



City of Los Angeles

Department of City Planning • Major Projects Section
City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012

INITIAL STUDY

CENTRAL CITY NORTH COMMUNITY PLAN AREA

College Station Project

Case Number: ENV-2012-2055-EIR

Project Location: 129-135 W. College Street and 924 N. Spring Street, Los Angeles, California 90012

Council District: 1

Project Description: The Project proposes the development of a mixed-use transit-oriented development containing 770 residential apartment units and commercial space on a 4.92-acre parcel at 129-135 W. College Street and 924 N. Spring Street (Project Site) in the Central City North community of the City of Los Angeles. Residential square footage would total approximately 590,849 square feet and commercial square footage, which could include a market, restaurants, and retail space, would total approximately 51,390 square feet, for a total of approximately 642,239 square feet and a floor area ratio of approximately 3:1. The Applicant requests a General Plan Amendment, Specific Plan Amendment (technical correction only), Zone Change, Height District Change, Conditional Use Permit, Vesting Tentative Tract Map, and Site Plan Review, among other approvals, to permit development of the Project.

The Project Site is located east of the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line Chinatown Station and southeast of the Los Angeles State Historic Park. The Project Site is currently undeveloped and is periodically used for parking by nearby industrial and commercial businesses.

The Project design is composed of a two-level podium structure below six five-story residential buildings arranged around a central courtyard located on the podium deck. The Project's primary frontages are oriented towards Spring and College Streets, with ground-level commercial and residential uses that would provide pedestrian linkages to uses west of the Project Site. On-site structured parking would provide 1,179 vehicle parking spaces within one-and-a-half subterranean levels and two above-ground podium levels. A total of 899 ground-level bicycle spaces would also be provided.

APPLICANT:
Chinatown Station Owner,
LLC

PREPARED BY:
ESA PCR

ON BEHALF OF:
The City of Los Angeles
Department of City
Planning
Major Projects Section

June 2016

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ENVIRONMENTAL CHECKLIST FORM

CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 615, CITY HALL
LOS ANGELES, CALIFORNIA 90012

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY
AND CHECKLIST
(Article IV B City CEQA Guidelines)

LEAD CITY AGENCY City Planning Department	COUNCIL DISTRICT 1	DATE June 7, 2016
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RESPONSIBLE AGENCIES
City of Los Angeles Department of City Planning, Los Angeles Regional Water Quality Control Board, South Coast Air Quality Management District (SCAQMD), Los Angeles Building and Safety Department, Los Angeles Department of Water and Power (Board of Water and Power Commissioners), Los Angeles Board of Public Works, Los Angeles Department of Transportation

PROJECT TITLE/NO. College Station Project	CASE NO. ENV-2012-2055-EIR
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PREVIOUS ACTIONS CASE NO. CPC-2005-1843-GPA-ZC-HD-ZAA-SPR ENV-2005-881-EIR	<input checked="" type="checkbox"/> DOES have significant changes from previous actions. <input type="checkbox"/> DOES NOT have significant changes from previous actions.
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PROJECT DESCRIPTION:

Chinatown Station Owner, LLC (the Applicant) proposes to construct a mixed-use transit-oriented development (TOD) containing up to 770 dwelling units and 51,390 square feet (sf) of commercial floor area on a 4.92-acre parcel at 129–135 W. College Street and 924 N. Spring Street (Project Site or Site), in the Central City North community of the City of Los Angeles. The Applicant is requesting a General Plan Amendment, Specific Plan Amendment, Zone Change, Height District Change, Conditional Use Permit, Vesting Tentative Tract Map, and Site Plan Review, among other approvals, to permit development of the Project.

The Project Site is located immediately east of both the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line Chinatown Station (located at Spring Street and College Street) and the Los Angeles State Historic Park. The Project Site is currently vacant and is periodically used for parking by nearby industrial and commercial businesses.

The Project design is composed of a two-story podium structure below six five-story residential buildings arranged around a central courtyard located on the podium deck. The Project’s primary frontages are oriented towards N. Spring and W. College Streets, with ground-level commercial and residential uses that would provide pedestrian linkages to uses west of the Project Site. On-site structured parking would provide 1,179 vehicle parking spaces within one-and-a-half subterranean levels and two above-ground podium levels. A total of 899 ground-level bicycle spaces would also be provided.

ENVIRONMENTAL SETTING:

The Project Site is located at the northern end of the Central City North Community Plan Area and in the southwestern portion of the Cornfield Arroyo Seco Specific Plan (CASP) Area, where land uses transition between the light industrial and transit corridor uses to the east and the Chinatown area to the west. The areas north, east, and south of the Project Site are developed with hybrid and light industrial land uses and public facilities (e.g., rail yards and spur lines). The Los Angeles River is located approximately 0.50 miles east of the Project Site. Metro's Gold Line tracks and Chinatown Station, and the Los Angeles Historic State Park, are located across N. Spring Street. The Chinatown Central Business District is located west of the Project Site and is developed with commercial and residential uses.

PROJECT LOCATION:

The Project Site is located at 129–135 W. College Street and 924 N. Spring Street and is bordered on the west by N. Spring Street; on the northeast by Rondout Street; on the east by an alley and wholesale commercial/light industrial uses and surface parking; and on the south by W. College Street. The Project Site is served by a network of regional transportation facilities. Local access to the Project Site is provided from N. Spring Street, N. Main Street, and W. College Street. Regional access is provided by the Hollywood Freeway (US 101) and the Arroyo Seco Parkway (SR 110), approximately 0.80 miles to the south and west, respectively.

For further discussion, see Attachment A.

PLANNING DISTRICT Central City North Community Plan		STATUS: <input type="checkbox"/> PRELIMINARY <input type="checkbox"/> PROPOSED <input checked="" type="checkbox"/> ADOPTED
EXISTING ZONING Urban Center - UC(CA) (Cornfield Arroyo Seco Specific Plan)	MAX. DENSITY ZONING 6:1	<input type="checkbox"/> DOES CONFORM TO PLAN
PLANNED LAND USE & ZONE Regional Commercial/C2-2	MAX. DENSITY PLAN 6:1	<input checked="" type="checkbox"/> DOES NOT CONFORM TO PLAN
SURROUNDING LAND USES See Attachment A, Project Description	PROJECT DENSITY 3:1	<input type="checkbox"/> NO DISTRICT PLAN



DETERMINATION (To be completed by Lead Agency)

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 on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

I find 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 earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Sarah Mahina Pearson

SIGNATURE

City Planner

TITLE

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).
- 5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - 1) Earlier Analysis Used. Identify and state where they are available for review.
 - 2) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - 3) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated
- 7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

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

9) The explanation of each issue should identify:

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Land Use/Planning | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Geology/Soils | <input checked="" type="checkbox"/> Population/Housing | |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | | |

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)



BACKGROUND

PROPONENT NAME	PHONE NUMBER
Chinatown Station Owner, LLC c/o Jeffrey Goldberger	(212) 554-2250
PROPONENT ADDRESS	
450 Park Avenue, New York, NY 10022	
AGENCY REQUIRING CHECKLIST	DATE SUBMITTED
Department of City Planning	June 7, 2016
PROPOSAL NAME (If Applicable)	
College Station Project	

ENVIRONMENTAL IMPACTS

(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

III. AIR QUALITY. Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the SCAQMD or Congestion Management Plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (ozone, carbon monoxide, & PM 10) under an applicable federal or state ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IV. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

a. Cause a substantial adverse change in significance of a historical resource as defined in State CEQA §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HYDROLOGY AND WATER QUALITY. Would the project result in:				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in an manner which would result in flooding on- or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood plain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year flood plain structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with 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, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- | | | | | |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a. Fire protection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Parks? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Other governmental services (including roads)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

XVI. TRANSPORTATION/Traffic. Would the project:

- | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and 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? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Result in inadequate emergency access? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XVII. UTILITIES. Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other utilities and service systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual 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).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)

<p>PREPARED BY Anne Collins-Doehne ESA PCR 80 South Lake Avenue, Suite 570 Pasadena, CA 91101</p>	<p>TITLE Associate Principal, Deputy Director of Environmental Planning Documentation</p>	<p>TELEPHONE # (626) 204-6170</p>	<p>DATE June 7, 2016</p>
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ATTACHMENT A

PROJECT DESCRIPTION

INITIAL STUDY

Attachment A: Project Description

A. Introduction

Chinatown Station Owner, LLC (the Applicant) proposes to construct a mixed-use transit-oriented development (TOD) containing up to 770 residential apartment units and 51,390 square feet (sf) of commercial floor area on an approximately 4.92-acre parcel at 129–135 W. College Street and 924 N. Spring Street (the Project Site), in the Central City North community of the City of Los Angeles. The Applicant is requesting a General Plan Amendment, Specific Plan Amendment, Zone Change, Height District Change, Conditional Use Permit, Vesting Tentative Tract Map, and Site Plan Review, among other approvals, to permit development of the Project.

The Project Site is located immediately east of both the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line Chinatown Station (located at N. Spring Street and W. College Street) and the Los Angeles State Historic Park. The Project Site is currently vacant and is periodically used for parking by nearby industrial and commercial businesses.

The Project's architectural design is composed of a two-story podium structure containing commercial and residential uses and parking, below six five-story residential buildings arranged around a central courtyard on the podium deck. The Project's primary frontages are oriented towards N. Spring and W. College Streets, where ground-level commercial and residential uses are programmed to activate the streetscape and improve the pedestrian linkage to uses west of the Project Site. On-site structured parking would provide 1,179 vehicle parking spaces within one-and-a-half subterranean levels and two above-ground levels within the podium structure. A total of 899 ground-level bicycle spaces would also be provided throughout the Project Site.

B. Project Location and Surrounding Uses

The Project Site is located near the northern end of the Central City North Community Plan Area, just north of Downtown Los Angeles (the Central City area). Chinatown's Central Business District lies just west of the Project Site and the Gold Line Chinatown Station and right-of-way.

The Project Site is an irregularly-shaped parcel extending from W. College Street on the south to Llewellyn Street on the north. To the southeast, it is bordered by two parcels housing wholesale commercial/light industrial uses, storage, and surface parking, from which it is separated by a short alley connecting W. College Street and (unimproved) Rondout Street. The Project Site is bordered on the east/northeast by Rondout Street and on the west by N. Spring Street. The Project Site's location is shown in **Figure A-1**, *Regional Location Map*.



SOURCE: ESRI Street Map, 2009.

College Station
Figure A-1
 Regional Location Map

Land uses west of N. Alameda Street/N. Spring Street in the Project vicinity are currently transitioning to higher-density residential, commercial, and open space uses, spurred by the 2003 opening of the Metro Gold Line Chinatown Station. Representative of this transition is the Blossom Plaza mixed-use development, which is currently nearing completion at the corner of N. Broadway and W. College Street to the west of the Project Site. Also representative of this transition is the Los Angeles State Historic Park, established in 2005 on an approximately 32-acre parcel formerly used as the Southern Pacific Railroad Company's River Station railroad yard and located northwest of the Project Site across N. Spring Street, as shown in **Figure A-2, *Oblique Aerial Photograph of Project Site***. The park is planned as a major open space amenity within the Community Plan Area and buildout will eventually occur in accordance with its approved master plan. Phase I of the master plan is expected to be complete in Spring 2016; subsequent development phases have not been programmed and would be determined by the availability of funding.

The Project Site is served by a network of regional transportation facilities. Local access is provided by N. Spring Street, N. Main Street, and College Street. Other major roadways in the Project vicinity include N. Vignes Street to the southeast and W. Cesar Chavez Boulevard to the south. Regional access is provided by the Hollywood Freeway (US 101) and the Arroyo Seco Parkway (SR 110), located approximately 0.8 miles to the south and west, respectively.

The Project Site is served by a variety of transit options including two Los Angeles Department of Transportation (LADOT) DASH bus lines providing local access: the Lincoln Heights-Chinatown line, with stops at N. Main Street/W. College Street and N. Spring Street/W. College Street as well as multiple stops along Broadway, and the Downtown Route B line, with a stop adjacent to the Project Site at N. Spring Street/W. College Street. The Project Site is also served by LADOT's Commuter Express, providing bus service to the greater Los Angeles area. Route 409, with a stop on N. Broadway 0.1 miles west of the Project Site, and Route 419, with a stop along N. Hill Street 0.2 miles west of the Project Site, provide service to the San Fernando Valley. Metro bus line 76 has a stop on N. Main Street and provides service to the San Gabriel Valley.

The Metro Gold Line Chinatown Station is located immediately west of the Project Site across N. Spring Street, providing direct linkages to East Los Angeles and Pasadena as well as other lines within the Metro Rail system. Union Station, located approximately 0.4 miles south of the Project Site, is a major hub for public transportation, including Amtrak, Metrolink, and bus lines providing national, regional, and local access.

C. Site Background and Existing Conditions

The Project Site encompasses approximately 4.92 acres (214,101 sf) and is currently vacant, as shown in Figure A-2. It is periodically used for surface parking and storage by the nearby commercial and industrial operations. The Project Site is generally flat and supports no landscaping, except for two ornamental specimen trees along the Project Site boundary with the alley to the southeast.



SOURCE: Google Earth, 2015; ESA PCR, 2015

College Station
Figure A-2
Oblique Aerial Photograph of Project Site

The Project Site was used as a freight rail yard beginning in approximately 1905, during which time it housed freight storage houses, multiple rail lines, a wood yard, coal yard, oil storage, small businesses, and some dwellings. The site was vacant by 1970 and was acquired from Union Pacific Railroad by Metro for equipment and materials staging during construction of the Gold Line. All on-site buildings were demolished in the late 1980s. Metro subsequently undertook soil and groundwater remediation under the oversight of regulatory authorities and the California Water Quality Control Board issued a No Further Action notification in 2003.

D. Existing Planning and Zoning

1. Central City North Community Plan

The Project Site is located within the Central City North Community Plan Area of the City of Los Angeles. The City's 35 community plans collectively comprise the Land Use Element of the General Plan which is the official guide to the future development of the City of Los Angeles. The Community Plan Land General Plan Land Use Map designates the Project Site for Hybrid Industrial land uses. This land use designation corresponds to the HI zone (Hybrid Industrial, Cornfield Arroyo Seco Specific Plan [CASP]), CM zone (Commercial Manufacturing), and P zone (Parking).

Development on the Project Site is limited by footnotes to the Community Plan. Specifically, Footnote 7 on the Community Plan Land Use Map establishes a maximum floor area ratio (FAR) for commercial development of 1.5:1, although a FAR of up to 3:1 may be realized for residential development. Additionally, Footnote 10 recognizes the site's adjacency to the Gold Line Chinatown Station and instructs that parcels within 1,500 feet of the station be designed to "encourage transit-oriented development and pedestrian activity." The footnote encourages the creation of a Specific Plan that "recognizes Chinatown as a Local and Tourist Destination Center and will provide for development and uses which encourage TOD and pedestrian activity, including a station area plaza, paseos, mixed residential/commercial uses and local/regional transit ridership opportunities (including intermodal transfers)". A Specific Plan reflecting this footnote has yet to be developed. Lastly, Footnote 12 is specific to residential and mixed-use projects on the Project Site, and states:

"For the Area bounded by North Spring Street on the west, Rondout Street on the north, North Main Street on the east and College Street on the south the following restrictions shall apply:

For residential mixed-use projects, the first 1.5:1 FAR of residential use shall be permitted to be market rate units. Residential uses with FARs 1.5:1 to 3:1 shall set aside 20% of their units for affordable housing. Residential projects with FARs in excess of 3:1 shall set aside 100% of the units above the 3:1 threshold as affordable units. Units complying with the affordable requirements of this footnote shall not be used for the purpose of obtaining additional density bonus, under the terms of the State law. The affordable component of these projects may be used for any other incentive listed by State law."

2. Cornfield Arroyo Seco Specific Plan (CASP) and Zoning

The Project Site is located in the southwestern portion of the CASP area. The CASP is intended to facilitate evolution of this area from vehicle-oriented industrial and public facility uses to a mixed-use community of pedestrian and transit-oriented uses. The CASP designates the Project Site general land use designation as Hybrid Industrial with an Urban Center (UC(CA)) zone. The UC(CA) zone designation permits a range of light industrial and wholesale, repair and maintenance, office, hotel, commercial, and residential multi-family uses, and a maximum FAR of 1.5:1 and 3:1, respectively, depending on the proposed mix of uses.

However, the Project application was initially filed with the City in 2012, prior to adoption of the CASP, and the Project is not subject to CASP provisions. Prior to CASP adoption, the Project Site was zoned MR2-1 (Restricted Light Industrial), wherein “1” denotes Height District 1, which permits a FAR of 1.5:1 and unlimited building height. The MR2 designation is intended to protect light industrial land uses from encroachment by commercial and other non-industrial uses, to accommodate the shift from traditional industries to technology and other light industry, and to upgrade development standards to improve compatibility with nearby residential uses. A variety of uses are permitted under this zoning designation, including wholesale, commercial, and limited manufacturing uses, open storage, and parking.

E. Description of the Proposed Project

1. Development Program Summary

The Project proposes to develop the vacant Project Site with a mixed-use development consisting of 770 residential apartment units of varying configurations totaling 590,849 square feet of residential floor area, 51,390 square feet of ground-level commercial floor area, open space and amenities, and vehicle and bicycle parking.

The Project would result in a total of approximately 642,239 square feet of developed floor area equal to a FAR of 3:1 and residential density of 157 units per acre. The proposed development program is discussed in detail below and summarized in **Table A-1, *Development Program Summary***. The locations of the Project’s key ground-level components are shown in **Figure A-3, *Conceptual Site Plan (Ground Level)***, while the location of key components on the podium deck and the spatial arrangement of the six residential buildings are depicted in **Figure A-4, *Conceptual Site Plan (Podium Deck)***. A conceptual rendering of Project’s architectural design is shown in **Figure A-5, *Conceptual Architectural Design***.

**TABLE A-1
DEVELOPMENT PROGRAM**

Use	Size / Area
Site Area (sf/ac)	214,101 sf/4.92 ac
<u>Residential</u>	
Studio Apartments	355 du
1BR Apartments (including 10 Townhomes)	360 du
2BR Apartments	55 du
Total Dwelling Units	770 du
Total Residential Floor Area	590,849 sf
<u>Commercial</u>	
Market (Ground Level)	37,520 sf
Retail (Ground Level)	5,870 sf
Restaurant (Ground Level)	5,000 sf
Restaurant (Ground Level)	<u>3,000 sf</u>
Total Commercial Floor Area	51,390 sf
Total Floor Area	642,239 sf
Floor:Area Ratio (FAR)	3:1
<u>Vehicle Parking</u>	
Residential	1,005 sp
Commercial	<u>174 sp</u>
Total Vehicle Parking	1,179 sp^a (Code Requirement: 1,105 sp)
<u>Bicycle Parking</u>	
Residential	847 sp
Commercial	<u>52 sp</u>
Total Bicycle Spaces	899 sp
LAMC Code Required Spaces	899 sp
Open Space, Landscaping & Amenities	
Publicly Accessible Open Space	
Open Space (Ground Level)	10,871 sf
Landscaped Area (Ground Level)	<u>4,826 sf</u>
Total Publicly Accessible Open Space	15,697 sf
Open Space & Amenities for Residents	
Common Open Space/Amenities (Podium Deck, Outdoor)	47,502 sf
Common Landscaped Area (Podium Deck, Outdoor)	27,717 sf
Common Amenities (Ground Level, Podium Deck, Residential Level 5, Indoor)	<u>19,593 sf</u>
Total Common Open Space & Amenities For Residents	110,509 sf
LAMC Code Required Common Space & Amenities	78,375 sf
Private Open Space for Residents (Balconies, Podium-Level Private Patios)	14,850 sf

^a Of the 1,179 parking spaces to be provided, 37 spaces would be Americans With Disabilities Act (ADA) accessible. Charging stations for electric vehicles and prewired spaces to accommodate the future placement of charging stations would also be provided.

Source: Atlas Capital Group, Johnson Fain. May 2016.



SOURCE: Johnson Fain, 2016

College Station
Figure A-5
Conceptual Architectural Design

The Project's apartment units would be accommodated within six residential buildings located atop the podium structure and spatially arranged around a central courtyard. The residential program includes 355 studio, 360 one-bedroom, and 55 two-bedroom apartments, including 10 one-bedroom ground-level two-story townhomes.

The Project's approximately 51,390 square feet of commercial floor area is programmed within three separate areas on the Project Site. The largest of the three retail areas (37,520 square feet) would front College Street at the southern end of the Project Site and is programmed for use as a grocery market. The remaining two commercial areas would front N. Spring Street and would be separated by a row of ten two-story townhomes. The two commercial areas fronting N. Spring Street are programmed for approximately 5,870 square feet of retail space and 8,000 square feet of restaurant area.

The Project proposes to provide a total of 1,179 on-site parking spaces for both residential and non-residential uses. This would accommodate all Project parking demand, including residents and commercial employees and patrons. Charging stations for electric vehicles and prewired spaces to accommodate the future placement of charging stations would be provided. The Project would also include five ground-level bicycle storage areas, including the retail bicycle storage space, to serve Project residents and commercial employees and patrons. These areas would provide 899 bicycle stalls and facilities pursuant to the City of Los Angeles Bicycle Ordinance and LAMC requirements, and would also include lockers for employees.

The Project is designed as an "urban center" adjacent to the existing Gold Line Chinatown Station. The primary Project frontages would be along N. Spring and W. College Streets, with ground-level commercial (retail/restaurant) and residential uses, as well as public open space, located along these frontages. In combination with widened sidewalks compared to existing conditions and landscaping, these ground-level uses are intended to activate the streetscape and improve the pedestrian connection between the Project Site and uses west of the Project Site, including the Gold Line Chinatown Station, the Los Angeles State Historic Park, and existing development within Chinatown. The Project's public open spaces would also provide pedestrian connections between the Chinatown Station and future development to the east of the Project Site. The Project's public open space includes a North Plaza at the intersection of N. Spring and Rondout Streets, a South Plaza at the intersection of N. Spring and W. College Streets, and three pocket seating areas along the N. Spring Street frontage. Common open space for residents would be provided in a central courtyard atop the podium deck. The Project's proposed open space and amenities are discussed in detail in Subsection E.3, Open Space and Recreational Amenities and Landscaping, below.

As part of the Project, the Applicant is requesting a General Plan Amendment to deviate from Footnote 12 of the Community Plan; a General Plan Amendment from Hybrid Industrial to Regional Center Commercial; a Specific Plan Amendment to reflect the Project Site's exemption from CASP provisions; a Zone Change and Height District Change from the existing CASP designation of UC(CA) to C2-2 (Regional Commercial, Height District 2); and a Conditional Use Permit to permit the sale of alcoholic beverages for off-site consumption.

The requested Height District Change would not modify the permitted height of buildings on the Project Site compared to existing conditions, and instead would serve to allow an increased 6:1 FAR (although the Project proposes a FAR of only 3:1).

2. Project Design and Architecture

The Project has been designed in a contemporary, industrial architectural style. The Project's architectural design includes a two-story podium structure with six residential buildings arranged around a central courtyard above the podium deck; the podium structure would be hidden from view by ground-level commercial and residential uses lining the Project's primary street frontages. The Project would accommodate on-site vehicle parking within one-and-a-half subterranean levels and two above-ground podium levels. Each residential building would be five stories above the two-level podium, resulting in a maximum building height of seven stories, equal to 80 feet above adjacent finished grade.

The design ensures adequate articulation of building elevations by dispersing the residential buildings throughout the Project Site and utilizing varied setbacks and design elements to communicate their locations. The building's first two stories are designed to be pedestrian-oriented and activate the streetscape. The upper five stories would be stylistically differentiated through the use of design elements intended to invoke an industrial style and create visual interest and surface texture. These design elements include modulated façades accented with metal panels applied as prominent vertical elements, horizontal bands of windows, and offset projecting balconies. Building ends would be accented by wood panels. The elevations of the residential buildings would further be broken up through the use of cantilevered overhangs on the upper floors which would also serve to shade the ground level and podium deck. Mechanical equipment would be located on the roof and screened from public view with decorative enclosures.

As mentioned above, the Project's first two levels are designed to activate the pedestrian environment along N. Spring and W. College Streets to facilitate connections with uses west of the site, including the Gold Line Chinatown Station, Los Angeles State Historic Park, and Chinatown. Ground-level building frontages along N. Spring and W. College Streets are programmed with commercial space and open space and related amenities. The commercial spaces would display largely transparent glazed storefronts along street frontages and would be interspersed with two-story townhomes, with sufficient articulation between the commercial and residential uses to create visual variety. Buildings facades along the N. Spring and W. College Street elevations would feature a vertical array of sawtooth bay windows with metal shade panels that would offer views toward the Downtown skyline. Within the interior Project Site, residential balconies would be oriented toward active landscaped courtyards atop the podium. The two pedestrian plazas and pocket seating areas would further serve to activate the streetscape. Commercial signage would utilize glare-free fixtures to compliment architectural features and reduce the potential for light spillover. Trash collection and recycling would be screened from public view and the loading area would be located along Rondout Street.

3. Open Space and Recreational Amenities and Landscaping

The Project would provide an open space and amenities program consisting of ground-level public open space, common open space and recreational amenities for use by Project residents, and private open space for individual residential units.

The Project would provide approximately 15,697 square feet of ground-level publicly accessible open space in the form of pedestrian plazas at the northern end (the North Plaza) and southwest corner (the South Plaza) of the Project Site. Both pedestrian plazas face the Gold Line Chinatown Station with the intent to improve connectivity to the station. The North Plaza would serve as a new east-west pedestrian passageway across the Project Site. Both plazas would incorporate decorative paving and hardscape, seating areas, and landscaped planters. Additional publicly accessible open space would be provided in three, smaller seating areas located N. Spring Street at the building entrances. The ground-level public open space would provide approximately 4,826 square feet of landscaped area.

Common outdoor open space for the exclusive use of Project residents would be provided in the central courtyard on the podium deck. The central courtyard would provide 75,219 square feet of open space for Project residents, consisting of decorative paving, lawn areas, dining areas, pool and spa areas, seating areas, water features, an amenity garden, a recreation court, and landscaping. Landscaping would comprise approximately 32,543 square feet or 36 percent of the overall common outdoor open space area. In addition, the Project provides indoor common areas and recreational amenities for use by Project residents. These include a community room, fitness center, and indoor spa. Private open space for residents in the form of balconies and podium-level private patios will comprise approximately 14,850 square feet.

A landscape plan incorporating the elements described above would be implemented as part of the Project. **Figure A-6, *Landscape Plan (Ground Level)***, and **Figure A-7, *Landscape Plan (Podium Deck)***, depict the Project's proposed landscaping.

4. Access and Circulation, Parking, and Bicycle Amenities

Parking totaling 1,179 stalls, or 71 more spaces than required by the LAMC, would be accommodated on-site within one-and-a-half levels of subterranean parking and two levels of above-ground podium structured parking. Residential parking would be accommodated within the one-and-a-half subterranean levels, while residential guest and retail parking stalls would be accommodated within the two above-ground podium levels. Residential vehicle access to the structured parking would be accommodated via a gated entrance driveway on N. Spring Street and two gated entrance driveways on Rondout Street. Retail vehicle access would be provided via a single entrance driveway on N. Spring Street. The Project's loading area would be accessed via Rondout Street.



SOURCE: Johnson Fain, 2015

College Station
Figure A-6
 Landscape Plan (Ground Level)



SOURCE: Johnson Fain, 2015

College Station
Figure A-7
Landscape Plan (Podium Deck)



The Project would also provide 847 residential bicycle stalls (770 long-term, 77 short-term) and 52 commercial bicycle stalls (26 long-term, 26 short-term) in accordance with the City of Los Angeles Bicycle Ordinance and LAMC requirements. Residential and retail bicycle parking would be provided within five ground-level storage areas dispersed throughout the Project Site; the bicycle storage areas will also include lockers for employees.

Pedestrian access to the proposed uses would be available from N. Spring, Rondout, and College Streets, and internally from the structured parking. Pedestrian access to the central courtyard would be provided by two staircases accessed via College Street at each of the public plazas. Direct pedestrian access to Residential Buildings 1 and 2 would be provided via entryways on W. College Street, while direct pedestrian access to Residential Buildings 3 and 4 would be accommodated via entryways on W. College Street. An entryway on Rondout Street would provide pedestrian access to Residential Building 5, and an entryway at the North Plaza would provide pedestrian access to Residential Building 6. The North Plaza would also provide pedestrian access to the northern commercial area. The commercial uses located on N. Spring Street would be accessed directly via entryways along the sidewalk, as would the ground-level townhomes. Additional pedestrian access to the townhomes would be provided from an internal hallway. The market would be accessed via entryways in the South Plaza and the parking structure.

5. Lighting and Signage

New Project Site signage would include building identification, commercial retail, wayfinding, and security markings. Commercial signage would utilize glare-free fixtures to compliment architectural features and reduce the potential for light spillover, and no off-site signage is proposed. Pedestrian areas would be well-lighted for security. Project lighting would also include visible interior light within the ground-level commercial and residential uses, streetlights on N. Spring, W. College, and Rondout Streets, wall-washers and other similar architectural surface lighting along the building elevations, and decorative lighting within the pedestrian plazas and seating areas.

6. Sustainability

Project design would comply with the Los Angeles Green Building Code, which builds upon the 2010 California Green Building Code (CalGreen). The Project has also been designed with a central courtyard design to maximize daylight and natural ventilation. Additional Project design features that would contribute to energy efficiencies may include, but are not limited to: the use of materials and finishes that emit low quantities of volatile organic compounds, or VOCs; the installation of heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; high-efficiency appliances; stormwater retention; and the incorporation of water conservation features; and the provision of bicycle parking and other amenities for cyclists. Of the total parking provided, four vehicle spaces would provide charging stations for electric vehicles and an additional 95 spaces would be prewired to accommodate the future placement of charging stations. On-site recycling facilities would be provided pursuant to LAMC requirements.

7. Anticipated Construction Schedule

Construction of the Project is anticipated to begin in 2017, pending Project consideration and approval, and would be completed in 2020. Construction is expected to take place in multiple potentially overlapping phases. Up to 192,000 cubic yards of soil are anticipated to be excavated during Project construction, all of which would require export and disposal off-site.

F. Necessary Approvals

It is anticipated that approvals required for the proposed Project would include, but may not be limited to, the following:

- General Plan Amendment for a deviation from Footnote 12 of the Central City North Community Plan;
- General Plan Amendment from Hybrid Industrial land use designation to Regional Center Commercial;
- Specific Plan Amendment (technical amendment only) to reflect Project Site exemption from CASP provisions and effect corresponding correction to Central City North Community Plan General Plan Land Use Map;
- Zone Change from UC (CA) to C2, to reflect Project Site exemption from CASP provisions and effect corresponding correction to Zoning Map;
- Height District Change from Height District 1 to Height District 2, to allow an increase in the maximum FAR from 1.5:1 to 3:1;
- Conditional Use Permit pursuant to LAMC §12.24.W.1 to permit the on-site sale of alcoholic beverages in conjunction with the proposed market;
- Vesting Tentative Tract Map;
- Site Plan Review;
- Certification of the Environmental Impact Report;
- Grading, excavation, foundation, and associated building permits; and
- Other permits and approvals as deemed necessary, including possible legislative approvals as required by the City to implement the Project.

ATTACHMENT B

EXPLANATION OF CHECKLIST DETERMINATIONS

INITIAL STUDY

Attachment B: Explanation of Checklist Determinations

The following discussion provides responses to each of the questions set forth in the City of Los Angeles Initial Study Checklist. The responses on the following pages indicate those topics that are expected to be addressed in an Environmental Impact Report (EIR) and demonstrate why other topics are not expected to result in significant environmental impacts and thus do not need to be addressed further in an EIR. The questions with responses that indicate a “Potentially Significant Impact” do not presume that a significant environmental impact would result from the Project. Rather, such responses indicate the topics will be addressed in an EIR with conclusions regarding impact significance reached as part of the EIR analysis.

I. Aesthetics

Would the project:

a. Have a substantial adverse effect on a scenic vista?

Potentially Significant Impact. The Project Site is located within a highly urbanized area northeast of downtown Los Angeles. Visual resources of merit in the Project vicinity include Los Angeles State Historic Park to the west, the Los Angeles River to the east, the downtown Los Angeles skyline to the southwest, and the easternmost foothills and bluffs of the Santa Monica Mountains to the northwest. Because the Project would introduce mid-rise buildings and increase overall density on the currently undeveloped Project Site, which would alter the visual conditions on the Site, it could have an effect on scenic vistas from some locations in the Project vicinity. Therefore, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will include: (1) an identification and description of the valued view resources present in the area; (2) an identification of vantage points that have access to the identified valued view resources; (3) an analysis of changes attributable to project development; and (4) an analysis of the project’s potential to block or otherwise remove views of the identified view resources.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?

