July, 2014.



1

	386 (529)	207 (223)
	575 (815)	312 (332)
	319 (336)	55 (76)
(522) 517	112	(149)
(342) 440	563	(604)
(54) 84	76	(65)

2

	16 (64)	130 (323)
	218 (103)	299 (508)
	441 (166)	440 (438)
(88) 103	5	(28)
(287) 547	88	(328)
(17) 39	650	(647)

3

	390 (267)	51 (276)
	413 (83)	504 (1177)
	324 (70)	46 (35)
(433) 334	12	(60)
(601) 1335	28	(115)
(68) 26	18	(47)

4

	118 (226)	102 (183)
	556 (363)	319 (357)
	108 (238)	137 (131)
(178) 250	35	(109)
(251) 646	290	(720)
(45) 135	182	(136)

Existing + Project Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 4

EXISTING PLUS PROJECT INTERSECTION OPERATIONS

With AM and PM peak hour project trips added to existing (no project) traffic volumes, study intersection LOS have been calculated and are shown in Table 6. With existing plus project volumes, all four project study intersections would be operating at acceptable levels (LOS D or better) during the AM and PM peak hours. There would be slight increases in vehicle delays at specific intersections. The intersection of Thornton Avenue/Cedar Boulevard would change from LOS C (34.7 seconds) to LOS D (35.3 seconds) with proposed project traffic. However, all intersections would continue to operate at acceptable levels.

TABLE 6
EXISTING AND EXISTING PLUS PROJECT CONDITIONS: INTERSECTION LEVELS-OF-SERVICE
WEEKDAY AM AND PM PEAK HOUR

			Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
#	Intersection	Control Type	Existing (No Project)	Existing Plus Project	Existing (No Project)	Existing Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	C 33.8	C 34.9	C 34.7	D 35.3
2	Central Avenue/Cherry Street	Signal	D 46.5	D 50.6	D 36.4	D 38.5
3	Mowry Avenue/Cherry Street	Signal	C 30.1	C 30.1	C 30.5	C 31.4
4	Mowry Avenue/Cedar Boulevard	Signal	C 25.8	C 25.9	C 30.9	C 31.2

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.

NEAR-TERM PLUS PROJECT INTERSECTION OPERATIONS

Figure 5 shows AM and PM peak hour project trips added to near-term (no project) traffic volumes. Table 7 shows near-term plus project study intersection LOS. With near-term plus project volumes, the four project study intersections would be operating at acceptable levels (LOS D or better) during the AM and PM peak hours. As with existing plus project conditions, there would be slight increases in vehicle delays at selected intersections. However, the addition of proposed project trips would not be considered significant in nature.

