City of Guadalupe

Apio Cooler Expansion Project

Draft

Initial Study/ Mitigated Negative Declaration

rincon

May 2015

Environmental Scientists Planners Engineers

Apio Cooler Expansion Project

Draft
Initial Study/Mitigated Negative Declaration

Prepared for:

City of Guadalupe
918 Obispo Street
Guadalupe, CA 93434

Prepared by:

Rincon Consultants, Inc.
180 Ashwood Ave.
Ventura, California 93003

May 2015

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INITIAL STUDY

1. Project Title:

Apio Cooler Expansion Project

2. Lead Agency Name and Address:

City of Guadalupe
918 Obispo Street
Guadalupe, CA 93434

3. Contact Person and Phone Number:

Jasch Janowicz
City of Guadalupe Contract Planner
180 North Ashwood Avenue
Ventura, CA 93003

4. Project Location:

4595 West Main Street
Guadalupe, California 93454
(APN 115-210-026)

5. Project Sponsor's Name and Address

Apio Inc., c/o Ron Midyett
4575 West Main Street
Guadalupe, California 93454
(805) 343-2834

6. General Plan Designation:

General Industrial (G-I)

7. Zoning:

General Industrial (G-I)

8. Description of Project:

The proposed project is a request by Urban Planning Concepts, Inc., on behalf of the applicant, Apio Inc., for a Design Review Permit and Zoning Clearance (Case No. 2013-015-DR) to allow conversion of an existing 24,000 sq. ft. area, currently dedicated to storage, into a produce processing area. The proposed produce processing area would be located entirely within the existing 194,333 sq. ft. manufacturing facility, located across four parcels totaling 17.2-acres, at 4595 Main Street (APNs 115-210-015, 115-210-026, 115-

180-028, 115-180-027). In addition to these four parcels, Apio also leases property on the 3.41-acre parcel to the northeast, APN 115-180-025.

The proposed facility expansion would convert approximately 24,000 sq. ft. of existing warehouse storage space into a processing area primarily to serve new kale production lines. The new processing lines would enable a more linear and efficient manufacturing process. The proposed project would convert approximately 12% of the existing total facility square footage from storage to production. No new structural development is proposed.

Traffic: The proposed project would not result in an increase of vehicular traffic or circulation patterns over that which was assessed in the original approved CUP. The estimates provided in the CUP analysis conservatively anticipated the projected growth for Apio. Total truck traffic volumes would be 344 Average Daily Trips (ADTs) spread over two shifts (12 hours). No increase in truck traffic is proposed as no substantial increase in the intensity of use is anticipated.

Parking: The project site currently maintains 410 spaces on site. Apio maintains a lease on an adjacent parcel to accommodate overflow parking with 137 additional spaces for a total amount of employee parking at 547 spaces. The facility also provides for nine handicapped parking spaces in accordance with state regulations. The largest shift currently consists of 440 employees and the second shift 340 employees. No increase in staffing would occur as a result of this proposed project.

Access: The facility currently takes access from an existing 36 foot wide driveway off of Highway 166. Additional access is provided by a 36 foot wide driveway located on Fourth Street and Obispo Street. No changes are proposed in the circulation pattern. All shipping and receiving truck traffic would continue to utilize the access driveway located on Highway 166. All shipping and receiving field truck traffic would continue to enter the site via the existing access drive on Highway 166 and would leave the facility using Obispo Street via Fourth Street.

Grading/Drainage: The proposed project would occur within existing improved warehouse storage space. No increase in impervious surface is proposed.

Water Service:

The existing facility utilized up to 350 AFY of water. Currently, the facility uses up to 445 AFY. The applicant has cooperated with the City to develop projected water demand volumes consistent with the City's Water Master Plan and projected wastewater discharges consistent with the City's Wastewater Master Plan currently being developed. As a result, the applicant is currently implementing process improvements that would reduce existing water usage to approximately 409 AFY.

The proposed project would temporarily use up to 409 AFY of water only during the period of time preceding buildout of the DJ Farms project. Once DJ Farms (Pasadera) submits building permit applications for the construction of residential dwellings within Phase 2 (south of Santa Maria Valley Railroad) and upon receiving notice from the City

that water usage must be curtailed to not exceed 372 AFY, Apio shall implement the necessary decommissioning activities to achieve compliance with this water use limit.

Wastewater Service:

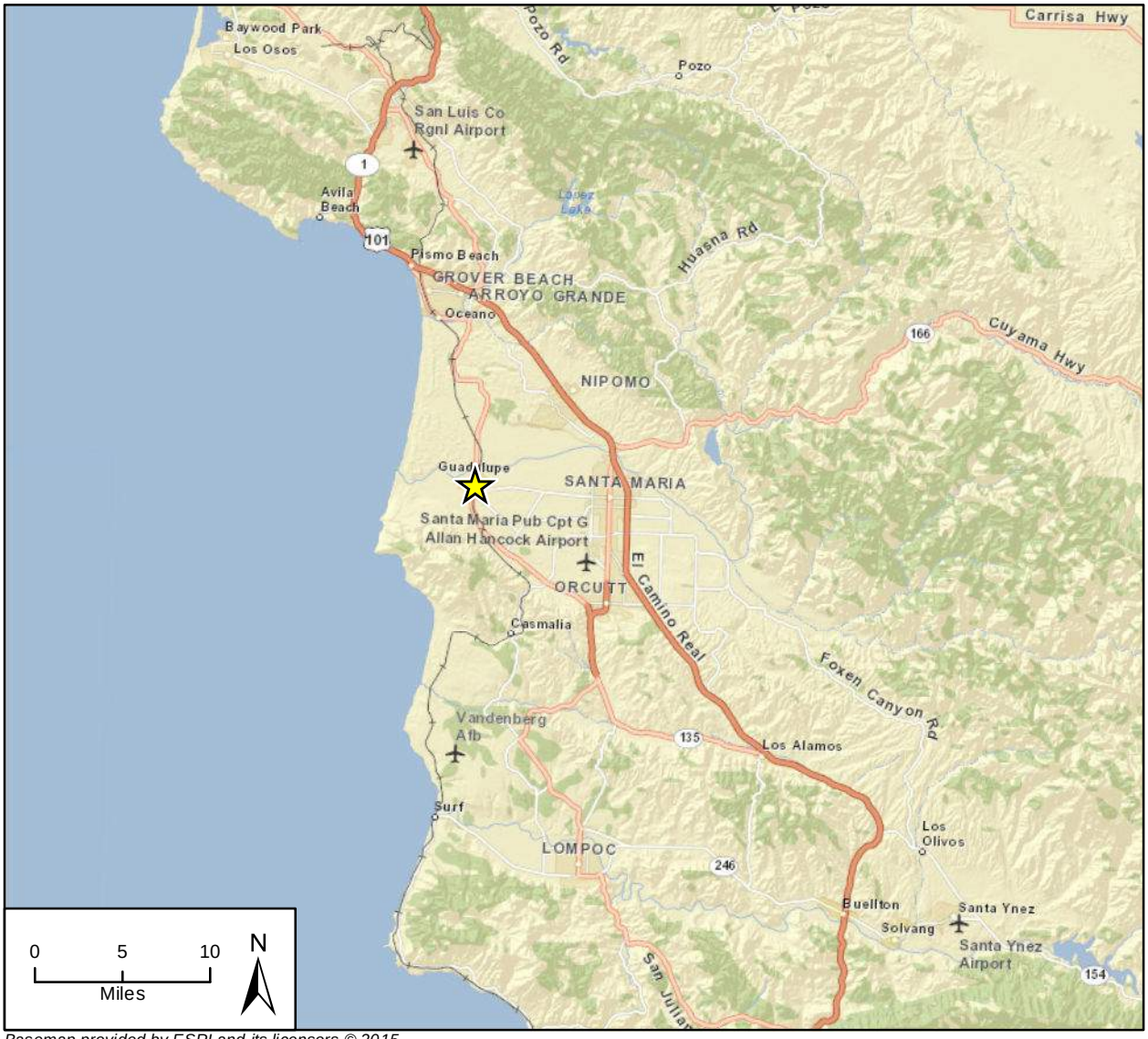
Wastewater generation within the Apio facility generally equals 85 % of water demand due to the loss of approximately 15% of supplied water to either evaporation in cooling towers or it is shipped out with fresh vegetables in the form of ice. Sanitary sewer service is currently provided through the City's sanitary sewer infrastructure, which is currently at or above capacity without Apio's proposed increase in wastewater discharge volumes. In order to accommodate the projected increase in wastewater discharge volumes associated with the facility expansion, Apio would be required to participate in the wastewater rate payer increases currently being planned by the City of Guadalupe.

9. Surrounding Land Uses and Setting:

The property is located at the heart of the industrial core of the City, with light industrial to the west, general industrial to the north, residences to the east, and future residences—DJ Farms (currently agriculture) to the south. Figure 1 shows the location of the project site within the County of Santa Barbara. Figure 2 shows the location of the project within the City of Guadalupe.

10. Other Public Agencies Whose Approval is Required:

The proposed project does not require any additional approvals from other public agencies.



Basemap provided by ESRI and its licensors © 2015.

Project Location

Regional Location

Figure 1

Basemap provided by Google and its licensors © 2015.

Project Location

Figure 2

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	■ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

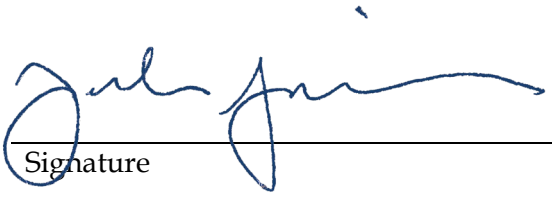
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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



Signature

May 20, 2015

Date

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. AESTHETICS				
-- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	■
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	■

a-d) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. The project would be wholly contained within the existing industrial development. Therefore, the project would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources, substantially degrade the existing visual character or quality of the site and its surroundings, create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. **No impact would result.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES				
-- Would the project:				
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	■

a-e) The facility is an ancillary use to agriculture in the larger Guadalupe area. The project itself would consist of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. Additionally, the California Department of Conservation Farmland Mapping and Monitoring Program has designated the project site as "Urban and Built Up land." Because there is no existing farmland, timberland, or related zoning on the project site, the proposed project would not result in any impacts to farmland or timberland. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY				
-- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY				
-- Would the project:				
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)?	☐	☐	☐	■
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	■
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	■

a - e) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. The project would be wholly contained within the existing industrial development. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan, violate any air quality standard or contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant, expose sensitive receptors to substantial pollutant concentrations, create objectionable odors affecting a substantial number of people. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES				
-- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES				
-- Would the project:				
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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
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?	☐	☐	☐	■
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

a-f) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. The project would be wholly contained within the existing industrial development. Therefore, the project would not significantly impact any sensitive natural community or wildlife corridors, riparian habitats, or wetland and is not subject to an adopted habitat conservation plan or local ordinance pertaining to biological resource protection. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES				
-- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	■
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	■
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	■
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	■

a) The National Register of Historic Places does not list any properties within the City of Guadalupe (National Park Service, 2014). Additionally, neither the industrial building nor subject property are eligible for listing on the NRHP. Moreover, the property is not eligible for the California Register of Historical Resources or for County of Santa Barbara landmark designation and therefore, would not be regarded as a historic resource. **No impacts would occur.**

b-d) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. The project would be wholly contained within the existing industrial development. Therefore, the project would not have any potential to impact any archeological or paleontological resources, unique geologic feature, or pose a disturbance to areas with human remains, including those interred outside of formal cemeteries. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. 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	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. GEOLOGY AND SOILS				
-- Would the project:				
Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?				
ii) Strong seismic ground shaking?	☐	☐	☐	■
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	■
iv) Landslides?	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	■
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	■
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	■
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

a.i-iv) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. No active or potentially active faults have been mapped across the project site, according to the Alquist-Priolo Earthquake Fault Zoning Map (California Geological Survey, 2014). Additionally, the project would be wholly contained within the existing industrial development and would utilize the existing sewer system. Therefore, the project would not have any potential to impact any archeological or paleontological resources, nor pose any disturbance to areas with human remains. **No impacts would occur.**

b-e) The project consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. GREENHOUSE GAS				
-- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	■
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	■

Local GHG Regulations and CEQA Requirements

Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, but contain no suggested thresholds of significance for GHG emissions. Instead, they give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The general approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move the state towards climate stabilization. If a project would generate GHG emissions above the threshold level, its contribution to cumulative impacts would be considered significant. To date, the SBCAPCD has adopted an interim approach, but has not adopted final quantitative significance thresholds.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). As neither the City of Guadalupe nor the SBCAPCD has developed or adopted permanent GHG significance thresholds, this analysis is based on the County of Santa Barbara's interim approach to evaluating GHG emissions.

Until significance thresholds applicable to GHG emissions are developed and formally adopted, the County follows an interim approach to evaluating GHG emissions, as summarized in Table 1.

Table 1
County of Santa Barbara GHG Significance Determination Guidelines

GHG Emission Source Category	Operational Emissions
Non-stationary Sources	1,100 MT of CO_2E/year OR 4.6 MT CO_2E/SP/year (residents + employees)
Stationary Sources	10,000 MT/year
Plans	6.6 MT CO_2E/SP/year (residents + employees)

Notes: SP = Service Population.
Project emissions can be expressed on a per-capita basis as Metric tons of CO_2E/Service Population/year, which represents the project's total estimated annual GHG emissions divided by the estimated total number of new residents and employees that would result from development of a project.
Neither BAAQMD nor Santa Barbara County includes any standards for construction-related emissions.

a) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. Therefore, the project would not create GHG emissions associated with typical construction activities. **No impact would occur.**

b) The proposed project would convert 24,000 sq. ft. of production space within an existing 194,333 sq. ft. production facility. The proposal would be a nominal increase in the existing operations and would not have the potential to significantly increase operational emissions. **No impact would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HAZARD 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?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HAZARD AND HAZARDOUS MATERIALS				
-- Would the project:				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
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?	☐	☐	☐	■

a-b) The proposed project is an expansion of a production area within an existing ammonia cooling facility for agricultural products. The existing facility stores large quantities of ammonia as part of the ammonia cooling process. However, the ammonia used on site is a "regulated substance" under and is under the primary authority and oversight of the Santa Barbara County Environmental Health Department/CUPA and City of Guadalupe Fire Department. No additional ammonia cooling components are proposed as part of this project. **Impacts would be less than significant.**

c, d) The proposed project would not handle hazardous wastes in the vicinity of an existing school. The closest school is approximately 0.26 miles southwest of the project site. The proposed project is not located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. **No impact would occur.**

e, f) The project site is located approximately 6.7 miles away from the closest airport, Santa Maria Municipal Airport. **No impact would occur.**

g, h) The proposed development site would not interfere with any emergency response plan or evacuation plan. The project would be required to comply with applicable California Fire Code requirements regarding emergency access. The project site is not located in a high fire hazard severity zone (California Department of Forestry and Fire Protection). **No impact would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY				
-- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
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 or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	■	☐
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?	☐	☐	■	☐
d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a 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?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY				
-- Would the project:				
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?	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	☐	■	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	■
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	■
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	■

a - f) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. Therefore, the project would not violate any water quality standards or waste discharge requirements, substantially deplete groundwater supplies on interfere with groundwater recharge, or substantially alter the existing drainage pattern of the site or area that would result in substantial on and off-site erosion, siltation, or flooding. Since the project is contained within an existing industrial facility and is contained within the existing building shell with no exterior development, the project will not create additional runoff water that would exceed the planned stormwater drainage systems or would otherwise degrade water quality. **Impacts would be less than significant.**

g-h) The project site is designated as Flood Zone X according to a FEMA flood insurance rate map (FEMA FIRM Map #06083C0155F, September, 2005) and therefore it is outside the 100-year flood hazard area. Therefore, the proposed project would not place people or housing within a flood hazard zone or impede or redirect flood flows. **No impacts would occur.**

i - j) The City of Guadalupe is at a low risk of flooding from a dam failure (Santa Barbara County, 2011). The project site is approximately 5 miles from the coast and therefore it is not at risk of inundation by tsunami. Given the lack of nearby bodies of water or slopes to the project site, inundation by seiche or mudflow is not expected. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
X. LAND USE AND PLANNING				
-- Would the project:				
a) Physically divide an established community?	☐	☐	☐	■
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, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c) Conflict with an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	■

a) The project site is currently developed in an existing industrial area at the core of the City. The project itself only consists of converting the interior space of an existing industrial building from storage use to production use; no development or ground disturbance is proposed as part of the project. Therefore, construction of the proposed project would not physically divide the established community. **No impact would occur.**

b) The project site is currently designated for industrial uses in both the City's General Plan and Zoning Code (Title 18 of the City's Municipal Code), consistent with the proposed project. **No impacts would occur.**