Potentially Significant Impact. The Project Site is not located along a City- or State-designated scenic highway or associated view corridor. Although not designated a California scenic highway, the Arroyo Seco Parkway (SR 110), which begins approximately 2.0 miles northwest of

the Project Site, has been designated by the State as a Historic Parkway from the Figueroa Tunnels to Pasadena (post miles 25.7 to 31.9). This section of SR 110 has also been designated as a National Scenic Byway by the Federal Highway Administration (FHWA). Although the designated segment of SR 110 is north of the Project Site, the proposed mid-rise towers may be visible from the roadway following Project buildout. Therefore, it is recommended that this topic be analyzed further in an EIR to determine any potential impacts on views from the designated segment of SR 110. The EIR analysis will include: (1) an identification and description of any scenic resources in the area; (2) an identification of vantage points that have access to the identified valued scenic resources; (3) an analysis of changes attributable to Project development; and (4) an analysis of the Project's potential to damage scenic resources.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact. The Project would develop the Project Site with six mid-rise buildings atop a two-story podium structure, pedestrian plazas, ground-level residential/market/retail/restaurant uses, and streetscape improvements. Because the proposed development would alter the visual character of the undeveloped Project Site and its surroundings by introducing new buildings and increasing development density in the Project area, it is recommended that this topic be analyzed further in an EIR. The EIR analysis will include: (1) a description of the visual character of the Project Site, as viewed from off-site locations under existing and proposed conditions; (2) an analysis of potential impacts to the valued visual character; and (3) an evaluation of Project consistency with relevant policies set forth in applicable City plans (e.g., City General Plan, Central City North Community Plan, Cornfield/Arroyo Specific Plan [CASP], etc.).

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Impact. The Project Site is located within a highly urbanized area northeast of downtown Los Angeles, which is characterized by medium to high ambient nighttime artificial light levels. At night, the surrounding development typically generates moderate to high levels of interior and exterior lighting for security, parking, signage, architectural lighting, and landscaping/decorative purposes. Street lights and traffic on local streets also contribute to relatively high ambient light levels in the area. The Project would contribute to ambient nighttime illumination as the Project's new architectural lighting, security lighting, and illuminated signage is expected to increase light levels over existing conditions. Some lighting elements may be visible from nearby off-site vantages, including the residential uses east of the Project Site. In addition, the Project would introduce new building surface materials to the Project Site with the potential to generate glare. Therefore, it is recommended that this topic be analyzed further in an EIR. The EIR light and glare analysis will include: (1) a description of the City regulatory environment as it relates to artificial light and glare; (2) a description of existing on-site and off-Site light and glare conditions; (3) an identification of light- and glare-sensitive uses; (4) a description of potential new light and glare sources that may be introduced by the Project; and (5) an analysis of the potential for the Project to adversely affect the identified light- and glare-sensitive uses.

Shading impacts are influenced by the height and bulk of a structure, the time of year, the duration of shading during the day, and the proximity of shade-sensitive land uses, or receptors. The Project vicinity is characterized by a number of low- and medium-density hybrid and industrial uses, which are not shade-sensitive receptors. However, the Los Angeles State Historic Park is located across Spring Street from the Project Site. As the Project would increase the height and massing of on-site development in the potential area of shading for this park, it is recommended that this topic be analyzed further in an EIR. The EIR shading analysis will include: (1) an identification of shadow-sensitive uses in the surrounding adjacent area; (2) an analysis of the shadow that could be caused by the proposed structures for the morning, mid-day, and afternoon periods during the Summer and Winter solstices and the Spring/Fall equinox; (3) a description of the duration of Project-related shading on any of the identified shadow-sensitive uses; and a comparison of the duration of shading to applicable City significance thresholds.

II. Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project Site consists of a currently undeveloped lot. No agricultural uses or related operations are present within the Project Site or in the surrounding highly urbanized area. As such, the Project Site is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program.¹ Since the Project would not convert farmland to non-agricultural uses, there would be no impact. No further analysis of this topic in an EIR is recommended and no mitigation measures are required.

¹ California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland Map 2010 and Los Angeles County Williamson Act Map 2011-2012.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project Site is designated as Hybrid Industrial on the Central City North Community Plan General Plan Land Use Map and is zoned UC(CA) (Urban Center, Cornfield Arroyo Seco Specific Plan). It consists of a flat, undeveloped parcel that is periodically used for parking. No agricultural zoning is present in the Project vicinity, and no nearby lands are enrolled under the Williamson Act. As such, the Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract, and there would be no impact. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

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))?

No Impact. As discussed in the response to Checklist Question II(b), the Project Site is zoned UC(CA) (Urban Center, Cornfield Arroyo Seco Specific Plan) and consists of an undeveloped lot. Furthermore, consistent with the built, urbanized area surrounding the Project Site, the larger Project vicinity is zoned for light industrial, commercial, residential, and open space uses. No forest land or land zoned for timberland production is present on-site or in the surrounding area. As such, the Project would not conflict with existing zoning for forest land or timberland, and there would be no impact. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project Site consists of an undeveloped parcel and no forest land exists in the Project vicinity. As such, the Project would not result in the loss of forest land or conversion of forest land to non-forest use, and there would be no impact. No further analysis of this topic is necessary and no mitigation measures are required.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. There are no agricultural uses or related operations on or near the Project Site, which is located northeast of downtown Los Angeles, a highly urbanized portion of the City. Therefore, the Project would not involve the conversion of farmland to other uses, either directly or indirectly. No impacts to agricultural land or uses would occur. No further analysis of this topic is necessary and no mitigation measures are required.

III. Air Quality

Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of SCAQMD or Congestion Management Plan?

Potentially Significant Impact. The Project Site is located within the 6,600-square-mile South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) together with the Southern California Association of Governments (SCAG) is responsible for formulating and implementing air pollution control strategies throughout the Basin. The current Air Quality Management Plan (AQMP) was adopted February 1, 2013 and outlines the air pollution control measures needed to meet Federal particulate matter (PM_{2.5}) standards in 2014 and ozone (O₃) standards by 2023. The AQMP also proposes policies and measures currently contemplated by responsible agencies to achieve Federal standards for healthful air quality in the Basin that are under SCAQMD jurisdiction. In addition, the current AQMP addresses several Federal planning requirements and incorporates updated emissions inventories, ambient measurements, meteorological data, and air quality modeling tools from that included in earlier AQMPs. The Project would support and be consistent with several key policy directives set forth in the AQMP. For example, the Project would provide a range of employment opportunities, locate new development in proximity to existing transit facilities, and would reuse a site in an area already served by existing infrastructure. Notwithstanding these attributes, the Project would increase traffic in the area and, consequently, generate operational air emissions that could affect implementation of the AQMP. Pollutant emissions resulting from Project construction would also have the potential to affect implementation of the AQMP. Therefore, it is recommended that this topic be analyzed further in an EIR. The EIR analysis will include: (1) an evaluation of the Project's consistency with the SCAQMD's AQMP in accordance with the procedures established in the SCAQMD's CEQA Air Quality Handbook; and (2) an assessment of Project consistency with the applicable policies of the City's General Plan Air Quality Element policies addressing air quality issues.

With regard to the Project's consistency with the Congestion Management Program (CMP) administered by the Metropolitan Transportation Authority (Metro), see the response to Checklist Question XVI.b, Transportation/Traffic.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Impact. As indicated in the response to Checklist Question III.a, the Project Site is located within the Basin, which is characterized by relatively poor air quality. State and Federal air quality standards are often exceeded in many parts of the Basin, with Los Angeles County among the highest of the counties that comprise the Basin in terms of non-

attainment of the standards. The Basin is currently in non-attainment for O₃, particulate matter less than 10 microns in diameter (PM₁₀)², and PM_{2.5} on Federal and State air quality standards. As discussed in Checklist Question III.a, the Project would result in increased air emissions associated with construction and operational traffic. Therefore, it is recommended that this topic be analyzed further in an EIR. The EIR's construction analysis will: (1) describe the regulatory environment as it relates to air quality; (2) develop the Project's daily regional construction emissions inventory; (3) identify sensitive receptors in the project area that may be impacted by project construction including off-site hauling activities; (4) identify maximum impacts to sensitive receptors from the project's daily construction emissions using the SCAQMD's localized significance thresholds (LSTs) screening methodology; and (5) analyze the potential for emissions of air toxics during construction and their resultant potential impacts. The EIR's operational analysis will include: (1) a forecast of daily regional emissions from mobile and stationary sources that would occur during long-term project operations; and (2) an evaluation of localized pollutant concentrations. The analysis will also address criteria pollutants (i.e., pollutants for which ambient air quality standards have been established).

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (ozone, carbon monoxide, & PM 10) under an applicable federal or state ambient air quality standard?

Potentially Significant Impact. As discussed in the response to Checklist Question III(b), the Project would result in increased air emissions from construction and operational traffic in the Basin, an air quality management area currently in non-attainment of Federal and State air quality standards for O₃, PM₁₀, and PM_{2.5}. Therefore, it is recommended that this topic be analyzed further in an EIR. The EIR's cumulative air quality analysis will be conducted in accordance with the procedures established by the SCAQMD and address the degree to which the project would or would not result in a cumulatively considerable net increase of any criteria pollutant, including those for which the Basin is classified as non-attainment under an applicable federal or State ambient air quality standard.

d. Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. The Project vicinity is generally developed with non-sensitive air receptors, such as light- to medium-density hybrid and industrial uses, and transportation uses. Sensitive air receptors in the vicinity include the Los Angeles State Historic Park (located across Spring Street from the Project Site) and residential uses (existing apartments are located one block, or 750 feet, east of the Project Site, and the Blossom Plaza Project would place apartments 200 feet west of the Project Site when completed in early 2016). Project construction and operation could increase air emissions above current levels, thereby potentially affecting these sensitive receptors. Therefore, it is recommended that this topic be analyzed further in an EIR.

² As noted in the 2012 AQMP, the Basin has met the PM₁₀ standards at all stations and a request for re-designation to attainment status and implement a Maintenance Plan was approved by U.S. Environmental Protection Agency on June 12, 2013.

As previously described, project impacts associated with pollutant concentrations will be analyzed during project construction, as well as long-term operations. The analysis will address concentrations of criteria pollutants, as well as concentrations of toxic air contaminants and their potential health impacts through preparation of a refined health risk assessment (HRA).

e. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors are also associated with such uses as sewage treatment facilities and landfills. The Project involves the construction and operation of a mixed-use development (residential units, grocery market, retail, and retail) and would not introduce any major odor-producing uses that would have the potential to affect a substantial number of people. Odors associated with Project operation would be limited to those associated with on-site waste generation and disposal (e.g., trash cans, dumpsters). Project operation is not expected to create objectionable odors. Activities and materials associated with construction would be typical of construction projects of similar type and size. On-site trash receptacles would be covered and properly maintained in a manner that promotes odor control. Any odors that may be generated during construction of the Project would be localized and would not be sufficient to affect a substantial number of people or result in a nuisance as defined by SCAQMD Rule 402. Impacts with regard to odors would be less than significant. No further analysis of this topic is necessary and no mitigation measures are required.

IV. Biological Resources

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project Site is located in a highly urbanized area and is currently undeveloped and periodically used for surface parking and storage by nearby commercial and industrial operations. The Project Site was historically used as a freight rail yard beginning in approximately 1905, and housed multiple rail lines and ancillary facilities. With the exception of two ornamental trees in poor condition, no landscaping is present within the Project Site and no native trees or other plant species are present on-site. Because of the urbanized nature of the Project Site and Project vicinity, the Project Site does not support habitat for candidate, sensitive, or special status species. Therefore, no impacts to candidate, sensitive, or special status species would occur. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No Impact. As discussed in the response to Checklist Question IV.a, the Project Site and surrounding area are located in a highly urbanized setting. The Project Site does not contain any drainage channels to the river, riparian habitat, or other sensitive natural communities as indicated in the City or regional plans or in regulations by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Furthermore, the Project Site is not located in or adjacent to a Significant Ecological Area as defined by the City of Los Angeles.³ Therefore, the Project would not have an adverse effect on any riparian habitat or other sensitive natural community. No further analysis of this topic is necessary and no mitigation measures are required.

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?

No Impact. As discussed in the response to Checklist Question IV.a, the Project Site is located in a highly urbanized area and is currently an undeveloped lot periodically used for parking by off-site businesses. The surrounding area has been fully developed with urban uses and associated infrastructure. The Project Site does not contain any wetlands as defined by Section 404 of the Clean Water Act. Therefore, the Project would not have an adverse effect on federally protected wetlands. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

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 nursery sites?

No Impact. As stated in the response to Checklist Question IV.a, the Project Site is currently occupied with an undeveloped lot. Due to the highly urbanized nature of the Project Site and surrounding area, the lack of a major water body, as well as there being only two trees in poor condition on the Project Site, the Project Site does not contain substantial habitat for native resident or migratory species, or native nursery sites. Therefore, the Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

³ City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, at page 2.18-13; <http://cityplanning.lacity.org/housinginitiatives/housingelement/frameworkeir/FrameworkFEIR.pdf>, accessed November 9, 2015.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?

Less Than Significant with Mitigation Incorporated. As stated in the response to Checklist Question IV.a, the Project Site is an undeveloped lot with very little vegetation, except for two ornamental specimen trees in poor condition and located along its eastern perimeter. No locally protected biological resources, such as oak trees or California walnut woodlands, or other trees protected under the City of Los Angeles Protected Tree Ordinance (Chapter IV, Article 6 of the Los Angeles Municipal Code [LAMC]), exist on the Project Site. The Project would include ornamental landscaping at building perimeters and entrances.

Numerous young street trees are present adjacent to the Project Site along Spring Street. It is likely that these trees would be removed to accommodate the Project. The trees are not considered significant non-protected trees (i.e., non-protected trees with a trunk diameter of eight inches or greater at a height of 54 inches above the ground) by the City. Nonetheless, it is the City's policy to retain street trees during Project development. Thus, any street trees that would be removed as part of the Project would be replaced in accordance with the City's Street Tree Ordinance. The following standard City Mitigation Measures BIO-1 through BIO-3 are required to ensure that a plot plan demonstrating a minimum 1:1 replacement ratio of existing significant trees is submitted to the City prior to the issuance of any permit, and that approval of the Board of Public Works be obtained prior to removal or planting of any tree in the public right-of-way. All other landscaping components would comply with all LAMC requirements. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts to less than significant levels. Further analysis of this issue is not necessary in the EIR.

Mitigation Measures

Mitigation Measure BIO-1: Prior to the issuance of any permit, a plot plan shall be prepared indicating the location, size, type, and general condition of all existing trees on the site and within the adjacent public right(s)-of-way.

Mitigation Measure BIO-2: All significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the site proposed for removal shall be replaced at a 1:1 ratio with a minimum 24-inch box tree. Net, new trees, located within the parkway of the adjacent public right(s)-of-way, may be counted toward replacement tree requirements.

Mitigation Measure BIO-3: Removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. Contact Urban Forestry Division at: 213-847-3077. All trees in the public right-of-way shall be provided per the current standards of the Urban Forestry Division the Department of Public Works, Bureau of Street Services.

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?

No Impact. As discussed in the response to Checklist Question IV.a, the Project Site is located within a developed, urbanized area and does not provide habitat for any sensitive biological resources. The Project Site is not located within a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.⁴ Therefore, the Project would not conflict with the provisions of any adopted conservation plan, and no impact would occur. No further analysis of this topic is necessary and no mitigation measures are required.

V. Cultural Resources

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA §15064.5?

Less Than Significant Impact. The Project Site was developed as far back as 1905 and historically used as a rail yard, including storage of wood, coal and petroleum products. Prior to these uses, the Project Site was used for agricultural purposes. The Project Site was vacant as of 1970 and was acquired by the Los Angeles Metropolitan Transit Authority (MTA) for support of the expansion of the MTA Gold Line to Pasadena; it had been previously owned by the Union Pacific Railroad. The Project Site is currently an undeveloped lot. Numerous ground-disturbing activities have been completed at the Project Site since the removal of on-site structures in 1970. These activities include the removal of greater than 12,000 tons of soil from the Project Site to remediate subsurface hazardous materials concerns. As a result, any subsurface historical resources were likely disturbed during the demolition of previous on-site structures and subsequent remediation activities. As the Project would not require the removal of existing structures which are considered historic resources, it is anticipated to result in a less than significant impact. No further analysis of this topic in an EIR is required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA §15064.5?

Less Than Significant with Mitigation Incorporated. A search conducted for the Los Angeles State Historic Park EIR identified that 23 cultural resource studies had been conducted within the vicinity of the Park but no recorded prehistoric archaeological sites were found within a half-mile radius. The Project Site has been previously disturbed by historical grading, building, and remediation activities, and there is no record that any items of archaeological significance were ever recovered at the Project Site. However, there is the potential for historic archaeological deposits to be preserved below the present ground surface. Given that the Project would require

⁴ California Department of Fish and Wildlife, Habitat Conservation Planning, Natural Community Conservation Planning, Summary of Natural Community Conservation Plans (NCCPs) January, 2013; <https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans>. Accessed November 9, 2015.

grading and excavation to a greater depth than previously occurred on the Project Site, the possibility exists that previously unknown archaeological artifacts may be encountered, which is a potentially significant impact. In the event of the discovery of previously unknown archaeological resources during construction, implementation of the following standard City Mitigation Measure would reduce potential impacts to a less than significant level. No further analysis of this topic in an EIR is required.

Mitigation Measure

Mitigation Measure CUL-1: Prior to the issuance of any grading, excavation, or ground disturbance permit, the applicant shall execute a covenant acknowledging and agreeing to comply with all the terms and conditions established herein which shall be recorded in the County Recorder's Office. The agreement (standard master covenant and agreement form CP-6770) shall run with the land and shall be binding on any subsequent owners, heirs or assigns. The agreement with the conditions attached must be submitted to the Development Services Center for approval before being recorded. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Department of City Planning for retention in the administrative record for Case No. **ENV 2013-2055-EIR**.

- a. All initial grading and all excavation activities shall be monitored by a Project archaeologist. The Project archaeologist shall be present full-time during the initial disturbances of matrix with potential to contain cultural deposits and will document activity.
- b. The services of an archaeologist, qualified for historic resource evaluation, as defined in CEQA and Office of Historic Preservation (OHP) Guidelines, shall be secured to implement the archaeological monitoring program. The qualified archaeologist shall be listed, or be eligible for listing, in the Register of Professional Archaeologist (RPA). Recommendations may be obtained by contacting the South Central Coastal Information Center (657-278-5395) located at California State University Fullerton.
- c. In the event of a discovery, or when requested by the Project archaeologist, the contractor shall divert, direct, or temporarily halt ground disturbing activities in an area in order to evaluate potentially significant archaeological resources.
 - i. It shall be the responsibility of the Project archaeologist to: determine the scope and significance of the find; determine the appropriate documentation, preservation, conservation, and/or relocation of the find; and determine when grading/excavation activities may resume in the area of the find.
 - ii. Determining the significance of the find shall be guided by California Public Resources Code Division 13, Chapter 1, Section 21083.2, subdivision (g) and (h). If the find is determined to be a "unique archaeological resource", then the applicant, in conjunction with the recommendation of the Project archaeologist, shall comply with Section 21083.2, subdivisions (b) through (f).

- iii. If at any time the Project Site, or a portion of the Project Site, is determined to be a “historical resource” as defined in California Code of Regulations Chapter 3, Article 1, Section 15064.5, subdivision (a), the Project archaeologist shall prepare and issue a mitigation plan in conformance with Section 15126.4, subdivision (b).
 - iv. If the Project archaeologist determines that continuation of the Project or Project-related activities will result in an adverse impact on a discovered historic resource which cannot be mitigated, all further activities resulting in the impact shall immediately cease, and the Lead Agency shall be contacted for further evaluation and direction.
 - v. The applicant shall comply with the recommendations of the Project archaeologist with respect to the documentation, preservation, conservation, and/or relocation of finds.
- d. Monitoring activities may cease when:
- i. Initial grading and all excavation activities have concluded; or
 - ii. By written consent of the Project archaeologist agreeing that no further monitoring is necessary. In this case, a signed and dated copy of such agreement shall be submitted to the Dept. of City Planning for retention in the administrative record for Case No. ENV 2012-2055-EIR.
- e. At the conclusion of monitoring activities, and only if archaeological materials were encountered, the Project archaeologist shall prepare and submit a report of the findings to the South Central Coastal Information Center.
- f. At the conclusion of monitoring activities, the Project archaeologist shall prepare a signed statement indicating the first and last date monitoring activities took place, and submit it to the Dept. of City Planning, for retention in the administrative file for Case No. **ENV 2012-2055-EIR**.

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

Less Than Significant with Mitigation Incorporated. The Project Site does not include any known unique geologic features. In addition, no unique geologic features are anticipated to be encountered during Project construction. Therefore, the Project would not directly or indirectly destroy a unique geologic feature. Impacts associated with unique geologic features would be less than significant and no mitigation measures would be necessary.

The Project Site has been previously disturbed by historical grading, building, and remediation activities, and there is no record that any significant paleontological resources were ever recovered at the Project Site. However, Project-related grading and excavation for subterranean

parking and building foundations could extend into native soils that might potentially contain paleontological resources, which is a potentially significant impact. In the event of the discovery of previously unknown paleontological resources during construction, implementation of the following standard City Mitigation Measures would reduce potential impacts to a less than significant level. No further analysis of this topic in an EIR is required.

Mitigation Measures

Mitigation Measure CUL-2: If any paleontological materials are encountered during the course of Project development, all further development activity shall halt and the following shall be undertaken:

- a. The services of a paleontologist shall then be secured by contacting the Center for Public Paleontology-USC, UCLA, California State University Los Angeles, California State University Long Beach, or the Los Angeles County Natural History Museum—who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact.
- b. The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.
- c. The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report.
- d. Project development activities may resume once copies of the paleontological survey, study or report are submitted to the Los Angeles County Natural History Museum.

Mitigation Measure CUL-3: Prior to the issuance of any building permit, the Applicant shall submit a letter to the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.

Mitigation Measure CUL-4: A covenant and agreement binding the Applicant to this condition shall be recorded prior to issuance of a grading permit.

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

Less Than Significant with Mitigation Incorporated. No known traditional burial sites or other type of cemetery usage has been identified within the Project boundaries or in the vicinity. In addition, as previously indicated, the Project Site has been previously graded and developed. Nonetheless, the Project Site would require excavation that would extend into native soils. Thus, the potential exists to encounter human remains during excavation activities. A number of regulatory provisions address the handling of human remains inadvertently uncovered during excavation activities. These include State Health and Safety Code Section 7050.5, Public Resources Code (PRC) 5097.98, and CEQA Guidelines Section 15064.5(e). Pursuant to these codes, in the event of the discovery of unrecorded human remains during construction, compliance with the following standard City of Los Angeles Mitigation Measure would reduce

potential impacts to a less than significant level. No further analysis of this topic in an EIR is required.

Mitigation Measure

Mitigation Measure CUL-5: If human remains are encountered during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. In the event that human remains are discovered during excavation activities, the following procedure shall be observed:

- Stop immediately and contact the County Coroner:

1104 N. Mission Road
Los Angeles, CA 90033
323-343-0512 (8 a.m. to 5 p.m. Monday through Friday) or
323-343-0714 (After Hours, Saturday, Sunday, and Holidays)

- If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will immediately notify the person it believes to be the most likely descendent of the deceased Native American.

- The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.

- If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.

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 Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Potentially Significant Impact. The seismically active region of Southern California is crossed by numerous active and potentially active faults and is underlain by several blind thrust faults. Based on criteria established by the California Geological Survey (CGS), faults can be classified as active, potentially active, or inactive. Active faults are those that have shown evidence of movement within the past 11,000 years (i.e., during the Holocene Epoch). Potentially active faults are those that have shown evidence of movement between 11,000 and 1.6 million years ago (i.e., during the Pleistocene Epoch). Inactive faults are those that have exhibited displacement

greater than 1.6 million years before the present (i.e., before the Quaternary Period). Blind thrust faults are low angle reverse faults with no surface expression. Due to their buried nature, the existence of blind thrust faults is usually not known until they produce an earthquake.

Fault rupture is the displacement that occurs along the surface of a fault during an earthquake. The CGS has established earthquake fault zones known as Alquist-Priolo Earthquake Fault Zones around the surface traces of active faults to assist cities and counties in planning, zoning, and building regulation functions. These zones identify areas where potential surface rupture along an active fault could prove hazardous and identify where special studies are required to characterize hazards to habitable structures. In addition, the City of Los Angeles General Plan Safety Element has designated fault rupture study areas extending along each side of active and potentially active faults to establish areas of hazard potential due to fault rupture. Although there are numerous active and potentially active faults through the Los Angeles region, the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults exist on the site.⁵ Nonetheless, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will identify the potential for fault rupture to occur on the Project Site based on additional site-specific data collected at that location.

ii. Strong seismic ground shaking?

Potentially Significant Impact. The Project Site is located within the seismically active Southern California region. The level of ground shaking that would be experienced at the Project Site from active or potentially active faults or blind thrust faults in the region would be a function of several factors including earthquake magnitude, type of faulting, rupture propagation path, distance from the epicenter, earthquake depth, duration of shaking, site topography, and site geology. Active faults that could produce shaking at the Project Site include the Whittier-Elsinore Fault, San Jacinto Fault, San Andreas Fault and numerous other smaller faults and blind thrust faults found throughout the region. As with any new project development in the State of California, Project building design and construction would be required to conform to the current seismic design provisions of the City's Building Code, which incorporates relevant provisions of the 2013 California Building Code (CBC). The 2013 CBC, as amended by the City's Building Code, incorporates the latest seismic design standards for structural loads and materials to provide for the latest in earthquake safety. Nonetheless, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will identify the potential for seismic ground shaking and take into consideration the impact of seismic activity on future development, as well as compliance with the most recent regulatory requirements regarding seismic safety.

iii. Seismic-related ground failure, including liquefaction?

Potentially Significant Impact. Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Specifically, liquefaction occurs when the shock waves from an earthquake of sufficient magnitude and duration compact and decrease the volume of the soil; if drainage cannot occur,

⁵ City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan, Safety Element, November 26, 1996, Exhibit A. Available at: <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>, accessed November 9, 2015.

this reduction in soil volume will increase the pressure exerted on the water contained in the soil, forcing it upward to the ground surface. This process can transform stable soil material into a fluid-like state. This fluid-like state can result in horizontal and vertical movements of soils and building foundations from lateral spreading of liquefied materials and post-earthquake settlement of liquefied materials. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless and cohesive soils exhibit low to negligible liquefaction potential. The Project Site is located within a City of Los Angeles-designated Liquefaction Hazard Zone.⁶ Therefore, it is recommended that this topic be analyzed further in an EIR. EIR analysis will assess soil conditions on the Project Site, depth to groundwater, and the potential for liquefaction of soils during a seismic event.

iv. Landslides?

No Impact. The Project Site is not located within a City-designated Hillside Grading Area, is not subject to the City’s Hillside Ordinance, and is not located in a City-designated Landslide area.⁷ Additionally, the Project Site is relatively flat, sloping very gently to the southeast. Further, the Project Site is not in immediate proximity to any mountains or steep slopes. Therefore, the Project would not expose people or structures to potential substantial adverse effects involving landslides and no impact would result. No mitigation measures would be required and no further analysis of this topic in an EIR is recommended.

b. Result in substantial soil erosion or the loss of topsoil?

Potentially Significant Impact. During construction, the 4.92-acre Project Site would be subject to ground-disturbing activities (e.g., excavation, grading, soil stockpiling, foundation construction, the installation of utilities). These activities would expose soils for a limited time, allowing for possible erosion. In addition, the change in on-site drainage patterns resulting from the project could also result in limited soil erosion. Thus, it is recommended that the potential for soil erosion resulting from construction and operation of the project be analyzed further in an EIR.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Potentially Significant Impact. As previously discussed in Response Nos. VI.a.iii and -iv, liquefaction hazards were concluded to be potentially significant and landslide hazards were concluded to have no impact. Subsidence occurs when fluids from the ground (such as petroleum and groundwater) are withdrawn. Since the Project Site is not located within a known oil field,

⁶ City of Los Angeles Department of City Planning, Parcel Profile Report: 129/135 W College St & 924 N Spring Street. Generated November 10, 2015.

⁷ City of Los Angeles Department of City Planning, Parcel Profile Report: 129/135 W College St & 924 N Spring Street. Generated November 10, 2015.

subsidence associated with extraction activities is not anticipated. Nonetheless, with the Project Site subject to potentially high levels of seismic activity (see Response Nos. VI.a.i and -ii), it is recommended that the potential for lateral spreading, subsidence, liquefaction, and collapse be evaluated in an EIR. A site-specific geotechnical evaluation will be prepared for the Project Site which will assess the potential for these soil stability hazards and include site-specific recommendations for Project design. The results of the geotechnical evaluation will be included in the EIR.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Potentially Significant Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. It is recommended that the potential for expansive soils be evaluated in an EIR. A site-specific geotechnical evaluation will be prepared for the Project Site which will assess the potential for soil expansion and include site-specific recommendations for Project design. The results of the geotechnical evaluation will be included in the EIR.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project Site is located in an urbanized area where municipal wastewater infrastructure already exists. The Project would connect to existing infrastructure and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur. No further analysis of this topic in an EIR is necessary and no mitigation measures are required.

VII. Greenhouse Gas Emissions

Would the project:

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

Potentially Significant Impact. Construction and operation of the Project would increase greenhouse gas (GHG) emissions which have the potential to either individually or cumulatively result in a significant impact on the environment. In addition, the Project would generate vehicle trips that would contribute to the emission of GHGs. The amount of GHG emissions associated with the Project has not been estimated at this time. Therefore, it is recommended that this topic be further evaluated in an EIR and include a quantitative assessment of Project-generated GHG emissions resulting from construction equipment, vehicle trips, electricity and natural gas usage, and water conveyance. Relevant project features that reduce GHG emissions, such as green building design, will also be discussed.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. The Project would be required to comply with the City’s Green Building Code pursuant to Chapter IX, Article 9, of the LAMC. In conformance with these requirements, the Project would be designed to reduce GHG emissions through various energy conservation measures. In addition, the Project would implement applicable energy conservation measures to reduce GHG emissions, such as those described in the California Air Resources Board AB 32 Scoping Plan, which describes the approaches California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020. Project features and practices intended to ensure consistency with these and other applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions will be disclosed and evaluated in an EIR.

VIII. Hazards and Hazardous Materials

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Project construction activities would result in a temporary increase in the use of typical construction materials at the site, including concrete, hydraulic fluids, paints, cleaning materials, and vehicle fuels. The use of these materials during Project construction would be short-term in nature and would occur in accordance with standard construction practices, as well as with applicable federal, state, and local regulations. Potentially hazardous materials would be contained, stored, and used in accordance with manufacturers’ instructions and handled in compliance with applicable standards and regulations. Because these activities would be short-term and cease with Project completion, construction activities would, therefore, not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

The operation of residential and commercial uses associated with the Project would use minimal amounts of hazardous materials for routine cleaning and maintenance. These hazardous materials include small quantities of commercially available cleaning solutions, solvents, and pesticides. Additionally, the Project would utilize limited amounts of hydraulic fluid in the elevator equipment and limited quantities of refrigerant in the Heating, Ventilation and Air Conditioning (HVAC) system. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers’ instructions and handled in compliance with applicable standards and regulations. With compliance with existing federal, state, and local regulations, the transport, use, and storage of these materials would not pose a significant hazard to the public or the environment and the Project would result in a less than significant impact. No mitigation measures would be required and no further analysis of this topic in an EIR is recommended.

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. The Project Site has been the site of multiple hazardous materials investigations beginning in 1989 with documentation of the removal of underground storage tanks (USTs). A 1995 workplan and Phase II investigation was performed by Metro in conjunction with their use of the Site for construction staging for Gold Line and station construction. A related 1996 Phase I investigation was performed by Metro that recommended additional limited Phase II investigation of contaminated soils, groundwater, and the status of monitoring wells reported to have been installed on-site during previous investigations. A 1999 workplan was prepared following further investigation conducted on the Site, including soil and groundwater sampling and a determination of the potential for on-site migration of hydrocarbons in groundwater beneath adjacent properties. A new soil and groundwater investigation performed in 2000, apparently preparatory to the Site changing hands, and undertook new soil borings across the site to sample soil and groundwater. Finally, three remedial action plans (RAPs) were prepared between 2000 and 2002; the RAPS involved additional testing on the Project Site prior to the commencement of remediation, and recommended the excavation and removal of 150 cubic yards of contaminated soil from five locations on the Site.

The hazardous materials reports determined that the Project Site was developed as far back as 1905 and was historically used as a rail yard, including storage of wood, coal, and petroleum products. Several on-site hazardous materials concerns were previously identified associated with former uses on the Project Site and surrounding vicinity, including the presence of a former leaking UST, total recoverable petroleum hydrocarbons (TRPH), petroleum hydrocarbons (diesel and gasoline), pesticides, polychlorinated biphenyls (PCBs), lead, arsenic, and copper. Two of the investigations also noted hydrocarbon (crude oil and diesel fuel) contamination of groundwater in the extreme southwest corner of the Project Site. Previous site investigations have revealed contamination in groundwater samples from the southwest corner of the Project Site, which was determined to originate from an off-site source.

Project construction would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions.

Finally, according to the LADBS, the Project Site is located within a methane zone.^{8,9} The presence of subsurface methane gas is common within former oil production areas and other locations where organic material is present in the soil.