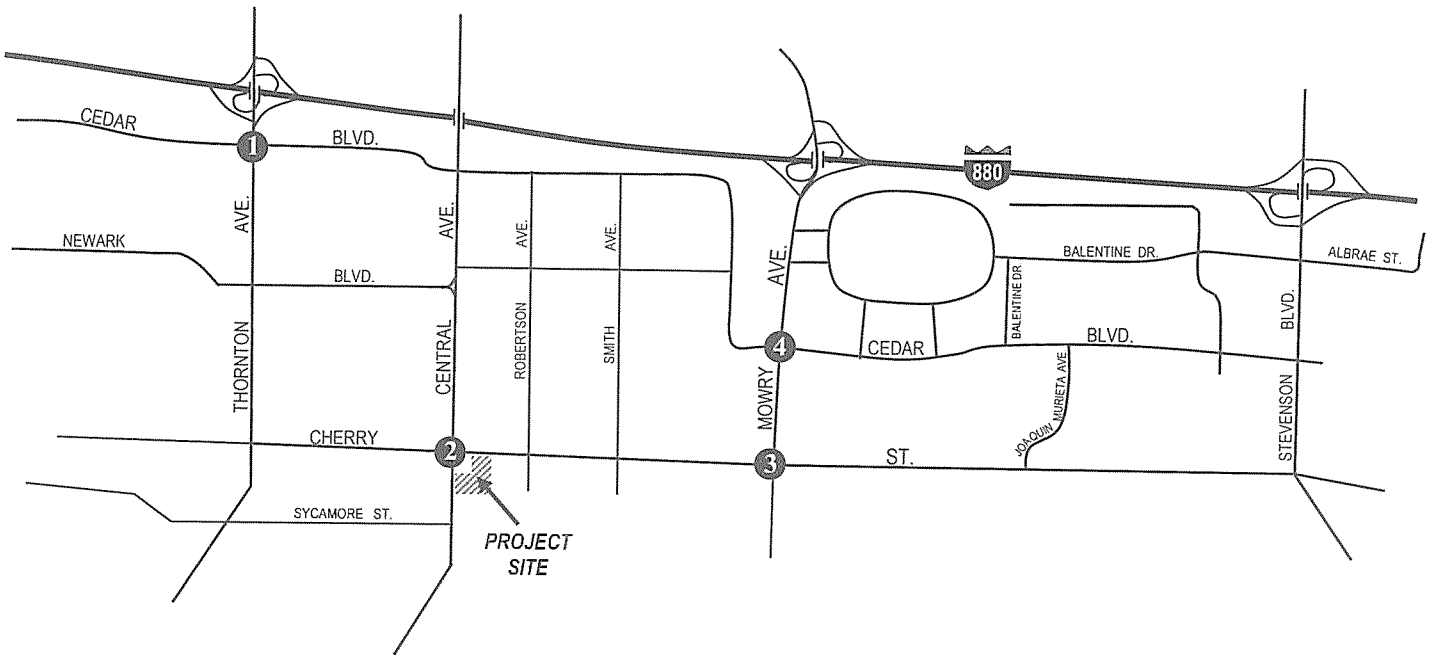
TABLE 7
NEAR-TERM AND NEAR-TERM PLUS PROJECT CONDITIONS: INTERSECTION LEVELS-OF-SERVICE
WEEKDAY AM AND PM PEAK HOUR

			Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
#	Intersection	Control Type	Near-Term (No Project)	Near-Term Plus Project	Near-Term (No Project)	Near-Term Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	D 38.8	D 40.5	D 36.5	D 36.6
2	Central Avenue/Cherry Street	Signal	D 51.2	D 53.4	D 38.7	D 40.2
3	Mowry Avenue/Cherry Street	Signal	C 32.4	C 32.9	C 33.8	C 34.7
4	Mowry Avenue/Cedar Boulevard	Signal	C 26.3	C 26.6	C 32.7	C 33.5

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.

PROJECT ACCESS/CIRCULATION

All vehicle and truck/van access to the project site would be gained from Central Avenue. As planned, the proposed project site would be served by three full-access driveways to serve both vehicular and truck/van traffic (see Project Site Plan—Figure 6). The eastern-most project driveway would be located approximately 330 feet south of Cherry Street. With a 40-foot width, this driveway would be designated for all truck/van access and could also be used by vehicle traffic. The mid-site driveway would be located



1
404 (549)
587 (816)
366 (345)
207 (237)
314 (336)
55 (76)
(550) 535
(348) 446
(55) 85
113 (149)
565 (613)
76 (65)

2
17 (64)
219 (103)
450 (168)
133 (333)
349 (634)
444 (450)
(88) 103
(390) 617
(17) 40
6 (29)
89 (328)
659 (650)

3
440 (301)
104 (85)
342 (78)
57 (316)
546 (1212)
47 (35)
(456) 360
(676) 1369
(71) 27
14 (61)
31 (116)
18 (48)