c) There are no habitat conservation plans or natural community plans that would be applicable to the proposed project. Therefore, the proposed project would not conflict with any habitat or natural community plans. **No impact would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. 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?	☐	☐	☐	■
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?	☐	☐	☐	■

a – b) There are no known mineral resources located on the project site, and the project site is not considered a locally important mineral resource recovery site (California Department of Conservation, 2005). **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. NOISE				
-- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	■
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	■
c) A substantial permanent increase in ambient noise levels above levels existing without the project?	☐	☐	☐	■
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	■
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 in the project area to excessive noise levels?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. NOISE				
-- Would the project result in:				
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?	☐	☐	☐	■

a – f) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. Therefore the proposed project would not expose persons to or generate noise levels in excess of standards established in the general plan or noise ordinance, or applicable standards of other agencies, generate excessive groundborne vibration or groundborne noise levels, or cause a substantial permanent, temporary, or periodic increase in ambient noise levels in the project vicinity increase in ambient noise levels above levels existing without the project. The project is not located next to or is in the direct vicinity of a public or private airport or airstrip. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. POPULATION AND HOUSING				
-- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a) No increase in staffing is anticipated as a result of this proposed change of use, therefore the project would not have the potential to directly or indirectly induce population growth. **No impacts would occur.**

b - c) The project site is currently being used as storage for the existing industrial use. Completion of the proposed project would not displace any residents. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	■
ii) Police protection?	☐	☐	☐	■
iii) Schools?	☐	☐	☐	■
iv) Parks?	☐	☐	☐	■
v) Other public facilities?	☐	☐	☐	■

a.i – v) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development; there is no residential component of the project that would result in an adverse substantial impact on, or require new or expanded governmental facilities. Additionally, the project would not cause significant environmental impacts that would negatively impact the acceptable governmental service ratios or other performance objectives for fire and/or police protection, area schools, parks, and other facilities. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
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?	☐	☐	☐	■

a – b) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development; there is no residential component of the project that would result in an adverse substantial impact on, or require new or expanded recreational facilities**. No Impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC				
-- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and 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?	☐	☐	☐	■
b) 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 county congestion management agency for designated roads or highways?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC				
-- Would the project:				
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?	☐	☐	☐	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	■
e) Result in inadequate emergency access?	☐	☐	☐	■
f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	☐	☐	■

a – f) The proposed project would not result in an increase of vehicular traffic or circulation patterns over that which was assessed in the original approved CUP. The originally approved CUP estimated that the facility would generate up to 344 vehicle trips per day. Actual 2013 truck count data indicated that the facility generated an average of 175 daily trips (81 outbound/94 receiving). The project would convert interior storage space of an existing industrial building to production use that would not result in additional vehicle trips. Therefore the proposed project would not conflict with any applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of the circulation system and/or regarding public transit, bikeways, or pedestrian facilities. The proposed project would also not conflict with any applicable congestion management program, result in a change in air traffic patterns, substantially increase hazards due to design features, or result in inadequate emergency access. **No impacts would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS				
-- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS				
-- Would the project:				
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?	☐	■	☐	☐
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?	☐	☐	☐	■
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	■	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	■	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	■
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	■

a) The project consists of converting interior storage space of an existing industrial building to production use. No building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development.

The City owns and operates the Guadalupe Wastewater Treatment Plant (WWTP). The WWTP has a treatment and effluent disposal capacity of 0.96 million gallons per day (mgd) and treats an average of 0.68 mgd (City of Guadalupe, 2013). Of the 0.68 mgd, the existing Apio facility generated approximately 0.24 mgd, or about 40%, of the total generated wastewater (See "Apio Meters 1-8" in Table 2). The total generated wastewater leaves approximately 0.28 mgd of remaining treatment capacity at the WWTP. Wastewater generation for the facility would be approximately 85% of the facility's water usage; this means that the increased water usage (112,000 gpd), would generate approximately 95,200 gallons of wastewater per day (or 0.095 mgd). Therefore, the proposed project is estimated to generate a future wastewater maximum of

approximately 338,741 gpd (0.243 mgd + 0.095 mgd = 0.338 mgd). This will result in a citywide cumulative wastewater discharge of 0.77 mgd (0.437 mgd + 0.338 mgd = 0.775 mgd), which is well within the 0.96 mgd maximum treatment capacity of the WWTP. Therefore, the proposed project would not exceed the wastewater treatment requirements. **Impacts would be less than significant.**

Table 2
Estimated Wastewater Average Daily Flow

Source	2013 Water Usage (GPD)	2013 Estimated Wasteawater ADF (GPD)
City	510,846	436,459
Apio Meters 1-8	305,734	243,541
Irrigation and Misc.	54,112	--
Total Existing	870,692**	680,000***
Proposed Project		95,200****
Total Proposed		775,200

Source: MKN Associates, Inc. (June 2014)
** Based on monthly water usage data provided by the City for 2013.
*** Based on daily wastewater flows at the WWTP provided by the City of 2013.
**** Based on 85% of 112,000 gallons per day

b,e) The City of Guadalupe provides wastewater treatment services to the project site., However, the sanitary sewer infrastructure is currently functioning at, or above, capacity. According to the Water and Wastewater Expansion Evaluation prepared Michael K. Nunley & Associates (MKN) (included as Appendix B), there is an existing 12-inch wastewater trunk main that conveys wastewater generated by the Apio facility and other existing uses. It runs beneath Sixth Street and Rubio to Mahoney Lane. This 12-inch line is currently undersized to handle wastewater flows generated by existing uses. This line is also undersized to handle Apio's current and future wastewater flows. Combining existing wastewater flow volumes and Apio's existing and proposed wastewater flow volumes, MKN concluded that the 12-inch trunk line was deficient along with other connected wastewater lines. **Therefore, impacts resulting from the proposed increase in wastewater discharge volumes would be potentially significant.**

*The following miti*gation measures are required to reduce impacts related to utilities and service systems to a less than significant level.

USS-1 **Wastewater Improvement Funding.** The City of Guadalupe shall increase wastewater payer rates in order to fund all identified CIP needs for wastewater infrastructure. The trunk line deficiency is an identified CIP need in the City's Wastewater Master Plan. A Wastewater Rate Study is currently underway to determine future rates needed to fund all identified CIP needs. Apio shall participate in wastewater rate increases in order to provide their pro-rata share of future wastewater infrastructure expansion projects in the City of Guadalupe.

d) The City of Guadalupe provides water services to all users in the City. According to the City's Water Master Plan, Guadalupe has a current potential storage capacity of 2,180,000 gallons distributed over three storage tanks (Table 3). However, the Bonita Reservoir is out-of-

service and in need of repair or replacement and therefore 1,680,000 of storage capacity is currently available.

Table 3
Existing Water Storage Facilities

Tank	Year Installed	Operational Height (ft)	Diameter (ft)	Capacity (gallons)	Material	Backup Power
Obispo Tank	2006	30	100	1,570,000	Steel	Yes
Bonita Reservoir (Out-of-Service)	1981	25	58	500,000	Steel	Yes
Elevated Tank	2007	139	30	110,000	Steel	NO

Source: City of Guadalupe Water Master Plan Update (2014)
Notes: gpd = gallons per day, AFY=acre-feet per year

The City' in-service storage capacity is deficient to meet existing citywide fire storage needs, including Apio's current use. Although the City's emergency storage and equalization storage are adequate, the City's current in-service storage capacity is deficient to meet future citywide fire storage needs with the proposed Apio expansion. **Impacts would be potentially significant.**

Additionally, the City is able to produce 1,300 AFY of water through the Obispo Street Well and the Tognazzini Well, which pull from the Santa Maria Valley Groundwater Basin. The City also has an allocation of 605 AFY from the State Water Project. However 100% annual delivery of State Water is not guaranteed due to statewide water availability, statewide user demand, and transportation factors. Therefore, the Water Master Plan assumes 40% delivery (242 AFY) to be the City's assured annual supply from the State Water Project.

The Water Master Plan identifies the existing water availability is 1,542 AFY for the City (1,300 AFY well water + 242 AFY State Water). The existing citywide demand is 945 AFY. Therefore, this leaves a 597 AFY supply surplus for the City to work with. However, most of this available supply is already dedicated to the soon-to-be-built DJ Farms/Pasadera development. Therefore, impacts resulting from the proposed increase in water usage would be potentially significant.

The following mitigation measures are required to reduce impacts related to utilities and service systems to a less than significant level.

USS-2 **Water Rate.** The City of Guadalupe shall increase water payer rates in order to fund all identified CIP needs for water infrastructure. Repair or replacement of the Bonita Reservoir is an identified CIP need in the City's Water Master Plan. A Water Rate Study is currently underway to determine future rates needed to fund all identified CIP needs. Apio shall participate in water rate increases in order to provide their pro-rata share of future water infrastructure expansion projects in the City of Guadalupe.

USS-3 **Water Use Reduction.** Apio shall reduce their facility's water usage from the current average of 445 acre feet per year, to a maximum of 409 acre feet per year. Once DJ Farms (Pasadera) submits building

permit applications for the construction of Phase 2 development (south of the Santa Maria Railroad), and upon receiving notice from the City of Guadalupe that water usage must be curtailed to not exceed 372 AFY, Apio shall immediately implement the necessary decommissioning activities to achieve compliance with the 372 AFY water use limit.

c) The project consists of converting interior storage space of an existing industrial building to production use. No building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. The proposed project would not require the construction of new or expansion of existing storm water drainage facilities. No impacts would occur.

f, g) The project consists of converting interior storage space of an existing industrial building to production use. No building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and will comply with federal, state, and local statutes and regulations related to solid waste. No impacts would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	■
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)?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	■

a) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. Therefore the proposed project will not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. **No impacts would occur.**

b) As described in Sections XVII, the project could potentially have a significant individual and cumulative impact, therefore Mitigation Measures USS-1 and USS-2 have been required to reduce potential impacts. Incorporation of these mitigation measures would result in a less than significant impact to Guadalupe's Utilities and Service Systems. **Impacts would be reduced to less than significant.**

c) The project consists of converting interior storage space of an existing industrial building to production use; no building construction or ground disturbance is required. The project would be wholly contained within the existing building on the existing industrial development. Therefore the proposed project will not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. **No impacts would occur.**

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Appendix A

Applicant Prepared Project Description

APIO FACILITY CHANGE OF USE
PROJECT DESCRIPTION Revised 3.13.2015

Request*:* A request of Apio, Inc, for approval of a change of use of approximately 24,000 sf of area currently permitted as storage to processing in the 194,333 sf manufacturing facility. The purpose of the change of use is to provide adequate processing area based on Apio's current business plan which has added kale processing to Apio's product line. The proposed change of use would represent a 12% change in total square footage of the existing structural development that was permitted as storage to processing. The project would be located entirely within the existing footprint and would result in no modifications to the exterior. The project is located on four parcels totaling 17.2 acres and zoned G-I, General Industrial.

Development Plan: The proposed change of use will add approximately 24,000 sf of additional processing area primarily to serve new kale production in area that is currently permitted as storage to provide more area for processing lines to enable a more linear and efficient manufacturing process minimizing decoupling. No new physical square footage of structural development is proposed just the change of use to existing structural development.

Traffic**:** The proposed project would not result in an increase of vehicular traffic or circulation patterns over that which was assessed in the original approved CUP. The estimates provided in the CUP analysis conservatively anticipated the projected growth for Apio. Actual truck traffic has been demonstrated to be much less, data of which has been provided to staff based on actual trip counts.

Table 1 – CUP Assessed Traffic Volumes – Shipping (Processed Vegetables)

	Inbound		Outbound		
	East	West	East	West	Total Avg. Trips/Day
Long Haulers (55 ft. trucks)	74	3	74	3	**154**

All shipping trucks enter and leave the facility via the existing driveway access on Highway 166. No changes to the circulation or numbers of shipping trucks are proposed with this project.

Table 2 – CUP Assessed Traffic Volumes – Receiving (Field Vegetables)

	Hwy 166 (Inbound)		Hwy 166 (Outbound)		Obispo St. South (Outbound)		Obispo St. North (Outbound)	
	East	West	East	West	East	West		Total Avg. Trips/Day
Field Trucks	34	14			26		22	96
Long Haul	6	25	3	2	24	2		62
Other	10	6	10	6				32
TOTAL	50	45	13	8	50	2	22	**190**

Total truck traffic volume assessed in the CUP was approximately 344 ADTs spread over two shifts (12 hours). No increase in truck traffic over that which was assessed in the approved CUP is proposed as no substantial increase in the intensity of use is anticipated. Obispo Street receives only outbound traffic. Actual 2013 truck count data indicate average daily trips of outbound/receiving at 81/94.

Parking**:** The project site currently maintains 410 spaces on site. Apio maintains a lease on an adjacent parcel to accommodate overflow parking with 137 additional spaces for a total amount of employee parking at 547 spaces. The largest shift currently consists of 440 employees and the second shift 340 employees. Pursuant to §18.60.080 of the City Zoning Ordinance, the minimum number of spaces is determined by the number of employees of the most populated shift which would be 415 spaces (195,000 sf/1000 = 195 spaces and 440/2 employees = 220 spaces). No increase in staffing is anticipated as a result of this proposed change of use, existing employees would be used to transition between processing lines. The facility also provides for nine handicapped parking spaces IAW with state regulations.

Access: The project will take access from an existing 36 foot wide access drive off of Highway 166, an existing and improved State maintained road. Additional access is afforded from Fourth Street and onto Obispo Street from an existing 36 foot wide access drive. No changes are proposed in the circulation pattern. All shipping truck traffic will continue to utilize the access drive onto Highway 166. All receiving field truck traffic will continue to enter via the existing access drive on Highway 166 and leave the facility onto Obispo Street via Fourth Street.

Grading/Drainage: The change of use would be interior only, no increase in impervious surface is proposed.

Landscaping: The proposed change of use does not increase square footage so no additional increase in landscaping is required.

Public Services: Prior to installation of VAC 1, the facility utilized up to 350 AFY of water. The applicant has cooperated with the City to develop projected water demand volumes consistent with the City's Water Master Plan and projected wastewater discharges consistent with the City's Wastewater Master Plan currently being developed.

Per agreement with the City, Apio will limit long-term operational water usage to 372 AFY. Current water usage at the facility is up to 445 AFY but mitigation measures will be implemented as part of the proposed project that will reduce water usage to approximately 409 AFY. The facility will temporarily use up to 409 AFY of water only during the period of time preceding

buildout of the DJ Farms project. Once DJ Farms (Pasadera) submits building permit applications for the construction of residential dwellings within Phase 2 (south of Santa Maria Valley Railroad) and upon receiving notice from the City that water usage must be curtailed to not exceed 372 AFY, Apio will implement the necessary decommissioning activities to achieve compliance with this water use limit.

Wastewater generation within the Apio facility generally equals 85 % of water demand due to the loss of approximately 15% of supplied water to either evaporation in cooling towers or it is shipped out with fresh vegetables in the form of ice. Sanitary sewer service is currently provided through the City's sanitary sewer infrastructure, which is currently at or above capacity without Apio's proposed increase in wastewater discharge volumes. In order to accommodate the projected increase in wastewater discharge volumes associated with the facility expansion, Apio will participate in the wastewater rate payer increases currently being planned by the City of Guadalupe. Future ratepayer increases will be designed to fund all of the identified CIP needs for wastewater infrastructure.

Appendix B

Apio Water and Wastewater Expansion Evaluation
(March 2014, June 2014)

Michael K. Nunley & Associates, Inc.
PO Box 1604, Arroyo Grande, CA 93421
www.mknassociates.us

Technical Memorandum

To: Dennis Delzeit, PE

City of Guadalupe

From: Jon Hanlon, PE

Robert A. Lepore, GISP

MKN & Associates

Date: March 26, 2014

Re: Apio Water and Wastewater Expansion Evaluation

INTRODUCTION

Michael K. Nunley & Associates (MKN) was retained by the City of Guadalupe to provide engineering services to analyze the potential impacts to the existing and future water and wastewater systems resulting from the proposed expansion of Apio's production line process. The scope of services for this project include the following:

- Water demand, supply, storage and distribution system analysis (based on the analysis completed for the 2014 Water Master Plan Update for the City of Guadalupe)
- Wastewater system analysis based on the City's existing sewer atlas and 2013 water usage information
- Meeting with Apio to discuss existing and future water and wastewater usage
- Memorandum of findings to identify potential system impacts triggered by the Apio water and wastewater expansion

OVERVIEW

Apio, Inc. (Apio), a vegetable processing facility located in the City of Guadalupe, has submitted an after-the fact application to the City of Guadalupe's Planning Department for a revision to their Design Review Permit (DRP) approved on May 12, 2009. The 2009 Design Review Permit allowed expansion of existing uses by approximately 56,880 square feet of cold storage space. The requested revision to the 2009 Design Review Permit would allow Apio to utilize approximately 24,000 square feet of the existing onsite cold-storage warehouse space for vegetable processing facilities, hereafter referred to as the Value Added Cooler (VAC). Approximately 12,000 square feet of this VAC line expansion was installed in August 2013 and is currently in operation. It is estimated that the already installed VAC line will increase existing daily water usage by 56,160 GPD with a projected peak/maximum day increase of 122,655 GPD. In addition to the 56,160 GPD originally requested in the revised DRP application submitted last year, Apio recently requested an amendment to the revised DRP application to allow for a second VAC line to be added to the facility at some point in the future. This second VAC line would also consume approximately 56,160 GPD for a potential future expansion. With two VAC lines, the total amended water usage request would increase Apio's existing daily water use by an estimated 112,320 GPD with a projected peak day increase of 178,825 GPD. Since Apio is requesting a revision to the previously approved DRP, the analyses and conclusions in this report utilize 2010-2012 water billing information as Apio's baseline condition (BEFORE the addition of the second or third VAC).