For these reasons, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will identify the potential for the release of hazardous materials into the environment

⁸ City of Los Angeles Department of City Planning, Parcel Profile Report: 129/135 W College St & 924 N Spring Street. Generated November 10, 2015.

⁹ City of Los Angeles, Bureau of Engineering. Methane and Methane Buffer Zone Map. March 2004.

through reasonably foreseeable upset or accident conditions and the associated risk of hazards to human health, based on Phase I and II investigations, related documentation regarding remediation status, the potential for the presence of subsurface for methane gas, and compliance with the most recent regulatory requirements governing this topic.

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

Potentially Significant Impact. There are three schools located within one-quarter mile of the Project Site: Ann Street Elementary School (approximately 0.2 mile east of the Project Site), Castelar Elementary School (approximately 0.25 mile west of the Project Site), and Los Angeles Confucius Education and Cultural School (approximately 0.3 mile southwest of the Project Site). Construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Any emissions from the use of such materials would be minimal and localized to the Project Site. Moreover, Project construction may encounter previously identified on-site subsurface hazardous materials. As discussed in the response to Checklist Question VIII.c, because of the history of contamination on the Project Site, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will evaluate the potential for Project construction activities to result in hazardous emissions or the release of hazardous materials within one-quarter mile of an existing proposed school.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Potentially Significant Impact. Government Code Section 65962.5, amended in 1992, requires CalEPA to develop and update annually the Cortese List, which is a list of hazardous waste sites and other contaminated sites. While Government Code Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of the Department of Toxic Substances Control (DTSC), the State Water Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions (such as a removal action) or extensive investigations are planned or have occurred. The database provides a listing of Federal Superfund sites (National Priorities List); State Response sites; Voluntary Cleanup sites; and School Cleanup sites. Based on a review of the EnviroStor database, the Project Site is not identified on any of the above lists,¹⁰ or CalEPA's list of sites with active Cease and Desist

¹⁰ Department of Toxic Substances Control, EnviroStor Database at <http://www.envirostor.dtsc.ca.gov/public>; accessed November 10, 2015.

Orders or Cleanup and Abatement Orders or list of contaminated solid waste disposal sites,¹¹ or the State Water Board’s Geotracker Database, which provides a list of leaking underground storage tank sites that are included on the Cortese List.¹² However, as discussed in the response to Checklist Question VIII.c, because of the history of contamination on the Project Site and its proposed redevelopment with residential uses, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will confirm the status of the Project Site with respect to updated lists of hazardous materials sites and the potential for associated risk of hazards to the public or the environment, based on Phase I and II investigations, related documentation regarding remediation status, and compliance with the most recent regulatory requirements governing this topic.

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?

No Impact. The Project Site is not within an airport land use plan and it is not within two miles of a public airport or public use airport. The nearest airport is the Hawthorne Municipal Airport located approximately 11 miles southwest of the Project Site. Therefore, the Project would not result in an airport-related safety hazard for people residing or working in the Project vicinity. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

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?

No Impact. There are no private airstrips in the vicinity of the Project Site and the Project Site is not located within a designated airport hazard area. Therefore, the Project would not result in airport-related safety hazards for the people residing or working in the area. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Project Site is located in an established urban area well-served by a roadway network. Alameda Street/Spring Street adjacent to the west side of the Project Site is designated as a Selected Disaster Route.¹³ While it is expected that the majority of construction activities for the Project would be confined on-site, short-term construction activities may temporarily affect access on portions of adjacent streets during certain periods of the day. In these instances, the Project would implement traffic control measures (e.g., construction flagmen,

¹¹ CalEPA’s List of Active CDO and CAO sites; online at <http://www.calepa.ca.gov/sitecleanup/corteselist/>; accessed November 10, 2015.

¹² State Water Resources Control Board, <https://geotracker.waterboards.ca.gov/>; accessed November 10, 2015.

¹³ City of Los Angeles Department of Planning General Plan Safety Element – Critical Facilities and Lifeline Systems, Exhibit H (November 26, 1996).

signage, etc.) to maintain flow and access. Furthermore, in accordance with City requirements the Project would develop a Construction Management Plan, which includes designation of a haul route, to ensure that adequate emergency access is maintained during construction. Therefore, construction is not expected to result in inadequate emergency access.

Project operation would generate traffic in the Project vicinity and would result in some modifications to access (i.e., new curb cuts and Project driveways) from the streets that surround the site. Specifically, the Project would create two new curb cuts and driveway entrances on Spring Street and two new curb cuts and driveway entrances on Rondout Street. However, emergency access to the Project Site and surrounding area would continue to be provided on Spring, College, and Rondout Streets, similar to existing conditions. Additionally, the Project is required to provide adequate emergency access and to comply with City of Los Angeles Fire Department (LAFD) access requirements. Similarly, the Los Angeles Department of Transportation (LADOT) and Bureau of Engineering would review all design plans to ensure that there are no hazardous design features which would impede access along Alameda Street/Spring Street in the Project vicinity. Subject to review and approval of Site access and circulation plans by the City, the Project would not impair implementation or physically interfere with adopted emergency response or emergency evacuation plans. Since the Project would not cause an impediment along the City's designated emergency evacuation route, and the proposed residential and commercial uses would not impair implementation of the City's emergency response plan, the Project would have a less than significant impact with respect to these issues. As such, no further evaluation of this topic in an EIR or mitigation measures are necessary.

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?

No Impact. The Project Site is located in the highly urbanized area. No wildlands are present on the Project Site or surrounding area. Furthermore, the Project Site is not within a City-designated wildfire hazard area.¹⁴ Therefore, the Project would not expose people or structures to a significant risk involving wildland fires. No further analysis of this topic in an EIR is recommended, and no mitigation measures are required.

IX. Hydrology and Water Quality

Portions of the following impact analysis pertaining to the surface hydrology and water quality and groundwater quantity and quality are based, in part, on information contained in the Preliminary Hydrology Report (Hydrology Report) prepared by David Evans & Associates, Inc. in July 2015. The Hydrology Report is included as Appendix B-1 of this Initial Study.

Would the project:

¹⁴ City of Los Angeles, Department of City Planning, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996, Exhibit D – Selected Wildfire Hazard Areas in the City of Los Angeles; <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>, accessed November 10, 2015.

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

Less Than Significant Impact. The Project Site is generally level and stormwater runoff from the Project Site currently drains in a southwesterly direction via sheet flow to the gutters lining Spring Street and College Street, which convey flows to two storm drains located in Spring Street near the southwest corner of the Project Site. These storm drains drain to an 18-inch reinforced concrete pipe (RCP) in Spring Street that in turn discharges to a 33-inch RCP at the intersection of Spring and College Streets.

Construction of the Project would require earthwork activities, including grading and excavation of the Project Site, which would expose soils for a limited time and could allow for possible erosion, particularly during precipitation events. However, as previously discussed in Checklist Question VI(b), all grading activities would require grading permits from LADBS, which would include requirements and standards designed to limit potential impacts associated with erosion to permitted levels. Grading and site preparation would also comply with all applicable provisions of Chapter IX, Division 70 of the LAMC, which includes requirements such as the preparation of an erosion control plan to reduce the effects of sedimentation and erosion.

In addition, the Applicant would be required to meet the provisions of the Project-specific SWPPP in accordance with the NPDES permit. The SWPPP would also be subject to review by the City for compliance with the City of Los Angeles' Best Management Practices Handbook, Part A, Construction Activities. As part of these regulatory requirements, BMPs would be implemented to control erosion and to protect the quality of surface water runoff during the construction by controlling potential contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides. Should grading activities occur during the rainy season (October 1st to April 14th), a WVECP would be prepared pursuant to the "Manual and Guideline for Temporary and Emergency Erosion Control," adopted by the Los Angeles Board of Public Works. As previously discussed in Checklist Question VIII.b, if groundwater is encountered during excavation for the subterranean parking levels or the development of pile shafts, it would be tested, treated, and disposed of in accordance with in accordance with the LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, General NPDES Permit No. CAG994004). With adherence to applicable regulations, adverse impacts to groundwater quality would be avoided through implementation of BMPs recommended for such construction activity.

Project operation would be required to incorporate operational BMPs per the City of Los Angeles Standard Urban Stormwater Management Plan (SUSMP) permit requirements. In this regard, the Project proposes the installation of on-site cisterns in the subterranean parking structure to capture and re-use post-development runoff to irrigate the Project's proposed landscaped areas. Overflow above the required detention volumes would be discharged to the existing catch basins on Spring Street. Prior to entering the cistern, stormwater would be treated in a continuous deflective system (CDS) to effectively screen, separate, and trap debris, as well as remove sediment and oil from stormwater and retain 100 percent of floatable debris. The treatment system associated with the cisterns would mitigate pollution from the proposed building's roof

drainage, area drains and surface runoff in accordance with the “Stormwater Treatment and Use” LID mitigation method as set forth in the City’s Low Impact Development (LID) Ordinance. The proposed cisterns would be subject to review by the City for compliance with the City of Los Angeles’ Best Management Practices Handbook, Part B: Planning Activities. Additional long-term BMPs would be provided to support the cisterns and may include, but are not limited to, ensuring that discharge from downspouts, roof drains, and scuppers would not be permitted on unprotected soils. Further, all storm drain inlets and catch basins within the Project area would be stenciled with prohibitive language and/or graphical icons to discourage illegal dumping. The final selection of any additional BMPs would be completed through coordination with the City of Los Angeles. Through preparation of the SUSMP and implementation of the proposed cisterns and other appropriate BMPs, operational water quality impacts of the Project would be less than significant.

Regarding the quantity of stormwater runoff, the undeveloped Project Site does not currently meet the requirements of the City’s current LID Ordinance, which require the Project to treat and infiltrate the runoff from a storm event producing 0.75 inch of rainfall in a 24-hour period. Under existing conditions, stormwater flows directly off the Project Site and into the City’s storm drain system. As previously discussed, the Project proposes the installation of a cistern system in the subterranean parking structure to capture, re-use, and treat stormwater runoff from the Project Site. Based on calculations performed for the Hydrology Report, the proposed cisterns would be sized to accommodate approximately 12,600 cubic feet of water during the design year storm. With installation of the cisterns and implementation of other appropriate BMPs, the Hydrology Report concludes that development of the Project would decrease the quantity and rate of stormwater leaving the Project Site. Accordingly, the Project would result in a less than significant impact with regard to the quantity of stormwater flows from the Project Site.

Based on the above, impacts related to water quality would be less than significant. No mitigation measures or further analysis of this topic in an EIR is required.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of 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)?

Less Than Significant Impact. The Los Angeles Department of Water and Power (LADWP) is the water purveyor for the City. Water is supplied to the City from three primary sources, including snowmelt from the Eastern Sierra Nevada Mountains via the Los Angeles Aqueduct (60%), water supplied by the Metropolitan Water District’s Colorado River and Feather River supplies (25%), and local groundwater from the San Fernando groundwater basin (15%). In 2009 to 2010, LADWP had an available water supply of roughly 550,000 acre-feet (AF), with

approximately 14 percent coming from local groundwater.¹⁵ Although urban open space does provide for some infiltration to smaller unconfined aquifers, the majority of groundwater recharge in the region occurs via stormwater runoff from nearby mountain ranges. Groundwater levels in the City are also maintained through an active process via spreading grounds and recharge basins. The Project Site is not an area identified as being important to groundwater recharge.

Additionally, no groundwater production wells are located in the vicinity of the Project Site.

Although the Project Site is undeveloped, it is paved with partially decomposed asphalt and was determined in the Hydrology Report to be approximately 91 percent impervious, and groundwater infiltration is therefore limited. Furthermore, the small size of the Project Site limits its potential to contribute to recharge of groundwater sources. Development of the Project Site would maintain approximately the same percentage of impervious surface area on the Project Site, which effectively prohibits groundwater recharge, and therefore would not substantially modify groundwater infiltration and recharge on the Project Site.

Groundwater was encountered in borings at depths between 30 and 35 feet bgs. This is deeper than the CGS data for the area, which indicated that the historically highest groundwater on the Project Site is approximately 20-foot bgs. The Geotechnical Investigation determined that groundwater could be encountered by Project excavations. If encountered, a dewatering system and/or special foundation and slab design would be required. Groundwater extraction from such a dewatering system, if required, would be minimal and would not lower groundwater levels in the area.

In summary, the Project would not substantially deplete groundwater supplies or result in a substantial net deficit in the aquifer volume or lowering of the local groundwater table. Impacts would be less than significant. Further analysis of this topic in an EIR is not recommended and no mitigation measures would be required.

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?

Less Than Significant Impact. During Project construction, temporary alteration of existing on-site drainage patterns may occur. However, these changes would not result in substantial erosion or siltation due to stringent controls imposed via City grading and building permit regulations as discussed in the response to Checklist Question VI.b and IX.a, above.

The Project Site currently constitutes a single drainage subarea. Sheet runoff currently flows in a southwesterly direction into the gutters lining Spring and College Streets, ultimately flowing into two City storm drains located along the east side of Spring Street near the southwest corner of the

¹⁵ Los Angeles Department of Water and Power, 2010 Urban Water Management Plan, Exhibit ES-R – Service Area Reliability Assessment for Average Weather Year, adopted May 3, 2011; https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=gixvgqhub_4&_afzLoop=237918338210000, accessed November 10, 2015.

Project Site. These storm drains convey flows to an 18-inch reinforced concrete pipe (RCP) in Spring Street, which discharges to a 33-inch RCP located at the intersection of Spring and College Street.

Development of the Project's proposed buildings, open space areas, and associated infrastructure would be connected to the proposed stormwater drainage system, and thus, the Project Site would continue to function as a single drainage subarea as under existing conditions. The proposed storm drain system would feed to a cistern system located in the subterranean parking garage and designed to accommodate approximately 12,600 cubic feet of water. Stormwater captured in the cisterns would be re-used to irrigate the Project's proposed landscaped area. Any overflow greater than the required detention volume would be discharged to the existing catch basins along Spring Street. Thus, the overall drainage pattern would remain the same as under existing conditions, with all stormwater flows from the Project Site draining to the storm drain system along Spring Street. There are no known deficiencies in this storm drain and the Project would reduce stormwater flow volumes by 0.92 cubic feet per second (cfs) during the design year storm (from 15.75 cfs under existing conditions to 14.83 cfs following Project development). Even so, final plan check by the Los Angeles Bureau of Sanitation (BOS) would ensure that adequate capacity is available in the storm drain system surrounding streets prior to Project approval. The Applicant would be responsible for providing the necessary storm drain infrastructure to serve the Project Site, as well as any extensions to the existing system in the area. As a result, Project development would not result in substantial erosion or siltation on- or off-site. Therefore, a less than significant impact is anticipated. No mitigation measures would be required and no further analysis of this topic in an EIR is recommended.

d. Substantially alter the existing drainage pattern of the site or area, including through the alternation 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?

Less Than Significant Impact. While the Project Site is under construction, the rate and amount of surface runoff generated at the Project Site would fluctuate. However, the construction period is short-term and compliance with applicable regulations discussed above would preclude fluctuations that result in flooding. With regard to operations, as discussed above, the Project would replace the undeveloped Project Site with a mixed-use development that includes a cistern system in the subterranean parking garage to retain, reuse, and treat stormwater flows from the Project. With implementation of the Project's cistern system and compliance with applicable LID requirements, the Project is anticipated to decrease the quantity of stormwater leaving the Project Site. As there are no known deficiencies in the existing storm drain system, the Project would result in a less than significant impact. Final plan check by BOS would ensure that adequate capacity is available in the storm drain system in surrounding streets prior to Project approval. The Applicant would be responsible for providing the necessary on-site storm drain infrastructure to serve the Project Site, as well as any connections to the existing system in the area.

Additionally, the Project Site is not located adjacent to any stream or river, and Project runoff would continue to drain into existing City storm drain infrastructure. There is no known potential

of downstream erosion or flooding since the storm drain system is completely channelized in subterranean pipes. Therefore, the Project would not have the potential to result in flooding due to altered drainage patterns and impacts would be less than significant. No further analysis of this topic in an EIR is recommended and no mitigation measures are required.

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?

Less Than Significant Impact. As noted previously, overflow runoff from the Project Site in excess of required detention volumes would continue to flow into the City’s storm drain system. There are no known deficiencies in the local stormwater system. As discussed above, the Project would decrease stormwater flow volumes during the design year storm through the implementation of an on-site cistern system installed in accordance with the City’s LID requirements. Final plan check by BOS would ensure that adequate capacity is available in the storm drain system in Spring Street prior to Project approval. The Applicant would be responsible for providing the necessary storm drain infrastructure to serve the Project Site, as well as any extensions to the existing storm drain system in the area. Therefore, the Project would have a less than significant impact with respect to exceedance of storm drain system capacity or the generation of polluted runoff. No further analysis of this topic in an EIR is recommended and additional mitigation measures are not required. See the response to Checklist Question IX.a, above, for a discussion of potential Project impacts related to water quality.

f. Otherwise substantially degrade water quality?

Less Than Significant Impact. As discussed above in the response to Checklist Question IX.a, construction and operational BMPs, including the proposed cistern system, implemented as part of the Project’s SWPPP and SUSMP, and good housekeeping practices during Project construction and operation would preclude sediment and hazardous substances from entering stormwater flows. Therefore, the Project would have a less than significant impact in surface water quality and no mitigation measures are required. Further analysis of this topic in an EIR is not recommended.

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?

No Impact (g-h). The Project Site is not located within a flood zone, including the 100-year flood zone designated by the Federal Emergency Management Agency (“FEMA”).¹⁶⁻¹⁷ No flood

¹⁶ City of Los Angeles Department of City Planning, Parcel Profile Report: 129/135 W College St & 924 N Spring Street. Generated November 10, 2015.

¹⁷ Federal Emergency Management Agency, Flood Insurance Rate Map, Map Number 06037C1628F, Effective Date: September 26, 2008.

zone impacts would occur and no mitigation measures would be required. No further analysis of this topic in an EIR is recommended.

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?

Less Than Significant Impact. As discussed above, the Project Site is not located within a designated floodplain. Further, the Project Site is not located with a potential inundation area, being located west of the inundation area for the Los Angeles River.¹⁸ Additionally, there are no levees or dams in the Project vicinity. Therefore, no impact associated with flooding, including flooding due to the failure of a levee or dam, would occur. No mitigation measures are required and no further analysis of this issue in an EIR is necessary.

j. Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant disturbance undersea, such as a tectonic displacement of sea floor associated with large, shallow earthquakes. Mudflows occur as a result of downslope movement of soil and/or rock under the influence of gravity.

The Project Site is not located within a City-designated inundation hazard area.¹⁹ Relative to tsunami hazards, the Project Site is located approximately 14 miles inland (northeast) from the Pacific Ocean, and therefore, would not be subject to a tsunami. Furthermore, the Project Site is not located on a City-designated tsunami hazard area.²⁰ The Project Site itself is characterized by relatively flat topography, though relatively steep slopes of the easternmost portion of the Santa Monica Mountains are located just northwest of Broadway Street. While there exists a nominal potential for mudflows in the hillsides northwest of the Project Site, the relatively high amount of urbanization, landscaping, and natural vegetation within these hillside areas would generally limit the potential for large volumes of earth materials to become unstable and form a significant mudflow. Further, intervening structures, vegetation, roadways, and other obstacles would generally limit adverse physical effects to on-site development if a mudflow were to occur northwest of the Project Site. Overall, therefore, no impacts would occur due to inundation by seiche or tsunamis, and mudflow impacts would be less than significant. As such, further analysis of this topic in an EIR is not recommended and no mitigation measures are required.

¹⁸ City of Los Angeles General Plan, Safety Element Exhibit G, Inundation & Tsunami Hazard Areas, March 1994.

¹⁹ City of Los Angeles General Plan, Safety Element Exhibit G, Inundation & Tsunami Hazard Areas, March 1994.

²⁰ Ibid.

X. Land Use and Planning

Would the project:

a. Physically divide an established community?

Less Than Significant Impact. The Project would represent infill development within an established, heavily urbanized but heterogeneous area. The Project Site, is located at the southwestern edge of the CASP area and at the western edge of the industrial and transportation corridor located between Alameda Street/Spring Street and the Los Angeles River (known as the Alameda Corridor). Accordingly, the Project Site, is bordered to the north, east, and south by a mix of light industrial uses, hybrid industrial (i.e., a mix of residential, commercial, community, and industrial uses), and transportation-related uses. Chinatown’s Central Business District and surrounding commercial and residential uses are located west of Spring Street, on the west side of the Metro Gold Line right-of-way. The other closest concentration of residential uses is the William Mead Housing Project, a block east of the Project Site. The 32-acre LA State Historic Park is currently under construction across Spring Street northwest of the Project Site.

The adopted CASP seeks to “Transform an underserved and neglected vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented and aesthetically pleasing neighborhoods.” The CASP is also generally intended to facilitate evolution of the area from vehicle-oriented industrial and public facility uses to a mixed-use community of pedestrian and transit-oriented uses, and designates the Project Site as Hybrid Industrial, which corresponds to the Urban Center zoning designation.

The Project would develop a currently undeveloped property with a mix of residential and commercial uses. While the Project would result in changes to the way vehicles access the Project Site with the provision of new entrance driveways, traffic in the surrounding community would continue to utilize the same circulation facilities and patterns as occur presently. Furthermore, the Project’s pedestrian plazas, ground-level commercial and residential uses fronting Spring and College Streets, widened sidewalks and landscaping would enhance the pedestrian experience for patrons of the Metro Gold Line Chinatown Station, activate the area, and provide pedestrian connections from Chinatown and the Gold Line station to future projects east of the Project Site. Project features such as enhanced sidewalks with landscaped parkways, seating areas for people to congregate, bicycle racks, and street furniture would enhance the presently non-existent pedestrian linkage between Chinatown, the Metro Gold Line Chinatown Station, and the neighborhood surrounding the Project Site.

With regard to land use relationships, the Project would provide a mix of residential and commercial uses. As such, the Project would be an infill Project providing uses in keeping with the development of recent mixed-use projects in the surrounding area. As such, the Project would be compatible with and complement existing and proposed uses in the surrounding area and would not be of a density, scale, or height to constitute a physical barrier separating an established community. Therefore, the Project would not physically divide an established community and a less than significant impact would result. No mitigation measures or further analysis of this topic in an EIR is required.

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?

Potentially Significant Impact. The Project Site is located within the Central City North Community Plan Area, which designates the Project Site for Hybrid Industrial land uses. This land use designation corresponds with the HI (Hybrid Industrial, Cornfield Arroyo Seco Specific Plan [CASP]), CM (Commercial Manufacturing) and P (Parking) zones.

Development on the Project Site is limited by footnotes to the Community Plan. Specifically, Footnote 7 on the Community Plan Land Use Map establishes a maximum floor-to-area ratio (FAR) for commercial development of 1.5:1, although an additional FAR of up to 3.0:1 may be utilized for residential development. Additionally, Footnote 10 recognizes the site’s adjacency to the Gold Line Chinatown Station and instructs that parcels within 1,500 feet of the station designed to “encourage transit-oriented development and pedestrian activity.” The footnote goes on to encourage the creation of a specific plan that “recognizes Chinatown as a Local and Tourist Destination Center and will provide for development and uses which encourage TOD and pedestrian activity, including a station area plaza, paseos, mixed residential/commercial uses and local/regional transit ridership opportunities (including intermodal transfers)”. A specific plan reflecting this footnote has yet to be developed. Lastly, Footnote 12 is specific to residential and mixed-use projects on the Project Site, and reads:

“For the Area bounded by North Spring Street on the west, Rondout Street on the north, North Main Street in the east and College Street on the south the following restrictions shall apply:

For residential mixed-use projects, the first 1.5:1 FAR of residential use shall be permitted to be market rate units. Residential uses with FARs 1.5:1 to 3:1 shall set aside 20% of their units for affordable housing. Residential projects with FARs in excess of 3:1 shall set aside 100% of the units above the 3:1 threshold as affordable units. Units complying with the affordable requirements of this footnote shall not be used for the purpose of obtaining additional density bonus, under the terms of the State law. The affordable component of these projects may be used for any other incentive listed by State law.”

The CASP designates the Project Site as Hybrid Industrial and Urban Center (UC(CA)) zoning designation. However, pursuant to Section 1.2.B.2.e of the CASP, “The provisions of this Specific Plan shall not apply to any Project that has an application that is deemed complete by the Department of City Planning prior to the adoption of this Specific Plan.” The Project application was initially filed with the City in 2012 and deemed complete which predated the June 2013 adoption and August 2013 implementation of the CASP; accordingly, the Project Site is not subject to the CASP provisions.

Prior to CASP adoption, the land use designation for the Project Site was Light Industrial and it was zoned MR2-1 (Restricted Light Industrial, Height District 1, which permits a 1.5:1 floor area ratio (FAR) and unlimited building height).

The Applicant is requesting a General Plan Amendment to deviate from Footnote 12 of the Community Plan a General Plan Amendment from Hybrid Industrial to Regional Center Commercial; a Specific Plan Amendment to reflect the Project Site's exemption from CASP provisions; and a Zone Change, and Height District Change from UC(CA) to C2-2 (Regional Center Commercial, Height District 2). Since the pre-CASP MR2-1 zoning designation imposed no height limitations and the CASP's UC(CA) land use designation permits building heights of up to 120 feet on the Project Site, the requested Height District Change would not modify the permitted height of buildings on the Project Site compared to existing conditions, and instead would serve to allow an increased 6:1 FAR (although the Project proposes a FAR of only 3:1). Therefore, an evaluation of the effects of the Project's requested General Plan Amendments, Specific Plan Amendment, Zone Change, Height District change, Conditional Use Permit, Vesting Tentative Tract Map, and Site Plan Review, as well as an evaluation of the Project's compliance with other applicable federal, state, and local plans, policies, and regulations, would be provided in an EIR.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As discussed in the response to Checklist Question IV, Biological Resources, the Project Site is located in a highly urbanized area and is occupied by an undeveloped lot. Although the channelized Los Angeles River is located approximately 0.5 miles east of the Project Site, the Project Site is devoid of vegetation and natural habitat, and thus does not support sensitive natural communities. Furthermore, the Project Site is not located in or adjacent to a Significant Ecological Area as defined by the City of Los Angeles.²¹ The Project Site is not located within a habitat conservation plan or natural community conservation plan. Therefore, the Project would not conflict with the provisions of any adopted applicable conservation plan. No further analysis of this topic in an EIR is recommended and no mitigation measures are required.

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?

No Impact (a-b). According to the Conservation Element of the City of Los Angeles General Plan, sites that contain potentially significant sand and gravel deposits which are to be conserved

²¹ City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, at page 2.18-13; <http://cityplanning.lacity.org/housinginitiatives/housingelement/frameworkfeir/FrameworkFEIR.pdf>, accessed November 11, 2015.

follow the Los Angeles River flood plain, coastal plain, and other water bodies and courses and lie along the floodplain between the San Fernando Valley and downtown Los Angeles. Nonetheless, the Project Site is of sufficient distance from the Los Angeles River that it is not classified by the City of Los Angeles as containing significant mineral deposits.²² Furthermore, the Project Site is not designated as an existing mineral resource extraction area by the State of California or the U.S. Geological Survey.²³ Additionally, the Project Site is designated for Hybrid Industrial uses within the City of Los Angeles General Plan and is not designated as a mineral extraction land use. Therefore, the chances of uncovering mineral resources during construction and grading would be minimal. Project implementation would not result in the loss of availability of a known mineral resource of value to the region and residents of the State, nor of a locally important mineral resource recovery site. No impacts to mineral resources would occur. Further analysis of Mineral Resources is not necessary and no mitigation measures are required.

XII. Noise

Would the project result in:

a. Exposure of persons to or generation of noise level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Construction of the Project would require the use of heavy construction equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) that would generate noise on a short-term basis. Additionally, operation of the Project may increase existing noise levels as a result of Project-related traffic; the operation of HVAC systems; sounds associated with vehicles in the structured parking garage; loading and unloading of trucks; and residents and visitors activities on the Project Site. As such, nearby sensitive uses, such as residential uses east of the Project Site, could potentially be affected. Therefore, it is recommended that the Project's potential to exceed noise standards be analyzed further in an EIR.

The EIR analysis will: (1) describe the City Noise Ordinance as it relates to construction noise and to noise-generating activities and changes in ambient noise levels during project operation; (2) identify sensitive receptors in the Project vicinity that may be impacted by Project construction and operational noise levels; (3) evaluate the noise environment in the Project vicinity that may be affected by Project noise sources; (4) analyze construction noise impacts by determining the noise levels generated by the different types of on-site construction activities, calculating the construction-related noise level at nearby sensitive receptor locations, and comparing these construction-related noise levels to ambient noise levels (i.e., noise levels without construction noise); (5) establish the noise levels from existing on-site sources and

²² City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, Figure GS-1 – Areas Containing Significant Mineral Deposits in the City of Los Angeles.

²³ California Geological Survey, Aggregate Sustainability in California, California, 2012; http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS_52_2012.pdf. Accessed November 11, 2015.

forecast future noise levels from on-site sources, and considering the unique noise characteristics of the proposed uses; and (6) analyze roadway noise impacts attributable to motor vehicle travel generated by on-site development.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Construction of the Project may generate groundborne vibration and noise due to site grading, clearing activities, and haul truck travel. In addition, Project construction may require pile-driving. As such, the Project would have the potential to generate or to expose people to excessive groundborne vibration and noise levels during short-term construction activities. Therefore, it is recommended that this topic be analyzed further in an EIR. The EIR's vibration analysis will take into consideration the potential for the Project to cause groundborne vibration at nearby buildings and receptors.

Post-construction on-site activities would be limited to residential and commercial uses that would not generate excessive groundborne noise or vibration. As such, Project operation would not have the potential to expose people to excessive groundborne vibration or noise, resulting in a less than significant impact. Therefore, no further analysis of operational groundborne vibration or noise is recommended, and no mitigation measures would be necessary.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. As discussed in the response to Checklist Question XII.a, above, operation of the Project may increase existing noise levels as a result of Project-related traffic, the operation of HVAC systems, loading and unloading of trucks, the use of aboveground parking structures, and the presence of residents and visitors at the Project Site. Therefore, it is recommended that potential impacts associated with a permanent increase in ambient noise levels be analyzed further in an EIR. The EIR analysis will estimate noise levels from the project at off-site sensitive receptors. These estimates will take into account all existing and future on-site noise sources, including building equipment and vehicular noise.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. As discussed in the response to Checklist Question XII.a, above, Project construction would require the use of heavy construction equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) that would generate noise on a short-term basis. Therefore, it is recommended that potential impacts associated with a temporary or periodic increase in ambient noise levels be further analyzed in an EIR. The EIR analysis will estimate noise levels from the Project at off-site sensitive receptors and compare them to existing ambient noise levels. These estimates will take into account all existing and future on-site noise sources, including building equipment and vehicular noise.

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?

No Impact. As discussed in the response to Checklist Question VIII.e above, the Project Site is not located within an airport land use plan or within two miles of an airport. The nearest airport is the Hawthorne Municipal Airport located approximately 11 miles southwest of the Project Site. Therefore, the Project would not expose site population in the Project vicinity to excessive noise levels from airport use. No further analysis of this topic in an EIR is recommended and no mitigation measures are required.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. As discussed in the response to Checklist Question XII.e above, the nearest airport is the Hawthorne Municipal Airport, located approximately 11 miles southwest of the Project Site. Since the Project is not within the vicinity of a private airstrip, it would not expose people residing or working in the area to excessive noise levels. As no impacts would occur, further analysis of this topic in an EIR is not required.

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)?

Potentially Significant Impact. Population growth and future development projections are prepared by SCAG, which provides current and projected population, housing and employment estimates for the region as a component of the Regional Transportation Plan (RTP). SCAG bases its estimates, in part, on anticipated development by City jurisdictions based on their General Plans, Zoning and on-going development activity. The SCAG projections serve as the basis for providing infrastructure and public services by various jurisdictions and service agencies throughout the region.

The 2016–2040 RTP reports demographic data for 2020, 2035 and 2040. The 2020, 2035, and 2040 projections apply the SCAG growth assumptions to the 2012 baselines as reported in the 2016 RTP.²⁴ The 2016 RTP forecasts represent the likely growth scenario for the Southern California region in the future, taking into account recent and past trends, reasonable key technical assumptions, and local or regional growth policies. An estimate of the 2016 baseline population and growth projections for 2020 and 2040 are shown in **Table B-1, Projected**

²⁴ SCAG provides population, housing, and employment estimates forecasted for 2020, 2035, and 2040 for regional, county, and city/jurisdictional geographies. Data is available on a request basis and was provided to ESA PCR.

*Population, Housing and Employment Estimates.*²⁵ As shown in Table B-1, the Central City North Community Plan area and City of Los Angeles are projected to have population, housing and employment increases at the time of Project buildout (2020) and SCAG’s Horizon Year (2040) compared to existing 2016 baseline conditions.