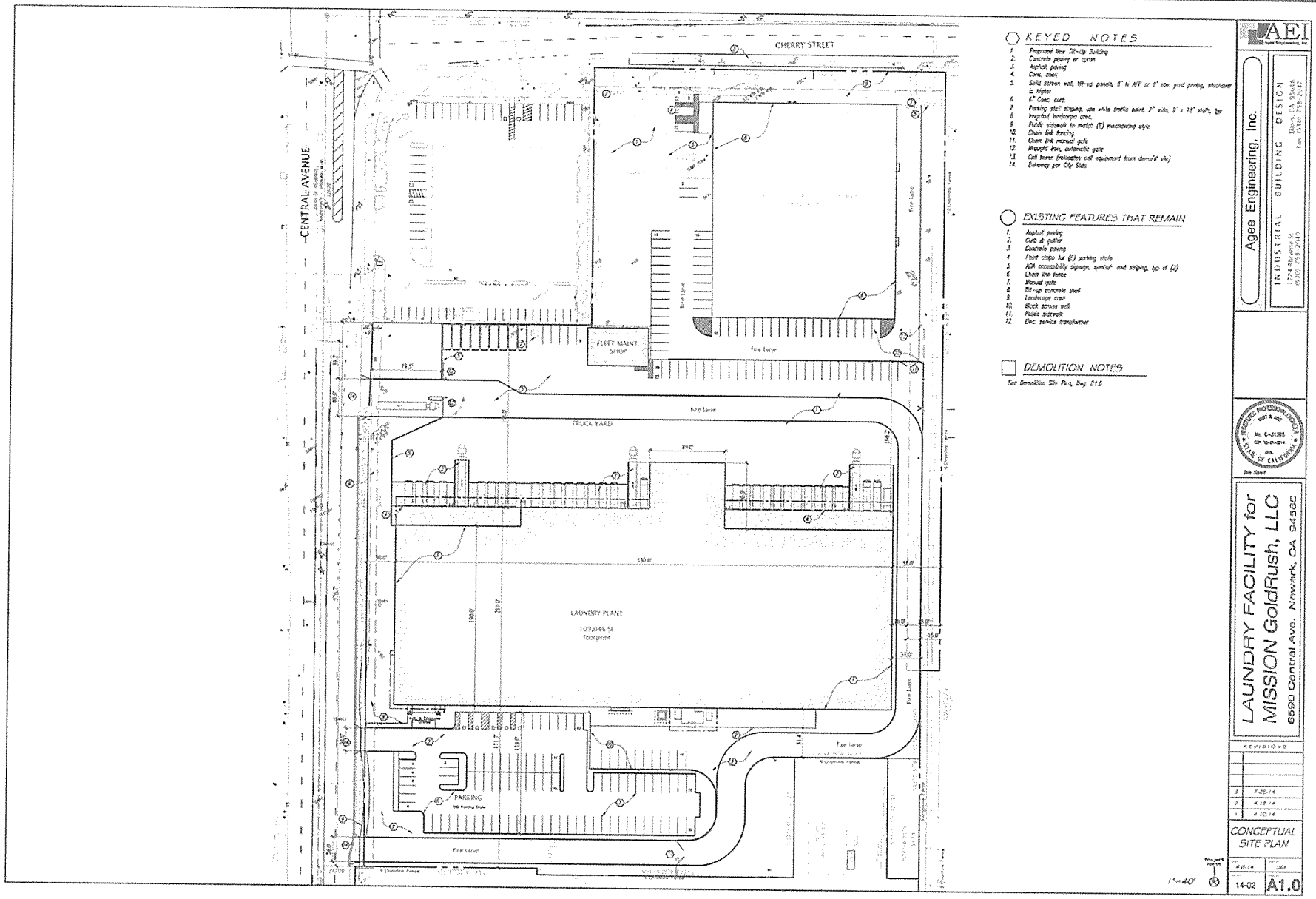
4
124 (226)
593 (365)
108 (238)
102 (183)
320 (419)
139 (181)
(181) 256
(261) 708
(50) 149
47 (137)
292 (745)
214 (148)

Near Term + Project Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 5



Project Site Plan

Reference North

omni-means

figure 6

approximately 685 south of Cherry Street and would serve the primary employee parking areas. Delivery trucks and vans associated with the facility would not use this driveway to access the site. Finally, the western-most driveway would be located approximately 800 feet south of Cherry Street. This driveway would provide access to a wide fire lane (26-feet) that would extend around the entire building on its south side linking the western portion of the site with truck/van loading and parking areas on the east side of the site.