EXECUTIVE SUMMARY OF WATER AND WASTEWATER ANALYSIS

The following **Table 1** provides an overview of the infrastructure facilities that would be impacted from the proposed Apio expansion during existing demands/flows and future demands/flow conditions:

Table 1: City Infrastructure Facilities Impacted by Proposed Apio Expansion		
Water Distribution System		
Infrastructure Facility	**Impact Under Existing Condition?**	**Impact under Future Condition?**
Supply Allocation	No	Yes
Supply Pumping Facilities	Yes	Yes
Storage Facilities	Yes	Yes
Distribution System	Yes	Yes
Wastewater Collection, Treatment and Disposal System		
Infrastructure Facility	**Impact Under Existing Demand?**	**Impact under Future Demand?**
Collection System	Yes	Yes
Treatment Plant	No	Yes

CITY OF GUADALUPE WATER DEMAND, SUPPLY, STORAGE AND DISTRIBUTION SYSTEM

Demand

To determine the incremental impact from the Apio expansion to the City's water supply, storage and distribution system facilities, an existing baseline water usage was determined for the City and Apio. From the City of Guadalupe's 2014 Water Master Plan (WMP) Update, water billing data for years 2011-2013 was used to determine a 3-year average (843,000 GPD) baseline water usage for completing the analysis for the demand, supply, storage and distribution facilities. Water usage values calculated and presented in this report represent calendar year averages, not fiscal year. **Table 2** below provides an overview of the City's average daily demand (ADD) water usage.

Table 2: City Average Daily Water Usage	
Calendar Year*	**Average Daily Demand**
2013	870,342
2012	861,237
2011	798,649
2010	798,036
2009	777,516
*Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe	

In the DRP application Apio estimated their existing ADD of 270,211 GPD with a future ADD of 382,531 GPD and a future peak of 449,036 GPD. These estimates are based solely on the Meter #3 (their existing Value Added Cooler) and future VAC installations and these estimate exclude the other six meters that serve the Apio facility. To properly evaluate Apio's impact to the City's infrastructure, Apio's entire facility usage needs to be incorporated and reviewed in the evaluation. **Table 3**

below identifies Apio's total historical ADD water usage from 2009 to 2013, and **Table 4** identifies Apio's historical peak month water usage, by meter, based on billing information provided by the City of Guadalupe.

Table 3: Apio Historical Average Daily Water Usage									
Calendar Year*	**Usage (GPD)**								**Apio Average Daily Demand**
	API0001	API0002	API0003	API0004	API0006	API0007	API0008	API0009	
2013	348	3,635	239,524	12	32,312	29,881	20	22,191	327,923
2012	303	7,138	235,745	57	40,339	28,395	33	NA	312,010
2011	289	7,611	214,981	51	32,963	32,488	18	NA	288,402
2010	533	11,396	214,147	57	38,347	37,740	27	NA	302,247
2009	547	19,389	204,802	137	30,209	45,567	12	NA	300,663
*Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe									

Table 4: Apio Peak Month Water Usage Per Meter							
Calendar Year*	**Usage (GPD)**						
	API0001	API0002	API0003	API0004	API0006	API0007	API0008
2013	499	10,696	307,253	50	44,307	43,409	50
2012	449	9,275	319,421	349	61,835	40,766	224
2011	424	9,973	271,599	249	48,346	38,771	50
2010	723	19,623	248,161	224	67,395	51,263	50
2009	1,047	27,327	251,403	424	58,843	61,261	100
*Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe							

This evaluation only looks at Apio's incremental expansion impacts on the City's water and wastewater infrastructure related to the construction of the VACs, as Apio's existing approved DRP considered and approved the water usage and wastewater generation quantities associated with the remainder of the facility.

Supply

The City's existing water supply consists of two sources – the Santa Maria Valley Groundwater Basin and the State Water (SWP) Project imported from the Coastal Branch. It should be noted that the City of Guadalupe will not receive State Water for 2014. For future SWP deliveries, the California Department of Water Resources (DWR) identified future projections, from 2015 to 2031, to be approximately 50% (363 AFY) of the City's current 605 AFY allocation. However, after an in depth analysis completed by the City, it has been requested for planning purposes that this report assume that the City will only receive 40% of their SWP allocation for the future, approximately 242 AFY.

A review of the allocations indicates sufficient supply to meet existing demands on an annual basis with the Apio Expansion, as presented in **Table 5** below. **Table 6** shows that with the inclusion of Apio's proposed expansion and DJ Farms as a planned development, there is a 91 AFY deficit in the City's supply allocation.

Table 5: Water Supply Allocation & Existing Demand

Source	Existing Water Allocation (AFY)
Santa Maria Groundwater[1]	1,300
State Water[2]	242
Total Water Supply	**1,542**
2014 WMP Existing City Existing Average Annual Demand	945
Apio Expansion	126
Supply Surplus / (Deficit)	**472**

[1] Santa Maria Groundwater supply allocation per January 25, 2008 Stipulation (Superior Court of California, County of Santa Clara.
[2] Requested by City of Guadalupe, 40% of Table A allocation of the State Water Project.

Table 6: Future Water Supply Allocation & Future Demand

Source	Future Water Allocation (AFY)
Santa Maria Groundwater[1]	1,300
State Water[2]	242
Total Water Supply	**1,542**
2014 WMP City Future Average Annual Demand plus Infill	1,022
Apio Expansion	126
DJ Farms	485
Supply Surplus / (Deficit)	**(91)**

[1] Santa Maria Groundwater supply allocation per January 25, 2008 Stipulation (Superior Court of California, County of Santa Clara.
[2] Requested by City of Guadalupe, 40% of Table A allocation of the State Water Project.

As part of the 2014 Water Master Plan Update, MKN also reviewed the ability of the City's water production facilities to deliver the water. It was recommended that the City's combined production supply facilities be capable of providing, at a minimum, MDD over a 24 hour period. Redundancy in production facilities is recommended to maintain capacity to provide MDD with one facility temporarily out of service. The ability of the existing water supply facilities to meet existing demands

and provide redundancy is presented in **Table 7a**. The assessment evaluated the City's ability to meet existing MDD with State Water out of service, and with the City's largest facility out of service.

Table 7a: Ability of Production Facilities to Meet Existing Demands						
Criteria	**PUMPING CAPACITY (GPM)**			**DEMANDS (GPM)**		**PUMPING CAPACITY SURPLUS / (DEFICIT) (GPM)**
	State Water Supply	GW Supply Obispo St Well	Total Supply	Existing City MDD	Apio Expansion MDD*	
Meet MDD with all supplies	150	1000	1150	1230	124	(204)
Meet MDD without State Water	-	1000	1000	1230	124	(354)
Meet MDD with largest well out of service	150	-	150	1230	124	(1204)
*Based on peak day increase of 178,825 GPD identified by Apio's January 17, 2014 CUP amendment						

Table 7a shows the City's existing water production facilities do not meet the existing MDD, regardless of the proposed Apio Expansion. Even with both existing water supply facilities functioning (State Water and Obispo Street Well), there is a deficit of approximately 204 gpm. As noted, the City will not receive their State Water allocation for 2014, resulting in a deficiency of 354 gpm. To provide the recommended production redundancy, another groundwater well with a minimum production capacity of 1200 gpm is recommended to allow the City to meet existing demands if Obispo Street Well is out of service for any reason.

Upon review of the proposed Apio Expansion combined with the potential future City demands (including DJ Farms), **Table 7b** shows that there is a deficit with City's water production facilities to meet the future MDD with the Apio Expansion, assuming all of the existing water pumping facilities are operational.

Table 7b: Ability of Production Facilities for Future Demands								
Criteria	**PUMPING CAPACITY (GPM)**			**DEMANDS (GPM)**				**PUMPING CAPACITY SURPLUS / (DEFICIT) (GPM)**
	State Water Supply	GW Supply Obispo St Well	Total Supply	Existing City MDD	Incremental Future City MDD	Apio Expansion MDD*	DJ Farms	
Meet MDD with all supplies	150	1,000	1,150	1230	100	124	632	(936)
Meet MDD without State Water	-	1,000	1,000	1230	100	124	632	(1086)
Meet MDD with largest well out of service	150	-	150	1230	100	124	632	(1936)
*Based on peak day increase of 178,825 GPD identified by Apio's January 17, 2014 CUP amendment								

Table 7b shows the City's existing water pumping facilities will not meet the future MDD. With both existing water supply facilities (State Water and Obispo Street Well), there is a deficit of approximately 936 gpm. If one of these two facilities were temporarily offline for any reason, this deficit grows. One additional well with a capacity of 700 gpm (beyond the additional

1,200 gpm well recommended in **Table 7a**) is recommended to meet future demands. For 100% backup of the 1,200 gpm well recommended from the **Table 7a** analysis a well with 1,200 gpm capacity would be required to maintain the recommended redundancy. Based on the 2014 Water Master Plan Update it is recommended that one of these wells be installed with high priority (within the next five years) to meet redundancy requirements for the existing City. The second well should be installed to maintain supply redundancy as development and future demands dictate.

Storage

To analyze the adequacy of a system's storage facilities, three criteria are typically considered: fire storage, emergency storage, and equalization (or operational) storage. These are defined as follows.

- Equalization storage (also known as operational storage) is the volume of storage required meet short-term peak daily demands that are in excess of production, ideally without using water maintained for emergency or fire storage
- Fire storage is the volume of storage recommended to meet fire-flow requirements for the duration of the event. The requirements vary based on land use. Fire flow requirements were set by the City of Guadalupe, as identified in **Table 8**.

Table 8: Fire Flow Requirements

Land Use	Required Flow (gpm)	Duration (hours)
Residential	1,000	2
Commercial	2,500	3
Industrial	3,750	3

- Emergency storage is the volume of storage recommended to ensure ongoing supply in the event of a water supply emergency. The emergency storage requirement is calculated by multiplying the population by 50 gallons per day for three days.

Currently, the City has two water storage facilities in operation, the Obispo Street tank and the Elevated storage tank, and a third, Bonita Reservoir, currently out of service due to condition. The existing available storage volumes are summarized in the **Table 9** below. Bonita Reservoir has a total volume of 0.5 MG, but it is currently offline and is not considered as available storage for the purposes of this assessment. A portion of the Obispo Street tank is not available for emergency storage. Because State Water is delivered on a continual 24 hour basis, the Obispo Street tank must have an available capacity to accept a constant supply of State Water during period of low demand, through the night for example. Assuming a delivery of 150 gpm, 40% of SWP based on the City's modified long-term projected SWP deliveries, and reserving a volume equal to 10 hours of storage (90,000 gallons), the available storage for the Obispo Street tank is approximately 1,480,000 gallons.

Table 9: Available Storage

Tank	**Total Volume (MG)**	**Available Volume (MG)**
Obispo Street	1.57	1.48
Elevated	0.1	0.1
Total Operational Storage	**1.67**	**1.58**

The storage recommendations for the City's existing water demand is summarized in the **Table 10** below. The analysis suggests a storage deficit of approximately 494,498 gallons for the existing system when including the proposed Apio Expansion.

Table 10: Storage Recommendations for Existing Demands		
Storage Type	**Criteria**	**Storage Volume (Gallons)**
Fire Storage	3,750 gpm x 3 hours	675,000
Emergency Storage	50 gpcd x 3 days x 7,080 pp	1,062,000
City Equalization Storage	0.15 x MDD of 1.77 MGD	265,674
Equalization Storage for Proposed Apio Expansion	0.15 x MDD of 0.179 MGD	26,824
Total Recommended Storage		2,029,498
Total Available Storage		**1,580,000**
Surplus/(Deficit)		(449,498)
Bonita Reservoir Rehabilitation		500,000

Rehabilitation or replacement of the existing Bonita Reservoir would reinstate 500,000 gallons to the system. In this scenario, the additional 26,824 gallons of equalization storage required by the Apio expansion could be provided by the existing storage facilities, and would not trigger additional storage deficits under existing demand conditions.

The storage recommendations for the City's future water demand including the Apio expansion and the proposed DJ Farms development, is summarized in the **Table 11** below. The analysis suggests a storage deficit of approximately 1,174,727 gallons for the City's future system including the Apio Expansion and DJ Farms.

Table 11: Storage Recommendations for Future Demands		
Storage Type	**Criteria**	**Storage Volume (Gallons)**
Fire Storage	3,750 gpm x 3 hours	675,000
Emergency Storage	50 gpcd x 3 days x 10,861 pp	1,629,150
Equalization Storage for Future City	0.15 x MDD of 1.92 MGD	287,333
Equalization Storage for DJ Farms	0.15 x MDD of 0.91 MGD	136,420
Equalization Storage for Apio Expansion	0.15 x MDD of 0.179 MGD	26,824
Total Recommended Storage		**2,754,727**
Total Existing Available Storage		1,580,000
Surplus/(Deficit)		**(1,174,727)**
Bonita Reservoir Rehabilitation		500,000
DJ Farms Required Storage		700,000

Rehabilitation or replacement of the existing Bonita Reservoir would reinstate 500,000 gallons to the system, and it is recommended that DJ Farms be responsible for adding 700,000 gallons of storage for the proposed development. If these storage projects are completed, the additional 26,824 gallons of equalization storage that would be required by the Apio expansion would not trigger additional storage for the City's water system under future demand conditions.

Distribution

The City's 2014 Water Master Plan Update and hydraulic model were used to determine water distribution system improvements required as a result of Apio's proposed expansion. The recommended fire flow requirement for industrial zoned areas is 3,750 gpm based on the Fire Flow Code Evaluation & Summary Report City of Guadalupe dated December 9, 2013 (prepared by Collings & Associates). MKN completed a hydraulic analysis for the water distribution system using this recommendation for industrial areas and identified existing and future pipeline deficiencies. The current distribution system within the Apio area is not capable of providing the maximum day demand plus fire flow (MDD+FF) requirement during existing demand conditions. The deficiencies are shown in **Table 12** below. Several capital improvement projects have been identified in the 2014 Water Master Plan Update to correct these existing deficiencies. If those CIPS are implemented, they satisfy both existing City MDD+FF demands and future City MDD+FF demands.

Table 12: Water Distribution Facilities Deficiencies based on Existing Demand				
Project Name	**Location**	**Existing Facility**	**Deficiency**	**Notes**
South Obispo Street Industrial Area Water Main Upgrade and Extension	From Fir Street to 3rd Street	500 LF 8-inch AC pipe	Fails industrial fire-flow requirement	Deficiency also identified in 2002 WMP
	At 3rd Street to existing Apio Water Main	No existing pipe at this location		
	Apio property from Obispo Street to Guadalupe Street	1,500 LF 8-inch AC pipe		

The proposed Apio expansion does not trigger additional pipeline deficiencies beyond the existing fire flow deficiencies identified in the 2014 Water Master Plan Update.

CITY OF GUADALUPE WASTEWATER COLLECTION AND TREATMENT

The City of Guadalupe will begin the development of a sewer collection system and treatment plan master plan in 2014, which will provide an in-depth of analysis of the City's collection system, lift stations, wastewater flows and WWTP capabilities. Current WWTP flow information was based on information developed for the City's 2013 Recycled Water Master Plan. Citywide wastewater flows were based on a percentage of the City's water billing data, and wastewater flows for the Apio expansion were provided. Collection system analysis was limited to estimated average daily flows and peak hour flows. Lift stations were not analyzed, as existing lift stations were not directly impacted by the proposed Apio expansion.