**TABLE B-1
PROJECTED POPULATION, HOUSING AND EMPLOYMENT ESTIMATES**

	Project Buildout Year – 2020				SCAG Projection Horizon - 2040		
	2016 Baseline	Projected	Total Growth	Percentage Increase	Projected	Total Growth	Percentage Increase
Population							
Central City North Community Plan Area	24,580	25,766	1,186	5%	44,601	20,021	81%
City of Los Angeles	3,931,227	4,016,977	85,750	2%	4,609,414	678,187	17%
Housing							
Central City North Community Plan Area	6,917	7,524	607	9%	15,433	8,516	123%
City of Los Angeles	1,383,467	1,441,402	57,935	4%	1,690,343	306,876	22%
Employment							
Central City North Community Plan Area	26,256	28,763	2,507	10%	35,181	8,925	34%
City of Los Angeles	1,797,971	1,899,539	101,568	6%	2,169,114	371,143	21%

SOURCE: Based on SCAG data prepared for the 2016 – 2040 RTP. Estimates for years presented in the table are based on interpolation of data presented in the RTP. Compiled by ESA PCR, 2016.

The project would not have indirect effects on growth through such mechanisms as the extension of roads and infrastructure. However, the project would add new residential, visitor, and employment population to the Project Site. Because the Project Site will be located in a TOD corridor, there is projected to be population and housing growth in the area. The proximity to the Metro Chinatown Station allows this growth to meet the City’s increasing demand rather than creating an additional demand and strain on the City’s resources. The project would provide up to 770 residential units and 51,592 square feet of market, retail, and restaurant uses which would generate new employment on the Project Site. Based on an average household size of 2.03,^{26,27} the Project’s 770 dwelling units would generate a direct population increase of approximately 1,563 people. Because of the Project’s projected population increase, along with increased housing and employment, a detailed analysis will be required as part of the EIR that compares the

²⁵ The 2016 baseline estimate was determined by interpolating from data presented in the SCAG projections.
²⁶ The average household size of 2.03 persons per unit reflects the average for the Central City North Community Plan Area, based on 2010 Census data. US Census Bureau, American FactFinder. Available at: <http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t> Accessed November 14, 2015.
²⁷ Census Tract 2060.50 includes 7,425 people living in group quarters (i.e., the Los Angeles County Sheriff’s Department’s Twin Towers Correctional Facility) that were not included when calculating the population per housing unit.

Project's contribution to population, housing, and employment growth to Community Plan and Citywide projections and policies regarding future development. The EIR analysis will evaluate whether the Project's housing, residential population, and employment creation are consistent with those projections and related policies. Based on the assessment, a determination will be made as whether the project would induce substantial direct population growth.

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?

No Impact (b-c). No dwelling units are currently located on the Project Site. Thus, the Project would not result in the demolition of existing housing units. The Project is an infill development and would replace an existing surface parking lot with a mixed-use building consisting of residential, market, retail, and restaurant uses. Since no existing housing would be displaced, there would be no necessity for the construction of replacement housing elsewhere. As no impacts would occur, further analysis of this topic in an EIR is not recommended, and no mitigation measures are required.

XIV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?

Potentially Significant Impact. The LAFD provides fire protection and emergency medical services in the City of Los Angeles. Three fire stations are located in the vicinity of the Project Site, including Fire Station No. 4 at 450 E. Temple Street (approximately 1.2 miles south of the Project Site); Fire Station No. 1 at 2230 N. Pasadena Avenue (approximately 1.3 miles northeast of the Project Site); and Fire Station No. 3 at 108 N. Fremont Avenue (approximately 1.7 miles southwest of the Project Site). The Project Site is located within an area that is designated in the General Plan Safety Element, Exhibit D, *Selected Wildfire Hazard Areas*, as an Industrialized Area, which is correlated with greater risk of public exposure to flammable or explosive materials.

During Project construction, temporary lane closures may be required for the construction of the new through streets, new utility connections, street work, and in special, limited circumstances, for offloading and mobile crane placement. Further evaluation is needed to determine the potential for, and significance of, any impacts temporary lane closures could have on emergency response times. Following completion of construction, the Project would introduce a new mixed-use building and residents/employees to the Project Site, greater demand on LAFD fire protection and emergency medical services would be generated, and there is potential for impacts on

emergency response times. Therefore, it is recommended that potential impacts associated with fire protection and emergency medical services during Project construction and operation be analyzed further in an EIR.

The EIR analysis will include: (1) an identification of the locations, number of service personnel, equipment and response times for the fire stations currently serving the Project Site; (2) an identification of Fire Code requirements applicable to the Project; (3) an analysis of potential impacts during Project construction including impacts to emergency access; (4) an identification of the Project's fire flow requirements; (5) an evaluation of the adequacy of existing fire stations and personnel to provide service to the Project during Project operation; (6) an identification of constraints to service as well as proposals for new fire stations or increases in staffing and equipment; and (7) a description of proposed fire suppression or fire safety design features of the Project. The EIR's impact findings will also be informed by coordination with the LAFD.

b. Police protection?

Potentially Significant Impact. The Los Angeles Police Department (LAPD) provides police protection services in the City of Los Angeles. The LAPD is divided into four Police Station Bureaus: Central Bureau, South Bureau, Valley Bureau, and West Bureau. Each of the Bureaus encompasses several communities. The Project Site is located in LAPD's the Central Bureau, which serves the downtown business district, as well as the communities of Eagle Rock, the Garment District, MacArthur Park, Dodger Stadium, Chinatown, Little Tokyo, Griffith Park, and the Toy District.²⁸

Specifically, the Project Site is served by the Central Area Community Police Station located at 251 E 6th Street (approximately 1.5 miles southwest of the Project Site). Because the Project would introduce new structures, residents, guests, and employees to the Project Site, greater demand on LAPD police protection services could be generated. Therefore, it is recommended that potential impacts associated with police protection services be analyzed further in an EIR.

The EIR analysis will include: (1) a description of the current police services provided by LAPD by identifying the location of the LAPD stations serving the Project Site and average emergency response times by the LAPD to the various on-site areas; (2) analysis of the potential for increased demand on police services due to construction activities, including emergency access; (3) information regarding local and regional officer-to-resident ratios and crimes per capita; (4) a description of design features that would reduce the Project's demand for police services; (5) an analysis of the increase in demand on LAPD services based on the Project's estimated population; and (6) a comparison of the Project's increased demand on police services with the capacity of existing and any planned facilities to adequately serve the Project during construction and operation. The EIR's impact findings will also be informed by coordination with the LAPD.

²⁸ Los Angeles Police Department. About Central Bureau. Available at: http://www.lapdonline.org/central_bureau/content_basic_view/1908. Accessed November 14, 2015.

c. Schools?

Less Than Significant with Mitigation Incorporated. The Project Site is located within the jurisdiction of the Los Angeles Unified School District (LAUSD), and specifically located at the westernmost boundary of LAUSD Local District 5. The Project Site is within the attendance boundaries of Ann Street Elementary School, Nightingale Middle School, and within a LAUSD Zone of Choice with multiple high school options, including Belmont High School and Abraham Lincoln High School.²⁹ These schools are currently operating on a single-track calendar, whereby instruction generally begins in mid-August and continues through early June.

LAUSD has established student generation rates for a variety of uses including residential development (multi-family) as well as other employment generating uses, e.g. retail, hotel, industrial and office uses. An estimate of the number of students that would be generated by the Project’s residential and retail uses is provided in **Table B-2, Estimated Number of Students to be Generated by the Project.** As stated in Table B-1, the Project is estimated to generate 128 elementary school students, 35 middle school students, and 74 high school students, for a total of 237 students.

**TABLE B-2
 ESTIMATED NUMBER OF STUDENTS TO BE GENERATED BY THE PROJECT**

Land Use	Amount of Development	Units	Elementary School	Middle School	High School	Total
Residential ^a	770	units	127	35	73	235
Non-Residential ^b	51,592	sq.ft.	1	0	1	2
Total			128	35	74	237^c

NOTES:

^a Student Generation Rates for Residential Uses are taken from the Draft School Facilities Needs Analysis 2012, LAUSD, September 2012. Based on the rate for Multi-family residential uses: Elementary = 0.1649; Middle School = 0.045; High School = 0.0943.

^b Student Generation rates for retail uses are taken from the 2010 Commercial/Industrial Development School Fee Justification Study, LAUSD, September 27, 2010 -- the most recent data available for retail uses. For each 1,000 sf of non-residential space -- Elementary = 0.0178; Middle School = 0.0089; High School = 0.0111.

^c Total number of students has been rounded up, in order to provide whole student number counts.

SOURCE: ESA PCR, 2016.

Because of the anticipated demographic characteristics of the future residents of the Project, the Project’s projected student generation is likely to be less than estimated in the above analysis, which is based on LAUSD generation factors. For instance, the Project’s large number of studio and one-bedroom apartments would generate few, if any, students. This estimate is also conservative in that it assumes that none of the future Project residents with families would already have students attending the affected schools. Furthermore, it is likely that a portion of the Project’s school-age children would attend private schools, thus reducing attendance at LAUSD schools.

²⁹ LAUSD Zones of Choice are geographic areas comprising multiple high school options. The small school options in each Zone are open to all resident students and represent the demographics of the local area.

To the extent that on-site development increases demand at LAUSD schools serving the Project Site, State law, including Government Code Section 65995 and Education Code Section 17620, requires the payment of fees at a specified rate for the funding of improvements and expansion to school facilities. Such fees are paid at the issuance of building permits. In accordance with Senate Bill 50 (SB 50), enacted in 1998, the payment of this fee is deemed to provide full and complete mitigation for impacts to school facilities and impacts to schools would therefore be reduced to a less than significant level. The Project would be required to implement standard City Mitigation Measure PS-1, which requires the Project Applicant to pay all applicable school facility development fees in accordance with Government Code Section 65995. With implementation of the following standard Mitigation Measure PS-1, potential impacts on schools would be reduced to a less than significant level. No further analysis of this topic in an EIR is required.

Mitigation Measure

Mitigation Measure PS-1: Prior to issuance of a building permit, the General Manager of the City of Los Angeles, Department of Building and Safety, or designee, shall ensure that the Applicant has paid all applicable school facility development fees in accordance with California Government Code Section 65995.

d. Parks?

Potentially Significant Impact. Because the Project would introduce new residents to the Project Site and new employees that might visit nearby parks, greater demand on existing public recreational and park facilities and services would be generated. The Project would provide on-site open space in the form of the public pedestrian plazas along Spring and College Streets, as well as recreational facilities for Project residents and visitors on the podium deck and at other locations throughout the Site. These facilities would reduce the Project's demand for use of existing public recreational and park facilities. Nevertheless, it is recommended that potential residual impacts on park services in the Project area be analyzed further in an EIR. The EIR analysis will: (1) identify existing and planned parks and/or recreational facilities in the project's service area; (2) evaluate the project pursuant to City and State recreational and parkland standards and requirements; and (3) compare the change in the existing service area population/parkland ratio with the addition of project residents in order to determine the potential effect of the project on existing parkland ratios and City standards.

e. Other public facilities?

Potentially Significant Impact. The Los Angeles Public Library (LAPL) provides library services to the City of Los Angeles. Because the Project would introduce new residents, guests, and employees to the Project Site, demand on LAPL library services could increase. Therefore, it is recommended that potential impacts associated with library services be analyzed further in an EIR. The EIR analysis will: (1) identify existing and planned libraries in the Project's service area; (2) describe the existing service population and approximate service capacities of existing libraries and planned/funded new libraries; (3) provide an estimate of the Project's demand and (4) compare the potential demand increase to the service capacity of the libraries serving the Project Site.

During construction and operation of the Project, other governmental services, including roads, would continue to be utilized. Project residents, patrons, visitors, and employees would use the existing road network, without the need for new roadways to serve the Project Site. As discussed in Checklist Question XVI., Transportation/Traffic, the Project could result in an increase in the number of vehicle trips attributable to the Project Site. However, the additional use of roadways would not be excessive and would not necessitate the upkeep of such facilities beyond normal requirements. Therefore, the Project would result in less than significant impacts on other governmental services. Further analysis of other governmental services is not necessary and no mitigation measures would be required.

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?

Potentially Significant Impact. As discussed in the response to Checklist Question XIV.d, because the Project would introduce new population to the Project Site, greater demand on existing public recreational and park facilities and services could be generated. Therefore, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will: (1) identify existing and planned parks and/or recreational facilities in the Project's service area; (2) evaluate the project pursuant to City and State recreational and parkland standards and requirements; and (3) compare the change in the existing service area population/parkland ratio with the addition of project residents in order to determine the potential effect of the Project on existing parkland ratios and City standards.

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?

Potentially Significant Impact. The Project would provide both publically accessible and private open space and recreational amenities. These Project features have been incorporated into the overall Project design. Therefore, construction of these recreational facilities as part of the Project and the resulting physical effects on the environment are assessed within this Initial Study. Any issues within this Initial Study that are noted as potentially significant will be analyzed further in an EIR.

XVI. Transportation and Traffic

Would the project:

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and 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?

Potentially Significant Impact. The Project Site is subject to the LADOT standards and guidelines regarding trip generation and levels of service (LOS) for the street system. The Project would add traffic to local and regional transportation systems. The Project would develop the Project Site with 770 dwelling units and 51,592 square feet of market, retail, and restaurant uses that would provide new employment opportunities. These uses would add traffic to local and regional transportation systems. Thus, operation of the Project could adversely affect the existing capacity of the street system or exceed an established LOS standard. Project construction would also result in a temporary increase in traffic due to construction-related truck trips and worker vehicle trips. Therefore, traffic impacts during construction could also adversely affect the street system. As the Project has the potential to result in a significant traffic impact, it is recommended that this topic, including mass transit and non-motorized travel be analyzed further in an EIR.

With regard to construction activities, the EIR analysis will: (1) describe existing vehicle and pedestrian (i.e., sidewalks, crosswalks, etc.) circulation patterns around the Project Site and along the likely routes used by construction-related vehicles; (2) identify existing bus and transit stops that may require relocation (if any); (3) forecast the number of haul and delivery truck and construction worker trips; and (4) analyze potential construction-related impacts to travel lanes, sidewalks, bicycle lanes/paths, and turning lanes.

With regard to Project operations, the EIR analysis will address the Project's potential impacts on the streets, intersections, freeways, and transit systems serving the Project area. Volume-to-Capacity (V/C) ratios and LOS levels at study intersections and roadway segments during the A.M. and P.M. peak hours will be calculated based on LADOT methodologies and in accordance with CEQA, as necessary. Trip-generation forecasts will be based on types of uses that are proposed as part of the Project, taking into consideration the anticipated number of residents, employees, visitors, etc. The EIR analysis will also determine the amount and adequacy of available parking.

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. The CMP is a State-mandated program enacted by the State legislature to address the impacts that urban congestion has on local communities and the region as a whole. Metro is the local agency responsible for implementing the requirements of the CMP. New projects located in the City of Los Angeles must comply with the requirements set forth in the Metro's CMP. These requirements include the provision that all freeway segments where a project could add 150 or more trips in each direction during the peak hours be evaluated. The guidelines also require evaluation of all designated CMP intersections where a project could add 50 or more trips during either peak hour. The Project would generate vehicle trips which could potentially add trips to a freeway segment or CMP intersection. Thus, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will: (1) describe the CMP; (2) identify CMP intersections and freeway segment monitoring locations that may be affected by the Project; and (3) analyze potential Project impacts on CMP facilities in accordance with current CMP methodologies.

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?

No Impact. As discussed in the response to Checklist Question VIII.e, the nearest airport or heliport is the Hawthorne Municipal Airport, which is located approximately 11 miles southwest of the Project Site. As such, the Project Site is not within any flight paths; does not propose any construction that requires notification of the Federal Aviation Administration; and would not result in a change in air traffic patterns including, increases in traffic levels or changes in location that would result in substantial safety risks. As no impact would occur, further analysis of this topic in an EIR is not required, and no mitigation measures are required.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. The roadways adjacent to the Project Site are part of an established urban roadway network and contain no sharp curves or dangerous intersections. However, the Project would increase the number of vehicle trips to and from the Project Site, construct new access driveways and internal circulation, expand parking facilities, and create new pedestrian paths and stairways. Additionally, the Project could result in an increase in traffic levels in the project area. During construction, access on and near the Project Site could be temporarily disrupted resulting in conflicts with vehicles, pedestrians and/or bicyclists. Considering these factors, the potential for hazardous conditions may increase over existing conditions under the Project. Therefore, further analysis of this issue in an EIR is recommended. The EIR analysis will also evaluate the potential for hazards to occur at vehicle and pedestrian

access points under the Project, including, but not limited to, a qualitative analysis of the interface of the Project's access points with pedestrian/bicyclist flows.

e. Result in inadequate emergency access?

Potentially Significant Impact. Immediate vehicular access to the Project Site is provided via Spring Street, Rondout Street, and College Street. While it is expected that the majority of construction activities for the project would be confined on-site, short-term construction activities may temporarily affect access on portions of adjacent streets during certain periods of the day. In addition, the Project would generate traffic in the project vicinity and would modify Site access from streets that surround the Site through the provision of two entrance driveways on Spring Street and two entrance driveways on Rondout Street. Thus, it is recommended that this issue be analyzed further in an EIR. The EIR analysis will evaluate the surrounding street system that will be used by the Project, the location of any off-site construction activities, and the impact of the Project's traffic with respect to projected roadway service levels. The emergency access analysis will take into consideration the effects of new development on the ability of police, fire, and emergency medical services to access on- as well as off-site properties during the construction and operation of the Project.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Potentially Significant Impact. The Project Site is located in an area well served by public transportation. Several transit providers operate transit service within the immediate vicinity, and most notably the Metro Gold Line Chinatown Station is located across Spring Street from the Project Site. Bus service is also provided by Metro and LADOT. Two LADOT DASH bus lines providing local access: the Lincoln Heights-Chinatown line, with stops at Main Street/College Street and Spring Street/College Street as well as multiple stops along Broadway, and the Downtown Route B line, with a stop adjacent to the Project Site at Spring Street/College Street. The Project Site is also served by LADOT's Commuter Express, providing bus service to the greater Los Angeles area. Route 409, with a stop on Broadway Street, 0.1 mile west of the Project Site, and Route 419, with a stop along Hill Street, 0.2 mile west of the Project Site, provide service to the San Fernando Valley. Metro bus line 76 has a stop on Main Street and provides service to the San Gabriel Valley. Further, per the City's 2010 Bicycle Plan, Spring Street in the Project Vicinity is listed as a designated Bicycle Lane and College Street is listed as a designated Bicycle Route.³⁰ The 2010 Bicycle Plan also identified both Spring and College Streets as part of the Neighborhood Bikeway Network.

Although the Project Site is well served by public transportation, it is anticipated to improve the pedestrian experience through the provision of improved sidewalks and ground-level uses, and is not expected to interfere with or degrade the performance or safety of public transit, bicycle, or

³⁰ Los Angeles Department of City Planning, 2010 Bicycle Plan, Exhibit D: 2010 Bicycle Plan Designated Bikeways. Available at: <http://planning.lacity.org/cwd/gnlpln/transelt/NewBikePlan/Txt/LA%20CITY%20BICYCLE%20PLAN.pdf> Accessed November 16, 2015.

pedestrian facilities. It is recommended that the Project's potential for impacts during construction and its consistency with policies, plans, and programs supporting alternative transportation be analyzed further in an EIR. The EIR analysis will describe estimated current capacity levels of transit systems and identify deficiencies, if any. Project transit trips will be forecasted according to CMP methodology. The impact of the Project with respect to bus and rail capacity will be assessed per CMP criteria. The EIR analysis will also qualitatively address impacts with regard to public bicycle and pedestrian facilities.

XVII. Utilities and Service Systems

Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The City of Los Angeles Department of Public Works (LADPW) provides wastewater services for the Project Site. Any wastewater that would be generated at the Site would be treated at the Hyperion Treatment Plant (HTP). The HTP is a part of the Hyperion Treatment System, which also includes the Tillman Water Reclamation Plant (TWRP) and the Los Angeles-Glendale Water Reclamation Plant (LAGWRP). The HTP is designed to treat 450 million gallons per day (mgd) HTP has an average dry water flow of approximately 362 mgd, leaving approximately 88 mgd of capacity available.^{31,32}

Following the secondary treatment of wastewater, the majority of effluent from HTP is discharged into the Santa Monica Bay while the remaining flows are conveyed to the West Basin Water Reclamation Plant for tertiary treatment and reuse as reclaimed water. HTP has two outfalls that presently discharge into the Santa Monica Bay (a one-mile outfall pipeline and five-mile outfall pipeline). Both outfalls are 12 feet in diameter. The one-mile outfall pipeline is 50 feet deep and is only used on an emergency basis or when repairs are being completed on the five-mile outfall. The five-mile outfall pipeline is 187 feet deep and is used to discharge secondary treated effluent on a daily basis. Major routine maintenance and repair efforts to the five-mile outfall were most recently completed in November 2015.³³ HTP effluent is required to meet the Los Angeles Regional Water Quality Control Board's (LARWQCB) requirements for a recreational beneficial use, which imposes performance standards on water quality that are more stringent than the standards required under the Clean Water Act permit administered under the system's NPDES permit. Accordingly, HTP effluent to Santa Monica Bay is continually

³¹ The HTP is an end-of-the-line plant, subject to diurnal and seasonal flow variation. It was designed to provide full secondary treatment for a maximum-month flow of 450 mgd, which corresponds to an average daily waste flow of 413 mgd, and peak wastewater flow of 850 mgd. (Information regarding peak flow is included in the IRP, Facilities Plan, Volume 1, Wastewater Management, July 2004; page 7-3.)

³² City of Los Angeles Bureau of Sanitation, Wastewater: Facts & Figures. Available at: <http://www.lacitysan.org/wastewater/factsfigures.htm>. Accessed November 16, 2015.

³³ City of Los Angeles Department of Public Works, LA Sewers: Hyperion Water Reclamation Plant Discharge System Replacement Project. Available at: http://san.lacity.org/lasewers/treatment_plants/hyperion/new_construction/header_Replacement.htm. Accessed November 16, 2015.

monitored to ensure that it meets or exceeds prescribed standards. The Los Angeles County Department of Health Services also monitors flows into the Santa Monica Bay.

The Project’s new residential units and commercial uses, including a market, would generate additional wastewater that would require conveyance and treatment. On-site wastewater generation is anticipated to total approximately 91,000 gallons per day (gpd), or 0.0091 million gallons per day (mgd) under the Project, as summarized in **Table B-3, Estimated Project Wastewater Generation**. This increase represents less than 0.01 percent of the remaining treatment capacity at the HTP. Given the amount of wastewater generated by the Project and the existing wastewater treatment capacity at the HTP, adequate wastewater treatment capacity would be available to serve the Project.

Construction of the Project would include all necessary on- and off-site sewer pipe improvements and connections to adequately connect to the City’s existing sewer system. As previously discussed, the Project would not generate sewer flows that would jeopardize the ability of the HTP to operate within its established wastewater treatment requirements. As a result, the Project would not exceed the requirements of the LARWQCB and a less than significant impact would result. No mitigation measures or further evaluation of this topic in an EIR is recommended.

**TABLE B-3
ESTIMATED PROJECT WASTEWATER GENERATION**

Land Use	Unit ^a	Generation Factor ^a	Wastewater Generation (GPD)
Proposed Use			
Studio	355 DU	75 GPD/unit	26,625
1 Bdrm (incl 10 Townhomes)	360 DU	110 GPD/unit	39,600
2 Bdrm	55 DU	150 GPD/unit	8,250
Grocery Market	37,520 SF	25 GPD/1,000 sf	938
Retail	5,870 SF	25 GPD/1,000 sf	147
Restaurant: Quality Sit-Down	5,000 SF (333 seats) ^a	30 GPD/seat	9,990
Restaurant: High-Turnover Sit-Down	3,000 SF (200 seats) ^a	25 GPD/seat	5,000
Total			90,550

NOTES:

^a Conservatively assumes one seat per every 15 square feet.

SOURCE: David Evans and Associates, December 2015

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?

Wastewater

Portions of the following impact analysis pertaining to the wastewater disposal are based on information contained in the Sewer Technical Study (Sewer Study) prepared by David Evans and Associates in December 2015. The Sewer Study is included as Appendix B-2 of this Initial Study.

Less Than Significant Impact. With regard to wastewater treatment, as discussed in the response to Checklist Question XVII.a, above, the Project's net increase in wastewater generation would not exceed the treatment capacity of the HTP and a less than significant impact would result.

With regard to the local wastewater conveyance infrastructure, the Project Site is served through an off-site sewer network maintained by the City of Los Angeles Bureau of Sanitation, comprising 8-inch, 12-inch, and 15-inch vitrified clay pipes (VCP). The first sewer main that would serve the Project Site is an 8-inch sewer in Rondout Street flows southeast and ultimately discharges through a manhole to a City of Los Angeles 12-inch connected VCP main, which is located in North Main Street, east of the Project Site. The second sewer main that would serve the Project Site is a 15-inch VCP located west of the Project Site in Spring Street. This main flows southwest and ultimately discharges through a manhole to a 15-inch VCP main parallel to Alameda Street.

As previously discussed, the estimated wastewater generation under the Project would be approximately 91,000 gpd. During final plan check, the Project's Sewer Capacity Availability Request (SCAR) would be reviewed by the Bureau of Sanitation (BOS) to verify available capacity in the local sewer system at that time, and to amend requirements of the Applicant to reflect existing capacity as needed.³⁴ If sewer capacity is confirmed to be adequate, the Project would be issued a permit to connect to the City's sewer system. The Project would be required to provide on-site infrastructure and connections to the local sewer lines, to the satisfaction of LADBS and BOS. The Project would also be required to pay Sewerage Facilities Charges that would be deposited in the City's Sewer Construction and Maintenance Fund and used for operations, maintenance and improvements of the wastewater collection system, which the City monitors routinely to determine the need for required system upgrades. If the BOS determines that adequate capacity is not available in the local sewer system, the BOS would require the Project applicant to amend the Project or complete any necessary off-site improvements to increase capacity in the system. Therefore, BOS review of the Project would ensure that there would be sufficient capacity to accept the Project's wastewater generation and convey it to the HTP for treatment, and the Project would result in a less than significant impact with respect to wastewater conveyance.

³⁴ The SCAR calculated the Project's wastewater generation using standard City wastewater generation rates. The SCAR was submitted to the BOS for review and approval in December 2015.

Water

Potentially Significant Impact. The Project consists of new mixed-use development on a currently vacant site, which would result in an increase in water demand that may require upgrades to existing utility facilities. Therefore, it is recommended that water supply and infrastructure be analyzed further in an EIR. The EIR would identify the location, condition and capacity of water conveyance lines to determine whether adequate capacity is available to accommodate the required fire flows and domestic water demand generated by the Project.

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?

Less Than Significant Impact. As previously discussed in the response to Checklist Question IX(e), the Project Site would install a cistern system in the subterranean parking structure and implement other BMPs in accordance with the City's LID Ordinance to ensure that stormwater flows from the Project Site do not increase over existing conditions. There are no known current deficiencies in the local stormwater system that serves the Project Site. As the storm drain system in Spring Street can adequately handle existing flows, the Project's stormwater flows, which would be reduced when compared to existing conditions, would not exceed the capacity of the storm drain system in Spring Street. Final plan check by the City Bureau of Engineering would ensure that adequate capacity is available in the storm drain system prior to Project approval. The Applicant would be responsible for providing the necessary storm drain infrastructure to serve the Project Site, as well as any extensions to the existing system in the area. Therefore, a less than significant impact would result. No mitigation measures are required and no further analysis of this topic in an EIR is recommended.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially Significant Impact. Sections 10910-10915 of the State Water Code (Senate Bill [SB] 610) requires the preparation of a water supply assessment (WSA) demonstrating sufficient water supplies for a project that is: 1) a shopping center or business establishment that will employ more than 1,000 persons or have more than 500,000 square feet of floor space; 2) a commercial office building that will employ more than 1,000 persons or have more than 250,000 square feet of space, or 3) any mixed-use project that would demand an amount of water equal to or greater than the amount of water needed to serve a 500-dwelling unit subdivision. As the Project's development program meets the established threshold by proposing more than 500 dwelling units, as well as commercial uses, a WSA is required for the Project. Further evaluation of this topic in an EIR is recommended. The EIR analysis will calculate the Project's total water demand based on the Project's individual land use components, and will assess LADWP's ability to serve the Project based on LADWP's Project-specific WSA and the available capacity of LADWP infrastructure. The analysis will also discuss the Project consistency with water supply projections contained in the City's Urban Water Management Plan (UWMP).

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As indicated in the response to Checklist Question XVII.a, the Project would not exceed the treatment capacity of the HTP. Specifically, the Project's projected wastewater generation represents a negligible percentage (less than 0.01 percent) of the remaining available capacity at the HTP. Further, as previously discussed in the response to Checklist Question XVII(b), BOS review of the Project during final plan check would ensure that the local wastewater conveyance infrastructure would adequately serve wastewater generated by the Project. Therefore, the Project would have a less than significant impact with respect to wastewater treatment capacity. No mitigation measures would be required and no further analysis of this topic in an EIR is recommended.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Solid waste management in the City of Los Angeles involves both public and private refuse collection services as well as public and private operation of solid waste transfer, resource recovery, and disposal facilities. The BOS has the responsibility to develop plans and strategies to manage and coordinate the solid waste generation in the City and to address the disposal needs of the City as a whole. Private hauling companies collect solid waste generated primarily from large multi-family residential, commercial and industrial properties. Solid waste management includes solid waste source reduction, recycling, composting, transformation and disposal. The City does not own or operate any landfill facilities. The majority of the solid waste generated within the City is disposed of at Los Angeles County landfills.

The California Integrated Waste Management Act of 1989, also known as Assembly Bill 939, mandates jurisdictions to meet a diversion goal of 50 percent by 2000 and thereafter. In addition, each county is required to prepare and administer a Countywide Integrated Waste Management Plan (CoIWMP). This plan is comprised of the county's and the cities' solid waste reduction planning documents plus an Integrated Waste Management Summary Plan (Summary Plan) and a Countywide Siting Element (CSE). For Los Angeles County, the County's Department of Public Works (Public Works) is responsible for preparing and administering the Summary Plan and the CSE. These documents were approved by the County, a majority of the cities within the County containing a majority of the cities' population, the County Board of Supervisors, and the California Department of Resources Recycling and Recovery (CalRecycle). The Summary Plan, approved by CalRecycle on June 23, 1999, describes the steps to be taken by local agencies, acting independently and in concert, to achieve the mandated state diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated within the County.

In May 2015, the County of Los Angeles Department of Public Works released the 2013 CoIWMP (the most recent available).³⁵ As indicated therein, the remaining disposal capacity for the County’s Class III landfills is estimated at approximately 113 million tons as of December 31, 2013. In addition to in-County landfills, out-of-County disposal facilities are also available to the City. Aggressive waste reduction and diversion programs on a Countywide level have helped reduce disposal levels at the County’s landfills, and based on the CoIWMP, the County anticipates that future Class III disposal needs can be adequately met through 2028 through some combination of the following strategies (Scenarios II through VII of the 2013 Annual Report): increased waste reduction and diversion efforts, development of alternative technologies, supporting exportation of waste to out-of-County facilities, utilizing the waste-by-Rail system to the Mesquite Regional landfill, and if found to be environmentally sound and technically feasible, expansion of in-County landfills.

Construction Impacts

Project construction would require earthwork (grading and excavation) and the new construction of a mixed-use project on the Project Site. Each of these activities would generate demolition waste including but not limited to soil, asphalt, wood, paper, glass, plastic, and metals. As shown in **Table B-4, Project Construction Debris**, construction of the proposed mixed-use project would generate an estimated 1,409 tons of debris. As discussed in Attachment A, Project Description, of this Initial Study, excavation of the Project Site is estimated to generate approximately 192,000 cy of soil export.

**TABLE B-4
PROJECT CONSTRUCTION DEBRIS**

Land Use	Size	Generation Rate (lbs/sf)	Total Solid Waste Generation (lbs)	Total Solid Waste Generation
Residential	590,849 sf	4.39 lbs per sf	2,593,827 lbs	1,297 tons
Non-Residential	51,592 sf	4.34 lbs per sf	223,909 lbs	112 tons
Total Solid Waste Generated During Project Construction			2,817,736 lbs	1,409 tons
Total Solid Waste With Diversion Efforts (50 percent)			1,408,868 lbs	705 tons
Soil Export (cubic yards)				192,000 cy

NOTES:
cy = cubic yards.

SOURCE: Generation Rates: Environmental Protection Agency, Estimating 2003 Building-Related Construction and Demolition Materials Amounts, March 2009.

Construction materials are disposed of at one of the unclassified inert landfills available to the City of Los Angeles, typically the Azusa Land Reclamation Facility, which has an estimated remaining capacity of approximately 62.34 million tons or 49.87 cy.³⁶ As a result, Project

³⁵ County of Los Angeles Department of Public Works, Countywide Integrated Waste Management Plan: 2013 Annual Report. May 2015. Available at: <http://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=3473&hp=yes&type=PDF>. Accessed September 28, 2015.