All three driveways would be served by an existing two-way-left-turn-lane (TWLTL) on Central Avenue. Originating 285 feet west of Cherry Street (after an existing raised landscaped median), the TWLTL extends for the entire 560-foot length of the project frontage and continues west well beyond the project boundary (+1,000 ft.).

It is noted that the eastern-most project driveway that would serve proposed delivery truck/van access would have 39 feet of storage capacity for the westbound left-turn movement from Central Avenue into the project site. This is due to the existing raised landscaped median on Central Avenue that extends west from Cherry Street. Due to the location of the eastern project driveway and raised median on Central Avenue, there is only 39 feet of storage in the existing TWLTL for westbound project traffic wishing to access the site. The existing westbound storage capacity on Central Avenue of 39 feet would not be adequate for large trucks (CA-45 or CA-65).

> **TRA-1 Impact**: The existing storage capacity on Central Avenue for westbound access into the eastern-most project driveway would not be adequate for large trucks. Projected storage capacity for the westbound left-turn movement at this project driveway would be 39 feet. However, large trucks would require 45-65+ of storage capacity and this would be considered a *significant impact.*
>
> **TRA-1 Mitigation**: It is recommended that all inbound large trucks be required to access the project to/from the west on Central Avenue and/or restrict inbound left-turn access for large trucks to the western-most driveway. This would allow large trucks to travel eastbound on Central Avenue into the project site and avoid potential storage capacity conflicts at the eastern-most project driveway. The other large truck access option would be to travel westbound on Central Avenue to the very western-most driveway to make inbound left-turn movements with adequate storage capacity (*less-than-significant*).

Proposed project driveway operation has been evaluated for existing plus project conditions for both the AM and PM peak hour (see LOS calculation sheets---Appendices). All project driveways on Central Avenue would operate at acceptable conditions (LOS C or better) during the peak hours with proposed project traffic. The middle (mid-block) driveway providing access to the main employee parking areas would experience the highest driveway volumes and would be operating at LOS C (15.3 seconds of delay) during the PM peak hour. The existing two-way-left-turn-lane on Central Avenue would allow employee traffic to decelerate and/or merge into through volumes on Central Avenue without disrupting north-south through-traffic on Central Avenue.

INTERNAL CIRCULATION

From the project's eastern-most access driveway off Central Avenue, delivery trucks/vans would turn south into the driveway. All truck/van loading docks and would be located against the eastern side of building facility. Additional truck/van parking areas would be located along the northeast portion of the site where the fleet maintenance shop building is located. South of the fleet maintenance shop building, additional perpendicular parking stalls would located along the project's eastern frontage and these would could accommodate vehicular parking. Truck and van turning radii would be adequate between the facility building's loading docks and eastern frontage areas (to be determined by project applicant's civil engineers).

Vehicle access to the project's mid-block driveway would be adequate with at least 300 feet of storage capacity within the existing TWLTL for westbound left-turn movements. This driveway would primarily serve the project employees main parking field. Employees and/or visitors would enter the parking field area and circulate through the parking areas in either a clockwise or counter-clockwise direction to access perpendicular (90 degree) parking spaces. An enclosed internal loop with 24-foot drive aisles, all vehicles would be required to access outbound the same mid-block driveway after leaving the parking areas. To promote vehicle circulation within the parking areas, the short east-west parking aisle adjacent to Central Avenue should be stop-sign controlled (less-than-significant).

The western-most driveway would serve vehicular and/or truck traffic and provide access to the fire lane that would extend around the entire facility in addition to providing access to a limited parking area (west side). Vehicle storage on Central Avenue for westbound left-turn movements would be adequate (120 feet) given the relatively low volume traffic to/from this driveway. No vehicle or truck parking would be allowed along this internal fire lane.