Flows

Based on the 2013 Recycled Water Master Plan prepared by Dudek, the estimated 2012 wastewater flow generated by City residents and business was approximately 600,000 GPD. This value will serve as the baseline of the wastewater analysis since it includes Apio's flow prior to the 56,000 GPD for the VAC currently in operation. For the purpose of the collection system analysis **Table 13** identifies the baseline wastewater usage for the City and Apio.

Table 13: Estimated Average Daily Wastewater Flows		
	2012 Water Usage (GPD)	**Estimated 2012 Wastewater Flow (GPD)**
City	549,227	356,724
Apio (Meters 1-8)	312,010	243,719*
Total	**861,237**	**600,000**
*Water from Apio meters 1-4 & 8 return 100% to the wastewater collection system based on information provided by Apio		

Since a comprehensive collection system master plan has not been completed for the City, a residential and commercial peaking factor of 3.5 was assumed, which is consistent with the peaking factors identified in the 2014 Water Master Plan update. For Apio, a peaking factor of 5 was used based on information provided by Apio in their January 17, 2014 DRP amendment request.

Collection System

The existing collection system through the corridor from Apio to the wastewater treatment plant (WWTP) is comprised of 12-inch, 18-inch, and 24-inch sewer pipes. In addition, due to the minimal elevation change throughout the entire City, the existing slopes throughout the corridor typically range from less than 0.01 percent to a maximum of 0.7 percent. To determine the impacts from the Apio expansion to the existing collection system, an Excel spreadsheet model of the alignment from Apio to the WWTP was developed. Since sewer as-builts were not available, survey information from the Minami Development Water and Sewer Analysis study was available and used for the sewer model. This information provided invert elevations of each of sewer manholes along the existing pipeline alignment from Apio to the WWTP. The City's three existing lift stations: Highway 1 (900 GPM), Pioneer Street (250 GPM) and Gilarte (100 GPM) were not analyzed as part of this project because wastewater flow from Apio is not conveyed through any of the lift stations. However, it was assumed that during average day flow scenarios that the lift station ran at half capacity and ran at full capacity during peak flow conditions. Flow monitoring was not completed in the field and therefore, this model cannot be considered calibrated to actual flow conditions. The existing system was modeled through the existing alignment from Apio to the WWTP and existing capacity issues were noted below. The following figure shows the pipe segments that are currently deficient (shown in red) under existing flow conditions. The design/evaluation criteria used to analyze pipeline deficiencies during average daily flow was that all pipes should flow less than 50% full. Figure 1 below shows the pipe segments (shown in red) that are running greater than 50% full during average daily flows prior to the Apio expansion.

Figure 1: Deficient Pipes during Average Daily Flow (greater than 50% full flow)

The design/evaluation criteria used to analyze pipeline deficiencies during peak daily flow was that all pipes should flow less than 75% full. Figure 2 below shows the pipe segments (shown in red) that are running greater than 75% full during peak daily flows prior to the Apio expansion.

Figure 2: Deficient Pipes during Peak Daily Flow (greater than 70% full flow)

The existing sewer pipes reach a maximum of 82 percent full during current day average day demands, without the additional flow from the Apio expansion. During peak daily flow, portions of the collection system are not capable of handling the existing flow and are most likely surcharging at the manholes. **Table 14** provides an overview of the pipeline deficiencies associated with baseline/future City wastewater flows and recommended upgrades and additional upgrades required because of the proposed Apio expansion.

Table 14: Pipe Deficiencies for Existing Flow

Pipe Segment	Length (ft)	Existing Diameter (in)	d/D avg flow (<0.5)	d/D peak flow (<0.75)	Recommended Pipe Size for Baseline and Future City Flows (in)	Recommended Pipe Size to Accommodate Apio Proposed Expansion (in)
261	296.00	12	0.07	0.163	12	12
262	268.00	12	0.332	**1.000**	15	18
109	287.00	12	0.34	**1.000**	15	18
151	295.00	12	0.324	**1.000**	15	18
55	256.00	12	0.332	**1.000**	15	18
152	508.00	12	0.332	**1.000**	15	18
263	390.00	12	0.332	**1.000**	15	18
265	171.00	18	0.27	0.488	18	24
266	290.00	12	**0.734**	**1.000**	18	24
267	335.00	12	**0.82**	**1.000**	24	24
99	123.00	12	**0.657**	**1.000**	18	24
138	276.00	12	0.332	0.585	18	24
210	229.00	12	**0.82**	**1.000**	36	36

102	84.00	12	**0.63**	**1.000**	24	24
101	128.00	12	**0.82**	**1.000**	24	24
100	221.00	12	**0.78**	**1.000**	24	24
156	219.00	12	**0.82**	**1.000**	36	36
155	243.00	12	**0.82**	**1.000**	24	36
119	215.00	12	**0.544**	**1.000**	24	36
157	276.00	12	**0.82**	**1.000**	24	36
115	153.00	12	**0.82**	**1.000**	24	36
308	873.00	24	0.189	0.324	24	24
268	384.00	24	0.202	0.356	24	24
232	350.00	24	0.215	0.356	24	24
231	849.00	24	0.29	0.516	24	24
269	212.00	24	0.202	0.348	24	24

The overall analysis of the collection is limited in that it contains general assumptions with respect to peaking factors, lift stations, detailed survey data, and in-field flow monitoring to validate estimated flows.

Wastewater Treatment Plant

The City's WWTP is located in the southwest portion of the City and serves a population of approximately 7,000, based on the 2010 census (UPC/Bethel, 2012). The WWTP is currently designed for an average dry weather flow of 0.96 MGD and a peak wet weather flow of 3.84 MGD. Average annual flow at the existing facility is currently approximately 0.6 mgd based on 2012 water usage and wastewater flow records. As shown in **Table 15** the City's WWTP has available hydraulic capacity during average daily conditions with the addition of the Apio Expansion. However as shown in **Table 16,** the addition of the proposed Apio Expansion and the full buildout of the DJ Farms developments will exceed the current design capacity during average daily flow conditions.

Table 15: WWTP Capacity for Existing Flow			
Average Dry Weather Flow (GPD)			
Design Flow	**Existing City Flow**	**Apio Expansion**	**Remaining Capacity**
960,000	600,000	112,320	247,680

Table 16: WWTP Capacity For Future Flow				
Average Dry Weather Flow (GPD)				
Design Flow	**Future City Flow**	**Apio Expansion**	**DJ Farms***	**Remaining Capacity**
960,000	660,337	112,320	260,000	-72,657
*Based on information in approved DJ Farms Revised Specific Plan				

The hydraulic evaluation of the WWTP was limited to available information. Nutrient loading impacts from Apio's wastewater under existing and future flow conditions were not analyzed. If the City decides to approve the CUP application for the requested expansion, it is recommended that a detailed analysis of Apio's wastewater nutrient loading be considered, which may include water quality sampling and evaluation of the impacts to the WWTP.

Michael K. Nunley & Associates, Inc.
PO Box 1604, Arroyo Grande, CA 93421
www.mknassociates.us

Technical Memorandum

To: Dennis Delzeit, PE

City of Guadalupe

From: Jon Hanlon, PE

Robert A. Lepore, GISP

MKN & Associates

Date: June 23, 2014

Re: Addendum to Apio Water and Wastewater Expansion Evaluation

1. INTRODUCTION

Michael K. Nunley & Associates (MKN) was retained by the City of Guadalupe (City) to provide engineering services to analyze the potential impacts to the City's wastewater collection system resulting from the proposed expansion of Apio's production line process. A preliminary wastewater hydraulic study was completed and submitted to the City and Apio on March 26, 2014. Based on the initial findings in that report, the City and Apio requested an additional analysis, which included a flow monitoring study to refine/verify the initial flow and peaking factor assumptions. The scope of services for this additional study included the following:

- In field flow monitoring study, performed by Fluid Resource Management (FRM), from April 22, 2014 to June 6, 2014
- Flow monitoring data analysis to acquire representative samples of the City's and Apio existing Average Daily Flow (ADF), Peak Hour Flow (PHF) conditions, and corresponding diurnal flow patterns
- Updated SewerCAD hydraulic model, based on GPS field survey data collected for the City's 2014 Collection System Master Plan
- Additional hydraulic model simulations based on data from the flow monitoring study
- Memorandum of findings to identify potential system deficiencies triggered by existing City and Apio flow conditions and the proposed Apio expansion

2. OVERVIEW

An initial wastewater hydraulic study of the City's wastewater system, along the alignment from the Apio facility through the City's 12-inch trunk main to the WWTP, was completed and a final technical memorandum, dated March 26, 2014, provided to the City and Apio. Based on the wastewater collection system capacity issues identified in this initial report, the City and Apio requested an additional hydraulic study to refine the results of the collection system analysis. Flow monitoring data, updated water usage data, and an updated hydraulic model was used to complete this additional hydraulic analysis.

3. REVISED APIO WATER USAGE

Apio currently has two Value Added Cooler (VAC) lines installed onsite at their Guadalupe facility. From the City's water billing system, these lines receive water from meters APIO003 and APIO009 respectively. Only one VAC line

(APIO003) is currently permitted, and Apio is seeking approval of the second VAC (APIO009) through a Design Review Permit (DRP) application which was submitted to the City in 2013.[1]

For the initial DRP application, Apio estimated that a second VAC line would increase average daily wash water usage by 56,160 GPD with a projected maximum day increase of 122,655 GPD. In addition to this original 56,160 GPD request, Apio subsequently requested an amendment to the DRP application to allow for a third VAC line to be added to the facility at some point in the future. This third VAC line would also consume approximately 56,160 GPD. The total amended water usage requested would increase Apio's "existing" average daily wash water use by an estimated 112,320 GPD with a projected maximum day increase of 178,825 GPD.

Since a second VAC line has been in full operation as of December 2013, MKN requested and received current water usage data from January 2014 to May 2014 for all Apio meters to review the increased water usage from the APIO009 VAC line. **Table 1** below identifies that water usage for the APIO003 VAC line has remained relativity constant, while water usage for the newly installed APIO009 VAC line has increased to approximately 100,000 GPD, which is close to the full water usage requested by Apio in the DRP.

Table 1: Apio Historical Average Daily Water Usage

Calendar Year*	Usage (GPD)								Apio Average Daily Demand
	API0001	API0002	API0003	API0004	API0006	API0007	API0008	API0009	
2014**	441	679	232,673	15	23,223	36,256	15	103,893	397,193
2013	348	3,635	239,524	12	32,312	29,881	20	3,648	309,380
2012	303	7,138	235,745	57	40,339	28,395	33	NA	312,010
2011	289	7,611	214,981	51	32,963	32,488	18	NA	288,402
2010	533	11,396	214,147	57	38,347	37,740	27	NA	302,247
2009	547	19,389	204,802	137	30,209	45,567	12	NA	300,663

*Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe.
**Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe and averaged from January 2014 to May 2014.

Table 2 below is a summary of the monthly water usage for the newly installed APIO009 VAC Line from January 2014 to May 2014.

Table 2: Monthly Water Usage for New APIO009 VAC Line

Month	January	February	March	April	May	5-Month Average Daily Demand*
Usage (GPD)	104,165	102,850	85,923	93,176	132,903	103,893

*Water usage is based on calendar year sales/water usage information provided by the City of Guadalupe January 2014 to May 2014.

Based on the updated water billing information, it is assumed that Apio is using close to the fully requested water (112,000 GPD) from their DRP application for average daily demand.

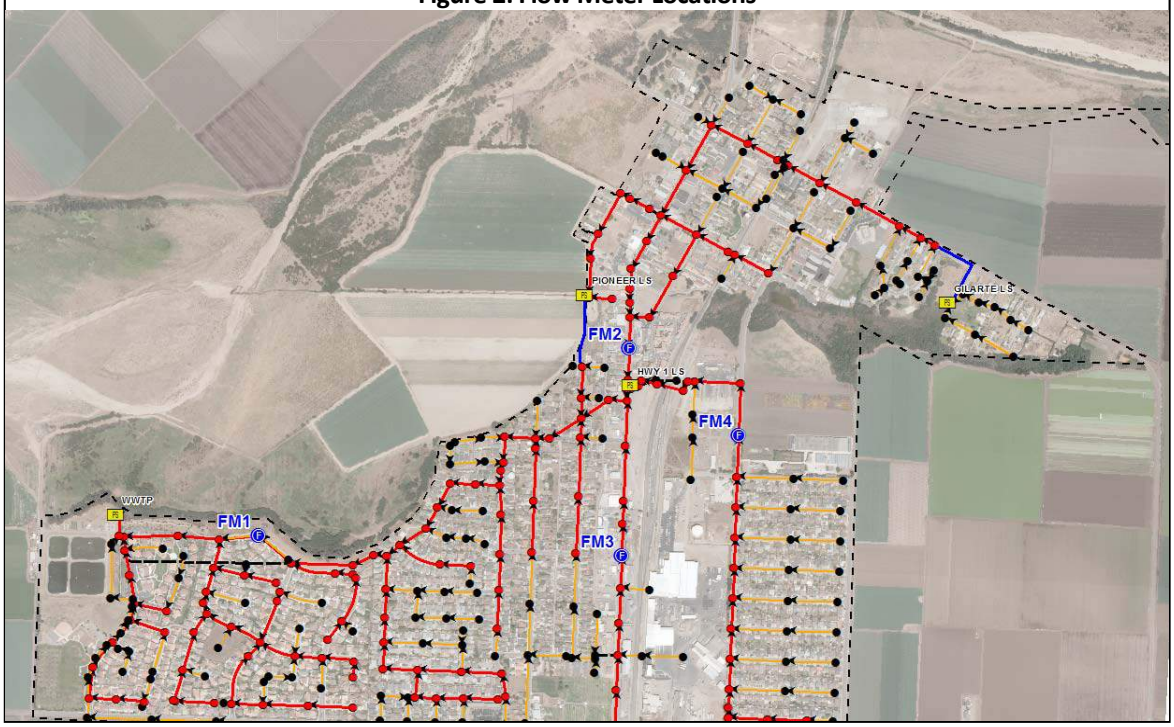
[1] For the purposes of this report, the term "existing" refers to the currently permitted VAC line, which is the single VAC served by meter APIO003.

4. FLOW MONITORING STUDY

To refine the hydraulic model evaluation, the baseline wastewater flow estimates, peaking factors, and diurnal wastewater flow patterns of the City and Apio were evaluated through flow metering. Fluid Resource Management (FRM) was hired to install flow meters at strategic locations in the City's collection system. Four Greyline Instruments Stingray pipe band flow meters, as shown in **Figure 1**, were installed in key locations shown in **Figure 2**. The insertion-type flow meters consist of a circular metal band with sensors, and were installed inside the upstream pipe within the sewer manhole. The meters are installed so that the wastewater entering the manhole flows over the sensors, which reads the wastewater temperature, depth, and velocity every 5 minutes.