³⁶ County of Los Angeles Department of Public Works, Countywide Integrated Waste Management Plan: 2013 Annual Report. May 2015. Pg. 32.

excavation and construction would account for only a small percentage (less than 0.01 percent) of the Azusa Land Reclamation Facility, and construction waste would not exceed the existing capacity of this facility. In addition, the estimate of construction and demolition debris is conservative in that it does not take into account recycling efforts that would occur in accordance with City regulations. These regulations require the Applicant to contract with a waste disposal company that recycles construction and/or demolition debris, as well as to provide temporary waste separation bins during project construction. On March 5, 2010, the City Council approved the Construction and Demolition Waste Recycling Ordinance, which requires all mixed construction and demolition generated within City limits be taken to City-certified construction and demolition waste processors. This recycling policy is effective as of January 1, 2011. Data is not yet available on the effectiveness of this ordinance.³⁷ However, assuming Project construction achieves a minimum 50 percent diversion rate as required by Assembly Bill 939³⁸, construction debris would be reduced to a total of approximately 705 tons. This constitutes a fraction (less than 0.01 percent) of the remaining capacity of the Azusa Land Reclamation Facility. Because construction waste would not exceed the capacity of existing disposal facilities and would be further reduced by recycling, impacts would be less than significant. Nonetheless, standard regulations, which require the Project to seek a certified solid waste disposal company and provide recycling containers during construction, are provided to ensure the Project complies with the City's Construction and Demolition Waste Recycling Ordinance. No further analysis of this topic in an EIR is necessary.

Operational Impacts

Estimated solid waste generation for the Project is shown in **Table B-5, Estimated Operational Solid Waste Generation**. It is estimated that the total waste generation for the Project would be 1,946 tons per year (5.33 tons per day). The daily amount of solid waste generated by the Project would represent a negligible amount (0.07 percent) of the daily solid waste disposed of by the City (8,175.13 tons). It is important to note that this estimate is conservative, in that the amount of solid waste that would need to be landfilled would likely be less than this forecast based on successful City implementation of AB 939 and the City's objective to achieve a 70 percent diversion goal by 2020 and eventually to a zero waste scenario by 2025 as envisioned in the Los Angeles Solid Waste Integrated Resources Plan.³⁹ Recycling efforts in the City of Los Angeles in accordance with AB 939 achieved a solid waste diversion rate of 76.4 percent in 2012, the most recent year data is available.⁴⁰ Assuming the Project achieves a similar diversion rate, the amount of Project solid waste that would need to be landfilled would be reduced to an estimated 459 tons annually, or 1.26 tons per day, which constitutes a negligible portion (less than 0.01

³⁷ City of Los Angeles, Department of Public Works, Solid Resources, Recycling Statistics. Available at: http://www.lacitysan.org/solid_resources/recycling/c&d.htm. Accessed November 16, 2015.

³⁸ Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (Assembly Bill 939) which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 requires each city or county plan to include an implementation schedule which shows diversion of 50 percent of all solid waste by January 1, 2000.

³⁹ City of Los Angeles, Department of Public Works, Solid Resources, Zero Waste Progress Report, pg. 7. Available at: http://www.lacitysan.org/solid_resources/recycling/publications/PDFs/CLA_%20Zero_Waste_Progress_Report.pdf. Accessed November 16, 2015.

⁴⁰ Ibid, pg. 7.

percent) of the daily permitted intake (29,640 tons) and remaining capacity (113 million tons) of in-County landfills and waste-to-energy facilities serving the City.

**TABLE B-5
ESTIMATED OPERATIONAL SOLID WASTE GENERATION**

Land Use	Unit ^a (sq. ft.)	Factor ^a	Waste Generation (lbs/day)	Waste Generation (tons/year)
Proposed Use				
Residential	770 du	12.23 lbs/unit/day	9,417 lbs	1,719 tons
Grocery Market	37,520 sf	31.2 lbs / 1,000 sf/day	1,171 lbs	214 tons
Retail	6,072 sf	5 lbs/1,000 sq. ft./day	30 lbs	5 tons
Restaurant: Quality Sit Down	5,000 sf	5 lbs/1,000 sq. ft./day	25 lbs	5 tons
Restaurant: High-Turnover Sit-Down	3,000 sf	5 lbs/1,000 sq. ft./day	15 lbs	3 tons
Total			10,658 lbs	1,946 tons

^a Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. <http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm>. Accessed November 16, 2015.

SOURCE: ESA PCR, 2016

As described in the CoIWMP 2013 Annual Report, future disposal needs for the 15-year planning horizon (2028) would be adequately met through the use of in-County and out-of-County facilities. It should also be noted that with annual reviews of demand and capacity in each subsequent Annual Report, the 15-year planning horizon is extended by one year, thereby providing sufficient lead time for the County to address any future shortfalls in landfill capacity.

Based on the above, Project-generated waste would not exacerbate the estimated landfill capacity requirements addressed for the 15-year planning period ending in 2028, or alter the ability of the County to address landfill needs via existing capacity and other options for increasing capacity. Therefore, the County’s inert and Class III landfills would have adequate capacity to accommodate Project-generated construction and demolition waste during Project construction and Class III solid waste generation during Project operations. Operational impacts related to solid waste generation would be less than significant. Nonetheless, compliance with standard regulations requiring that the applicant seek a certified solid waste disposal company to serve the Project would ensure the Project complies with the City’s required solid waste reduction goals, including the Renew LA Plan, and ensure impacts remain less than significant. No further analysis of this topic in an EIR is necessary.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (AB 939) which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): (1) source reduction,

(2) recycling and composting, and (3) environmentally safe transformation and land disposal. Additionally, the City is currently implementing its “Zero-Waste-to-Landfill” goal to achieve zero waste to landfills by 2025 to enhance the Solid Waste Integrated Resources Planning Process. Recycling efforts in the City of Los Angeles in accordance with AB 939 achieved a solid waste diversion rate of 76.4 percent in 2012, the most recent year data is available.

The Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), which requires that developments include a recycling area or room of specified size on the Project Site.⁴¹ Further, the Project would comply with the City’s Construction and Demolition Waste Recycling Ordinance. The Project would also promote compliance with AB 939 and City waste diversion goals by providing clearly marked, source sorted receptacles to facilitate recycling. Since the Project would comply with federal, State, and local statutes and regulations related to solid waste, a less than significant impact would occur and no mitigation measures would be required. No further analysis of this topic in an EIR is recommended.

h. Other Utilities and Service Systems?

Electricity

Less Than Significant Impact. Electricity transmission to the Project Site is provided and maintained by LADWP. There are existing LADWP conduit systems that serve the Project Site, including 34.5 kV circuits. Future plans regarding the provision of electrical services are presented in regularly updated Integrated Resource Plans (IRPs). These plans identify future demand for services and provide a framework for how LADWP plans on continuing to meet future consumer demand. The current IRP is based on a 20-year planning horizon. The LADWP is required to meet operational, planning reserve and reliability criteria, and the resource adequacy standards of the Western Electricity Coordinating Council and the North American Electric Reliability Corporation.

LADWP’s Power System served approximately 4.1 million people in 2014 in the City and areas of the Owens Valley and is the nation’s largest municipal electric utility. LADWP has a net dependable generation capacity greater than 7,639 megawatts (MW).⁴² LADWP is fully resourced to meet peak demand but maintains transmission and wholesale marketing operations to keep production costs low and increase system reliability. The LADWP December 2014 forecast, as presented in the 2014 IRP, indicates a 2021-2022 fiscal year demand for approximately 23,150 gigawatt hours (GWh) per year.⁴³

⁴¹ Ordinance No. 171687 adopted by the Los Angeles City Council on August 6, 1997.

⁴² City of Los Angeles Department of Water and Power, 2014 Integrated Resources Plan, Pg. 17. December 2014. Available at: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=phxpd79mx_4&_afLoop=40836288316516. Accessed November 16, 2015.

⁴³ City of Los Angeles Department of Water and Power, 2014 Integrated Resources Plan, at Appendix A, Table A-1. December 2014. Available at: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=phxpd79mx_4&_afLoop=40836288316516. Accessed November 16, 2015.

The Project’s estimated energy consumption is shown in **Table B-6, *Estimated Electricity Use***. The estimates are based on generation factors provided in the 2013 SCAQMD California Emissions Estimator Model. As indicated in Table B-6, the annual consumption of electricity would be 4,920.29 megawatt hours (MWh). When compared to the estimated 2021-2022 LADWP demand of 23,150 GWh per year, the Project’s energy consumption would represent approximately 0.02 percent of total demand. This amount is negligible, and is within the anticipated service capabilities of LADWP.

**TABLE B-6
ESTIMATED ELECTRICITY USE**

Land Use	Unit or sq. ft.	Consumption Factor (MWhr/unit/year) ^a	Annual Electricity Consumption (MWh)
Proposed Use			
Residential	770 units	3.481	2,680.57
Grocery Market	37,520 sf	0.040	1,504.55
Retail	6,072 sf	0.059	359.89
Restaurant: Quality Sit Down	5,000 sf	0.047	234.55
Restaurant: High-Turnover Sit-Down	3,000 sf	0.047	140.73
Total			4,920.29

NOTES:

^a Electricity demand generation factors based on SCAQMD California Emissions Estimator Model, Appendix Default Data Tables (October 2013), Table 8.1.

SOURCE: ESA PCR, 2016

Natural Gas

Less Than Significant Impact. Natural gas is provided to the Project Site by the Southern California Gas Company (SoCal Gas). There are existing natural gas lines in Olympic Boulevard, 11th Street, and S Figueroa Street that could serve the Project. According to the 2014 California Gas Report, the most recent report available, California natural gas demand is expected to decrease at a modest rate of 0.2 percent per year from 2014 to 2035 for residential, commercial, electric generation, and industrial markets. This is due to increased energy efficiency programs, increasing reliance on renewable electric generation (e.g. solar and wind) as well as declining industrial demands as California continues its transition from a manufacturing-based to a service-based economy.⁴⁴ California natural gas utilities including SoCal Gas, interstate pipelines and in-state natural gas storage facilities have increased their delivery and receipt capacity to meet natural gas growth. SoCal Gas is supported in its planning effort by the California Energy Commission, which provides Integrated Energy Policy Reports, with annual updates that evaluate future demand for natural gas and supply considerations.

The 2014 California Gas Report indicates that, with only minor variations from year to year, SoCal Gas is projected to provide approximately 982 billion cubic feet (cf) per year of natural gas

⁴⁴ 2014 California Gas Report, Prepared by the California Gas and Electric Utilities. 2014.

over the next 20-year planning horizon. The report also indicates that SoCal Gas has a substantially higher capacity available.⁴⁵

The Project’s estimated use of natural gas is shown in **Table B-7, *Estimated Natural Gas Use***. This estimate is based on generation factors provided in the 2013 SCAQMD California Emissions Estimator Model. As indicated therein, the Project would generate a demand for 7,764 thousand cubic feet (kcf) per year, which represents less than 0.01 percent of the estimated annual demand of 982 bcf/year. This amount is negligible and is within the anticipated service capabilities of SoCal Gas.

**TABLE B-7
 ESTIMATED NATURAL GAS USE**

Land Use	Unit or sq. ft.	Consumption Factor (kBtu/unit/year) ^a	Annual Natural Gas Consumption (kcf/year) ^b
Proposed Use			
Residential Units	770 units	6,819.80	5,095.99
Market	37,520 sf	23.31	848.73
Retail	6,072 sf	1.82	10.72
Restaurant: Quality Sit Down	5,000 sf	233.01	1,130.60
Restaurant: High-Turnover Sit-Down	3,000 sf	233.01	678.36
Total			7,764.40

NOTES:

^a Natural gas demand generation factors based on SCAQMD California Emissions Estimator Model, Appendix Default Data Tables (October 2013), Table 8.1. kBtu = thousand British thermal units.

^b Natural gas consumption expressed in kBtu (thousand British Thermal Units) is converted to consumption in kcf (thousand cubic feet) via the following conversion factor: 1,000 Btu = 0.00097043405077 thousand cubic feet.

SOURCE: ESA PCR, 2016.

Furthermore, utility providers are required to plan for necessary upgrades and expansions to their systems to ensure that adequate service would be provided. As such, the Project would have a less than significant impact on electricity and natural gas utilities and service systems. No further analysis of this topic is necessary and no mitigation measures are required. Notwithstanding, the analysis of GHG emissions will evaluate energy use as it effects air emissions and potential conservation measures that will reduce energy consumption as well as the emission of GHGs.

⁴⁵ 2014 California Gas Report, prepared by the California Gas and Electric Utilities. 2014; Page 62 and Appendix Tables at pages –91-96.

XVIII. Mandatory Findings of Significance

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number 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?

Potentially Significant Impact. As discussed within this Initial Study, the Project could result in environmental impacts that have the potential to degrade the quality of environment as addressed herein. Potentially affected resources include Aesthetics (Aesthetics, Views, Light and Glare, and Shade and Shadow), Air Quality, Greenhouse Gases, Hazards and Hazardous Materials, Land Use and Planning, Noise, Population, Housing, and Employment, Public Services (Fire, Police, and Parks), Recreation, Transportation/Traffic (Traffic, Access, and Parking), and Utilities/Service Systems (Water Supply). An EIR will be prepared to analyze and document these potentially significant impacts.

As discussed previously in the response to Checklist Question IV, the Project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

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. The potential for cumulative impacts occurs when the independent impacts of a given project are combined with the impacts of related projects in proximity to the Project Site, to create impacts that are greater than those of the project alone. Related projects include past, current, and/or probable future projects whose development could contribute to potentially significant cumulative impacts in conjunction with a given project.

For each of the topics determined to be potentially significant within this Initial Study, as identified in the preceding corresponding sections, the potential for cumulatively significant impacts will be analyzed in an EIR. Topics for which Initial Study determinations were “No Impact” or “Less Than Significant Impact” are discussed in the following paragraphs.

With respect to potential contributions to cumulative impacts for agricultural resources, biological resources, and mineral resources, the Project Site is located in an urbanized area, and like the Project, other development occurring in the area would also constitute urban infill in already densely developed areas. The Project Site does not contain agricultural, sensitive biological, or

mineral resources, and therefore Project implementation would not be expected to result in a considerable contribution to cumulatively significant impacts on these resources.

With respect to hydrology and water quality, all development projects that require ground-disturbing activities have the potential to increase or decrease in surface water runoff and contribute point and non-point source pollutants to nearby water bodies. However, as with the Project, related projects would be subject to NPDES permit requirements for both construction and operation, including development of SWPPPs for construction projects greater than one acre, compliance with SUSMP requirements during operation, and compliance with other local requirements pertaining to hydrology and surface water quality. It is anticipated that related projects would be evaluated on an individual basis by City of Los Angeles Department of Public Works to determine appropriate BMPs and treatment measures to avoid significant impacts to hydrology and surface water quality. Thus, cumulative impacts related to hydrology/water quality would be less than significant. No mitigation measures would be required and no further analysis of this topic in an EIR is recommended.

With respect to solid waste disposal, electricity consumption, and natural gas consumption, the provision of these services is regional in nature. As indicated in the preceding corresponding Initial Study Checklist sections, the service providers have prepared forecasts of regional demand for these utilities and their ability to meet future demand. These are incorporated into the respective service providers' plans and strategies for meeting future needs. Utility provider plans are updated periodically to identify emerging shortfalls in service capacity not previously anticipated and develop strategies to accommodate any shortfalls. The plans address expected growth, which anticipates projected development within the service areas. The information contained in this Initial Study concerning the ability of these service providers to meet the Project's needs supports the determination that future demand for solid waste disposal, electricity consumption and natural gas consumption can be met for new growth and development, including the Project. Therefore, the Project is not expected to result in cumulatively considerable contributions to cumulatively significant impacts as the result of solid waste disposal or electricity and natural gas consumption.

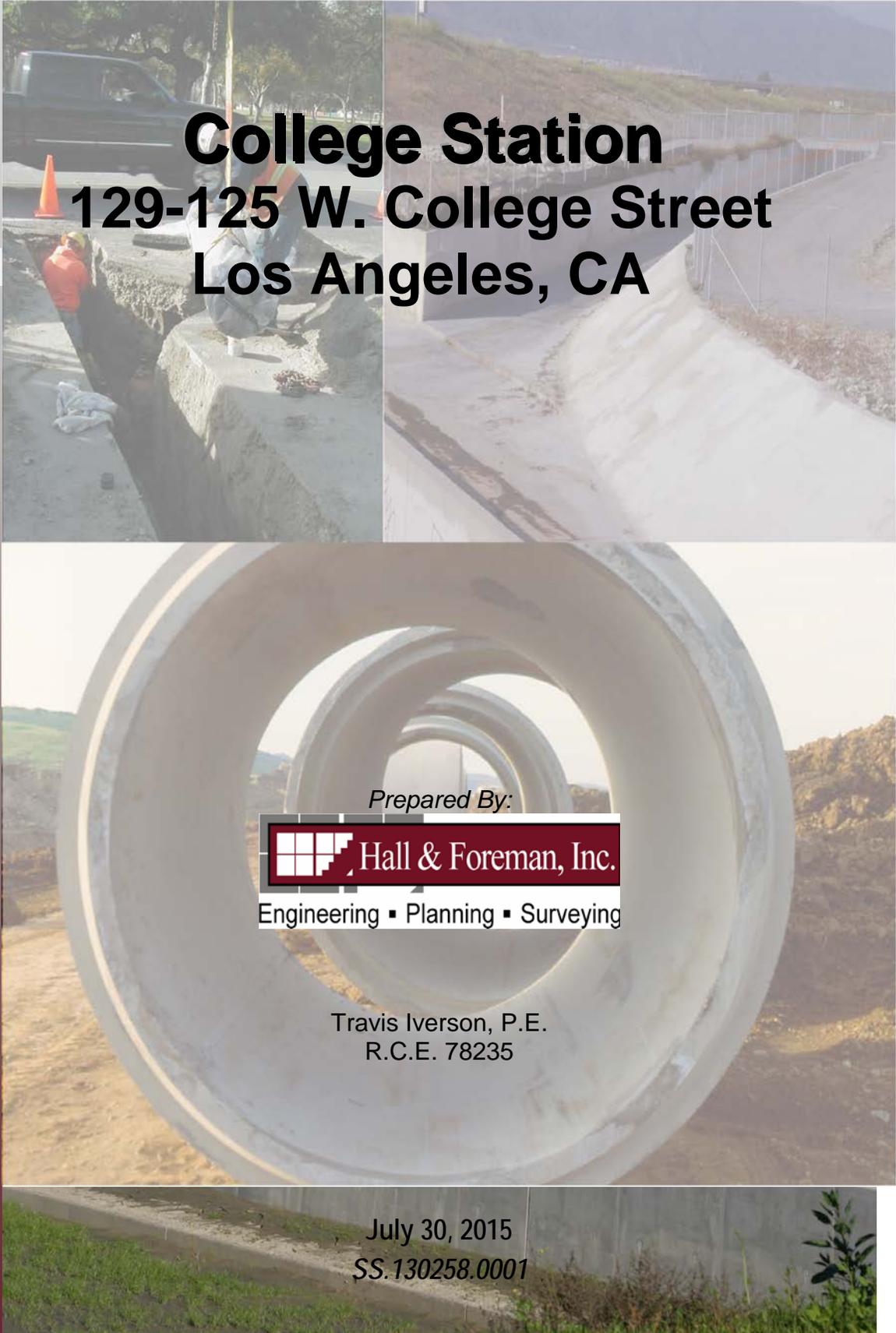
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. As discussed in this Initial Study, the Project could result in potentially significant environmental impacts associated with Aesthetics (Aesthetics, Views, Light and Glare, and Shade and Shadow), Air Quality, Greenhouse Gases, Geology and Soils, Land Use and Planning, Noise, Population, Housing, and Employment, Public Services (Fire, Police, and Parks), Recreation, Transportation/Traffic (Traffic, Access, and Parking), and Utilities/Service Systems (Water Supply). These impacts could have potentially adverse effects on human beings, and further analysis of these impacts is recommended in an EIR.

APPENDIX B-1

HYDROLOGY REPORT

Preliminary Hydrology Report



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July 30, 2015
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Pre-Development Data and Results**
- “B” TcCalculator (Tc_Calc_Depth.xls) 50-Year & 10-Year Events
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ATTACHMENTS

- **LACDPW-Los Angeles – 50-Year, 24-Hour Isohyet, 1-H1.19 (1 sheet)**
- **Los Angeles County Hydrology Manual Appendix D – Proportion
Impervious Data (4 sheets)**
- **City of Los Angeles Drainage Map No. 494-4-16 (1 sheet)**
- **LID Manual Table 4.1-Infiltration Feasibility Screening**
- **LID Manual Table 4.2-Capture and Use**

EXECUTIVE SUMMARY

The purpose of this study is to analyze the proposed College Station development project with respect to hydrology and drainage alternatives. In addition, the issues of water quality and design flows of stormwater are addressed.

This project is a proposed mixed-use transit-oriented development consisting of 5.24 acres at 129-125 W College Street in the Central City North community of the City of Los Angeles. The Project Site is located immediately east of the Los Angeles County Metropolitan Transportation Authority (“Metro”) Chinatown Gold Line light rail station at N. Spring Street and College Street, and the northern end of the site is adjacent to a Los Angeles Historic State Park (“Park”, also known as The Cornfields). Project Site is currently vacant and is periodically used for parking by nearby industrial and commercial businesses.

Hydrology calculations were performed using the Los Angeles County of Public Works Hydrology Manual, dated 2006, and calculated for both 50-year and 10-year storm events.

With regard to surface water quality and the treatment of both non-storm and “first flush” stormwater runoff in accordance with the City of Los Angeles Stormwater Pollution Control Plan criteria, on-site water treatment is proposed through the use of a Cistern treatment system. This system is known as a capture and use BMP. Both will be constructed within the project limits, please see section 7.0 for a detailed explanation.

1.0 INTRODUCTION

The purpose of this report is to analyze the proposed development with respect to hydrology and surface water quality. See Figure I, Vicinity Map, in the Figures section of this report.

2.0 PROJECT DESCRIPTION

This project is a proposed mixed-use transit-oriented development consisting of 5.24 acres at 129-125 W. College Street in the Central City North community of the City of Los Angeles. Project Site is currently vacant and is periodically used for parking by nearby industrial and commercial businesses. To remain conservative the percent imperviousness used in all post-development calculations for the Initial Study is 91%.

3.0 EXISTING SITE SUMMARY

The 5.24 acre proposed project is located at 129-125 W. College Street in the Central City North community of the City of Los Angeles. The site is located immediately east of the Los Angeles County Metropolitan Transportation Authority Chinatown Gold Line light rail station at N. Spring Street and College Street, and the northern end of the site is located across N. Spring Street from the Los Angeles Historic State Park (also known as The Cornfields). The existing site imperviousness was defined using Appendix D from the 2006 LACFCD Hydrology Manual, this percent impervious is found to be 91%. Reference Figure I, Vicinity Map in the Figures section and Appendix D of the 2006 LACFCD Hydrology manual enclosed in the Attachments of this report.

4.0 EXISTING STORM DRAIN FACILITIES

There are two existing storm drain catch basins within close proximity to the project. North Spring Street has two side-opening catch basins connected to an existing storm drain main under Spring Street. The catch basins, laterals and main line are under the ownership of City of Los Angeles. The two existing side-opening catch basins are located on the southwest corner of the project, at the intersection of N. Spring Street and College Street, both are connected in series and ultimately connect via an 18" RCP to a 33" RCP lateral that connects to a 66" main line at the intersection of College and N. Spring Street. The catch basins, the 18" lateral, the 33" lateral and the 66" main are owned and maintained by the City of Los Angeles.

5.0 EXISTING HYDROLOGY

As described in the section above, and by visual inspection of the site, the majority of the site drains in a southeasterly direction. Research efforts to obtain copies of hydrology and hydraulic calculations and data for the existing capacity and allowable discharge to the City of Los Angeles public storm drains in the adjacent streets is still in progress and will be reflected in an updated report upon receipt. Reference Figure II, "Pre-Development Hydrology Map".

6.0 HYDROLOGY CALCULATIONS

Hydrology calculations were performed utilizing the Los Angeles County Department of Public Works' MODRAT method, revised in 2006. This method includes new Isohyetal Maps and a new Tc Calculator "Tc_Calc_depth.xls" program. Calculations were performed using the "Tc_Calc_depth.xls" program, See "Summary of Hydrological Sub-Areas" (Tables No. 1 and No. 2) on pages 9 and 10.

Drainage sub-areas were created and graphically illustrated on the "Pre-Development Hydrology Map" (Figure II) and the "Post-Development Hydrology Map" (Figure III) found in the Figures section of this report.

The site is situated adjacent to the 50-year Isohyet equal to 6.1 inches of rainfall and the soil classification for the project is 06. See the attached LACDPW "Los Angeles," 50-year, 24-Hour Isohyet Map 1-H1.19" found in the Attachments section of this report.

The proportion impervious values are obtained using Appendix D from the LACFCD Hydrology Manual, the "Proportion Impervious Data" table found in the Attachments section of this report. The proportion impervious value used for the pre-development condition was 91%. With regard to both the pre-development and post-development calculations in the Initial Study, the percent impervious used was 91%. The existing site is a parking lot with decomposing asphalt and the recommended percent impervious is 91% per the Hydrology Manual. The proposed recommended value for High-Rise Apartments and Condominiums is 90% per the Hydrology Manual so to remain conservative with the calculations we used 91%.

6.1 Pre-Development Hydrology Calculations

The existing site is a vacant parking lot that is composed of decomposed asphalt. The existing drainage area is comprised of one (1) drainage sub-area, there is a very small portion of the site that drains to Rondout Street, this sub-area was so small that it was insignificant to the overall behavior of the pre-development condition. The vast majority of the site drains by sheet flow to N. Spring Street and College Street. The street gutter then collects runoff and it is ultimately collected by the existing catch basins located on N. Spring Street as it enters the storm drain system. The sub-area boundary was established utilizing the site topography survey and the existing storm drain network system to obtain the Pre-Development Q₅₀-year event runoff. See Figure II, "Pre-Development Hydrology Map" and Table No.1, "Summary of Hydrological Sub-Areas" on page 9. See the "Q₅₀ Pre-Development" and Reference Figure II, "Pre-Development Hydrology Map"

6.2 Post-Development Hydrology Calculations

The post-development flow rates were calculated by prorating the pre-development values which were based on an imperviousness of 91%. This post-development runoff was calculated using the existing slope and length of slope to conservatively estimate the proposed runoff. The post-development condition will be a newly constructed building which the Hydrology Manual suggests 90%. However, to remain conservative

we used the pre-development flow rate as the post-development flow rate, this will adequately simulate the proposed development condition. The Tc calculator is used to model the response of a watershed to a given rain event, it is defined as the time needed for water to flow from the most remote point of the watershed to the watershed outlet. This calculation is typically used to estimate the runoff produced from sheet flow and doesn't adequately calculate the implementation of a building's plumbing network. With the post-development runoff flow rate we will use the pre-development values as the calculations will find identical values and thus will limit the site flow rate to the pre-development condition. Please reference Figure III, "Post-Development Hydrology Map" and Table No. 2, "Summary of Hydrological Sub-Areas Post-Development" on page 10 of this report. Please also see "Q₅₀ Post-Development" output files in the Appendix section of this report.

The drainage area is comprised of the entire site and will connect the roof drains, area drains and proposed onsite catch basins to the proposed Cistern system. The Cistern system overflow drain will connect directly to a proposed catch basin and ultimately discharge to the existing network of offsite storm drain pipes. The overflow will bypass the cistern and CDS unit. With the use of a Cistern system the post-development runoff is reduced by the peak mitigated flow rate (see Appendix C for Q_{pm} calculations) so we see that the total peak flow from the post-development condition will be 15.75cfs-0.92cfs= 14.83cfs. This post-development flow rate will not exceed the pre-development condition of 15.75cfs.

7.0 STORMWATER TREATMENT QUALITY CONTROL

The Standard Urban Stormwater Mitigation Plan (SUSMP) was developed in the City of Los Angeles in 2002 as part of the municipal stormwater program to address stormwater pollution from new development and redevelopment projects. A recent stormwater management approach aimed at achieving this goal is the use of Low Impact Development (LID). LID is the widely recognized and preferred approach to stormwater management for the purpose of water quality compliance. LID is a stormwater management strategy that seeks to mitigate the impact of increases in runoff and stormwater pollutants as close to its source as possible. LID comprises a set of site design approaches and Best Management Practices (BMPs) that promote the use of natural infiltration, evapotranspiration, and reuse of stormwater. With respect to urban development and redevelopment projects, it can be applied on-site to mimic the site's predevelopment drainage characteristics.

7.1 City of Los Angeles Low Impact Development Requirements

In November 2011, the City of Los Angeles adopted the Stormwater LID Ordinance (Ordinance# 181899) with the stated purpose of:

1. Requiring use of LID standards and practices in future development and redevelopment to encourage the beneficial use of rainwater and urban runoff;

2. Reducing stormwater runoff while improving water quality;
3. Promoting rainwater harvesting;
4. Reducing offsite runoff and providing increased groundwater recharge;
5. Reducing erosion and hydrologic impacts downstream; and
6. Enhancing the recreational and aesthetic values in our communities.

These mitigation requirements have been sourced and are incorporated herein by reference to the following stormwater quality literature:

- Development Best Management Practices Handbook, Low Impact Development Manual, part B Planning Activities, Fourth Edition, City of Los Angeles, Board of Public Works, June, 2011

Following is a description of the existing conditions in which potentially significant impacts associated with proposed projects are identified in addition to mitigation measures to reduce project impacts. The primary objectives of mitigation measures are to:

1. Effectively reduce the discharge of pollutants from stormwater conveyance systems to the Maximum Extent Practicable.
2. Reduce the quantity of stormwater discharge into public stormwater conveyance systems through on-site infiltration methods.

7.2 Site Conditions BMP Method of Selection

The proposed project will require treatment of on-site storm flows and the treatment system will be located within the project limits. The proposed stormwater conveyance system will discharge to a proposed Cistern to capture and use the post-development runoff and provide treatment before discharging. See Figure III, "Post-Development Hydrology Map" and Appendix "C".

The required treatment flow to these systems is determined using the method described in the Low Impact Development (LID) plan, published by the City of Los Angeles. The City of Los Angeles LID manual prescribes a hierarchy when determining the feasibility of using LID mitigation methods for a project. There are 3 widely accepted methods and they should be evaluated and screened in the following order:

1. Infiltration Systems
2. Stormwater Capture and Use (rain harvesting)

3. High Efficiency Biofiltration/Bioretention Systems (Flow Through Planters)
4. Combination of Any of the Above

1. **Infiltration Systems:** Due to the prevalence and most importantly the elevation of the on-site underlying water table historically exists 20 feet below the surface, infiltration is not a feasible option as shown in Table 4.1 in the attachments section of this report.
2. **Stormwater Capture and Use:** For the Capture and Use feasibility screening we needed to assume a landscape area of 10% (please see the hand calculations in Appendix C of this report), this assumption allows an Estimate Total Water Usage (ETWU) to be calculated. As shown in Table 4.2 located in the attachments section of this report. When we compare the V_m to the ETWU we see the relation $V_m < ETWU$ and thus fall under method 2, as shown in Table 4.2 in the attachments. Capture and Use will be the LID mitigation method used.
3. **High Efficiency Bioinfiltration/Bioretention Systems:** These will be evaluated on an as needed basis. At this time there is no need to implement these types of BMP's
4. **A Combination:** A combination of BMP's is not necessary at this time.

7.3 Schematic Overview

As the stormwater runoff is collected by the site area drains, roof drains and on-site catch basins it will be directed to the cistern system which will be located on the subterranean parking level B2. This plumbing network will be connected to a Cistern system and feed them through gravity. The Cistern system is comprised of a pre-treatment CDS unit, a large waterproofed room that holds the water and a pump that distributes it. The water that the site experiences will pass through one of the two proposed systems, first the CDS unit will clean the runoff as it enters the unit. Second, the water will flow from the CDS unit to the large waterproof holding tank as it is collected. Third, the water will then be used to irrigate the sites landscaping through use of a mechanical system consisting of pumps and a control valve. In the event that the storm produces runoff above the mitigation requirements the overflow will discharge via SD pipes directly to a proposed catch basin located on Spring Street, please see Figure IV-LID BMP Locations Exhibit.

7.4 BMP Sizing Calculations

To determine the volume required to be mitigated (V_m) and peak mitigated flow rate (Q_{pm}) for the Stormwater Treatment Quality Control Calculations, the Los Angeles County Department of Public Works programs "V_m Calc" and "LID_RATE_Calculator.xls" were utilized. The site area was analyzed to determine the treatment measure required per LID requirements. The results of these calculations are found in Appendix "C", but to summarize: the volume that is required to be mitigated for the total site is $V_m = 12,600$ cubic feet. The total mitigated peak flow is $Q_{pm} = 0.92$ cfs. An initial calculation was performed based on an assumed planter area and it was determined that the use of the Cistern is feasible (please see Appendix "C" for

calculation reference). The appropriate size of the Cistern is based on simple volume calculations, for example, if we have a 10' tall room we would need a $(12,600\text{cf}/10\text{ft}=1,260\text{sf})$ 1,260 square foot room. Please see Appendix D of this report for reference.

