PUBLIC SCOPING REPORT

DIGNITY HEALTH REDDING
NORTH STATE PAVILION PROJECT

Use Permit-2017-00001
Parcel Map-2017-00002
General Plan Amendment-2017-00003
Rezone-2017-00004

SCH NO. 2017072048

LEAD AGENCY:

Development Services Department
Planning Division
777 Cypress Avenue
Redding, CA 96001
(530) 225-4020

TECHNICAL ASSISTANCE BY:

350 Hartnell Avenue, Suite B
Redding, CA 96002

July 2018

TABLE OF CONTENTS

1.0 INTRODUCTION

The environmental review of the Dignity Health Redding North State Pavilion Project (UP-2017-00001, PM-2017-00002, GPA-2017-00003, RZ-2017-00004) (State Clearinghouse No. 2017072048) (proposed project) is being conducted by the City of Redding Development Services Department (City) and therefore is regulated by the California Environmental Quality Act (CEQA) under California law. The intent of the public scoping process under CEQA is to initiate the public scoping for the Environmental Impact Report (EIR), provide information about the proposed project, and solicit information that will be helpful in the environmental review process.

This Public Scoping Report for the proposed project documents the issues and concerns expressed by members of the public, government agencies, and organizations during the June 2018 – July 2018 EIR public scoping period. The release of the Notice of Preparation (NOP) to prepare an EIR initiated the City's 30-day public scoping period under CEQA. The comment period allowed the public and regulatory agencies an opportunity to comment on the scope and content of the environmental document, including the alternatives to be considered, and issues that should be addressed in the EIR.

Dignity Health Mercy Medical Center Redding (project applicant) is proposing to develop a new a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure on 10.55 acres of land located southwest of the intersection of Cypress Avenue and Harnell Avenue. As part of the review process, the City will prepare an EIR, which will evaluate the potential environmental impacts associated with the proposed project and will identify mitigation measures to reduce these impacts, where possible.

1.1 SCOPING REPORT ORGANIZATION

This scoping report includes four main sections and appendices, as described below:

- **Section 1** provides an introduction to the report and describes the purpose of scoping and a brief overview of the Dignity Health North State Pavilion Project.
- **Section 2** provides information on the scoping meeting and notification materials, including the NOP.
- **Section 3** summarizes the comments received and highlights the key issues raised during the scoping comment period.
- **Section 4** describes the next steps in the EIR process.

Appendices consist of all the supporting materials used during scoping. These appendices include copies of the NOP and meeting materials provided at the public scoping meeting. They also include copies of the scoping comment letters received during the NOP public comment period.

1.2 PURPOSE OF AN ENVIRONMENTAL IMPACT REPORT

An EIR is a public information document used in the planning and decision-making process. This project-level EIR analyzes the environmental impacts of the project. The City of Redding Planning Commission

and City Council will consider the information in the EIR, including public comments and staff responses to those comments, during the public hearing process. As a legislative action, the final decision is made by the City Council, who may approve, conditionally approve, or deny the project. The purpose of an EIR is to identify:

- The significant impacts of the project on the environment and indicate the manner in which those significant impacts can be avoided or mitigated;
- Any unavoidable adverse impacts that cannot be mitigated; and
- Reasonable and feasible alternatives to the project that would eliminate any significant environmental impacts or reduce the impacts to a less than significant level.

The EIR will also disclose potential growth-inducing impacts, impacts found not to be significant, and significant cumulative impacts of the project.

CEQA requires an EIR to reflect the independent judgment of the lead agency with respect to impacts, disclose the level of significance of the impacts both with and without mitigation, and describe the mitigation measures proposed to reduce the impacts. A Draft EIR is circulated to responsible agencies, trustee agencies with resources affected by the project, and interested agencies and individuals. The review process gives both agencies and individuals an opportunity to share expertise, discuss agency analyses, check for accuracy, detect omissions, discover public concerns, and solicit mitigation measures and alternatives capable of avoiding or reducing the significant effects of the project, while still attaining most of the basic objectives of the project.

Reviewers of the forthcoming Draft EIR for the proposed Dignity Health North State Pavilion project are requested to focus on the sufficiency of the document (i.e., the thoroughness of its identification and analysis of possible impacts on the environment as well as ways to avoid or mitigate such impacts). Comments are most helpful when they suggest better ways to avoid or mitigate significant environmental effects (e.g., through additional alternatives or mitigation measures).

1.3 PURPOSE OF SCOPING

The process of determining the focus and content of the EIR is known as scoping. Scoping helps to identify the range of actions, alternatives, environmental effects, and mitigation measures to be analyzed in depth, and eliminates from detailed study those issues that are not pertinent to the final decision on the proposed project. The scoping process is not intended to resolve differences of opinion regarding the proposed project or evaluate its merits. Instead, the process allows all interested parties to express their concerns regarding the proposed project and thereby ensures that all opinions and comments applicable to the environmental analysis are addressed in the EIR. Scoping is an effective way to bring together and address the concerns of the public, affected agencies, and other interested parties. Members of the public, relevant federal, State, regional and local agencies, interests groups, community organizations, and other interested parties may participate in the scoping process by providing comments or recommendations regarding issues to be investigated in the EIR.