Figure 1: Flow Meter Installation

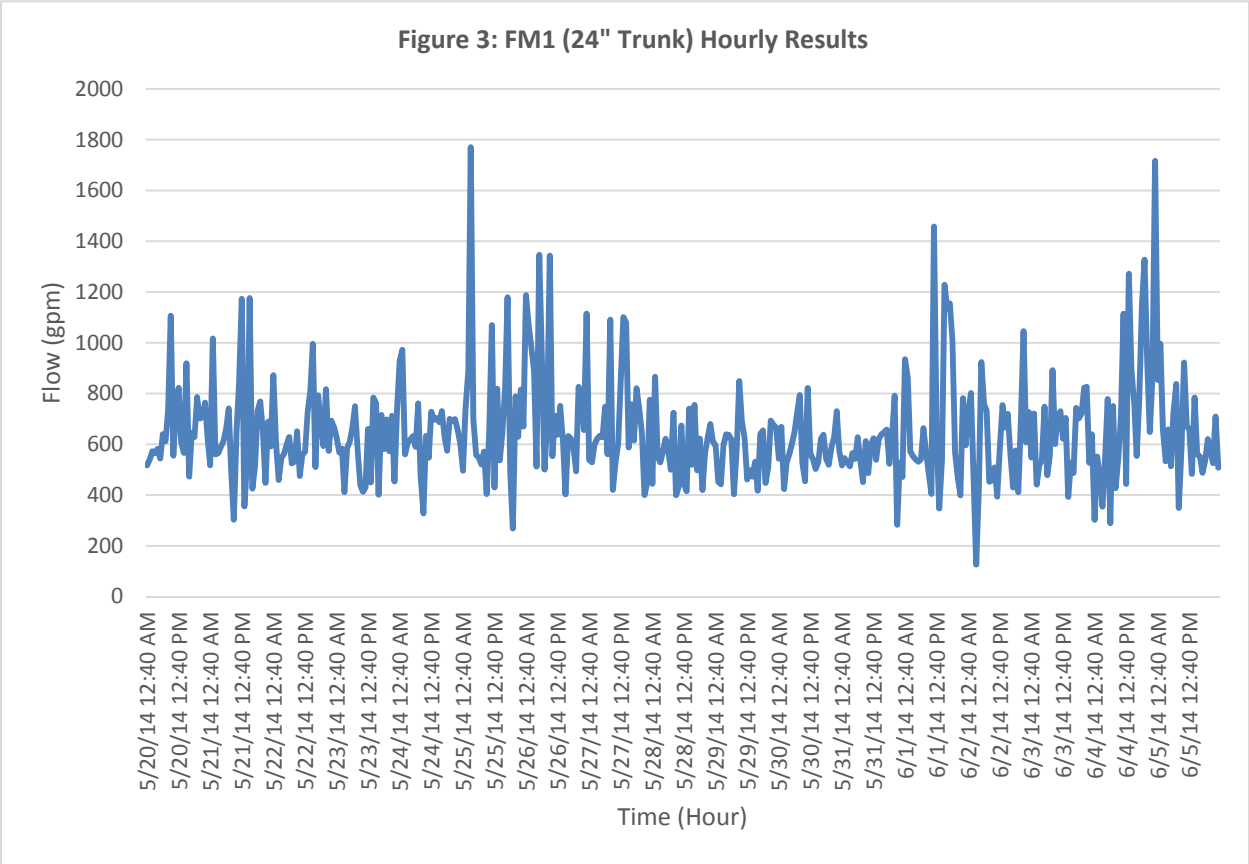
Figure 2: Flow Meter Locations



It was recommended by FRM that the flow meters remain in the collection system for a minimum duration of four weeks to minimize impacts of common data collection issues associated with clogging from rags, grease, pipe cleaning or flow meter power failures. Data was collected for approximately seven weeks from April 22, 2014 to June 6, 2014 and reviewed by MKN on a weekly basis. Two weeks of continuous flow data, near the end of the flow study, were used for the analysis because of initial data collection issues associated with equipment failures at FM3 (Apio location). No useable flow data was available from flow meter FM4 (Treasure Park area) because of continued grit buildup on the flow meter from the upstream collection system throughout the flow monitoring study period. **Table 3** summarizes the results of the flow monitoring data collection and analysis.

Table 3: Flow Monitoring Study				
Flow Meter	**FM1**	**FM2**	**FM3**	**FM4**
Street Location	On Snowy Plover Ln east of Surfbird Ln	On Highway 1 north of Sixth St and south of Olivera St	On Highway 1 600 feet north of Second St	Obispo Street north of Fourth St
System Location	East of WWTP	North of HWY 1 Lift Station	South of HWY 1 Lift Station	East of railroad sewer crossing
Pipe Diameter (inches)	24	15	12	10
Dry Weather Flow Monitoring Results - May 20, 2014 to June 5, 2014 (2 weeks)				
Average Day Flow (GPD)	933,991	128,000	341,939	No Useable Flow Data Available
Peak Day Flow (GPD)	1,130,183	197,768	473,229	
Average Day Flow (GPM)	649	89	237	
Peak Hour Flow (GPM)	1,770	418	644	
Peak Instantaneous Flow (GPM)	3,179	1,442	733	
Peaking Factor (PHF/ADF)	2.7	4.7	2.7	

Figures 3 through **5** show the hourly flow results of the flow meters during two weeks of the flow monitoring study. In general, once equipment issues were resolved the flow meters acquired representative data of the City's and Apio's average daily and peak hour flow conditions, and diurnal flow patterns.



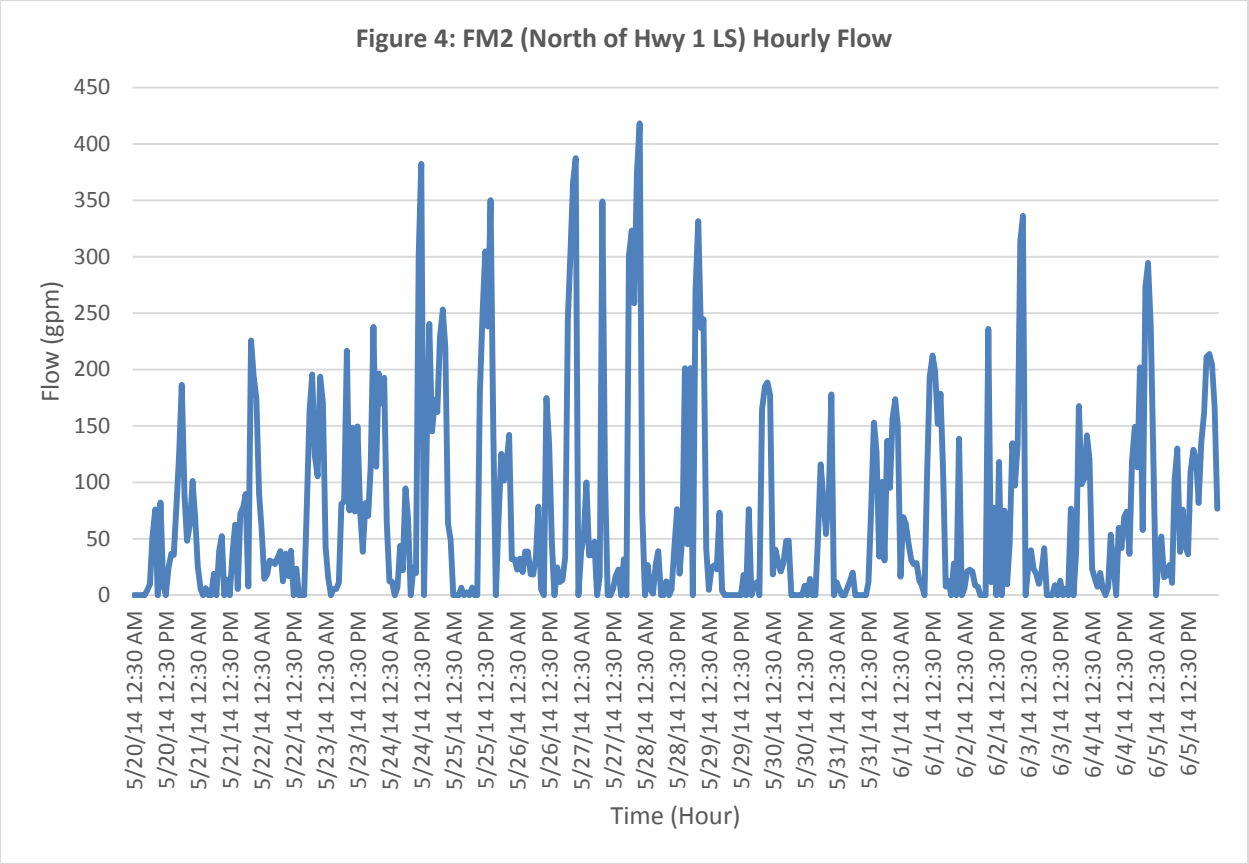


Figure 4: FM2 (North of Hwy 1 LS) Hourly Flow
Flow (gpm)
450
400
350
300
250
200
150
100
50
0
5/20/14 12:30 AM
5/20/14 12:30 PM
5/21/14 12:30 AM
5/21/14 12:30 PM
5/22/14 12:30 AM
5/22/14 12:30 PM
5/23/14 12:30 AM
5/23/14 12:30 PM
5/24/14 12:30 AM
5/24/14 12:30 PM
5/25/14 12:30 AM
5/25/14 12:30 PM
5/26/14 12:30 AM
5/26/14 12:30 PM
5/27/14 12:30 AM
5/27/14 12:30 PM
5/28/14 12:30 AM
5/28/14 12:30 PM
5/29/14 12:30 AM
5/29/14 12:30 PM
5/30/14 12:30 AM
5/30/14 12:30 PM
5/31/14 12:30 AM
5/31/14 12:30 PM
6/1/14 12:30 AM
6/1/14 12:30 PM
6/2/14 12:30 AM
6/2/14 12:30 PM
6/3/14 12:30 AM
6/3/14 12:30 PM
6/4/14 12:30 AM
6/4/14 12:30 PM
6/5/14 12:30 AM
6/5/14 12:30 PM
Time (Hour)

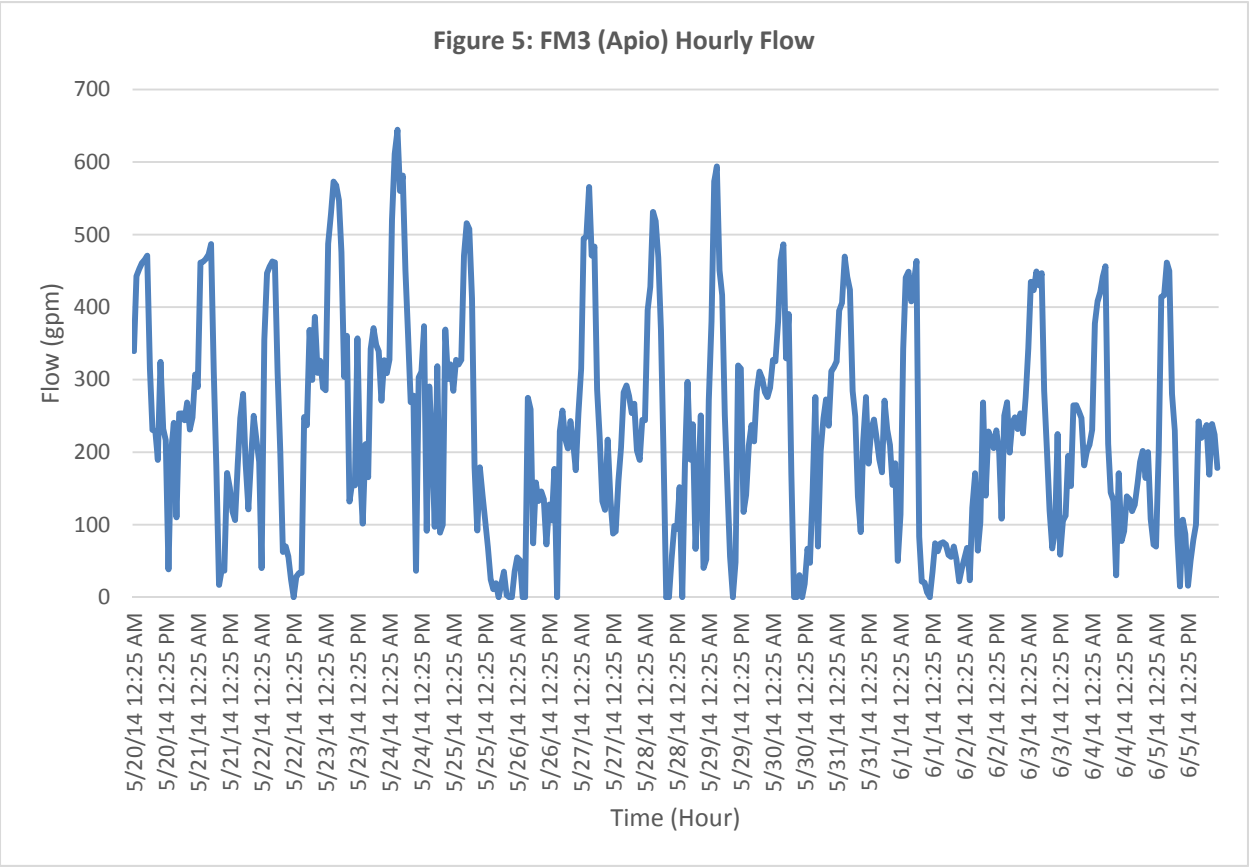
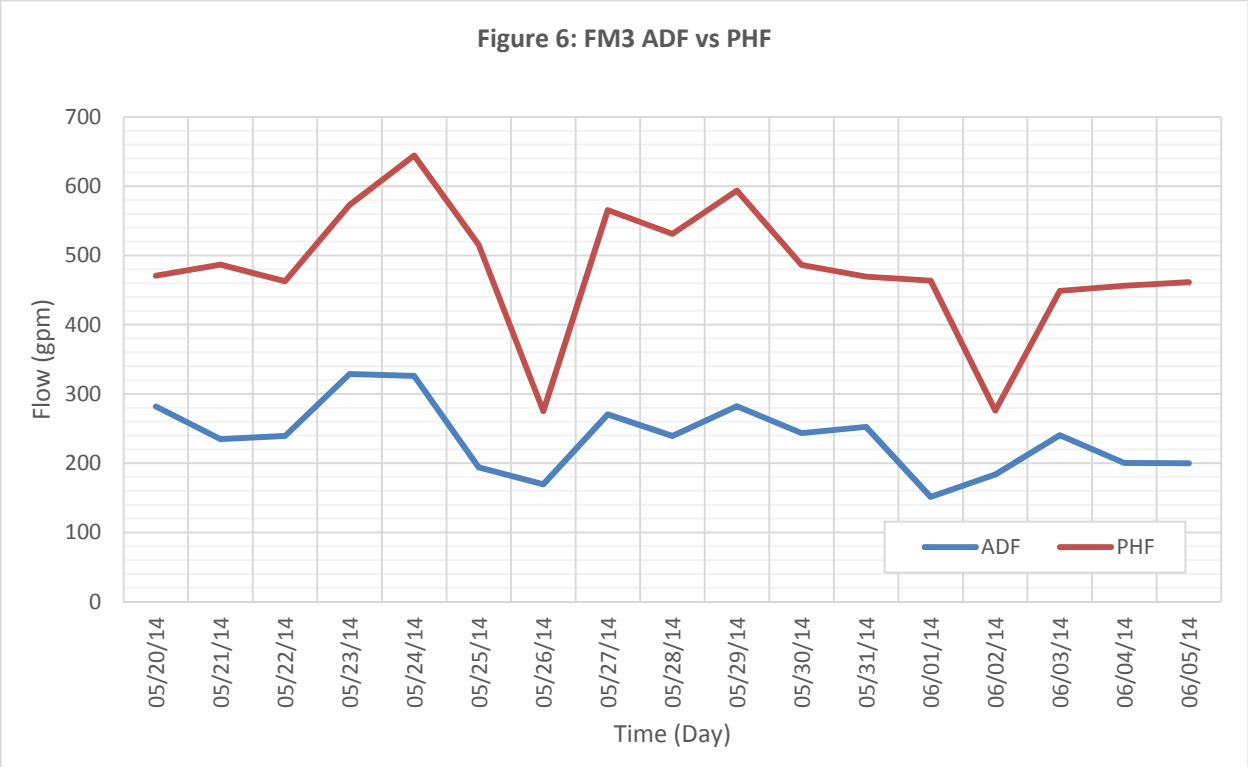


Figure 5: FM3 (Apio) Hourly Flow
Flow (gpm)
700
600
500
400
300
200
100
0
5/20/14 12:25 AM
5/20/14 12:25 PM
5/21/14 12:25 AM
5/21/14 12:25 PM
5/22/14 12:25 AM
5/22/14 12:25 PM
5/23/14 12:25 AM
5/23/14 12:25 PM
5/24/14 12:25 AM
5/24/14 12:25 PM
5/25/14 12:25 AM
5/25/14 12:25 PM
5/26/14 12:25 AM
5/26/14 12:25 PM
5/27/14 12:25 AM
5/27/14 12:25 PM
5/28/14 12:25 AM
5/28/14 12:25 PM
5/29/14 12:25 AM
5/29/14 12:25 PM
5/30/14 12:25 AM
5/30/14 12:25 PM
5/31/14 12:25 AM
5/31/14 12:25 PM
6/1/14 12:25 AM
6/1/14 12:25 PM
6/2/14 12:25 AM
6/2/14 12:25 PM
6/3/14 12:25 AM
6/3/14 12:25 PM
6/4/14 12:25 AM
6/4/14 12:25 PM
6/5/14 12:25 AM
6/5/14 12:25 PM
Time (Hour)

As identified by Apio, meters APIO001-APIO004, APIO008- APIO009 return 100% of used water to the collection system as wastewater. **Table 4** is a comparison between Apio's May 2014 water usage, estimated average daily wastewater flow from the May 2014 water usage based on the assumption above, and the results of the two week flow monitoring data for FM3 (Apio location).

Table 4: Apio Water and Wastewater Comparison									
	API0001	API0002	API0003	API0004	API0006	API0007	API0008	API0009	GPD
May 2014 Water Usage*	531	627	193,732	48	21,644	42,322	0	132,903	391,807
Estimated Wastewater Flow**	531	627	193,732	48	-	-	0	132,903	327,841
Flow Monitoring Results FM3 (May 20, 2014 to June 5, 2014)									341,939
Flow Monitoring Results FM3 Adjusted (To remove 6,700 GPD from wastewater customers upstream and/or adjacent to the Apio facility)									335,239
*Water usage provided by the City of Guadalupe billing information for May 2014. ** Water from Apio meters 1-4 & 8-9 return 100% to the wastewater collection system based on information provided by Apio.									