7.5 Post Construction BMP's

A. CDS Hydrodynamic Separation Unit:

Each of the two Cistern systems utilize a Contech CDS hydrodynamic separation unit that serves as a method of pretreatment for the collected site runoff. This unit uses a method of continuous deflective separation to effectively screen, separate and trap debris. Sediment and oil from stormwater runoff is also screened and the CDS unit will also capture and retain 100% of floatable debris. For detailed information please see the Appendix D of this report. This CDS unit is connected to the Cistern tank inlet and is fed by way of gravity. The cleaned water is stored and pumped out for irrigation purposes.

B. Cistern room:

The Cistern itself will be constructed out of concrete and will be cast in place with the building and wall construction and the room will need to be waterproofed. It is important to note that due to the findings in the Geotechnical report for this project specifically due to a shallow water table depth of 30-35 feet below the surface, excessive groundwater may necessitate dewatering. Dewatering techniques shall meet all OSHA and local requirements and codes (Please see Appendix D). Two options typically exist for pumps, either inside the cistern itself or in a separate vault, the final engineering phase will determine the most appropriate solution. For a sample of the complete system please see the Example Complete RWH system in Appendix D. For locations of the proposed Cistern please see Figure IV- LID BMP Locations Exhibit.

8.0 SUMMARY and CONCLUSIONS

The capacity of the existing storm drain system will not be negatively affected with the proposed development. The existing hydrologic condition is adequate to serve the needs of the proposed project. The post-development runoff will be lower than the pre-development runoff.

A stormwater treatment system will be installed within the area of the site, this system will consist of a CDS unit, a Cistern room and an irrigation control pump. This treatment system will mitigate pollution from the building's roof drainage, area drains, and surface runoff in while reducing volume discharge to the public SD system.

In conclusion, in accordance with the Los Angeles City Stormwater Quality Management Program, with the installation of the stormwater treatment system on the on-site storm drain network, satisfactory treatment of stormwater and non-stormwater runoff will be provided. The post-development condition will not exceed the pre-development condition.

TABLE 1
SUMMARY OF HYDROLOGICAL SUB-AREAS

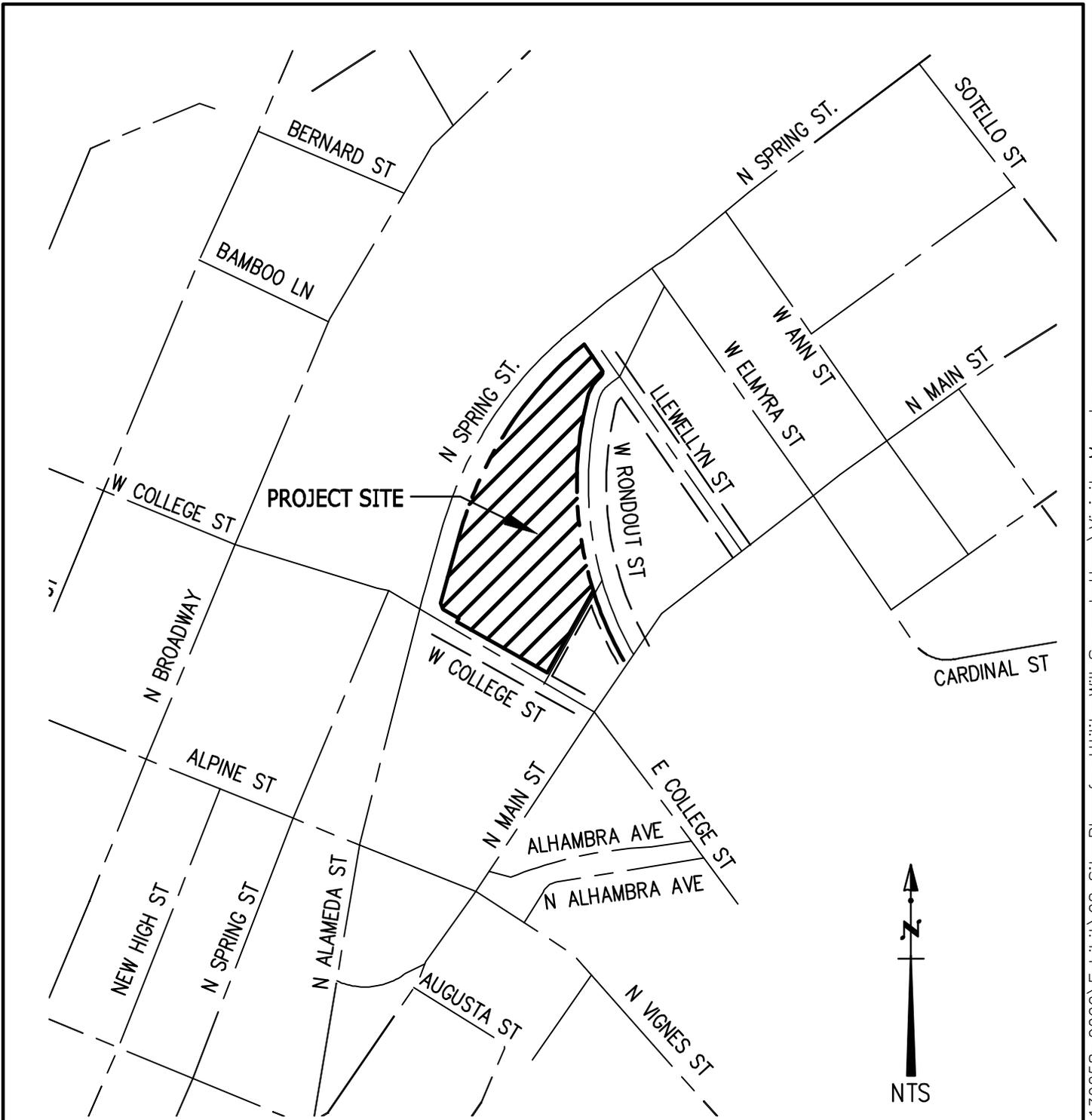
Sub-Area	Acres	TC	Q ₅₀ (cfs)	Destination
A1	5.24	6.0	15.75	Existing catch basins in N. Spring Street.
Total	5.24	—	15.75	Outlet to LA SD system.

TABLE 2
SUMMARY OF HYDROLOGICAL SUB-AREAS

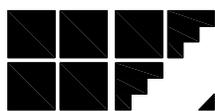
Sub-Area	Acres	Tc	Q ₅₀ (cfs)	Destination
A1	5.24	6.0	15.75	To proposed Cistern system.
Total	5.24	---	15.75*	To proposed water quality unit and to LA SD system

*This Q₅₀ does not account for the reduction of Q_{pm} which would be 15.75-0.92=14.83cfs.

FIGURES



VICINITY MAP



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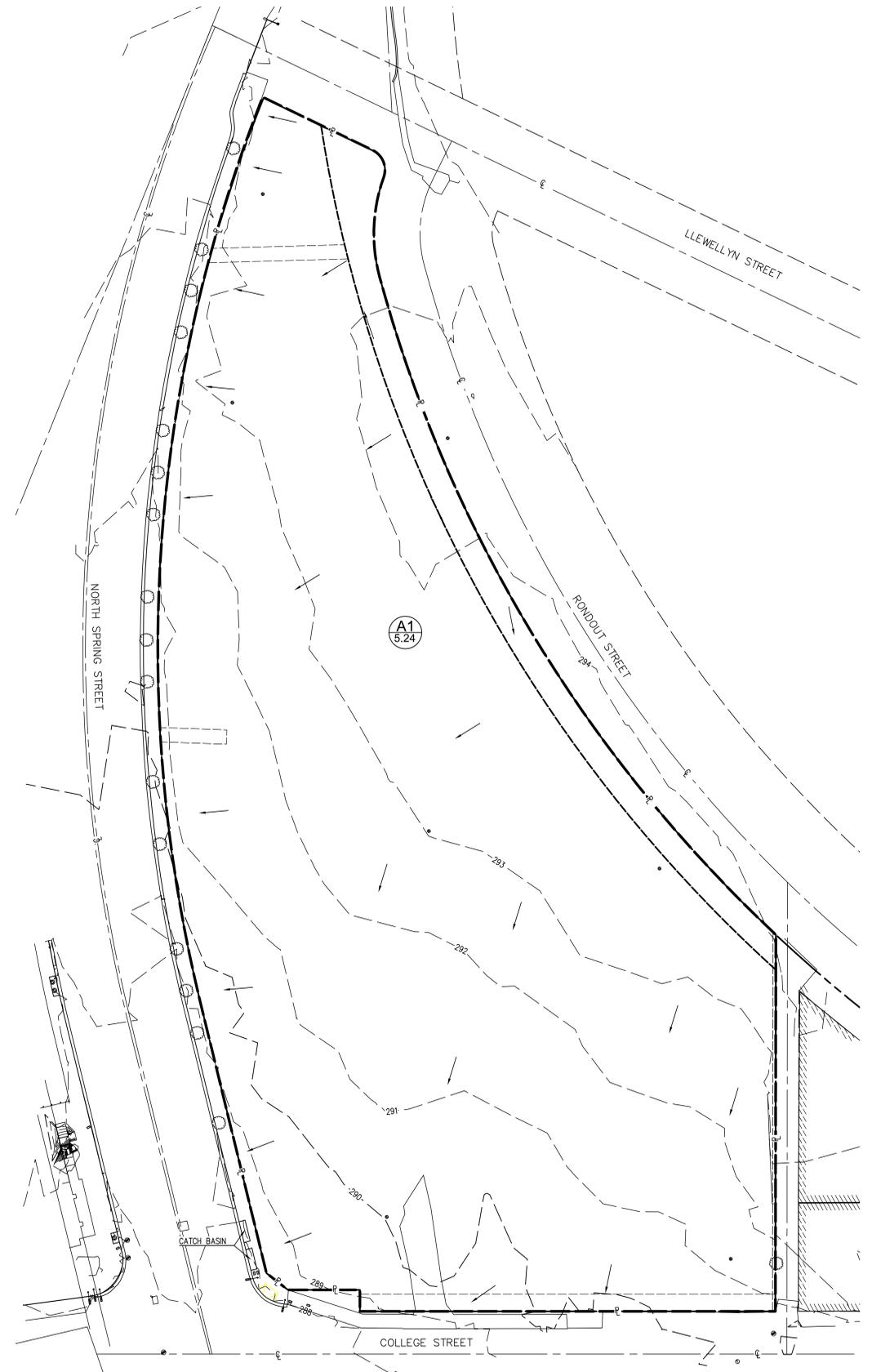
Engineering • Planning • Surveying

811 WILSHIRE BOULEVARD, SUITE 1450 • LOS ANGELES, CA 90017 • 213-785-7887

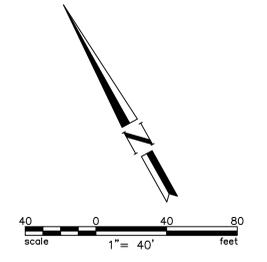
Job Number: 130258.0000
Date: 03-17-2014
Scale: NTS
Sheet 1 of 1 Sheets

LEGEND:

 SUBAREA
 ACREAGE
 Q_{50} FLOW RATE FOR 50-YR STORM
 CFS CUBIC FEET PER SECOND
 FLOW DIRECTION
 SUBAREA DIVISION



DRAINAGE SUBAREAS	AREA (ACRES)	LENGTH (FEET)	SLOPE (FEET/FEET)	PERCENT IMPERVIOUS	SOIL TYPE	ISOHYET (INCH)	CALCULATED T_c (MIN.)	INTENSITY (IN./HR.)	PEAK FLOW RATE Q_{50}	PEAK FLOW RATE Q_{10}
A1	5.24	470	0.012	91%	06	6.10	6	3.34	15.75	9.70
TOTAL	5.24								15.75	-



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NO.	DESCRIPTION	DATE	BY
REVISIONS			



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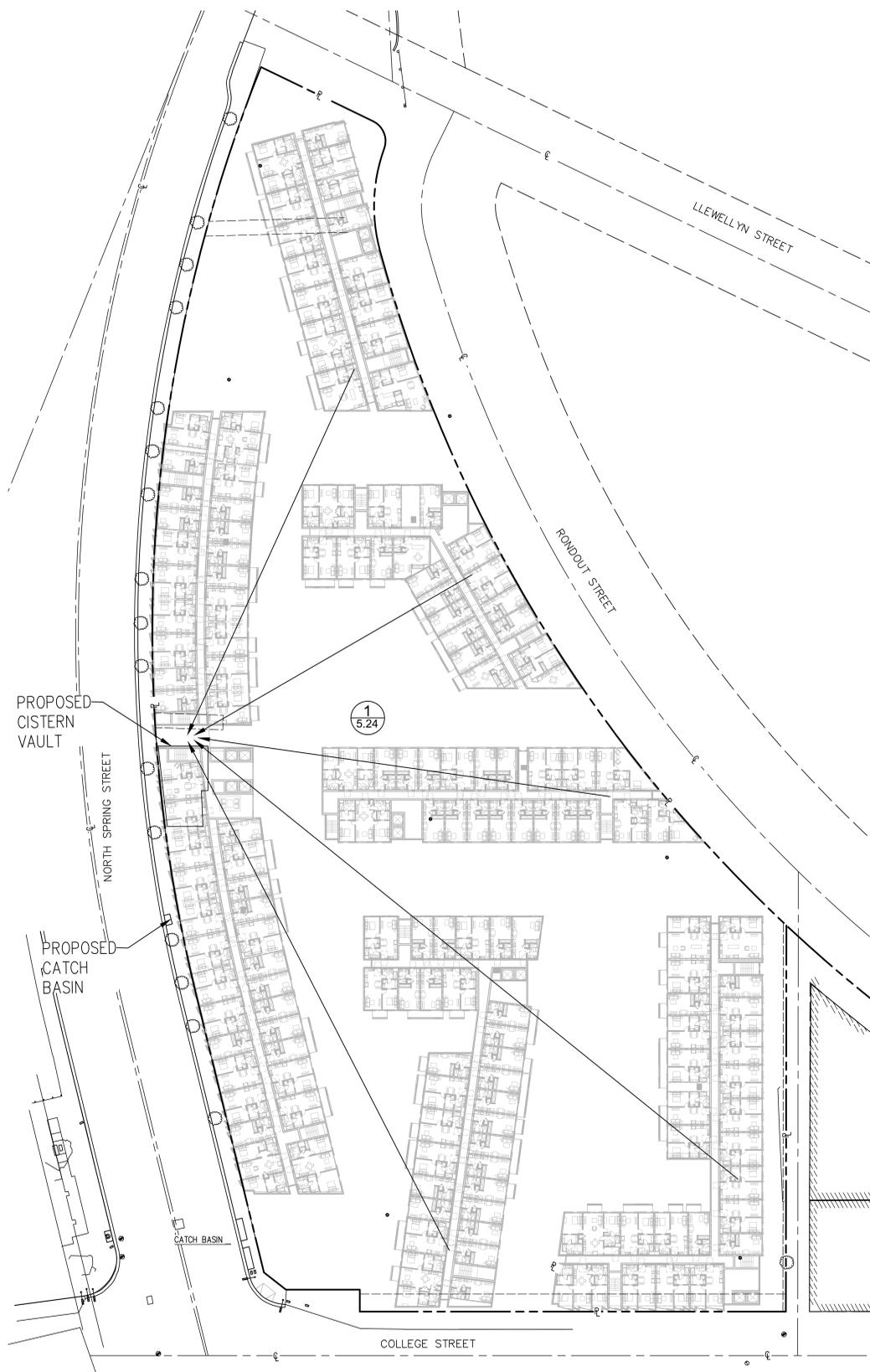
EVOQ PROPERTIES
 COLLEGE STATION
 PRE-DEVELOPMENT
 HYDROLOGY MAP

DRAWN BY: DA	SCALE: 1"=40'
DESIGNED BY: BT	DATE: 03-20-2014
CHECKED BY: DV	SHT NO.: 1 of 1
APPROVED BY: _____	DATE: _____
CITY ENGINEER	

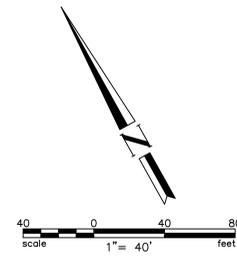
Drawing Name: C:\Users\daforeman\Documents\Projects\811\811-2014\811-2014-03-20-2014.dwg

LEGEND:

1 — SUBAREA
 5.24 — ACREAGE
 Q₅₀ — FLOW RATE FOR 50-YR STORM
 CFS — CUBIC FEET PER SECOND
 → — FLOW DIRECTION

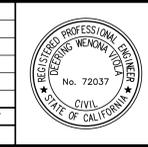


DRAINAGE SUBAREAS	AREA (ACRES)	LENGTH (FEET)	SLOPE (FEET/FEET)	PERCENT IMPERVIOUS	SOIL TYPE	ISOHYET (INCH)	CALCULATED T _c (MIN.)	INTENSITY (IN./HR.)	PEAK FLOW RATE Q ₅₀	PEAK FLOW RATE Q ₁₀
1	5.24	-	-	91%	06	6.10	6	3.34	15.75	9.70
TOTAL	5.24								15.75	9.70



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NO.	DESCRIPTION	DATE	BY



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 25152 SPRINGFIELD CT., STE. 350 • SANTA CLARITA, CA 91355 • 661-284-7400
 PREPARED UNDER THE SUPERVISION OF:
 NAME OF ENGINEER R.C.E. XXXXX DATE:

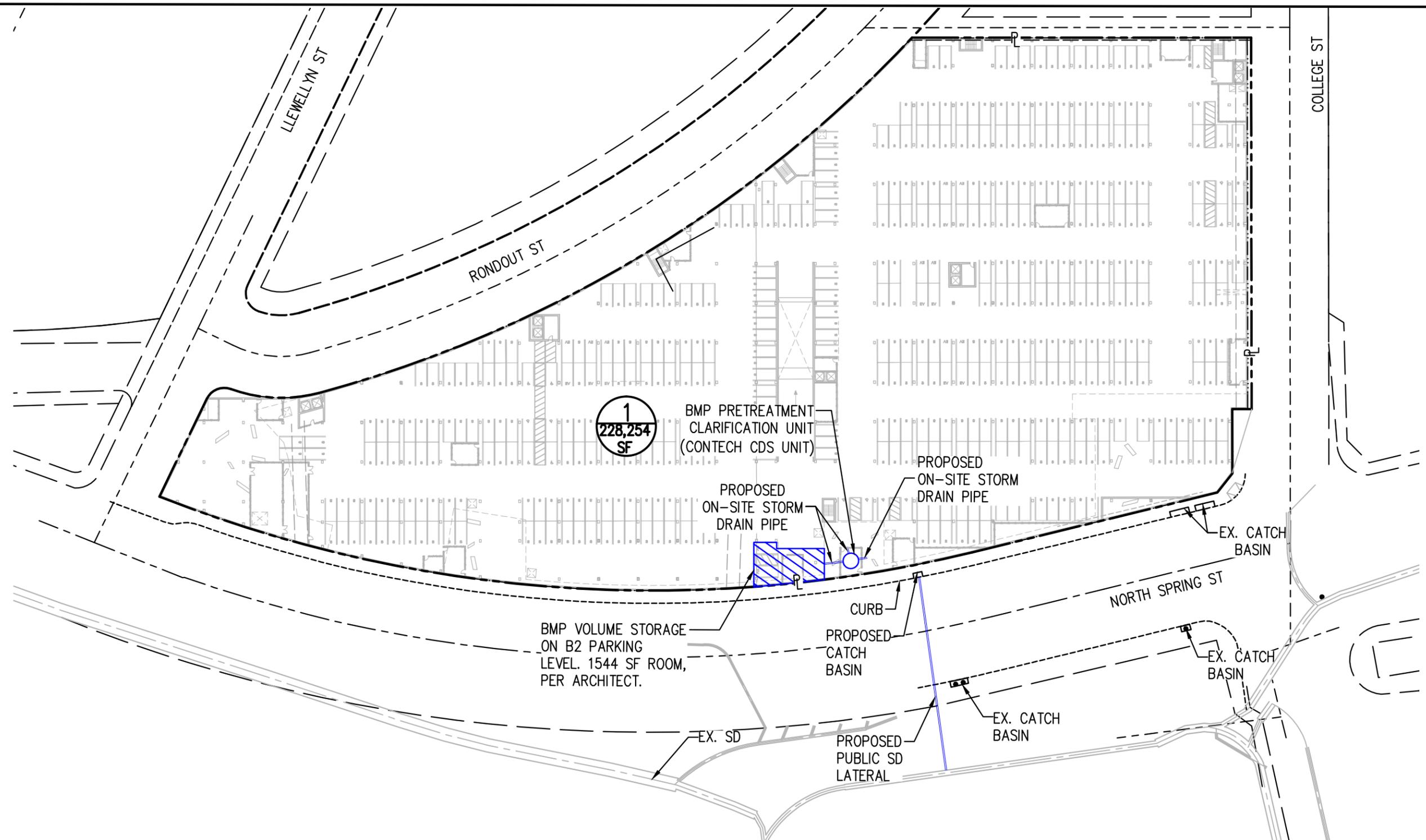
EVOQ PROPERTIES
COLLEGE STATION
POST-DEVELOPMENT
HYDROLOGY MAP

DRAWN BY: DA
 DESIGNED BY: TI
 CHECKED BY: DV

APPROVED BY: _____
 CITY ENGINEER

SCALE: 1" = 40'
 DATE: 07-30-2015
 SHEET NO.: 1 OF 1

Last Updated: Jul 30, 2015 @ 8:38am by: [unclear]



1
228,254
SF

BMP PRETREATMENT
CLARIFICATION UNIT
(CONTECH CDS UNIT)

PROPOSED
ON-SITE STORM
DRAIN PIPE

PROPOSED
ON-SITE STORM
DRAIN PIPE

EX. CATCH
BASIN

BMP VOLUME STORAGE
ON B2 PARKING
LEVEL. 1544 SF ROOM,
PER ARCHITECT.

PROPOSED
CATCH
BASIN

NORTH SPRING ST

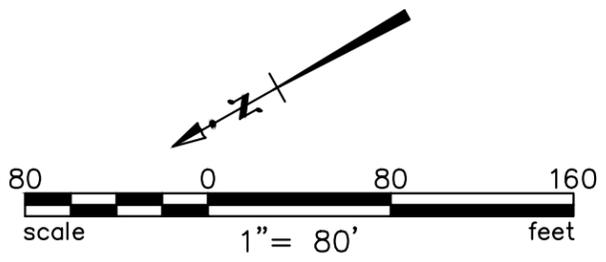
EX. CATCH
BASIN

EX. SD

PROPOSED
PUBLIC SD
LATERAL

LEGEND

- EX — EXISTING
- PL — PROPERTY LINE



LID BMP LOCATIONS EXHIBIT



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Job Number:	130258.0001
Date:	07-30-2015
Scale:	1"=80'
Sheet 1 of	1 Sheets

Drawing Name: C:\Users\lxro\appdata\local\temp\AcPublish_6932\LID BMP Location.dwg
 Last Opened: Jul 30, 2015 - 6:00pm by: lxro

Hydrology Initial Study
College Station
HFI Project No. SS.130258.0001
July 30, 2015

APPENDIX A

Tc Calculator

Subarea Parameters Manual Input

Subarea Number	Fire Factor		
A1	0		
Area (Acres)	Proportion Impervious	Soil Type	
5.24	.91	06	
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	
6.10	470	.012	

Subarea Parameters Selected

Subarea Number	Fire Factor		
1a	0		
Area (Acres)	Proportion Impervious	Soil Type	
5.24	0.91	6	
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	
6.1	470	0.012	

Input File

Check Here If Subarea Parameters Are Defined In An Input File

Import "tcddata.xls" File

Calculate Single Tc From Subarea Parameters Provided In Input File

Calculate Tc's For Multiple Subareas And Create Tc Results File

Calculation Results

Subarea Number	Intensity	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)	<input checked="" type="checkbox"/> Calculate Runoff Volume
A1	3.34	0.85	0.9	

Tc Equation

$Tc = (10)^{-0.507} * (Cd * I)^{-0.519} * (L)^{0.483} * (S)^{-0.135}$

Tc Value (min.)	Peak Flow Rate (cfs)	Burned Peak Flow Rate (cfs)	24-Hour Runoff Volume (acre-ft)
6	15.75	n/a	2.21

Tc Calculator

Subarea Parameters Manual Input			Subarea Parameters Selected		
Subarea Number	Fire Factor		Subarea Number	Fire Factor	
A1	0		1a	0	
Area (Acres)	Proportion Impervious	Soil Type	Area (Acres)	Proportion Impervious	Soil Type
5.24	.91	06	5.24	0.91	6
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope
4.3554	470	.012	4.3554	470	0.012

Input File

Check Here If Subarea Parameters Are Defined In An Input File

Import "tcddata.xls" File

Calculate Single Tc From Subarea Parameters Provided In Input File

Calculate Tc's For Multiple Subareas And Create Tc Results File

Calculation Results

Subarea Number	Intensity	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)	Calculate Runoff Volume <input checked="" type="checkbox"/>
A1	2.08	0.74	0.89	<input type="button" value="Calculate Tc"/>
<input type="button" value="Cancel"/>				
Tc Equation				
$Tc = (10)^{-0.507} * (Cd * I)^{-0.519} * (L)^{0.483} * (S)^{-0.135}$				
Tc Value (min.)	Peak Flow Rate (cfs)	Burned Peak Flow Rate (cfs)	24-Hour Runoff Volume (acre-ft)	
8	9.7	n/a	1.59	

Hydrology Initial Study
College Station
HFI Project No. SS.130258.0001
July 30, 2015

APPENDIX B

Tc Calculator

Subarea Parameters Manual Input

Subarea Number	Fire Factor		
A1	0		
Area (Acres)	Proportion Impervious	Soil Type	
5.24	.91	06	
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	
6.10	470	.012	

Subarea Parameters Selected

Subarea Number	Fire Factor		
1a	0		
Area (Acres)	Proportion Impervious	Soil Type	
5.24	0.91	6	
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	
6.1	470	0.012	

Input File

Check Here If Subarea Parameters Are Defined In An Input File

Import "tcddata.xls" File

Calculate Single Tc From Subarea Parameters Provided In Input File

Calculate Tc's For Multiple Subareas And Create Tc Results File

Calculation Results

Subarea Number	Intensity	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)	<input checked="" type="checkbox"/> Calculate Runoff Volume
A1	3.34	0.85	0.9	

Tc Equation

$Tc = (10)^{-0.507} * (Cd * I)^{-0.519} * (L)^{0.483} * (S)^{-0.135}$

Tc Value (min.)	Peak Flow Rate (cfs)	Burned Peak Flow Rate (cfs)	24-Hour Runoff Volume (acre-ft)
6	15.75	n/a	2.21

Tc Calculator

Subarea Parameters Manual Input			Subarea Parameters Selected		
Subarea Number	Fire Factor		Subarea Number	Fire Factor	
A1	0		1a	0	
Area (Acres)	Proportion Impervious	Soil Type	Area (Acres)	Proportion Impervious	Soil Type
5.24	.91	06	5.24	0.91	6
Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope	Rainfall Isohyet (in.)	Flow Path Length (ft.)	Flow Path Slope
4.3554	470	.012	4.3554	470	0.012

Input File

Check Here If Subarea Parameters Are Defined In An Input File

Import "tcddata.xls" File

Calculate Single Tc From Subarea Parameters Provided In Input File

Calculate Tc's For Multiple Subareas And Create Tc Results File

Calculation Results

Subarea Number	Intensity	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)	Calculate Runoff Volume <input checked="" type="checkbox"/>
A1	2.08	0.74	0.89	<input type="button" value="Calculate Tc"/>
<input type="button" value="Cancel"/>				
Tc Equation				
$Tc = (10)^{-0.507} * (Cd * I)^{-0.519} * (L)^{0.483} * (S)^{-0.135}$				
Tc Value (min.)	Peak Flow Rate (cfs)	Burned Peak Flow Rate (cfs)	24-Hour Runoff Volume (acre-ft)	
8	9.7	n/a	1.59	

Hydrology Initial Study
College Station
HFI Project No. SS.130258.0001
July 30, 2015

APPENDIX C

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
CISTERN CALCS - A1 + A2	DA	3/20/2014	130258.0001	1	2

$$V_m = 4,670 \text{ CF}$$

$$V_m = 34,904 \text{ GAL}$$

$$A_T = \text{TOTAL AREA} = A_1 + A_2 = 0.90 + 1.04 = 1.94 \text{ ACRES}$$

ASSUMED: PLANTING AREA WILL BE 10% OF TOTAL AREA

$$A_{\text{TOTAL}} = 1.94 \text{ ACRES}$$

$$A_{\text{PLANT}} = .194 \text{ ACRES}$$

$$= 8,451 \text{ FT}^2$$

$$\text{PLANTER FACTOR (PF)} = 8,451 \text{ FT}^2 (0.4) = 3,381 \text{ FT}^2$$

$$\begin{aligned} \text{ETWU} &= \text{ET}_2 \cdot (0.62) \cdot \text{PF} \\ &= 21.7 (0.62) 3,381 \text{ FT}^2 = 45,488 \end{aligned}$$

$$\text{ETWU} = 45,488 \text{ GAL}$$

$$V_m < \text{ETWU}$$

∴ CAPTURE & USE
IS FEASIBLE.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
CISTERN CALCS - A3	D.A	3/20/2014	130253.0001	2	2
$V_m = 7,933 \text{ CF}$					
$V_m = 59,343 \text{ GAL}$					
ASSUMED: PLANTING AREA WILL BE 10% OF TOTAL AREA					
$A_B = 3.30 \text{ ACRES}$					
$A_{\text{PLANT}} = .330 \text{ ACRES}$					
$= 14,375 \text{ FT}^2$					
$\text{PLANTER FACTOR (PF)} = 14,375 \text{ FT}^2 (0.4) = 5,750 \text{ FT}^2$					
$\text{ETWU} = ET_p (0.62) \text{ PF}$					
$= 21.7 (0.62) 5,750 \text{ FT}^2$					
$= 77,360.5 \text{ GAL}$					
$V_m < \text{ETWU}$					
$\therefore \text{CAPTURE \& USE}$					
IS FEASIBLE					



Input Parameters

Fixed Intensity, $i = 0.20$ in/hr

Area
(acres)

5.24

Proportion
Impervious
(0-1)

0.98

Soil Type
(2-199)

6

Output Results

Flowrate (GPM)

414

Flowrate (CFS)

0.92

Undeveloped
Runoff
Coefficient (Cu)

0.1

Developed
Runoff
Coefficient (Cd)

0.88

LID Runoff Rate Calculator

1 cfs = 449 gal/min

Calculate Rate

Print

Exit

SUSMP AREA

924 N. Spring Street
A1 and A2

SUSMP Volume Mitigation Calculation

Subarea	Percent Impervious	Undeveloped Coefficient (Cu)	Impervious Area (AI)	Undeveloped Area (AU)	Pervious Area (Ap)	Total Area (ACRE)	V _m (cf)
Site	98%	0.1	5.13	0.00	0.11	5.24	12600

Rainfall Volume Mitigation Equation:

$$V_m = (2722.5 \text{ ft}^3/\text{acre}) * [(A_i)(0.9) + (A_p + A_u)(C_u)]$$

Hydrology Initial Study
College Station
HFI Project No. SS.130258.0001
July 30, 2015

APPENDIX D

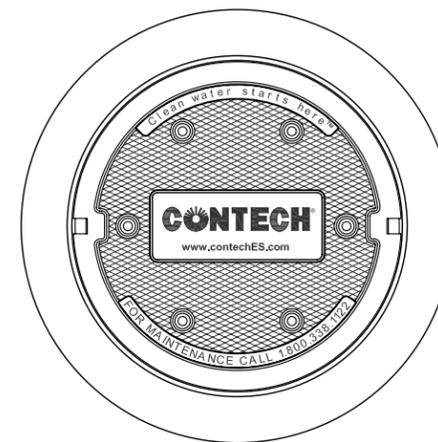
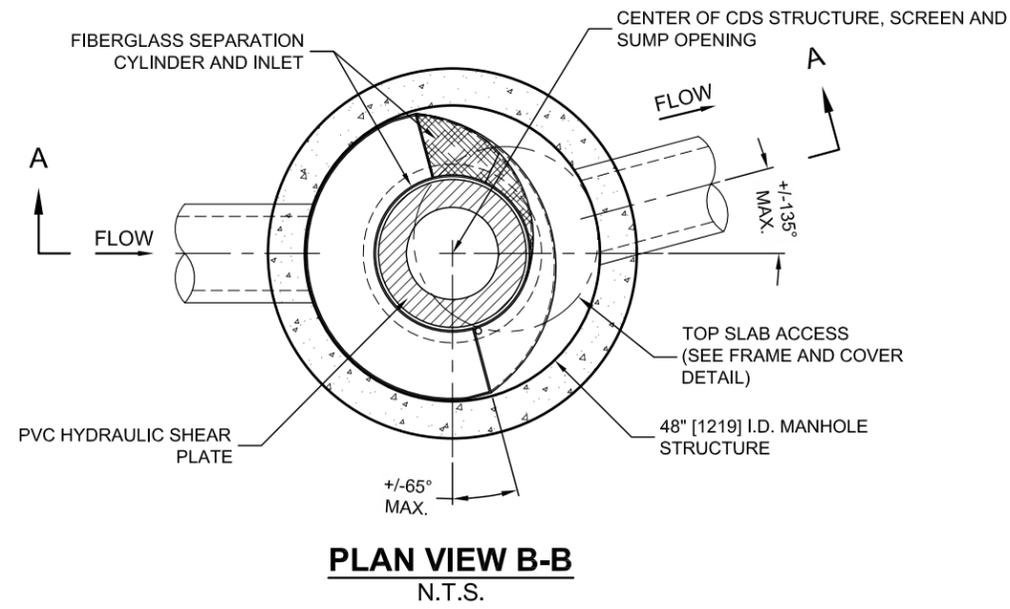
CDS2015-4-C DESIGN NOTES