TRUCK TRAFFIC

The vast majority of truck traffic to/from the project site would be made up of large delivery vans (41 vans; 18-feet in length). At full production, the project applicant estimates there would be 56 delivery vans. The remaining delivery trucks would be made up of 40-foot bobtail box trucks. The facility would have one large truck (semi-tractor/trailer 65-feet length). With respect to delivery vans, these vans would have one route per day and generate two daily trips (1 inbound, 1 outbound). Delivery vans would leave the facility within the first two hours of the morning shift and would return from their routes over the afternoon period (typically before 5:00 p.m.). The large semi-tractor/trailer truck would generate two daily trips. However, this large truck would generally operate outside the peak commute periods arriving at the facility around 9:30 p.m. and leaving the facility at 12:00 midnight.

PARKING

The proposed project's employee parking supply would be provided by surface parking areas located on both the east and west sides of the main processing building. Excluding parking bays/stalls reserved for truck activity (trucks would be self-parked), employee parking on the east side would be made up of 29 perpendicular parking spaces located against the northeast perimeter of the site. On the west side of the facility building, 98 parking spaces would be available for employee parking. From these 98 spaces, 87 parking spaces would be accessed by the mid project driveway to the main parking field areas. The remaining 11 parking spaces would be located on the southwest side of the building and accessed by the fire lane driveway. There would be 127 total employee parking spaces (perpendicular) on the east and west sides of the facility.

Based on the City of Newark's municipal code parking requirements, warehousing, manufacturing, and industrial uses require one (1) parking space for each of the first 50 employees, plus one (1) parking space for each additional one and one-half employees up to 100 employees, plus one (1) parking space for each additional two employees in excess of 100, provided that the number of spaces shall not be less than one for each one thousand square feet of gross floor area.[11] The City's parking codes for light-industrial uses clearly assume some portion of ridesharing between employees. After companies exceed 50 employees, the parking code rate eases to allow one parking space per 1.5 employees. Once companies exceed 100 employees, the parking code allows one parking space per 2.0 employees. This code reflects the trend of large warehouse and/or industrial buildings using fewer employees as efficiency increases.

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11 City of Newark, Code of Ordinances, Supplemental History Table, Title 17, Zoning, Chapter 17.60.090—Off-Street Parking and Loading, Article II, Off-Street Parking, Specific requirements, Warehouse, manufacturing, industrial uses , 2014.

Using the total employment count of 286, overall employment categories could be summarized as follows:

◦	Office Employees:	23
◦	Route Employees:	40
◦	Production Employees:	223 (Over two shifts—112 each)
	Total Employees:	**286**

Based on discussions with the project applicant, the production employees would be divided into two (2) working shifts. To avoid parking demand overlap, these shifts would be staggered during the mid-day. The first production shift would begin at 5:00 a.m. and end at 1:30 p.m. The second production shift would begin at 2:30 p.m. extending to close. Therefore, the maximum employees on-site at any one time would equal 175 (23 + 40 + 112). Using these City code requirements, the proposed project's parking requirements have been calculated as follows:

Parking Demand Calculations	
50 employees x 1 space/employee	**= 50 spaces**
50 employees / 1.5 employees x 1 space/employee	= 33 spaces
75 employees / 2 employees x 1 space/employee	= 38 spaces
Total Required Parking:	**= 121 spaces**

Based on an overall supply of 127 employee parking spaces, there would be a surplus of six (6) parking spaces based on City code requirements.

CUMULATIVE (YEAR 2035) TRAFFIC CONDITIONS

METHODOLOGY

Cumulative Year 2035 (no project) traffic conditions have been evaluated based on the following source:[12]

- Year 2035 AM and PM peak hour study intersection volumes supplied by recent City of Newark General Plan Tune Up EIR.