Since the flow results of the wastewater estimating and flow monitoring data are within an acceptable range (with 5 gpm on an average daily basis) MKN will assume an Apio Average Daily Flow (ADF) of 335,239 (233 gpm) with a Peak Hour Flow (PHF) of 644 gpm based on the peaking factor determined from the flow monitoring study. **Figures 6** through **8** provide an overview of the measured wastewater flows and diurnal flow patterns for the FM3 (Apio) flow meter. **Figure 6** illustrates Apio's average daily flow from May 5, 2014 to June 5, 2014 and peak hour flow that occurred each day. **Figure 7** illustrates Apio's diurnal flow pattern on the maximum flow day, which occurred on Friday May 23, 2014. **Figure 8** compares the diurnal flow patterns between the FM2 (representative City flow) and FM3 (Apio) flow meters.



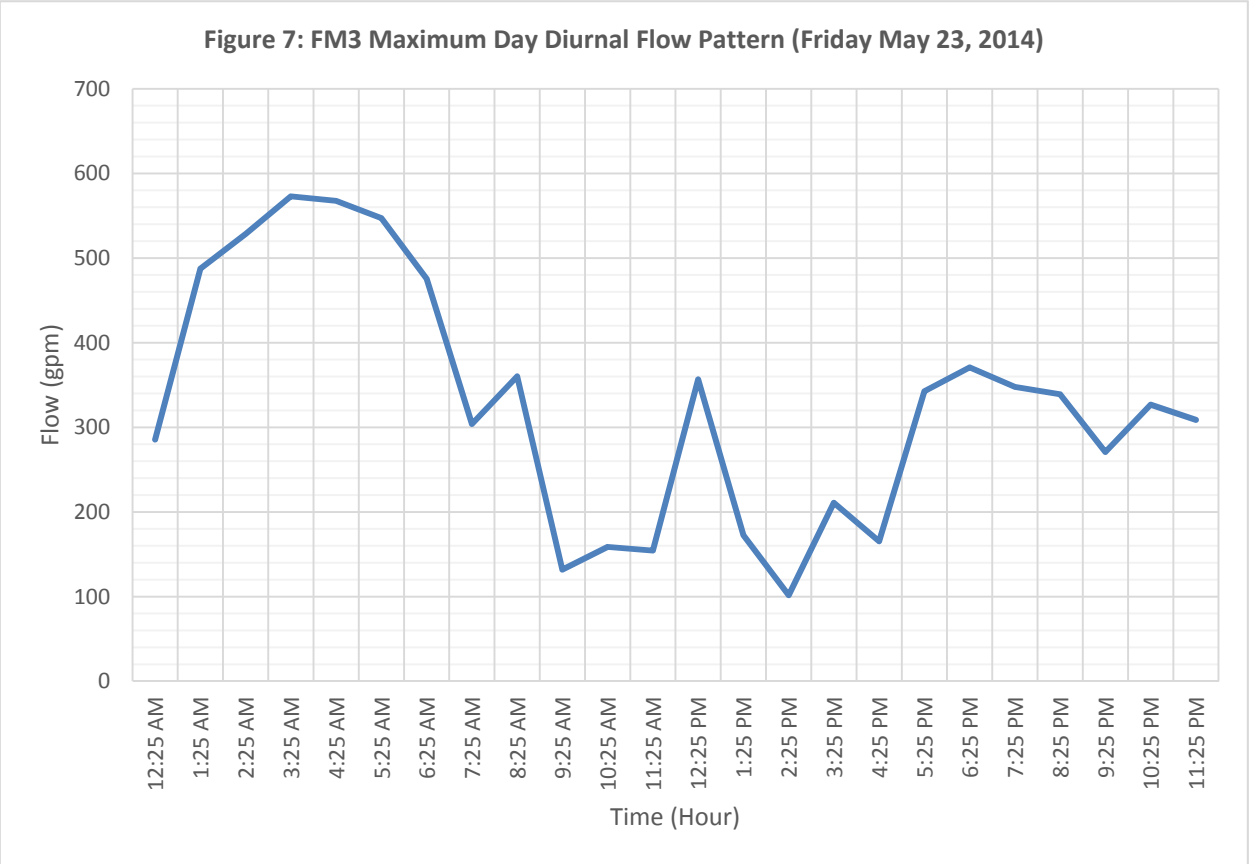


Figure 7: FM3 Maximum Day Diurnal Flow Pattern (Friday May 23, 2014)
Flow (gpm)
700
600
500
400
300
200
100
0
12:25 AM
1:25 AM
2:25 AM
3:25 AM
4:25 AM
5:25 AM
6:25 AM
7:25 AM
8:25 AM
9:25 AM
10:25 AM
11:25 AM
12:25 PM
1:25 PM
2:25 PM
3:25 PM
4:25 PM
5:25 PM
6:25 PM
7:25 PM
8:25 PM
9:25 PM
10:25 PM
11:25 PM
Time (Hour)

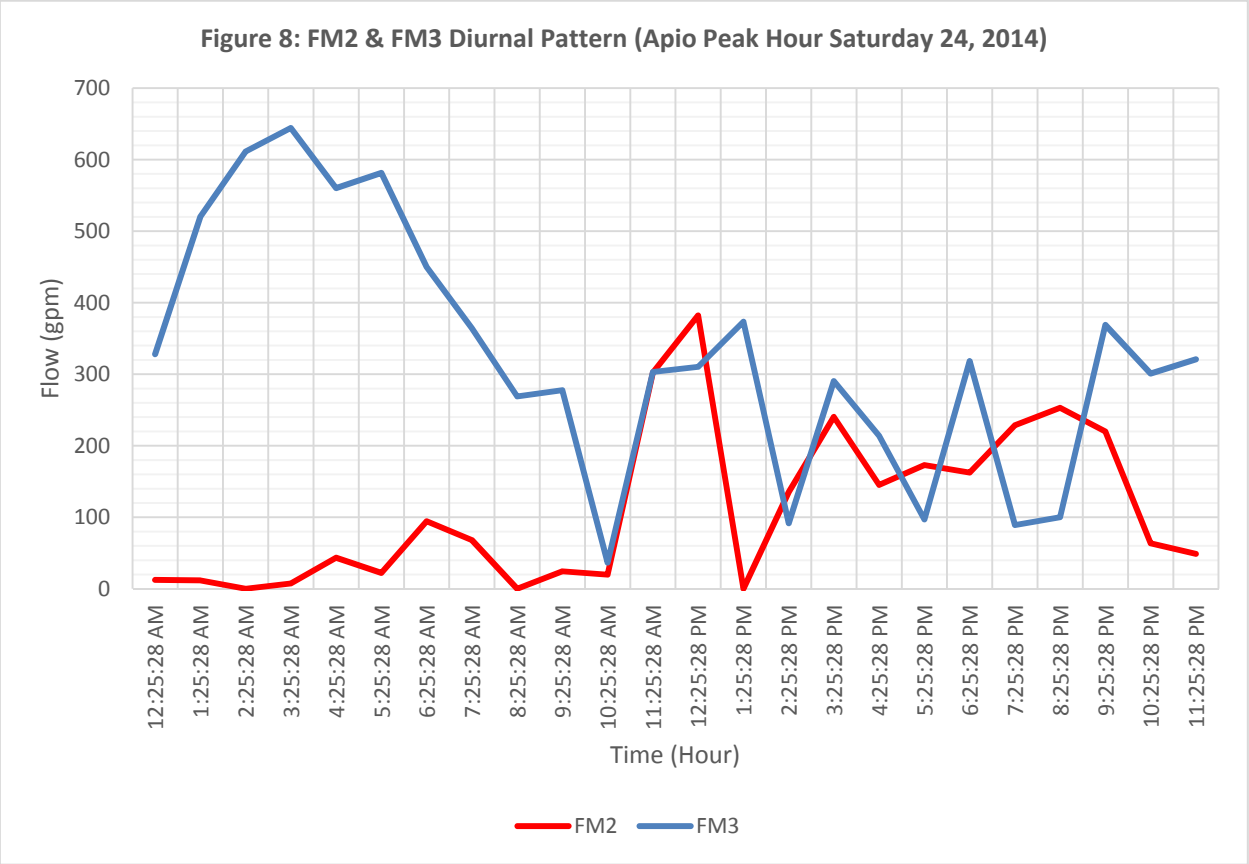


Figure 8: FM2 & FM3 Diurnal Pattern (Apio Peak Hour Saturday 24, 2014)
Flow (gpm)
700
600
500
400
300
200
100
0
12:25:28 AM
1:25:28 AM
2:25:28 AM
3:25:28 AM
4:25:28 AM
5:25:28 AM
6:25:28 AM
7:25:28 AM
8:25:28 AM
9:25:28 AM
10:25:28 AM
11:25:28 AM
12:25:28 PM
1:25:28 PM
2:25:28 PM
3:25:28 PM
4:25:28 PM
5:25:28 PM
6:25:28 PM
7:25:28 PM
8:25:28 PM
9:25:28 PM
10:25:28 PM
11:25:28 PM
Time (Hour)
FM2
FM3

As shown in **Figure 8** approximately half of Apio's daily wastewater flow discharges to the collection from 12:00 am to 7:00 am, while the remaining Apio flow combines with the City's flow for the remainder of the day.

5. COLLECTION SYSTEM ANALYSIS

As the basis of the updated hydraulic model, a Geographic Information System (GIS) database and mapping was developed for the existing City wastewater collection system. A field survey was completed in April to collect GPS coordinates, elevations, and digital photos for approximately 100 sewer manholes within the collection system. Pipe characteristics, survey field data, and average daily flows from water billing data were developed in the GIS database and imported into the hydraulic model. Bentley's SewerCAD V8i hydraulic modeling software was used to simulate the operation of the wastewater collection system.

Updated Wastewater Flows

To determine the potential collection system impacts from the proposed Apio VAC expansion, a baseline (pre VAC expansion) wastewater flow condition was established using 2013 water usage information for the City and Apio, 2013 daily WWTP flows, direction from Apio on the water usage that returns to the collection system as wastewater, and verification of these estimated flow from the recently completed flow monitoring study (see Section 4). With the baseline wastewater flow established, the APIO009 VAC line expansion was added to the baseline flow to identify the potential impacts from the expansion. **Table 5** identifies the baseline wastewater flows that were used for the City and Apio to load the hydraulic model. Peaking factors for Peak Hour Flow (PHF) for the City and Apio was determined from the flow monitoring study. Projected wastewater flow resulting from the second VAC line expansion (APIO009) was added onto the baseline Apio flow.

Table 5: Estimated Wastewater Average Day Flow

Source	2013 Water Usage (GPD)	2013 Estimated Baseline ADF (GPD)
City	510,486	436,459
Apio (Meters 1-8)	305,734	243,541*
Irrigation & Misc.	54,122	-
Total	**870,342****	**680,000*****

*Water from Apio meters 1-4 & 8 return 100% to the wastewater collection system based on information provided by Apio.
**Based on monthly water usage information provided by the City for 2013.
***Based on daily wastewater flows at the WWTP provided by the City of 2013.

The following flow conditions were developed to evaluate the collection system from the Apio facility through the City's trunk main to the WWTP:

Average Daily Flow (ADF): ADF is defined as the total wastewater flow averaged over the number of days in the time period evaluated (one year in this study). For the purpose of this report the ADF was determined based on wastewater flow estimates being developed for the City's 2014 Wastewater Collection System and Treatment Plant Master Plan. The basis of the flow estimation process consists of comparing the City's 2013 average daily water demand, 2013 average daily wastewater flow at the WWTP, and based on this information determine the percentage of water that returns as wastewater to the collection system. Irrigation water usage and known wastewater flow from Apio were removed from the total wastewater flow at the WWTP and the remaining wastewater flow was allocated throughout the remaining City users based on a percentage of water use per parcel. The estimated ADF for the City and Apio under existing conditions is summarized in **Table 5**.

Peak Hour Flow (PHF): PHF is defined as the maximum one-hour flow experienced by the collection system in the time period evaluated (one year), and is typically used as the basis for sizing collection system piping, lift stations, and force mains. Peak hour flow is typically derived from hourly WWTF influent records, flow monitoring, or empirical equations developed to estimate PHF based on service area population. Peak hour information was collected through flow monitoring for this study.

The peaking factor was determined to be 4.7 for the City's PHF and 2.7 for Apio's PHF. The average day flows shown in **Table 5** were multiplied by these peaking factors to simulate PHF conditions.

Hydraulic Model Simulation Results

To identify the potential impacts to the collection system resulting from Apio's proposed VAC expansions, the following hydraulic model scenarios were developed in SewerCAD using the updated baseline flows and peaking factors from the flow monitoring study Section 5:

Baseline Scenarios

Four scenarios were developed to identify system deficiencies from baseline estimated wastewater flows and observed flow conditions from the flow monitoring study. The scenarios evaluated deficiencies caused by:

- **Model Runs 1&2 - 2013 Baseline City Plus Apio (Pre VAC 2) - Average Daily and Peak Hour Flow:** This simulation uses the estimated wastewater flows from **Table 5** and examines baseline City plus Apio ADF (pre VAC 2) on an average and peak flow basis. Pumped flow from the Highway 1 and Pioneer Street lift stations are included in this simulation.

- **Model Runs 3&4 - 2013 Baseline City Plus Apio DRP Request (Post VAC 2) - Average Daily and Peak Hour Flow:** This simulation uses the estimated wastewater flows from **Table 5** plus 100,000 GPD from the second VAC line (observed during the flow monitoring, which is close to the full 112,000 DRP request). Pumped flow from the Highway 1 and Pioneer Street lift stations are included in this simulation.

Mitigation Scenarios

Four scenarios were developed to simulate the performance of the collection system if Apio were conditioned to modify their discharge by limiting discharge of their average daily flow to low flow periods (eight hours between midnight and 8 am). The scenarios include:

- **Model Runs 5&6 - 2013 City Baseline with no Apio Flow ADF and PHF Conditions:** The City's baseline flows without Apio (as if Apio were discharging at night). These simulations use the estimated City wastewater flow from **Table 5** with no flow from the Apio facility. Pumped flow from the Highway 1 and Pioneer Street lift stations are included in this simulation.

- **Model Run 7 - Apio Pre VAC 2 With no City Flow ADF Conditions:** Apio's existing flows pre VAC 2 and without City flows (as if Apio were discharging uniformly, only at night over an 8-hour period). This simulation used the estimated average daily Apio wastewater flow from **Table 5** averaged over an 8-hour period with no flow from the City. Pumped flow from the Highway 1 and Pioneer Street lift stations are excluded in this simulation.

- **Model Run 8 - Apio Post VAC 2 With no City Flow ADF Conditions:** Apio's requested flows based on the DRP (again, as if Apio discharges only at night). This simulation used the estimated daily Apio wastewater flow from **Table 5** plus 100,000 GPD from VAC 2 (observed during the flow monitoring, which is close to the full 112,000 DRP request) averaged over an 8-hour period with no flow from the City. Pumped flow from the Highway 1 and Pioneer Street lift stations are excluded in this simulation.

Table 6 summarizes the results of the above described hydraulic model simulations completed for this report and **Figure 9** shows the extent of the collection system that was modeled as part of this hydraulic analysis (alignment from the Apio facility along the City 12-inch trunk main to the WWTP). Critical depth (d/D) is the ratio of water depth in the pipe to diameter of pipe. Acceptable d/D values were established to be < 0.5 at average day flow and < 0.75 at peak hour, based on industry standards. **Table 6** shows the modeled pipe segments and includes the SewerCAD pipe label, street location (starting at the Apio facility and ending at the WWTP), pipe diameter, and pipe length, and resulting pipe d/D values. Pipe segments that failed the d/D criteria have been highlighted in orange.