CDS2015-4-C RATED TREATMENT CAPACITY IS 0.7 CFS [19.8 L/s], OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 10.0 CFS [283 L/s]. IF THE SITE CONDITIONS EXCEED 10.0 [283 L/s] CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

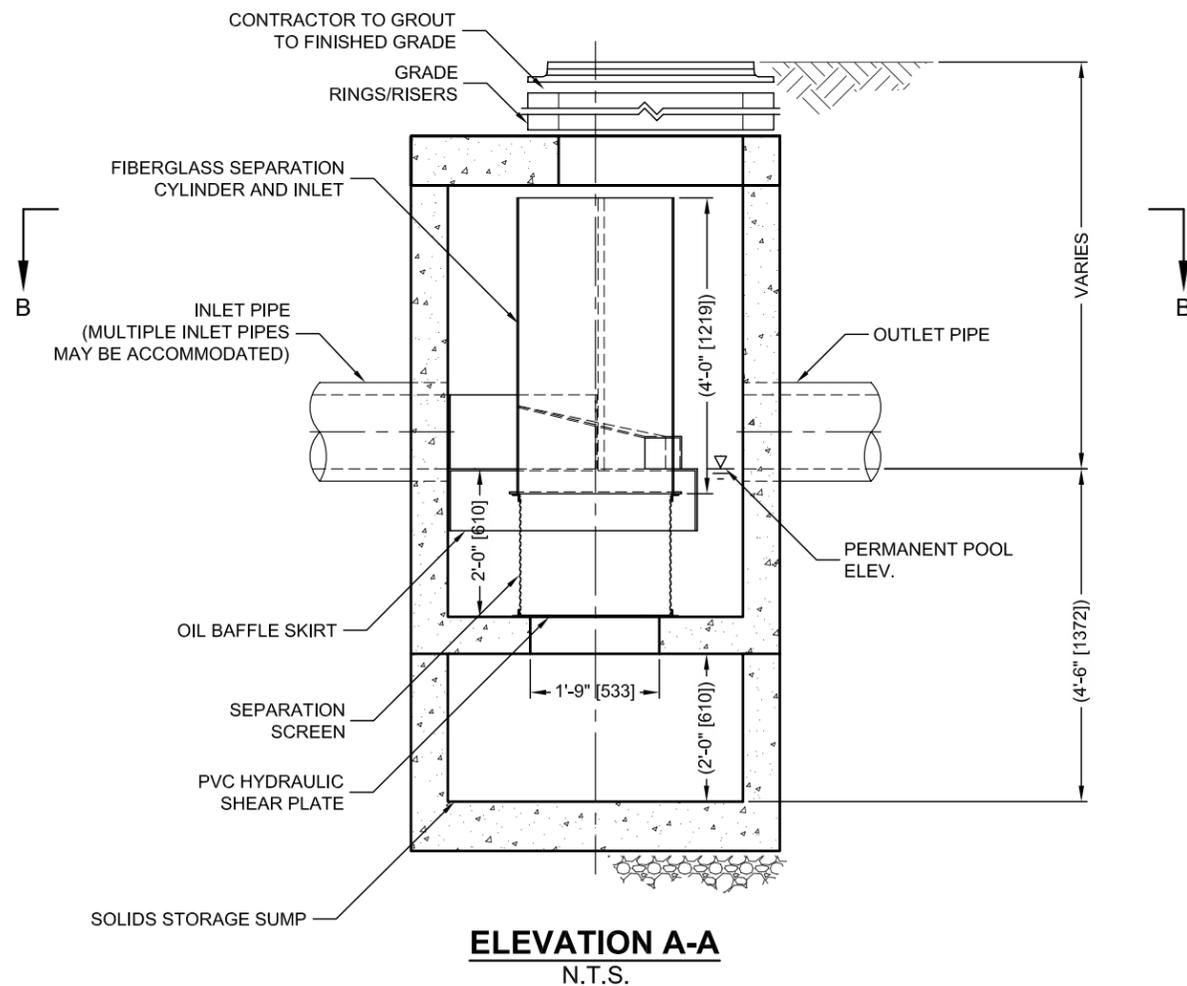
THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

- GRATED INLET ONLY (NO INLET PIPE)
- GRATED INLET WITH INLET PIPE OR PIPES
- CURB INLET ONLY (NO INLET PIPE)
- CURB INLET WITH INLET PIPE OR PIPES
- SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
- SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



ELEVATION A-A
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)		*	
PEAK FLOW RATE (CFS OR L/s)		*	
RETURN PERIOD OF PEAK FLOW (YRS)		*	
SCREEN APERTURE (2400 OR 4700)		*	
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION		*	
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC

www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,788,040; 6,841,720; 6,911,565; 6,981,762. RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.



Hydrodynamic Separation



Solutions
Guide

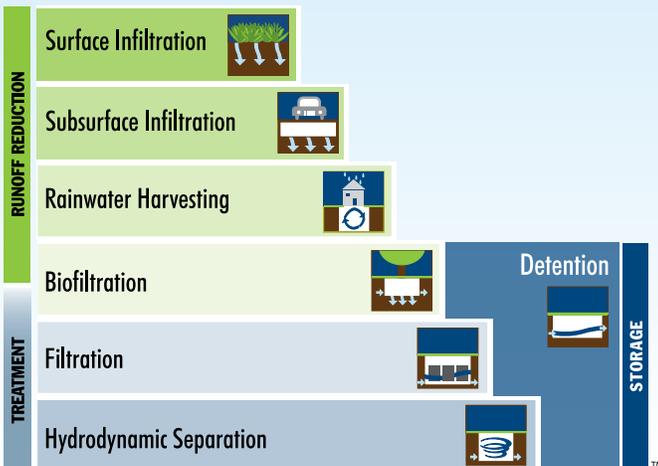


Hydrodynamic Separation



Selecting the right stormwater solution just got easier...

It's simple to choose the right low impact development (LID) solution to achieve your runoff reduction goals with the Contech UrbanGreen Staircase. First, select the runoff reduction practices that are most appropriate for your site, paying particular attention to pretreatment needs. If the entire design storm cannot be retained, select a treatment best management practice (BMP) for the balance. Finally, select a detention system to address any outstanding downstream erosion.



© 2012 Contech Engineered Solutions LLC

Removing Pollutants with Hydrodynamic Separation

Hydrodynamic separators are some of the first technologies to be developed for treating stormwater. Our hydrodynamic separation (HDS) products have been providing reliable stormwater treatment solutions for more than 20 years. With performance proven in the lab and in the field at sites across the country, these systems are widely accepted for effective solids removal. They are an optimal choice for pretreatment systems, especially efficient on gross solids, trash and debris, while also removing total suspended solids (TSS).

Fundamentals of HDS

- Create a low velocity vortex action to:
 - Increase efficiency by increasing length of flow path and eliminating short circuiting
 - Concentrate solids in stable, low velocity flow field
- Incorporate flow controls to:
 - Minimize turbulence and velocity
 - Prevent flow surges and resuspension
 - Retain floating pollutants. Provide easy access to captured pollutants to make maintenance easy

Learn more about hydrodynamic separation at www.ContechES/stormwater

DYOHDS™ Tool Design Your Own Hydrodynamic Separator

Features

- Choose from three HDS technologies - CDS®, Vortechs® & VortSentry® HS
- Site specific questions ensure the selected unit will comply with site constraints
- Unit size based on selected mean particle size and targeted removal percentage
- Localized rainfall data allows for region specific designs
- PDF report includes detailed performance calculations, specification and standard drawing for the unit that was sized



Design Your Own (DYO) Hydrodynamic Separator
online at www.ContechES.com/dyohds

Applications

HDS products work well as standalone or end-of-pipe treatment systems and can easily be implemented in a retrofit scenario. They are particularly effective at removal of solids, trash and debris – and can help you meet TMDL requirements for these pollutants. HDS systems are also optimal pretreatment systems – and an important building block in a low impact development (LID) design. By removing solids, trash and debris prior to detention, infiltration or re-use systems, you can significantly increase their service life.

Water Quality

HDS products provide high-performance stormwater pollutant removal. These systems are effective in removing solids to meet water quality goals and can be designed to achieve site treatment goals for TSS or oil.

Pretreatment for Low Impact Development (LID) Designs

Hydrodynamic separation systems installed as pretreatment reduce downstream loading to reduce maintenance



Inlet and Outlet Pollution Control

Our HDS products are especially effective for solids and trash and debris. They can be installed at either the inlet or outlet of a drainage system to prevent pollutants from being discharged into lakes, streams or the ocean.



A Vortechs protects detention system from sediment build-up and reduces maintenance



CDS unit installed to remove trash before entering Lake Meritt in Oakland, CA



VortSentry HS is an effective option where space is limited

The CDS is a swirl concentrator hybrid technology that provides continuous deflective separation – a combination of swirl concentration and patented indirect screening – into a uniquely capable product. It effectively screens, separates and traps debris, sediment and oil from stormwater runoff and is an ideal system to meet trash Total Maximum Daily Load (TMDL) requirements.

Features & Benefits

One-of-a-Kind Screening Technology

- Captures and retains 100% of floatables and neutrally buoyant debris 2.4mm or larger
- Effectively removes solids down to 100µm
- Self-cleaning screen – the only non-blocking screening technology available
- Water velocities within the swirl chamber continually shear debris off the screen to keep it clean
- Various screening apertures available

Proven Performance

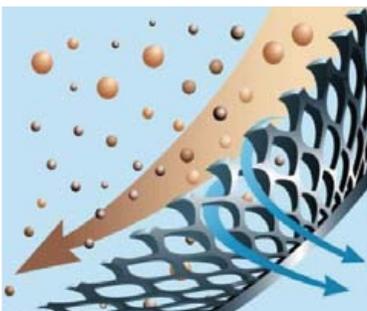
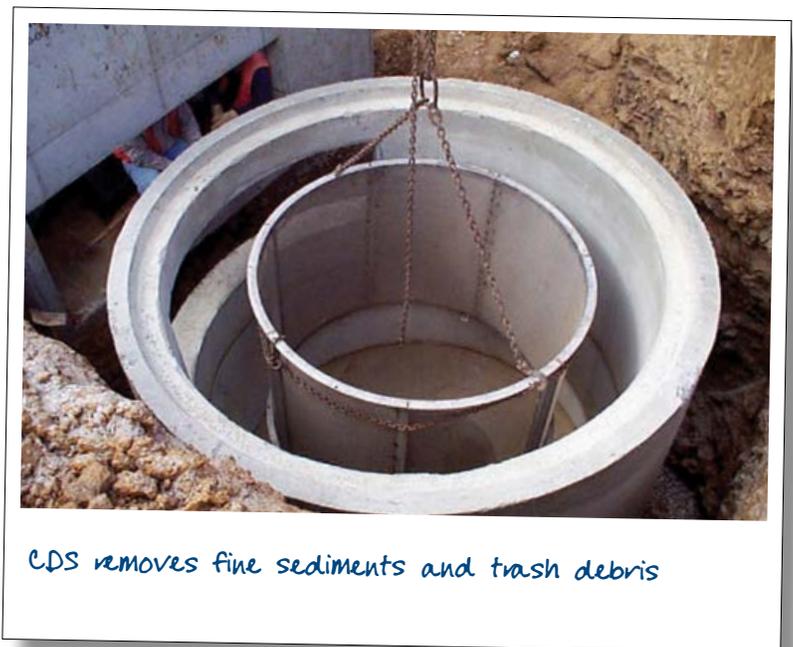
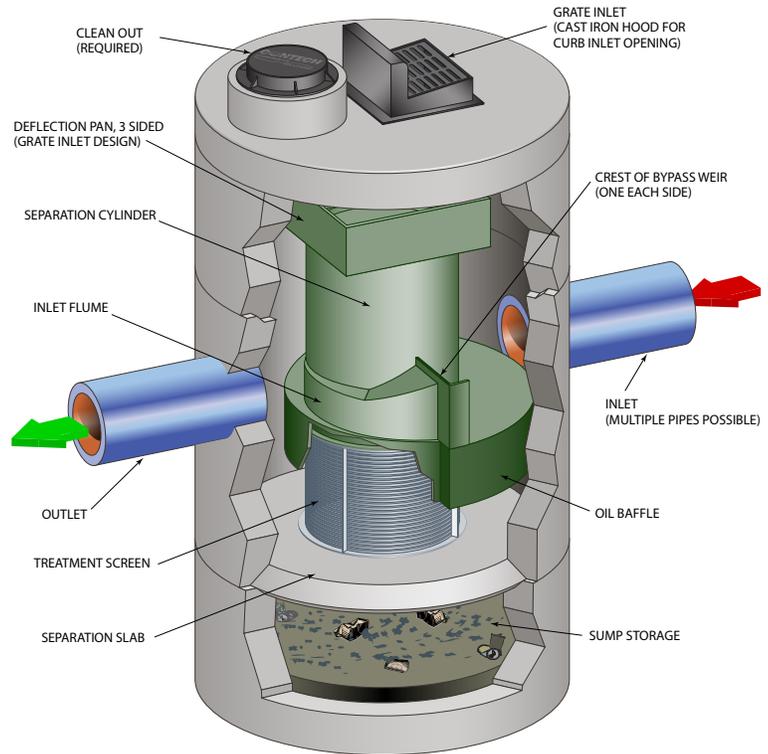
- Performance verified by NJ CAT and WA Ecology

Excellent Pollutant Retention

- Isolated Storage Sump eliminates scour potential
- Oil Baffle improves hydrocarbon removal

Multiple Options to Meet Site-Specific Needs

- Inline, offline, grate inlet and drop inlet configuration
- Accepts multiple pipe inlets and 90-180° angles – eliminate the need for junction manholes
- Internal and external peak bypass options available



Continuous deflective separation — water velocities within the swirl chamber continually shear debris off the screen to keep it clean

The Vortechs system's swirl concentrator and flow controls work together to create a low energy environment, ideal for capturing and storing fine particles and other pollutants of concern. With comprehensive lab and field testing, the system delivers proven results and site-specific solutions.

Features & Benefits

Shallow Profile

- Easy and cost-effective installation, especially on sites with high groundwater or bedrock
- Typical invert only 3 feet below pipe

Effective Fine Solids Removal

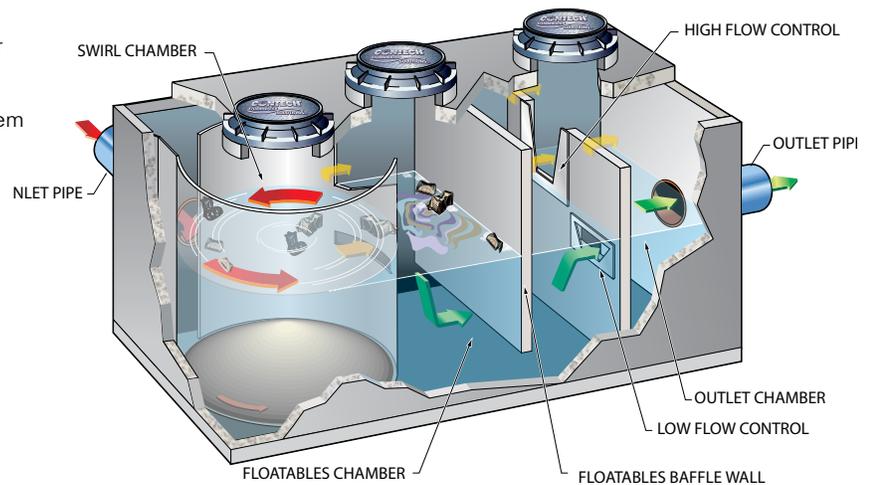
- Large swirl chamber – Enhances very fine particle removal (down to 50 microns)
- Flow controls reduce inflow velocity and increase residence time
- Largest treatment zone surface area of any swirl concentrator system available

Easy Maintenance

- Unobstructed access to stored pollutants
- Sealed swirl chamber decreases clean-out volume

Proven Performance

- Performance verified by NJ CAT and WA Ecology



Large diameter swirl chamber for enhancement of sediment removal in a low profile unit

Our systems are widely accepted for effective solids removal ❖ ❖ ❖

VortSentry® HS

The VortSentry HS hydrodynamic separator has a small footprint making it an effective pretreatment or treatment option for projects where space is at a premium.

Helical Flow Pattern

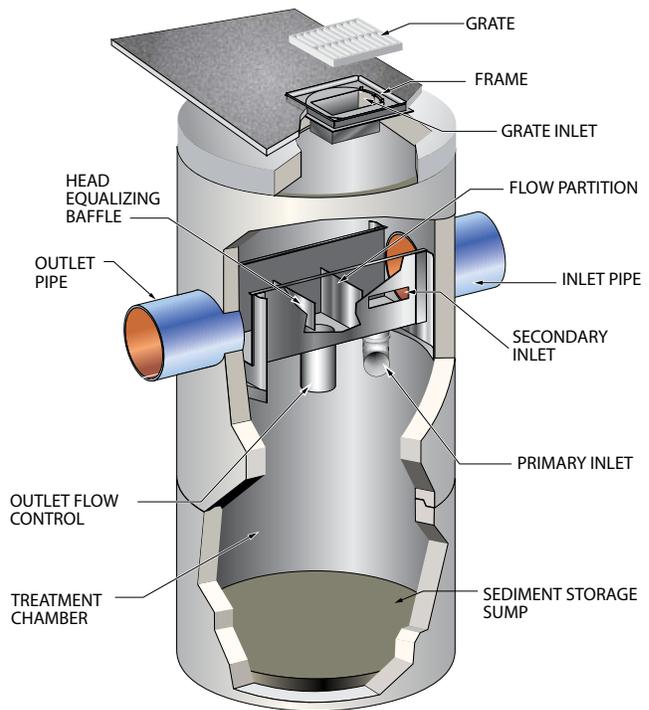
- Enhances trapping and containment of pollutants
- Provides effective removal of settleable solids and floating contaminants

Unique Internal Bypass

- Accepts a wide range of pipe sizes to treat and convey a wide range of flows
- Higher flows can be diverted without the use of external bypass structures
- Secondary inlet enhances floatable debris capture

Flexible, Compact Design

- Small manhole footprint
- Inlet and grated inlet configuration available



VortSentry®

Similar to the VortSentry HS, the VortSentry is a compact manhole hydrodynamic separator; however it does not have the same treatment flow routing components/controls as the VortSentry HS does. This limits the flow rate and pipe sizes the system can accept. The VortSentry has received approval and is accepted by many municipalities, and is currently available in only those areas. Please see www.ContechES.com/vortsentry for more information.



VSHS unique internal bypass design treats high flows and bypasses peak flow, eliminating washout

Maintenance

All stormwater treatment systems – whether natural or manufactured – should be maintained regularly. Despite the widespread implementation of BMPs, water quality goals will not be met if the treatment structures are not properly cleaned and maintained.

Systems vary in their maintenance needs, and the selection of a cost-effective and easy-to-access treatment system can mean a huge difference in maintenance expenses for years to come.

We design our products to minimize maintenance and make it as easy and inexpensive as possible to keep our systems working properly.

Inspection

Inspection is the key to effective maintenance. Pollutant deposition and transport may vary from year to year and site to site. Semi-annual inspections will help ensure that the system is cleaned out at the appropriate time. Inspections should be performed more frequently where site conditions may cause rapid accumulation of pollutants.

Vortechs, VortSentry and VortSentry HS

These systems should be cleaned out when sediment has accumulated to a specific depth (refer to the respective maintenance guidelines for details). Maintaining these systems is easiest when there is no flow entering the system. A vacuum truck is generally the most effective and convenient method of excavating pollutants from the systems.

CDS

The recommended cleanout of solids within the CDS unit's sump should occur at 75% of the sump capacity. Access to the CDS unit is typically achieved through two manhole access covers – one allows inspection and cleanout of the separation chamber and sump, and another allows inspection and cleanout of sediment captured and retained behind the screen. A vacuum truck is recommended for cleanout of the CDS unit and can be easily accomplished in less than 30 minutes for most installations.



A vacuum truck excavates pollutants from the systems



A CDS unit can be easily cleaned out in less than 30 minutes

Find maintenance information for all our products at
www.ContechES.com/maintenance ❖ ❖ ❖



Next Steps

Learn more

See our HDS systems in action. Flash animations available at www.ContechES.com/videos

Connect with us

We're always available to make your job easier. Contact your local project consultant for design assistance. Search online at www.ContechES.com. While you're there, be sure to check out our upcoming seminar schedule or request an in-house technical presentation.

Start a Project

If you are ready to begin a project, visit us at www.ContechES.com/designtoolbox

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, retaining walls, sanitary sewer, stormwater, erosion control and soil stabilization products.

For more information, visit our web site: www.ContechES.com or call 800.338.1122

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266 related foreign patents or other patents pending.

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UGHDS Brochure 2/14 PDF Revision

We print our brochures entirely on Forest Stewardship Council certified paper. FSC certification ensures that the paper in our brochures contain fiber from well-managed and responsibly harvested forests that meet strict environmental and socioeconomic standards.

FSC

Hydrology Initial Study
College Station
HFI Project No. SS.130258.0001
July 30, 2015

ATTACHMENTS

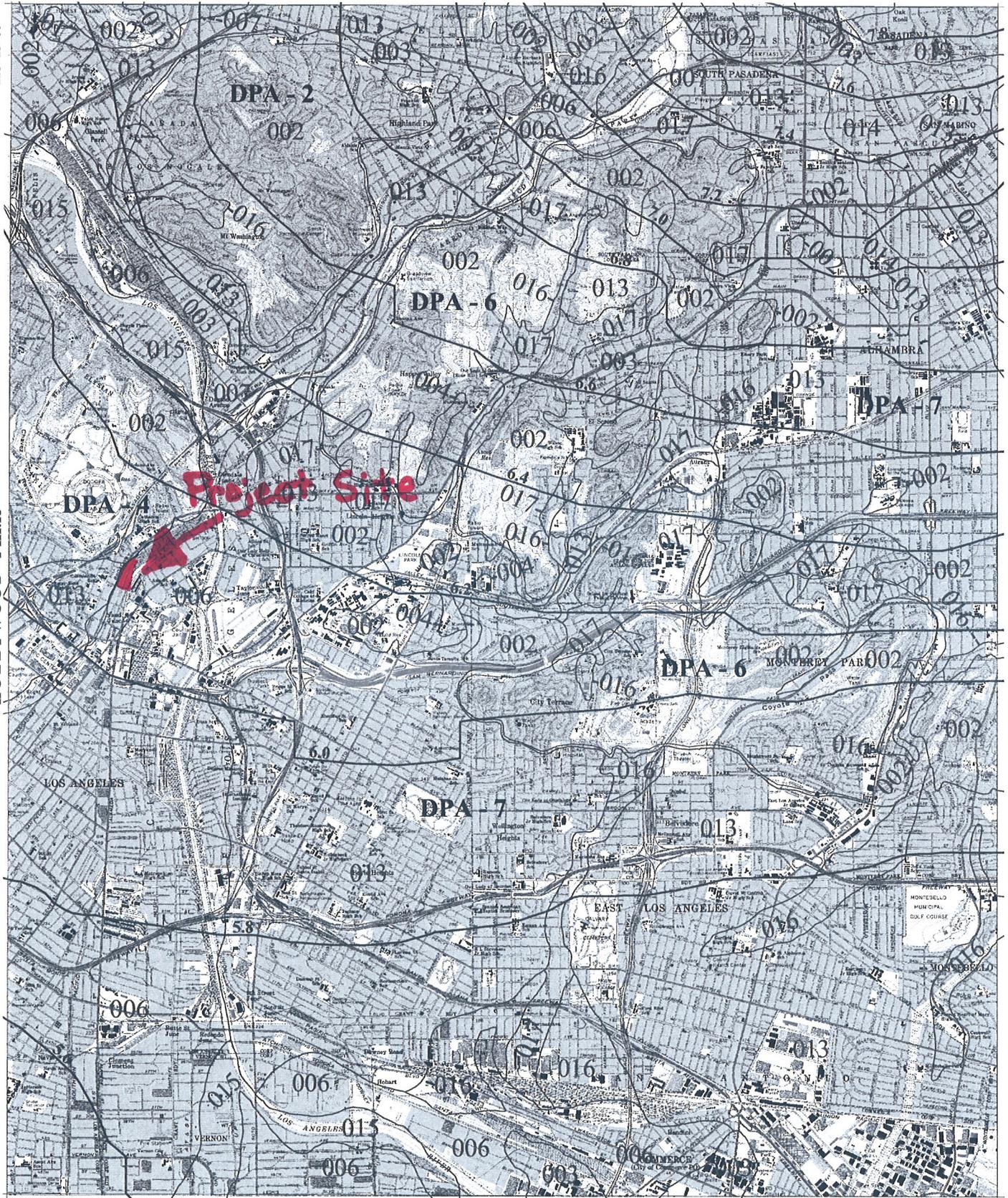
34° 07' 30"

PASADENA 1-HI.29

-118° 15' 00"

HOLLYWOOD 1-HI.18

EL MONTE 1-HI.20



-118° 07' 30"

SOUTH GATE 1-HI.9

34° 00' 00"



016

SOIL CLASSIFICATION AREA

7.2

INCHES OF RAINFALL

DPA - 6

DEBRIS POTENTIAL AREA



25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
 10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

LOS ANGELES
50-YEAR 24-HOUR ISOHYET

1-HI.19



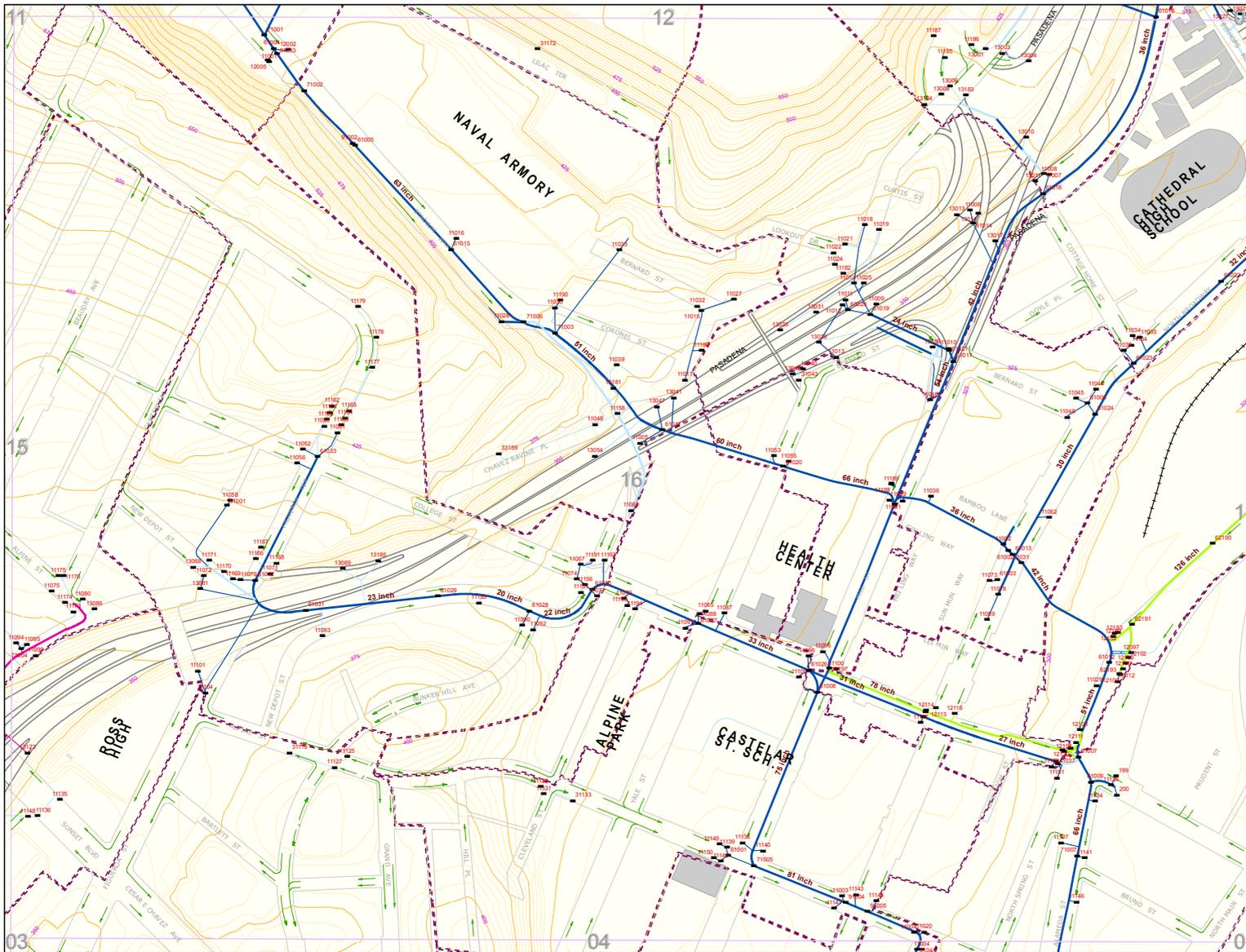
Proportion Impervious Data

Code	Land Use Description	% Impervious
1111	High-Density Single Family Residential	42
1112	Low-Density Single Family Residential	21
1121	Mixed Multi-Family Residential	74
1122	Duplexes, Triplexes and 2-or 3-Unit Condominiums and Townhouses	55
1123	Low-Rise Apartments, Condominiums, and Townhouses	86
1124	Medium-Rise Apartments and Condominiums	86
1125	High-Rise Apartments and Condominiums	90
1131	Trailer Parks and Mobile Home Courts, High-Density	91
1132	Mobile Home Courts and Subdivisions, Low-Density	42
1140	Mixed Residential	59
1151	Rural Residential, High-Density	15
1152	Rural Residential, Low-Density	10
1211	Low- and Medium-Rise Major Office Use	91
1212	High-Rise Major Office Use	91
1213	Skyscrapers	91
1221	Regional Shopping Center	95
1222	Retail Centers (Non-Strip With Contiguous Interconnected Off-Street	96
1223	Modern Strip Development	96
1224	Older Strip Development	97
1231	Commercial Storage	90
1232	Commercial Recreation	90
1233	Hotels and Motels	96
1234	Attended Pay Public Parking Facilities	91
1241	Government Offices	91
1242	Police and Sheriff Stations	91
1243	Fire Stations	91
1244	Major Medical Health Care Facilities	74
1245	Religious Facilities	82
1246	Other Public Facilities	91
1247	Non-Attended Public Parking Facilities	91
1251	Correctional Facilities	91
1252	Special Care Facilities	74
1253	Other Special Use Facilities	86
1261	Pre-Schools/Day Care Centers	68
1262	Elementary Schools	82
1263	Junior or Intermediate High Schools	82
1264	Senior High Schools	82
1265	Colleges and Universities	47
1266	Trade Schools and Professional Training Facilities	91
1271	Base (Built-up Area)	65
1271.01	Base High-Density Single Family Residential	42
1271.02	Base Duplexes, Triplexes and 2-or 3-Unit Condominiums and T	55

Code	Land Use Description	% Impervious
1271.03	Base Government Offices	91
1271.04	Base Fire Stations	91
1271.05	Base Non-Attended Public Parking Facilities	91
1271.06	Base Air Field	45
1271.07	Base Petroleum Refining and Processing	91
1271.08	Base Mineral Extraction - Oil and Gas	10
1271.09	Base Harbor Facilities	91
1271.10	Base Navigation Aids	47
1271.11	Base Developed Local Parks and Recreation	10
1271.12	Base Vacant Undifferentiated	1
1272	Vacant Area	2
1273	Air Field	45
1274	Former Base (Built-up Area)	65
1275	Former Base Vacant Area	2
1276	Former Base Air Field	91
1311	Manufacturing, Assembly, and Industrial Services	91
1312	Motion Picture and Television Studio Lots	82
1313	Packing Houses and Grain Elevators	96
1314	Research and Development	91
1321	Manufacturing	91
1322	Petroleum Refining and Processing	91
1323	Open Storage	66
1324	Major Metal Processing	91
1325	Chemical Processing	91
1331	Mineral Extraction - Other Than Oil and Gas	10
1332	Mineral Extraction - Oil and Gas	10
1340	Wholesaling and Warehousing	91
1411	Airports	91
1411.01	Airstrip	10
1412	Railroads	15
1412.01	Railroads-Attended Pay Public Parking Facilities	91
1412.02	Railroads-Non-Attended Public Parking Facilities	91
1412.03	Railroads-Manufacturing, Assembly, and Industrial Services	91
1412.04	Railroads-Petroleum Refining and Processing	91
1412.05	Railroads-Open Storage	66
1412.06	Railroads-Truck Terminals	91
1413	Freeways and Major Roads	91
1414	Park-and-Ride Lots	91
1415	Bus Terminals and Yards	91
1416	Truck Terminals	91
1417	Harbor Facilities	91
1418	Navigation Aids	47
1420	Communication Facilities	82
1420.01	Communication Facilities-Antenna	2

Code	Land Use Description	% Impervious
1431	Electrical Power Facilities	47
1431.01	Electrical Power Facilities-Powerlines (Urban)	2
1431.02	Electrical Power Facilities-Powerlines (Rural)	1
1432	Solid Waste Disposal Facilities	15
1433	Liquid Waste Disposal Facilities	96
1434	Water Storage Facilities	91
1435	Natural Gas and Petroleum Facilities	91
1435.01	Natural Gas and Petroleum Facilities-Manufacturing, Assembly, and In	91
1435.02	Natural Gas and Petroleum Facilities-Petroleum Refining and Processing	91
1435.03	Natural Gas and Petroleum Facilities-Mineral Extraction – Oil and Gas	10
1435.04	Natural Gas and Petroleum Facilities-Vacant Undifferentiated	1
1436	Water Transfer Facilities	96
1437	Improved Flood Waterways and Structures	100
1440	Maintenance Yards	91
1450	Mixed Transportation	90
1460	Mixed Transportation and Utility	91
1460.01	Mixed Utility and Transportation-Improved Flood Waterways and Structures	100
1460.02	Mixed Utility and Transportation-Railroads	15
1460.03	Mixed Utility and Transportation-Freeways and Major Roads	91
1500	Mixed Commercial and Industrial	91
1600	Mixed Urban	89
1700	Under Construction (Use appropriate value)	91
1810	Golf Courses	3
1821	Developed Local Parks and Recreation	10
1822	Undeveloped Local Parks and Recreation	2
1831	Developed Regional Parks and Recreation	2
1832	Undeveloped Regional Parks and Recreation	1
1840	Cemeteries	10
1850	Wildlife Preserves and Sanctuaries	2
1850.01	Wildlife-Commercial Recreation	90
1850.02	Wildlife-Other Special Use Facilities	86
1850.03	Wildlife-Developed Local Parks and Recreation	10
1860	Specimen Gardens and Arboreta	15
1870	Beach Parks	10
1880	Other Open Space and Recreation	10
2110	Irrigated Cropland and Improved Pasture Land	2
2120	Non-Irrigated Cropland and Improved Pasture Land	2
2200	Orchards and Vineyards	2
2300	Nurseries	15
2400	Dairy, Intensive Livestock, and Associated Facilities	42
2500	Poultry Operations	62
2600	Other Agriculture	42
2700	Horse Ranches	42

Code	Land Use Description	% Impervious
3100	Vacant Undifferentiated	1
3200	Abandoned Orchards and Vineyards	2
3300	Vacant With Limited Improvements (Use appropriate value)	42
3400	Beaches (Vacant)	1
4100	Water, Undifferentiated	100
4200	Harbor Water Facilities	100
4300	Marina Water Facilities	100
4400	Water Within a Military Installation	100

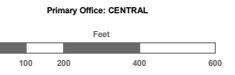
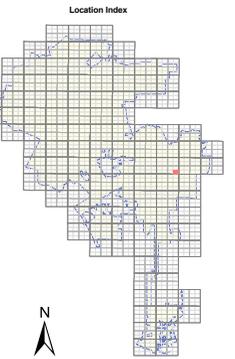


Drainage Map No. 494
Quadrant No. 4
Grid No. 16

- Inlet
- Flow Direction
- Relief Sewer
- Abandoned Pipe
- Miscellaneous Pipe
- Buildings and Cultural Features
- Coast / Stormwater Channel
- City of Los Angeles
- Subarea
- Railroad
- Jetty
- Los Angeles City Limit

- Contours Elevation Level**
- 25 Ft. Intervals
 - Others

- Stormwater Pipe Ownership**
- City of Los Angeles
 - County of Los Angeles
 - State of California
 - Others



Landbase data is from the City of Los Angeles Survey and Mapping Division. Contours are derived from USGS digital elevation models. Drainage features are digitized from Stormwater Management drainage maps. Coordinate system is shown in California State Plane, NAD83, Zone 5 (feet). Cultural data are from Thomas Brothers maps digital data.