Cumulative year 2035 (no project) volumes for the study area were taken directly from the transportation and traffic section performed for the City of Newark General Plan Tune Up EIR.[13] As noted in the near-term (no project) section, future volume projections were based on City of Newark buildout projections associated with residents, housing units, and jobs. The Alameda County Transportation Commission (ACTC) transportation model was then updated to reflect these buildout projections for the City of Newark for the 2035 horizon year.

Since cumulative year 2035 (no project) volumes contain land uses on the project site consistent with current zoning (general light-industrial), proposed project trips would likely be consistent with maximum development potential of the site and assumed in the City's General Plan buildout projections. Therefore, proposed project trips were subtracted from Year 2035 volume projections to produce cumulative year 2035 (no project) volumes.

AM and PM peak hour cumulative year 2035 (no project) intersection volumes are shown in Figure 7.

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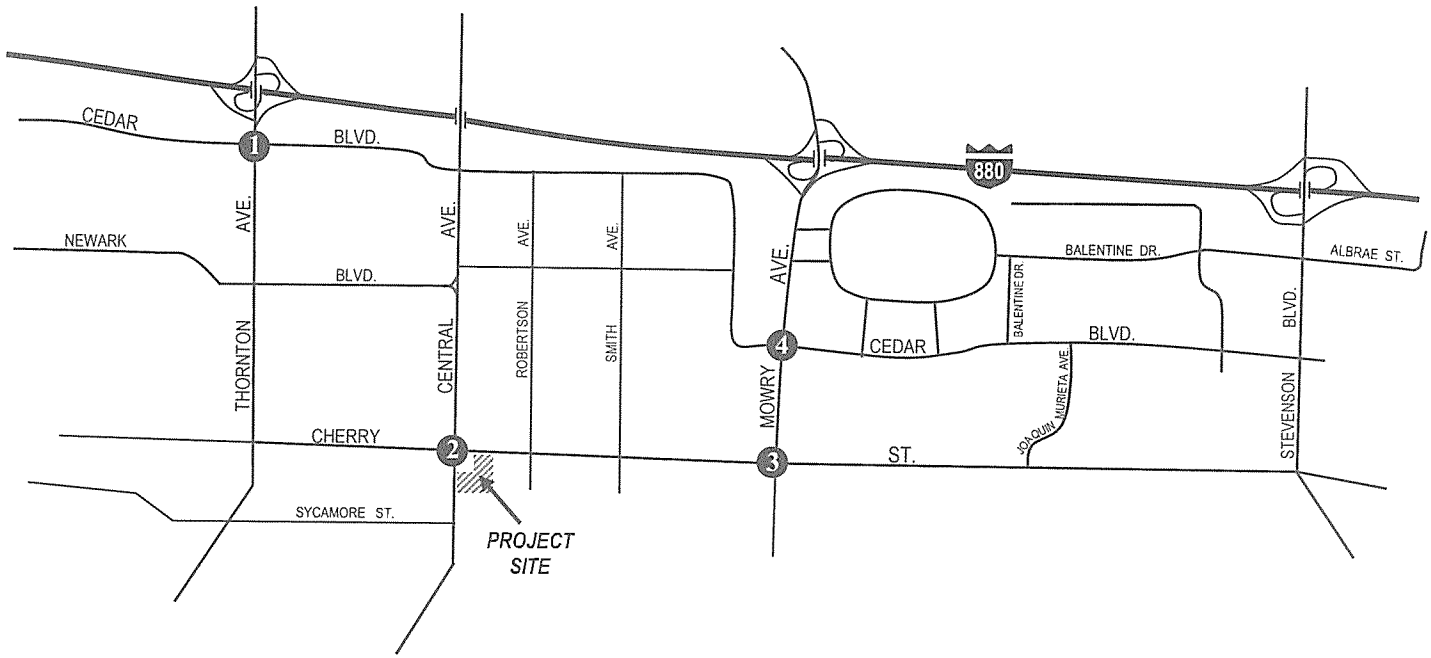
12 Planning Center / DC&E, General Plan Tune UP EIR, Chapter 4, Transportation and Traffic, City of Newark, 2013
13 Planning Center / DC&E, General Plan Tune UP EIR, Chapter 4, Transportation and Traffic, City of Newark, 2013