Table 6: Summary of Hydraulic Modeling Simulations											
Fluid Depth/Pipe Diameter (d/D) Criteria	**ADF**	**d/D < 0.5**	**Exceeds d/D**	**SewerCAD Scenarios, Flow Conditions, and d/D Results**							
	PHF	**d/D < 0.75**									
SewerCAD Label	Street Location	Pipe Diameter (in)	Pipe Length (feet)	Model Runs 1&2 (2013 Baseline City and Apio Flow)		Model Runs 3&4 (2013 Baseline City and Apio Flow plus VAC 2 Expansion)		Model Runs 5&6 (Baseline City and no Apio Flow)		Model Runs 7 (Baseline Apio and no City Flow)	Model Run 8 (Baseline Apio plus VAC 2 and no City Flow)
				ADF	PHF	ADF	PHF	ADF	PHF	ADF (8-Hour Duration)	ADF (8-Hour Duration)
74	Highway 1	12	291.7	0.05	0.90	0.05	1.00	0.05	0.44	0.00	0.00
75	Highway 1	12	314.4	0.26	1.00	0.25	1.00	0.06	0.88	0.36	0.47
109	Highway 1	12	291	0.37	1.00	0.39	1.00	0.07	1.00	0.61	0.78
149	Highway 1	12	291	0.28	1.00	0.67	1.00	0.06	1.00	0.49	0.59
53	Highway 1	12	207	0.55	1.00	1.00	1.00	0.06	1.00	0.51	0.62
150	Highway 1	12	501.4	0.92	1.00	1.00	1.00	0.06	1.00	0.50	0.60
76	Highway 1	12	405.3	1.00	1.00	1.00	1.00	0.53	1.00	0.45	0.77
69	Highway 1	18	111.7	1.00	1.00	1.00	1.00	0.95	1.00	0.14	1.00
78	Sixth St	18	169.3	1.00	1.00	1.00	1.00	1.00	1.00	0.39	1.00
79	Easement	12	290.3	1.00	1.00	1.00	1.00	1.00	1.00	0.70	1.00
179	Easement	12	335.3	1.00	1.00	1.00	1.00	1.00	1.00	0.82	1.00
99	Fifth St	12	122.9	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00
136	Fifth St	12	276.6	1.00	1.00	1.00	1.00	1.00	1.00	0.84	1.00
201	Pioneer St	12	228.7	1.00	1.00	1.00	1.00	1.00	1.00	0.75	1.00
102	Pioneer St	12	83.5	1.00	1.00	1.00	1.00	1.00	1.00	0.74	1.00
101	Pioneer St	12	128.4	1.00	1.00	1.00	1.00	1.00	1.00	0.71	1.00
100	Wong St	12	220.7	1.00	1.00	1.00	1.00	1.00	1.00	0.75	1.00
153	Wong St	12	218.9	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00
152	Lindy Dr	12	242.8	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00
118	Lindy Dr	12	215.2	1.00	1.00	1.00	1.00	1.00	1.00	0.76	1.00
154	Easement	12	275.8	1.00	1.00	1.00	1.00	0.92	1.00	0.73	0.91
114	Mahoney Ln	12	153.2	0.94	1.00	0.96	1.00	0.80	1.00	0.62	0.77
300	Easement	12	120.8	0.74	0.91	0.78	0.94	0.65	0.87	0.51	0.62
301	Easement	24	202.7	0.23	0.31	0.24	0.34	0.21	0.28	0.17	0.20
239	Easement	24	547	0.25	0.34	0.26	0.37	0.23	0.30	0.17	0.20
180	Snowy Plover Ln	24	383.7	0.25	0.34	0.26	0.37	0.23	0.30	0.18	0.21
225	Snowy Plover Ln	24	349.8	0.32	0.47	0.33	0.53	0.29	0.41	0.23	0.27
224	Easement	18	479	0.42	0.62	0.44	0.68	0.38	0.55	0.30	0.35
299	Easement	18	370.1	0.49	0.74	0.50	0.84	0.44	0.64	0.34	0.41
298	Easement	24	42.7	0.28	0.40	0.29	0.43	0.25	0.36	0.20	0.23

Apio DRP Expansion Wastewater Analysis

Figure 9:

Hydraulic Model

Legend

- Hydraulic Model
- Collection System
- Manholes
- Pump Station
- City Limits

1 inch:400 feet

MAP NOTES:
2012 AERIAL PHOTO PROVIDED BY USDA.
PARCEL BASEMAP PROVIDED BY COUNTY OF SANTA BARBARA GIS.

6. COLLECTION SYSTEM ANALYSIS

Based on the hydraulic evaluation completed for this report, the 12-inch trunk main from Sixth Street to the Mahoney Lane (where it transitions to a 24-inch) is undersized for all ADF and PHF flow conditions analyzed in this study. Based on the hydraulic model, the pipes are undersized for baseline City flows (without Apio), and for Apio alone under existing and proposed future conditions (assuming nighttime discharge and no City flows). A greater number of pipes were found to be deficient when Apio and City flows are combined.

The pipe alignment modeled should be sized to pass peak hour flows and/or worst case flow condition, which consists of peak flow contributions and lift stations "in operation." The model results indicate that the modeled alignment will surcharge under these conditions. The model results are consistent with recent observations that the pipes surcharge when Hwy 1 Lift Station pumps for extended periods (as is currently the case due to the TrusPro (Treasure Park) bypass. The system should be designed to perform under these conditions without surcharging. The 2014 Wastewater Collection System Master Plan will identify recommended pipe upgrades and possible flow diversion recommendations to address collection system deficiencies.

Appendix C

Project Plans and Site Photographs

APIO PROPERTIES

TAG	APN	AREA	OWNER
28	AP115-180-028	4.4	APIO
27	AP115-180-027	1.25	APIO
15	AP115-210-015	0.67	APIO
26	AP115-210-026	11.93	APIO
	TOTAL AREA	17.87 Acres	

ADJOINING PROPERTIES

TAG	APN		OWNER
5	AP115-180-005	–	SOUTHERN PACIFIC RR
25	AP115-180-025	–	JOSE ALVAREZ
26	AP115-180-026	–	GUADALIPE COMMUNITY REDEVELOPMENT AGENCY
10	AP115-210-010		BOREL BANK AND TRUST
19	AP115-210-019	–	LINDSEY ICE
20	AP115-210-020	–	LINDSEY ICE
23	AP115-210-023	–	LINDSEY ICE
24	AP115-210-021	–	FELIPE C ZEPADA

APN NUMBERS FOR SITE

51

EXISTING EASEMENTS
EXISTING APIO PROPERTY LINES
APIO BOUNDARY LINE
OTHER PROPERTY LINES

LINE LEGEND

52

EXISTING LANDSCAPING

			A	B	C	D
PARCEL TAG		PARCEL APN	AREA (ACRES)	AREA (SQ. FT.)	%	TOTAL EXISTING LANDSCAPE AREA (SQ. FT.)
1	28	AP115-180-028	4.0	174,348.0	4.7%	8,231
2	27	AP115-180-027	1.25	54,454.1	4.8%	2,651
3	26	AP115-210-026	11.94	520,028.8	3%	15,758
		TOTAL OVERALL AREAS	17.19	748830.9	3.6%	26,640

SITE LANDSCAPE ANALYSIS

21

APIO COOLING PARKING ANALYSIS : 400 EMPLOYEES CURRENT

			A	B	C	D	E
	PARCEL TAG	PARCEL APN	BUILDING SQ.FT. OR/SITE IMPROVEMENTS SQ.FT.	NUMBER OF EMPLOYEES	REQUIRED PARKING SPACES Col. A/1000+.5B	EXISTING SPACES	DEFICIT OR EXCESS PARKING SPACES Col.D- Col.C
1	28	AP115-180-028	17,357	3	18	179 + 7 HC	168 EXCESS
2	27	AP115-180-027	0	0	0	100	100 EXCESS
3 4	17 26	AP115-210-017 AP115-210-026	203,586 S.F.	397	368 7 HC 10 comp.vehicle	124	(261) DEFICIT
5	25	AP115-180-025 (LEASED PROPERTY)	0	0	0	120	120 EXCESS
APIO PROJECT SITE TOTALS:			220,943 S.F.	400	441	530	89 EXCESS ON SITE

PARKING ANALYSIS

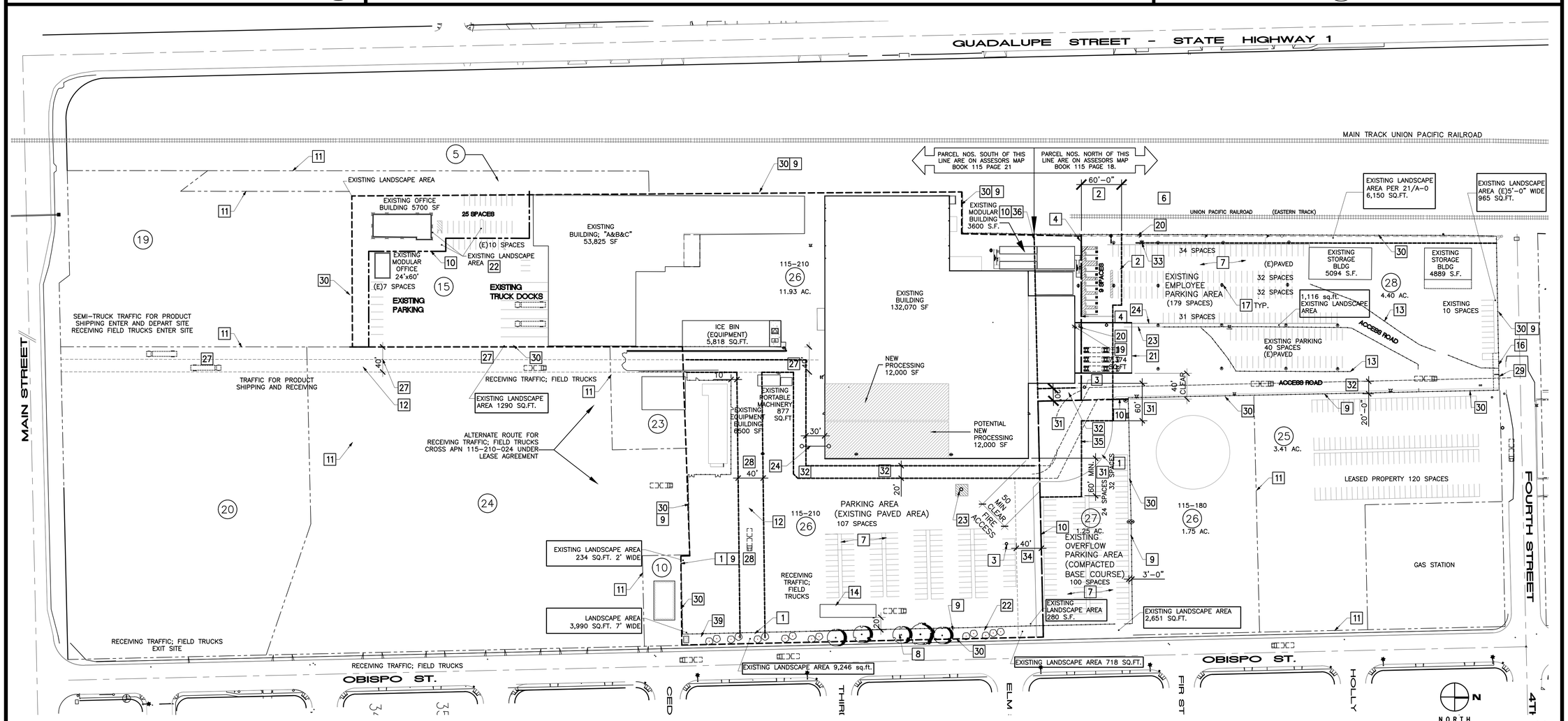
22

1. EDGE OF EXISTING ASPHALT PAVEMENT.
2. NO-BUILD EASEMENT
3. EXISTING DROP INLET.
4. PROPERTY LINE
5. EXISTING SWALE.
6. HANDICAPPED PARKING 7 SPACES
7. EMPLOYEE PARKING – SEE PARKING CALCS THIS SHEET
8. EXISTING LANDSCAPE SCREEN
9. EXISTING CHAIN LINK FENCE
10. EXISTING PROPERTY LINE BETWEEN APIO OWNED PARCELS
11. OTHER PROPERTY LINES AND BOUNDARIES
12. TRUCK TRAVEL PATH RECEIVING SEE CIRCULATION PLAN FOR REFERENCE
13. EXISTING FENCE 6 FT.
14. TRUCK SCALES
15. EXISTING PAVEMENT
16. EXISTING ACCESSIBLE ENTRANCE SIGN AT FOURTH STREET ENTRANCE PER DETAIL
17. EXISTING LIGHT STANDARDS
18. EXISTING FIRE HYDRANT
19. EXISTING FIRE HYDRANT TO BE RELOCATED. SEE SITE UTILITY PLAN
20. EXISTING 3' FIRE DEPT. ACCESS GATE–LOCK PER CITY STD.
21. BELOW GRADE LOADING DOCK RAMP
22. EXISTING LANDSCAPE
23. EXISTING FIRE HYDRANT
24. WATER SERVICE
25. TRUCK TRAVEL PATH PRODUCT SHIPPING
26. NOT USED
27. EXISTING 40' ACCESS EASEMENT
28. 40' ACCESS EASEMENT ALIGNED WITH CENTER OF EASEMENT OF CEDAR AND THIRD.
29. EMPLOYEE PERSONAL VEHICLE TRAFFIC ENTRANCE AND EXIT
30. BOUNDARY LINE OF APIO OWNED PARCELS
31. EXISTING COMBINED NO-BUILD AND PUBLIC UTILITIES EASEMENT
32. EXISTING PUBLIC UTILITY EASEMENT
33. FIRE HYDRANT, SEE UTILITY PLAN
34. EXISTING 40' ACCESS AND PUBLIC UTILITY EASEMENT
35. BOUNDARY OF EASEMENT MIN. OF 60' FROM PROPOSED BUILDING AND 10' TO THE NORTH OF EXISTING WATER LINE
36. EXISTING PROPERTY LINE

(E) = EXISTING
(N) = NEW

KEYNOTES

11



OVERALL SITE PLAN

14

SCALE: 1"=80'
Plot 6 August 2013

RAVATT ALBRECHT & ASSOCIATES, INC.
ARCHITECTURE ENGINEERING

ARCHITECTURE
GREG RAVATT, AIA
MECHANICAL ELECTRICAL
JIM ALBRECHT, PE

CORPORATE OFFICE
3203 LIGHTNING ST.
SANTA MARIA AIRPORT
P.O. BOX 93456-528
SANTA MARIA, CA 93456
(805) 928-5002 FAX (805) 928-0895

SOUTHERN CALIFORNIA
P.O. BOX 92054
SANTA BARBARA, CA 93130-2054
(805) 966-0869 FAX (805) 966-9542

CENTRAL CALIFORNIA
1571 PACIFIC STREET
SAN LUIS OBISPO, CA 93401
(805) 786-4391 FAX (805) 786-1792

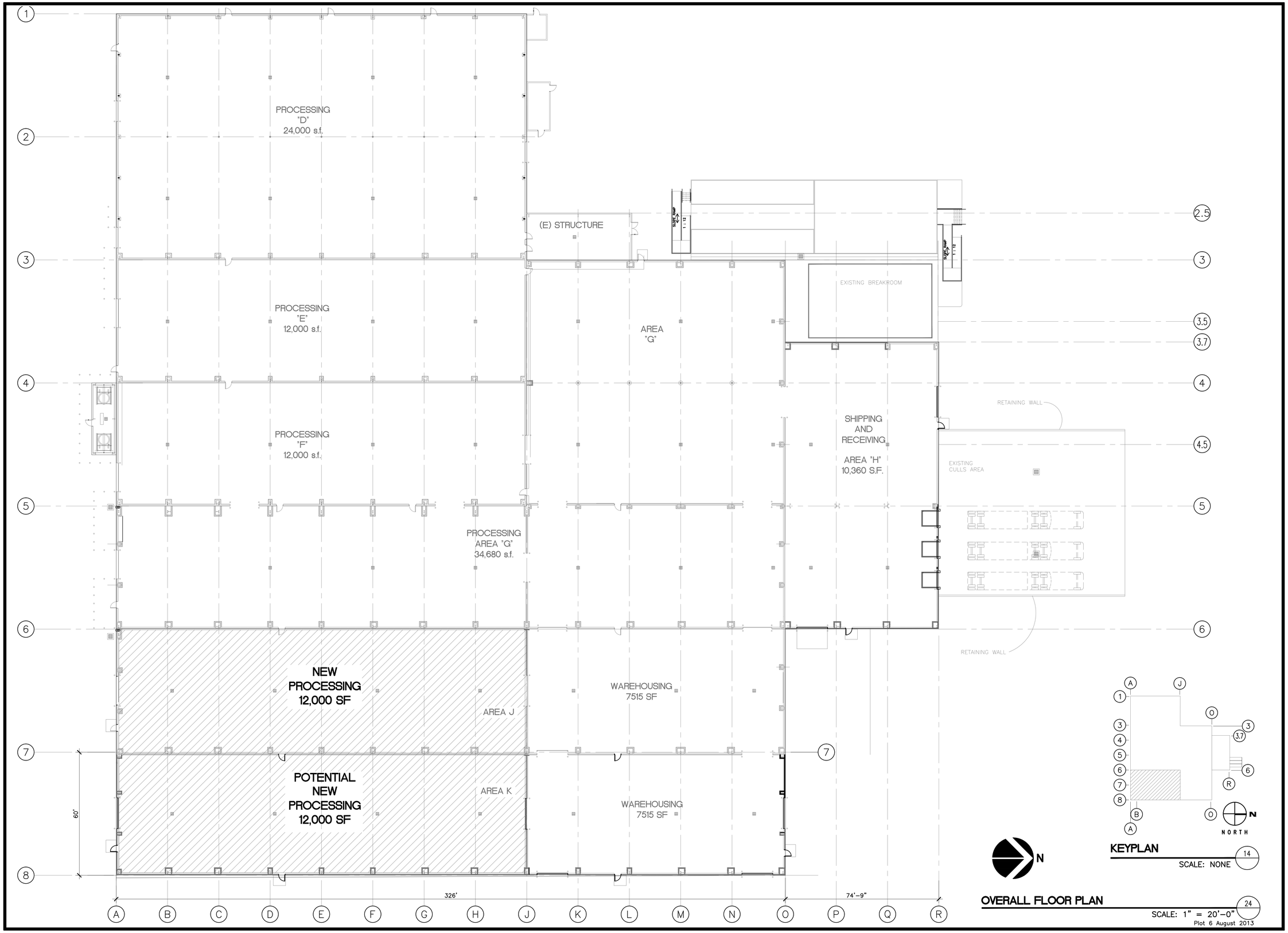
REVISIONS

SEAL

PROJECT
APIO Cooling
Code Clarifications
4595 West Main Street
Guadalupe, CA 93434