Drainage feature revised date: June 2012
 Landbase revised date: February 2012
 Contour revised date: June 2004

Date Plotted: 6/12/2012

Section 4: BMP Prioritization and Selection | 26

	Category 1 Screening (Feasible)	Category 2 Screening (Potentially Feasible)	Category 3 Screening (Infeasible)
Description	<ol style="list-style-type: none"> 1. Underlying Groundwater <ul style="list-style-type: none"> <input type="checkbox"/> Depth of bottom of infiltration facility to seasonal high groundwater is > 10 ft 2. Site Soils <ul style="list-style-type: none"> <input type="checkbox"/> Infiltration rate (K_{sat}) is > 0.5 in/hr <input type="checkbox"/> Geotechnical hazards are not a potential near the site 3. Site Surroundings <ul style="list-style-type: none"> <input type="checkbox"/> Buildings or structures are at least 25 ft away from the potential infiltration BMP <input type="checkbox"/> Site is not located within the designated hillside grading area. <input type="checkbox"/> No continuous presence of dry weather flows 	<ol style="list-style-type: none"> 1. Underlying Groundwater <ul style="list-style-type: none"> <input type="checkbox"/> Depth from bottom of infiltration facility to seasonal high groundwater is \leq 10 ft <input type="checkbox"/> Unconfined aquifer is present with beneficial uses that may be impaired by infiltration. Full treatment required if this is the case <input type="checkbox"/> Groundwater is known to be polluted. Infiltration must be determined to be beneficial 2. Site Soils <ul style="list-style-type: none"> <input type="checkbox"/> Infiltration rate is \leq 0.5 in/hr but potential connectivity to higher K_{sat} soils is feasible <input type="checkbox"/> Geotechnical hazards such as liquefaction are a potential near the site 3. Site Surroundings <ul style="list-style-type: none"> <input type="checkbox"/> Buildings or structures are within 10 to 25 ft of the potential infiltration BMP <input type="checkbox"/> High-risk areas such as service/gas stations, truck stops, and heavy industrial sites. Full treatment is required if this is the case, or high-risk areas must be separate from stormwater runoff mingling 	<ol style="list-style-type: none"> 1. Underlying Groundwater <ul style="list-style-type: none"> <input type="checkbox"/> Depth from bottom of infiltration facility to seasonal high groundwater is \leq 5 ft <input type="checkbox"/> Sites with soil and/or groundwater contamination** 2. Site Soils <ul style="list-style-type: none"> <input type="checkbox"/> Infiltration rate is \leq 0.3 in/hr and connectivity to higher K_{sat} soils is infeasible <input type="checkbox"/> Building sites designated “Landslide” or “Hillside Grading” areas as specified by the Department of City Planning’s Zone Information and Map Access System (ZIMAS) <input type="checkbox"/> Geotechnical hazards such as liquefaction, collapsible soils, or expansive soils exist 3. Site Surroundings <ul style="list-style-type: none"> <input type="checkbox"/> Site is located on a fill site <input type="checkbox"/> Site is located on or within 50 feet upgradient of a steep slope (20% or greater) and has not been approved by a professional geotechnical engineer or geologist
Instructions	<p>If all of the above boxes are checked, they shall be confirmed by a site-specific geotechnical investigation report and/or hydrologic analysis conducted and certified by a State of California registered professional geotechnical engineer or geologist, verifying that infiltration BMPs are feasible at the site*. Otherwise, proceed to Category 2 screening.</p> <p>Table 4.1: Infiltration Feasibility Screening</p> <p>* Geotechnical Reports shall be approved by LADBS Grading Division. See Geotechnical Report Requirements herein.</p> <p>** The presence of soil and/or groundwater contamination and/or the presence of existing or removed underground storage tanks shall be documented by CEQA or NEPA environmental reports, approved geotechnical reports, permits on file with the City, or a review of the State of California’s Geotracker website.</p>		

Section 4: BMP Prioritization and Selection | 30

	Category 1 Screening (Feasible)	Category 2 Screening (Potentially Feasible)	Category 3 Screening (Infeasible)
Description	<p>1. Landscaped Area</p> <ul style="list-style-type: none"> <input type="checkbox"/> Landscaped area categorization of 1 exists in accordance with Table 4.3 <input type="checkbox"/> Captured volume equal to or less than the Estimated Total Water Usage (ETWU) from October 1 - April 30. <p>2. Site Soils</p> <ul style="list-style-type: none"> <input type="checkbox"/> Geotechnical hazards are not a potential near the site <p>3. Vector Control</p> <ul style="list-style-type: none"> <input type="checkbox"/> Approved vector control measures will be implemented 	<p>1. Landscaped Area</p> <ul style="list-style-type: none"> <input type="checkbox"/> Landscaped area categorization of 2 exists in accordance with Table 4.3 <input type="checkbox"/> Captured volume greater than the Estimated Total Water Usage (ETWU) from October 1 - April 30. <p>2. Site Soils</p> <ul style="list-style-type: none"> <input type="checkbox"/> Geotechnical hazards such as liquefaction are a potential near the site <input type="checkbox"/> Soil hydraulic conductivities are sufficient for the designed water application rate; if not, soil amendments will be implemented 	<p>1. Landscaped Area</p> <ul style="list-style-type: none"> <input type="checkbox"/> Landscaped area categorization of 3 exists in accordance with Table 4.3 <p>2. Site Soils</p> <ul style="list-style-type: none"> <input type="checkbox"/> Geotechnical hazards such as landsliding, collapsible soils, or expansive soils exist <p>3. Site Surroundings</p> <ul style="list-style-type: none"> <input type="checkbox"/> Site is located on or within 50 feet of a steep slope (20% or greater) as determined by the Department of Building and Safety; irrigation within 3 days of a rain event could cause geotechnical instability
Instructions	<p>If all of the above boxes are checked, they shall be confirmed by a site-specific geotechnical investigation report and/or hydrologic analysis conducted and certified by a State of California registered professional engineer, geotechnical engineer, geologist, or landscape architect, verifying that capture and use BMPs are feasible at the site.* Otherwise, proceed to Category 2 screening.</p>	<p>If all of the above boxes are checked, or if corresponding boxes in Category 1 are checked in combination with the above boxes, a site-specific geotechnical investigation report and/or hydrologic analysis conducted and certified by a State of California registered professional engineer, geotechnical engineer, geologist, or landscape architect, shall be carried out to approve capture and use measures.* Otherwise, proceed to Category 3 screening.</p>	<p>If any of the above boxes are checked, a site-specific geotechnical investigation report and/or hydrologic analysis conducted and certified by a State of California registered professional geotechnical engineer, geologist, or landscape architect shall be submitted to prove capture & use practices are not feasible.*</p>

Table 4.2: Capture and Use Feasibility Screening

* Geotechnical Reports shall be approved by LADBS Grading Division. See Geotechnical Report Requirements contained in the Infiltration Feasibility section.

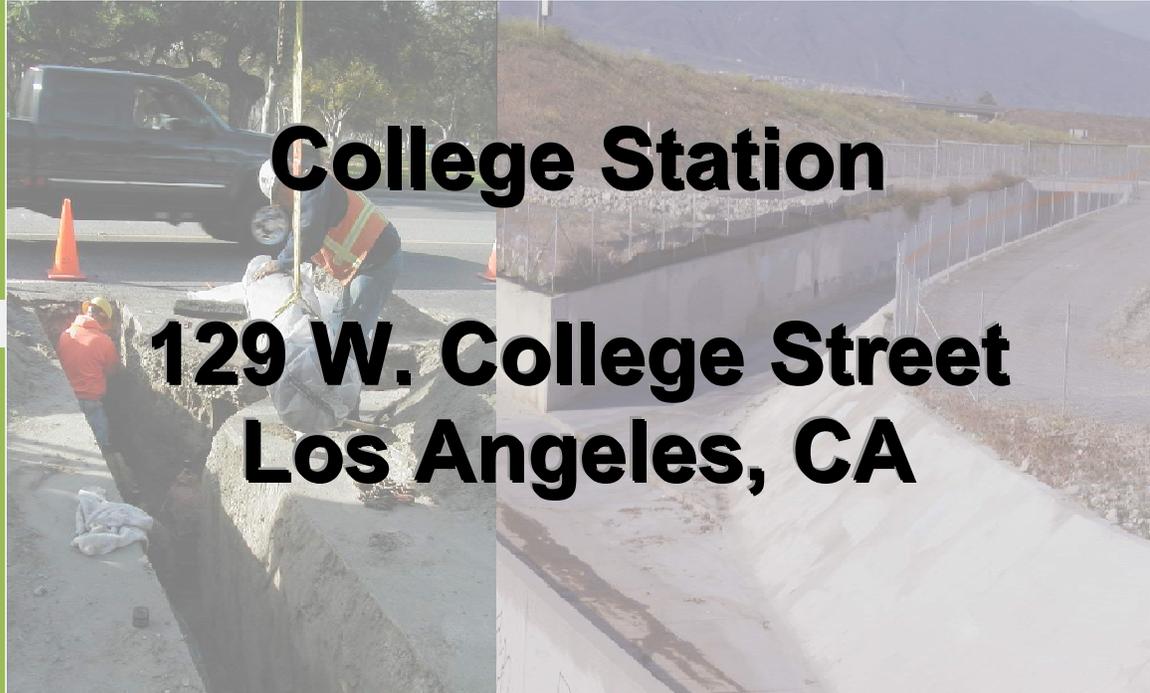
APPENDIX B-2

SEWER TECHNICAL STUDY

Sewer Study

College Station

**129 W. College Street
Los Angeles, CA**



TUSTIN

17782 17th Street
Suite 200
Tustin, CA 92780-1947
714.665.4500
Fax: 714.665.4501

*** LOS ANGELES**

145 Spring Street
Suite 120
Los Angeles, CA 90012-3601
213.785.7887

SANTA CLARITA

25152 Springfield Court
Suite 350
Santa Clarita, CA 91355-1096
661.284.7400
Fax 661.284.7401

TEMECULA

41951 Remington Avenue
Suite 220
Temecula, CA 92590-2553
951.294-9300
Fax: 951.294-9301

VICTORVILLE

14297 Cajon Avenue
Suite 101
760.524.9100
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Project #: ATLS00000002

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Figure 1: Vicinity Map

Existing Sewer Mains Exhibit

Sewage Generation Factors

Calculation Breakdown Exhibit

SEWER INFRASTRUCTURE SUMMARY

INTRODUCTION

This project is a proposed mixed-use transit-oriented development consisting of 5.24 acres at 129 W. College Street in the Central City North community of the City of Los Angeles. The Project Site is located immediately east of the Los Angeles County Metropolitan Transportation Authority Chinatown Gold Line light rail station at N. Spring Street and College Street, and the northern end of the site faces the Los Angeles Historic State Park. Project Site is currently vacant and is periodically used for parking by nearby industrial and commercial businesses. The project will construct 770 residential units, retail spaces, and common areas. See attached Vicinity Map.

EXISTING INFRASTRUCTURE:

SEWER

The existing property and building facilities are serviced through an off-site sewer network. The sewer network is comprised of 8-inch, 12-inch, and 15-inch lines that are constructed out of vitrified clay pipes (VCP). The 8-inch off-site sewer in Rondout Street flows south east to Manhole #49513106, a City of Los Angeles owned and maintained structure. This manhole discharges to a City of Los Angeles 12-inch connected VCP main, which is located in North Main Street, east of the project property.

The second sewer main is a 15-inch off-site VCP located west of the project property in North Spring Street. It flows southwest to Manhole #49416163, a City of Los Angeles owned and maintained structure. The manhole discharges to a 15-inch connected VCP main parallel to Alameda Street.

Reference the attachment "Existing Sewer Mains Exhibit" for visual presentation of the existing off-site sewer network and City of Los Angeles mains.

SEWER CAPACITY AVAILABILITY REQUEST (SCAR):

The Sewer Capacity Availability Request (SCAR) is a clearance process required by the City of Los Angeles for Sewer Connection Permits. The process is used to evaluate the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, construction projects, groundwater dewatering projects and any increases in sewage from existing facilities. A SCAR was previously submitted and approved by the City of Los Angeles on 04/15/14 for a proposed sewage flow of 81,428 GPD. The proposed development information has since changed and a revised SCAR will be required. The updated

sewer capacity availability request (SCAR) for the 15-inch sewer main west of the project site in North Spring Street and 8-inch main east of the project in Rondout Street was submitted to the Bureau of Sanitation for verification of the existing capacity at the referenced mains.

CITY SEWAGE GENERATION FACTORS:

The City's Sewage Generation Factors (SGF) were used to calculate the estimated sewage discharge amounts based on the proposed housing type (see the attached Sewage Generation Factors for housing factor description).

This project proposed the construction of 770 residential units and a total of 51,390 square feet of market, retail, and restaurant use. See attached Calculation Breakdown Exhibit for additional information:

A. Residential Units:

The project proposes a total of 770 residential units. This consists of 355 studio apartments, 360 one-bedroom apartments, and 55 two-bedroom apartments. Each type of residential unit was multiplied by its respective Sewage Generation Factor as follows:

- Studio Apartments: 75 GPD per unit
- 1-Bedroom Apartments: 110 GPD per unit
- 2-Bedroom Apartments: 150 GPD per unit

The total residential sewage flow is $(355 \times 75) + (360 \times 110) + (55 \times 150) = 74,475$ GPD.

B. Retail / Market:

The project proposes a market with an area of 37,520 square feet. In addition, there will be an additional retail area of 5,870 square feet, for a combined total of 43,390 square feet of total retail. Using a sewage generation factor of 25 GPD per 1000 square feet, the total sewage generation for this category is 1,085 GPD.

C. Restaurants:

The project proposes a two restaurant areas. One will be a sit down restaurant with 5,000 square feet. The other will be a casual / fast food restaurant with 3,000 square feet. Using a conservative assumption of one seat per 15 square feet, the sit down restaurant will have about 333 seats and the fast food restaurant will have about 200 seats. Each type of restaurant was multiplied by its respective Sewage Generation Factor as follows:

- Sit Down / Full Service: 30 GPD per seat for 333 seats

- Casual / Fast Food: 25 GPD per seat for 200 seats

The total restaurant sewage flow is $(30 \times 333) + (25 \times 200) = 14,990$ GPD.

D. Total:

The total estimated flows for all types of development at the project was added and rounded up to the nearest thousand GPD. The final sum is 74,475 GPD (residential) + 1,085 GPD (retail) + 14,990 GPD (restaurant) = 90,550 GPD (total). This was rounded to 91,000 GPD.

CONCLUSION:

Based on the calculations provided above and in the Calculation Breakdown Exhibit, the proposed development at the project site will produce a total sewage flow of 91,000 GPD. Per City of Los Angeles standards, a Sewer Capacity Availability Request (SCAR) for the 8-inch sewer main along Rondout Street and the 15-inch sewer main along North Spring Street was submitted to the Bureau of Sanitation for verification of the available capacity at the above referenced main. Based on the previous approval of a SCAR with a proposed sewage flow of 81,428 GPD, it is assumed at this point that there will be enough available capacity in the existing sewer lines pending confirmation from the City.

EXISTING SEWER MAINS EXHIBIT

Sewer Pipes Report

Pipe ID	4941612549416152A
Basin	N13
Upstream Invert	278.00
Downstream Invert	276.71
Length	350.0
Slope	0.0040
Size	15.0
Width	0
Material	VCP
Shape	CR
Street	SPRING ST N

Sewer Pipes Report

Pipe ID	4951310449513106A
Basin	N13
Upstream Invert	298.05
Downstream Invert	281.91
Length	289.1
Slope	0.0040
Size	8.0
Width	0
Material	VCP
Shape	CIR
Street	RONDOUT ST

Sewer Pipes Report

Pipe ID	4951310649513160A
Basin	N13
Upstream Invert	281.71
Downstream Invert	280.95
Length	223.9
Slope	0.0028
Size	12.0
Width	0
Material	VCP
Shape	CR
Street	MAIN ST N



**SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES**

EFFECTIVE DATE: April 6, 2012

<i>Line No.</i>	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
1	Acupuncture Office/Clinic	120/1,000 Gr SF	265	275
2	Arcade - Video Games	50/1,000 Gr SF	265	275
3	Auditorium (a)	3/Seat	265	275
4	Auto Parking (a)	20/1,000 Gr SF	265	275
5	Auto Mfg., Service Maintenance (b)	Actual	1,260	1,165
6	Bakery	280/1,000 Gr SF	3,020	2,540
7	Bank: Headquarters	120/1,000 Gr SF	265	275
8	Bank: Branch	50/1,000 Gr SF	265	275
9	Ballroom	350/1,000 Gr SF	265	275
10	Banquet Room	350/1,000 Gr SF	265	275
11	Bar: Cocktail, Fixed Set (a) (c)	15/Seat	265	275
12	Bar: Juice, No Baking Facilities (d)	720/1,000 Gr SF	265	275
13	Bar: Juice, with Baking Facilities (d)	720/1,000 Gr SF	265	275
14	Bar: Cocktail, Public Table Area (c)	720/1,000 Gr SF	265	275
15	Barber Shop	120/1,000 Gr SF	265	275
16	Barber Shop (s)	15/Stall	265	275
17	Beauty Parlor	425/1,000 Gr SF	265	275
18	Beauty Parlor (s)	50/Stall	265	275
19	Bldg. Const/Field Office (e)	120/Office	265	275
20	Bowling Alley: Alley, Lanes & Lobby Area	50/1,000 Gr SF	265	275
21	Bowling Facility: Arcade/Bar/Restaurant/Dancing	Total	Average	Average
22	Cafeteria: Fixed Seat	30/Seat	1,000	600
23	Car Wash: Automatic (b)	Actual	265	285
24	Car Wash: Coin Operated Bays (b)	Actual	265	285
25	Car Wash: Hand Wash (b)	Actual	265	285
26	Car Wash: Counter & Sales Area	50/1,000 Gr SF	265	275
27	Chapel: Fixed Seat	3/Seat	265	275
28	Chiropractic Office	120/1,000 Gr SF	265	275
29	Church: Fixed Seat	3/Seat	265	275
30	Church School: Day Care/Elem	9/Occupant	265	275
31	Church School: One Day Use (s)	9/Occupant	265	275
32	Cocktail Lounge: Fixed Seat (f)	15/Seat	265	275
33	Coffee House: No Food Preparation (d)	720/1,000 Gr SF	265	275
34	Coffee House: Pastry Baking Only (d)	720/1,000 Gr SF	265	275
35	Coffee House: Serves Prepared Food (d)	25/Seat	1,000	600
36	Cold Storage: No Sales (g)	30/1,000 Gr SF	265	275
37	Cold Storage: Retail Sales (g)	50/1,000 Gr SF	265	275
38	Comfort Station: Public	80/Fixture	265	275
39	Commercial Use (a)	50/1,000 Gr SF	265	275

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Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
40	Community Center	3/Occupant	265	275
41	Conference Room of Office Bldg.	120/1,000 Gr SF	265	275
42	Counseling Center (h)	120/1,000 Gr SF	265	275
43	Credit Union	120/1,000 Gr SF	265	275
44	Dairy	Average Flow	1,510	325
45	Dairy: Barn	Average Flow	1,510	325
46	Dairy: Retail Area	50/1,000 Gr SF	265	275
47	Dancing Area (of Bars or Nightclub) (c)	350/1,000 Gr SF	265	275
48	Dance Studio (i)	50/1,000 Gr SF	265	275
49	Dental Office/Clinic	250/1,000 Gr SF	265	275
50	Doughnut Shop	280/1,000 Gr SF	1,000	600
51	Drug Rehabilitation Center (h)	120/1,000 Gr SF	265	275
52	Equipment Booth	30/1,000 Gr SF	265	275
53	Film Processing (Retail)	50/1,000 Gr SF	265	275
54	Film Processing (Industrial)	Actual	265	275
55	Food Processing Plant (b)	Actual	2,210	1,450
56	Gas Station: Self Service	100/W.C.	265	275
57	Gas Station: Four Bays Max	430/Station	1,950	1,175
58	Golf Course Facility: Lobby/Office/Restaurant/Bar	Total	700	450
59	Gymnasium: Basketball, Volleyball (k)	200/1,000 Gr SF	265	275
60	Hanger (Aircraft)	50/1,000 Gr SF	265	275
61	Health Club/Spa (k)	650/1,000 Gr SF	265	275
62	Homeless Shelter	70/Bed	265	275
63	Hospital	70/Bed	820	1,230
64	Hospital: Convalescent (a)	70/Bed	265	275
65	Hospital: Animal	300/1,000 Gr SF	820	1,230
66	Hospital: Psychiatric	70/Bed	265	275
67	Hospital: Surgical (a)	360/Bed	265	275
68	Hotel: Use Guest Rooms Only (a)	120/Room	265	275
69	Jail	85/Inmate	265	275
70	Kennel: Dog Kennel/Open	100/1,000 Gr SF	265	275
71	Laboratory: Commercial	250/1,000 Gr SF	265	275
72	Laboratory: Industrial	Actual	265	275
73	Laundromat	185/Machine //	550	370
74	Library: Public Area	50/1,000 Gr SF	265	275
75	Library: Stacks, Storage	30/1,000 Gr SF	265	275
76	Lobby of Retail Area (l)	50/1,000 Gr SF	265	275
77	Lodge Hall	3/Seat	265	275
78	Lounge (l)	50/1,000 Gr SF	265	275

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Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
79	Machine Shop (No Industrial Waste Permit Required) (b)	50/1,000 Gr SF	265	275
80	Machine Shop (Industrial)	Actual	265	275
81	Mfg or Industrial Facility (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
82	Mfg or Industrial Facility (Industrial)	Actual	265	275
83	Massage Parlor	250/1,000 Gr SF	265	275
84	Medical Building (a)	225/1,000 Gr SF	265	275
85	Medical: Lab in Hospital	250/1,000 Gr SF	340	275
86	Medical Office/Clinic	250/1,000 Gr SF	265	275
87	Mini-Mall (No Food)	50/1,000 Gr SF	265	275
88	Mortuary: Chapel	3/Seat	265	275
89	Mortuary: Embalming	300/1,000 Gr SF	800	800
90	Mortuary: Living Area	50/1,000 Gr SF	265	275
91	Motel: Use Guest Room Only (a)	120/Room	265	275
92	Museum: All Area	30/1,000 Gr SF	265	275
93	Museum: Office Over 15%	120/1,000 Gr SF	265	275
94	Museum: Sales Area	50/1,000 Gr SF	265	275
95	Office Building (a)	120/1,000 Gr SF	265	275
96	Office Bldg w/Cooling Tower	170/1,000 Gr SF	265	275
97	Plating Plant (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
98	Plating Plant (Industrial) (b)	Actual	265	275
99	Pool Hall (No Alcohol)	50/1,000 Gr SF	265	275
100	Post Office: Full Service (m)	120/1,000 Gr SF	265	275
101	Post Office: Private Mail Box Rental	50/1,000 Gr SF	265	275
102	Prisons	175/Inmate	265	275
103	Residential Dorm: College or Residential (n)	70/Student	265	275
104	Residential: Boarding House	70/Bed	265	275
105	Residential: Apt - Bachelor (a) ✓	75/DU	265	275
106	Residential: Apt - 1 BDR (a) (o) ✓	110/DU	265	275
107	Residential: Apt - 2 BDR (a) (o) ✓	150/DU	265	275
108	Residential: Apt - 3 BDR (a) (o) ✓	190/DU //	265	275
109	Residential: Apt - >3 BDR (o)	40/BDR	265	275
110	Residential: Condo - 1 BDR (o)	110/DU	265	275
111	Residential: Condo - 2 BDR (o)	150/DU	265	275
112	Residential: Condo - 3 BDR (o)	190/DU	265	275
113	Residential: Condo - >3 BDR (o)	40/BDR	265	275
114	Residential: Duplex/Townhouse - 1 BR (o)	110/DU	265	275
115	Residential: Duplex/Townhouse - 2 BR (o)	150/DU	265	275
116	Residential: Duplex/Townhouse - 3 BR (o)	190/DU	265	275
117	Residential: Duplex/Townhouse - >3 BR (o)	40/BDR	265	275

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Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
118	Residential: SFD - 1 BR (o)	140/DU	265	275
119	Residential: SFD - 2 BR (o)	185/DU ✓	265	275
120	Residential: SFD - 3 BR (o)	230/DU ✓	265	275
121	Residential: SFD - >3 BR (o)	45/BDR	265	275
122	Residential Room Addition: Bedroom (o)	45/BDR	265	275
123	Residential Room Conversion: Into a Bedroom (o)	45/BDR	265	275
124	Residential: Mobile Home	Same as Apt	265	275
125	Residential: Artist (2/3 Area)	75/DU	265	275
126	Residential: Artist Residence	75/DU	265	275
127	Residential: Guest Home w/ Kitchen	Same as Apt	265	275
128	Residential: Guest Home w/o Kitchen	45/BDR	265	275
129	Rest Home	70/Bed	555	490
130	Restaurant: Drive-In	50/Stall	1000	600
131	Restaurant: Drive-In Seating Area	25/Seat	1000	600
132	Restaurant: Fast Food Indoor Seat	25/Seat	1000	600
133	Restaurant: Fast Food Outdoor Seat	25/Seat	1000	600
134	Restaurant: Full Service Indoor Seat (a)	30/Seat	1000	600
135	Restaurant: Full Service Outdoor Seat	30/Seat	1000	600
136	Restaurant: Take Out	300/1,000 Gr SF	1000	600
137	Retail Area (greater than 100,000 SF) ✓	50/1,000 Gr SF	265	275
138	Retail Area (less than 100,000 SF) ✓	25/1,000 Gr SF	265	275
139	Rifle Range: Shooting Stalls/Lanes, Lobby	50/1,000 Gr SF	265	275
140	Rifle Range Facility: Bar/Restaurant	Total	Average	Average
141	School: Arts/Dancing/Music (i)	11/Student	265	275
142	School: Elementary/Jr. High (a) (p)	9/Student	265	275
143	School: High School (a) (p)	11/Student	265	275
144	School: Kindergarten (s)	9/Student	265	275
145	School: Martial Arts (i)	9/Student	265	275
146	School: Nursery-Day Care (p)	9/Child	265	275
147	School: Special Class (p)	9/Student	265	275
148	School: Trade or Vocational (p)	11/Student	265	275
149	School: Training (p)	11/Student	265	275
150	School: University/College (a) (p)	16/Student	265	275
151	School: Dormitory (a) (n)	70/Student	265	275
152	School: Stadium, Pavilion	3/Seat	265	275
153	Spa/Jacuzzi (Commercial with backwash filters)	Total	265	275
154	Storage: Building/Warehouse	30/1,000 Gr SF	265	275
155	Storage: Self-Storage Bldg	30/1,000 Gr SF	265	275
156	Store: Ice Cream/Yogurt	25/1,000 Gr SF	1000	600

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157	Store: Retail (l)	50/1,000 Gr SF	265	275
158	Studio: Film/TV - Audience Viewing Room (q)	3/Seat	265	275
159	Studio: Film/TV - Regular Use Indoor Filming Area (q)	50/1,000 Gr SF	265	275
160	Studio: Film/TV - Ind. Use Film Process/Machine Shop (q)	50/1,000 Gr SF	265	275
161	Studio: Film/TV - Ind. Use Film Process/Machine Shop	Total	265	275
162	Studio: Recording	50/1,000 Gr SF	265	275
163	Swimming Pool (Commercial with backwash filters)	Total	265	275
164	Tanning Salon: Independent, No Shower (r)	50/1,000 Gr SF	265	275
165	Tanning Salon: Within a Health Spa/Club	640/1,000 Gr SF	265	275
166	Theater: Drive-In	6/Vehicle	265	275
167	Theater: Live/Music/Opera	3/Seat	265	275
168	Theater: Cinema	3/Seat	265	275
169	Tract: Commercial/Residential	1/Acre	265	275
170	Trailer: Const/Field Office (e)	120/Office	265	275
171	Veterinary Clinic/Office	250/1,000 Gr SF	265	275
172	Warehouse	30/1,000 Gr SF	265	275
173	Warehouse w/ Office	Total	265	275
174	Waste Dump: Recreational	400/Station	2650	2750
175	Wine Tasting Room: Kitchen	200/1,000 Gr SF	265	275
176	Wine Tasting Room: All Area	50/1,000 Gr SF	265	275

**College Station
Calculation Breakdown Exhibit**

Residential

Unit Type	No.	Sewage Generation Factor	Total
Studio	355	75/DU	26,625
1-BR	360	110/DU	39,600
2-BR	55	150/DU	8,250
Total	770		74,475

Retail/ Market/ Restaurant

Unit Type	Square Footage	Seats	Sewage Generation Factor	Total
Retail	5,870	N/A	25/1,000 Gr SF	146.75
Market	37,520	N/A	25/1,000 Gr SF	938.00
Restaurant - Full Service Indoor	5,000	333	25 GPD / Seat	9990.00
Restaurant - Fast Food Indoor	3,000	200	30 GPD/Seat	5,000.00
Total	51,390	533		16074.75

Total Sewage Generation = 90,549.75 GPD
Rounded Total Sewage Generation = 91,000 GPD