1									
							193	(549)	
		690	(712)				319	(423)	
		522	(910)				62	(27)	
		739	(528)						
(786)	618				73				(183)
(495)	300				710				(754)
(60)	7				76				(84)

2									
							142	(543)	
		53	(290)				885	(1628)	
		179	(515)				471	(41)	
		260	(367)						
(196)	110				0				(48)
(1257)	1151				115				(341)
(55)	14				521				(8)

3									
							112	(610)	
		547	(693)				951	(1190)	
		145	(157)				35	(41)	
		569	(166)						
(505)	609				52				(89)
(1406)	1919				47				(187)
(98)	31				8				(69)

4									
							73	(151)	
		115	(206)				86	(1041)	
		817	(286)				74	(761)	
		106	(211)						
(227)	283				19				(415)
(366)	1064				388				(767)
(64)	366				416				(265)

Cumulative Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 7

CUMULATIVE YEAR 2035 (NO PROJECT) CIRCULATION IMPROVEMENTS

The transportation analysis conducted for the City of Newark General Plan Tune Up EIR assumed the transportation network for Year 2035 would be same as described under Existing Conditions. Specific signal timing improvements were assumed at project study intersections related to peak hour factors and right-turn overlap phasing in the GP Tune Up EIR.

CUMULATIVE YEAR 2035 (NO PROJECT) CONDITIONS

With Year 2035 cumulative (no project) traffic volumes, the four project study intersections would be operating at LOS D during either the AM or PM peak hour as shown in Table 8. However, all intersections would be experiencing high LOS D operations with increased vehicle traffic on main arterial routes of Thornton Avenue, Cherry Street, and Mowry Avenue as a result of buildout of the City's General Plan.

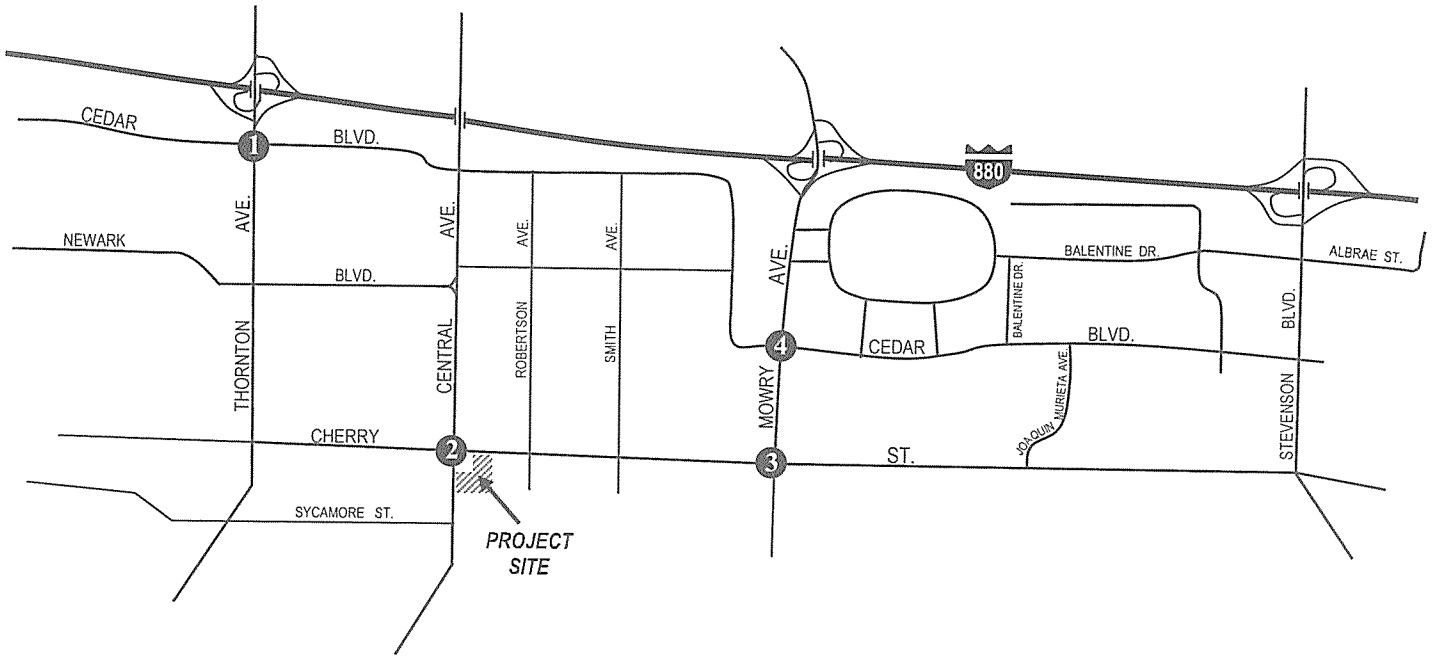
TABLE 8
CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS: INTERSECTION LEVELS-OF-SERVICE WEEKDAY AM AND PM PEAK HOUR