SHEET TITLE
OVERALL SITE PLAN

DATE: 08/01/2013
TECHNICIAN:
PROJECT MANAGER: JW
JOB NUMBER: RA # 511
SHEET NUMBER
A-0



OVERALL FLOOR PLAN

SCALE: 1" = 20'-0"

24

Plot 6 August 2013

KEYPLAN

SCALE: NONE

14

RAVATT ALBRECHT
& ASSOCIATES, INC.
ARCHITECTURE ENGINEERING

ARCHITECTURE
GREG RAVATT, AIA
MECHANICAL ELECTRICAL
JIM ALBRECHT, PE

CORPORATE OFFICE
3203 LIGHTNING ST.
SANTA MARIA AIRPORT
P.O. BOX 93456-528
SANTA MARIA, CA 93456
(805) 928-5002 FAX (805) 928-0895

SOUTHERN CALIFORNIA
P.O. BOX 92054
SANTA BARBARA, CA 93130-2054
(805) 966-0869 FAX (805) 966-9542

CENTRAL CALIFORNIA
1370 PACIFIC STREET
SAN LUIS OBISPO, CA 93401
(805) 786-4391 FAX (805) 786-1792

REVISIONS

SEAL

PROJECT
APIO Cooling
Code Clarifications
4595 West Main Street
Guadalupe, CA 93434

SHEET TITLE
PLANNING
FLOOR PLAN

DATE: 08/01/2013

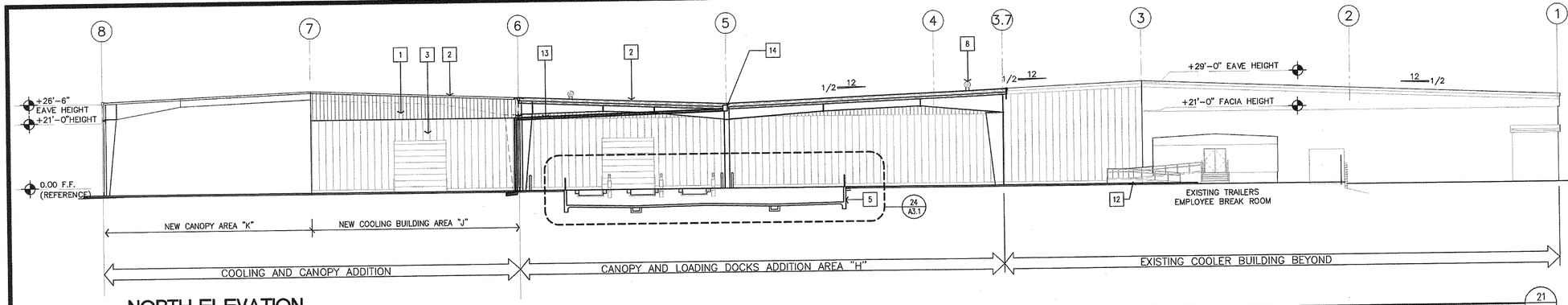
TECHNICIAN: jw

PROJECT MANAGER:

JOB NUMBER: RA # 511

SHEET NUMBER
A-1

TEL WMC

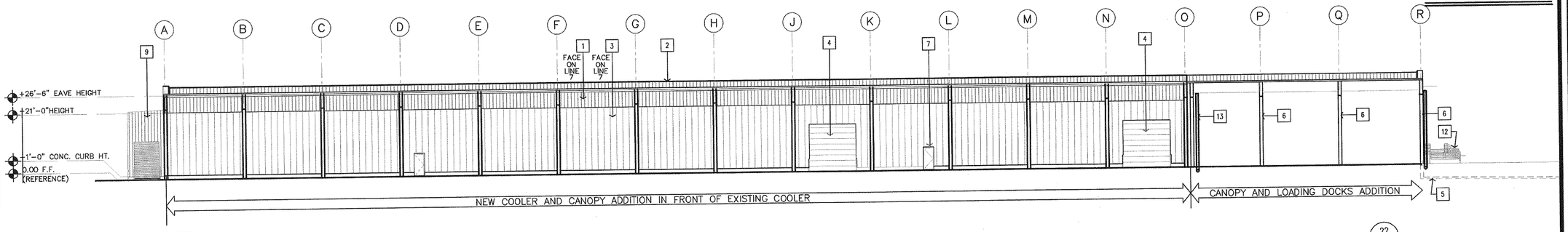


NORTH ELEVATION

SCALE: 1/16" = 1'-0" (21)

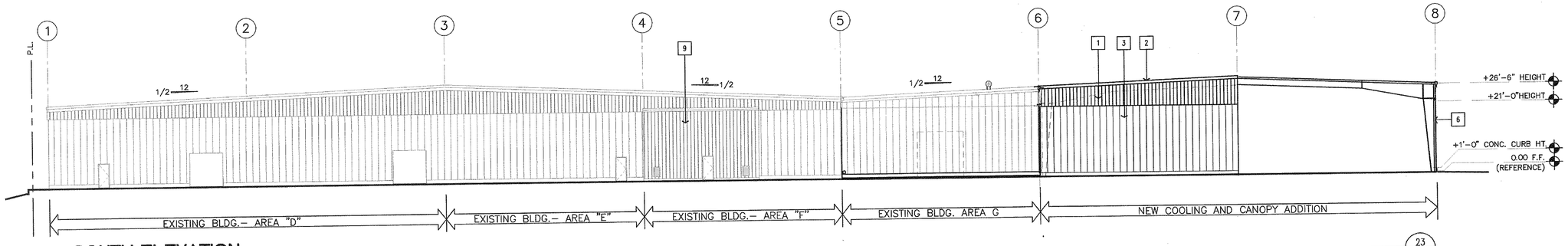
1. (N) 26 GA. METAL SIOING PER MNFR. SPECS.
2. (N) 26 GA. METAL ROOF PANEL PER MNFR. SPECS.
3. (N) 4" THK. INSULATEO METAL PANEL
4. (N) 15'x 15' INSULATED OVERHEAO SPEEO OOOR
5. LOADING OOCK
6. (N) RIGIO FRAME COLUMN . PER MNFR. SPEC.
7. (N) 3'x7' INSULATEO METAL MAN OOOR
8. (N) TURBINE WINO DRIVEN ROOF VENTILATORS
9. (E) RECIRCULATOR ROOM.
10. (E) TURBINE WINO DRIVEN ROOF VENTILATORS
11. (E) 3'x7' INSULATEO METAL MAN DOOR
12. (E) ACCESSIBLE RAMP
13. VALLEY GUTTER DRAIN AND OOWNSOUT
14. VALLEY GUTTER COLLECTOR

NOTES



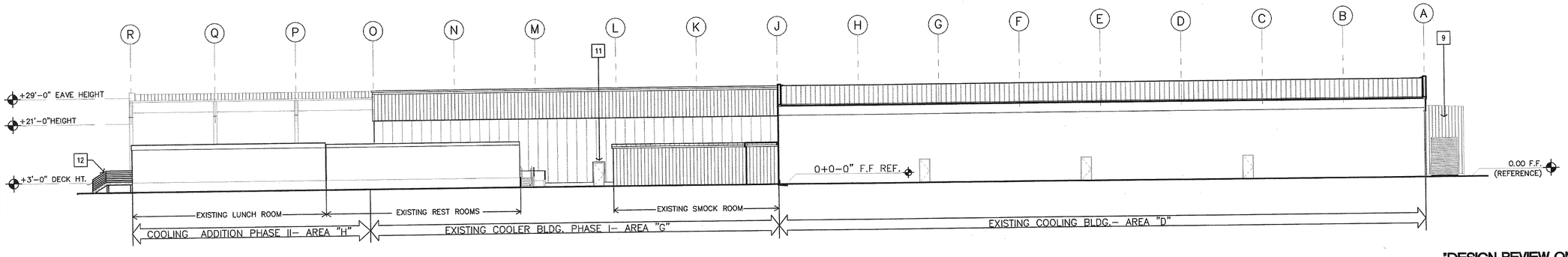
EAST ELEVATION

SCALE: 1/16" = 1'-0" (22)



SOUTH ELEVATION

SCALE: 1/16" = 1'-0" (23)



WEST ELEVATION

SCALE: 1/16" = 1'-0" (24)

"DESIGN REVIEW ONLY"

PLANNING APP. #2008-002-ZC-DRP

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MECHANICAL, ELECTRICAL
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CORPORATE OFFICE
3001 LIBERTY AVE
SANTA MARIA AIRPORT
P.O. BOX 93456-528
SANTA MARIA, CA 93456
(805) 928-9002 FAX: (805) 928-0395

SOUTHERN CALIFORNIA
P.O. BOX 92154
SANTA BARBARA, CA 93190-2054
(805) 966-9889 FAX: (805) 966-9542

CENTRAL CALIFORNIA
1771 PACIFIC STREET
SAN LUIS OBISPO CA 93401
(805) 788-0501 FAX: (805) 788-0792

REVISIONS

SEAL

REGISTERED ARCHITECT
GREGORY ALLEN RAVATT
LIC. NO. C20808
09-30-09
STATE OF CALIFORNIA

PROJECT
APIO Cooling Expansion
4595 West Main Street
Guadalupe, CA 93434

SHEET TITLE
EXTERIOR ELEVATIONS
PLANNING RESUBMITTAL 12/03/2008
PLANNING RESUBMITTAL 02/23/2009

J&P CONSTRUCTION
2310 A Street
Santa Maria, CA 93455
Phone (805) 352-1944
FAX (805) 352-1156

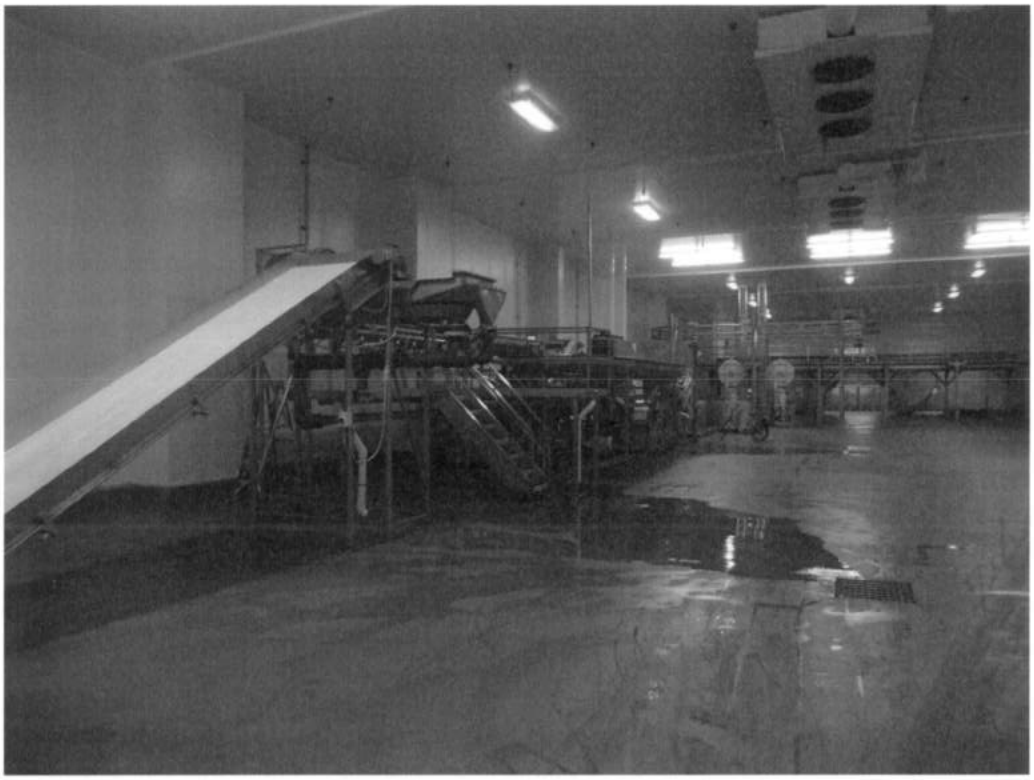
DATE: 05/08/2008
TECHNICIAN: EJC
PROJECT MANAGER:
JOB NUMBER: RA # 386
SHEET NUMBER
DR.A-4
Design Review Application

TILE MAE

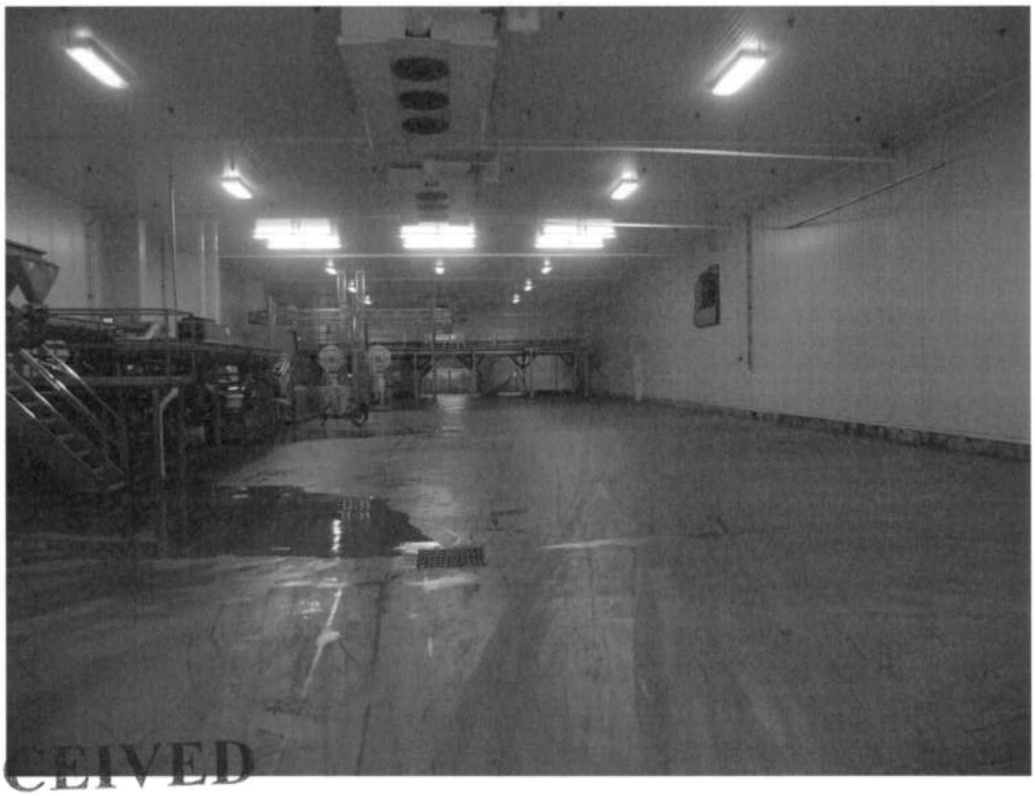
SITE PHOTOGRAPHS

External Views of Structure Proposed for Change of Use

RECEIVED
AUG 19 2013
CITY OF GUADALUPE
BUILDING DEPARTMENT



Area in Structure With Processing Line Installed Temporary Change In Use Pending Completion of CUP Application



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AUG 19 2013
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New Processing Line View Showing Equipment is not Fixed to Walls

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BUILDING DEPARTMENT