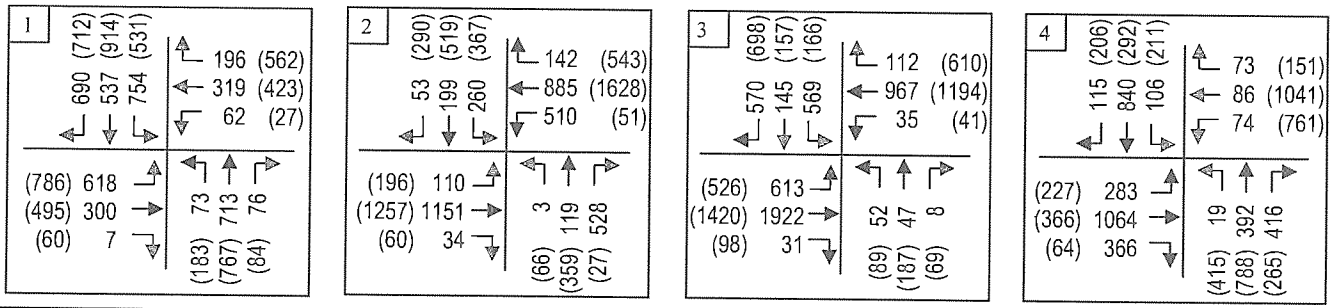
			Wkdy. AM LOS/Delay		Wkdy. PM LOS/Delay	
#	Intersection	Control Type	Cumulative (No Project)	Cumulative Plus Project	Cumulative (No Project)	Cumulative Plus Project
1	Thornton Avenue/Cedar Boulevard	Signal	D 53.6	D 54.5	D 47.9	D 48.6
2	Central Avenue/Cherry Street	Signal	D 45.8	D 49.3	D 45.3	D 47.8
3	Mowry Avenue/Cherry Street	Signal	D 40.3	D 41.4	D 46.3	D 48.2
4	Mowry Avenue/Cedar Boulevard	Signal	C 34.7	C 34.7	D 54.1	D 54.3

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for signalized intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds.

CUMULATIVE YEAR 2035 PLUS PROJECT CONDITIONS

Figure 8 shows proposed project trips added to cumulative year 2035 (no project) volumes. With proposed project volumes, cumulative year 2035 intersection LOS would remain at LOS D at the adjacent project study intersections along Thornton Avenue, Cherry Street, and Mowry Avenue . As shown in Table 8, all project study intersections would continue to operate at LOS D or better during the AM and PM peak hours with slight increases in vehicle delays due to proposed project traffic.





Cumulative + Project Weekday A.M. and (P.M.) Peak Hour Volumes

Reference North

omni-means

figure 8