Comments received during the scoping process are part of the public record as documented in this scoping report. The comments and questions received during the public scoping process have been reviewed and considered by the City in determining the appropriate scope of issues to be addressed in the EIR. The purpose of the scoping for the Dignity Health North State Pavilion project was to:

- Inform the public and relevant public agencies about the proposed project, CEQA requirements, and the environmental impact analysis process;
- Identify potentially significant environmental impacts for consideration in the EIR;
- Identify possible mitigation measures for consideration in the EIR;
- Identify potential alternatives to the proposed project for evaluation in the EIR; and
- Compile a mailing list of public agencies and individuals interested in future public hearings and notices.

1.4 PAST PROJECT HEARINGS

JULY 2017 PLANNING COMMISSION HEARING – CITY OF REDDING

Dignity Health submitted applications for entitlements for the proposed development in January 2017. After a public hearing on August 22, 2017, the Planning Commission continued the meeting indefinitely to allow staff and Dignity time to review comments received in response to the CEQA Initial Study/Mitigated Negative Declaration prepared for the project. To address the comments, in early November 2017 Dignity announced their intention to work with the City to prepare an EIR. Refer to Appendix D for a copy of the circulated Initial Study/Mitigated Negative Declaration, including public responses received.

1.5 SUMMARY OF THE PROPOSED PROJECT

The proposed 10.55-acre project site is located in the City of Redding, southwest of the intersection of Cypress Avenue and Hartnell Avenue, at the northerly terminus of Henderson Road. The site is being considered for development of the North State Pavilion Project, a health care facility, by Dignity Health Mercy Medical Center Redding. The proposed project is located within a developed area in southeast Redding designated in the *City of Redding 2000-2020 General Plan* (herein referenced as the *General Plan*) as "General Office" (GO), "General Commercial" (GC), and "Greenway" (GWY), and is zoned "General Office" (GO), "General Commercial" (GC), and "Open Space" (OS).

The proposed project is a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure on 10.55 acres of land. The project is currently proposed to be developed in two phases. Phase 1 will include Building 'A' and phase 2 will consist of Buildings 'B' and 'C.' Phase I is projected to be completed in 2022 and Phase II is projected to be completed in 2024. It is estimated that up to 180 persons will be employed once the project is completed. Overall, 549 parking spaces are proposed, including ADA and van accessible, compact, and motorcycle spaces. Bicycle racks will also be provided. For Phase I, 338 parking spaces are proposed.

The project includes proposed right-of-way improvements to Henderson Road (North and South), Parkview Avenue (South), and Parkview Avenue (Open Space Access). The improvements include, where applicable, street widening, paving and repaving, lane striping, curbs, gutters, sidewalks, and drainage structures. All utilities, including water, sewer, stormwater, electrical, natural gas, cable and telephone service lines and conduits, will be undergrounded. The following actions are being requested as part of the proposed project:

- *General Plan Amendment.* Request to amend the City's *General Plan* from the existing designations of existing designations of "General Office" (GO), "General Commercial" (GC), and "Greenway" (GWY) to "Public Facilities" (PF-I) on the entire 10.55-acre site.

- *Rezone.* Request to amend the existing zoning from "General Office" (GO) and "General Commercial" (GC) to "Public Facilities" (PF).

- *Use Permit.* Request to allow for the development of the project and for a portion of the park lot to encroach into the Federal Emergency Management Agency (FEMA) regulated 100-year floodplain of the Sacramento River.

- *Parcel Map.* Approval to merge existing onsite Assessor's Parcel Numbers (APNs) 107-400-008; 107-430-033, -034, -057, -059; and 107-500-017, -018, -019, -020, -024, -025, -026, into one parcel.

2.0 PROJECT SCOPING

This section describes the methods used by the City to notify the public and agencies about the scoping process conducted for the proposed project. It outlines how information was made available for public and agency review and identifies the different avenues that were and are available for providing comments on the project (i.e., meetings, fax, email, mail, and phone).

2.1 NOTICE OF PREPARATION

As required by State *CEQA Guidelines* §15082, the City issued a Notice of Preparation (NOP) on June 8, 2018 that summarized the proposed project, stated its intention to prepare an EIR, and requested comments from interested parties (see Appendix A for full copy of the NOP). The NOP also included notice of the City's public scoping meeting that was held on June 26, 2018 at the City Hall. The NOP was filed with the State Clearinghouse on June 8, 2018 (SCH# 2017072048), which initiated the 30-day public scoping period. The review period for the NOP ended on July 9, 2018. Over 40 copies of the NOP were distributed to federal, State, regional, and local agencies; and elected officials. The NOP and all future proposed project-related documents are available for review at the information repository sites listed in Table 1, REPOSITORY SITES.

Table 1
REPOSITORY SITES

Repository Site	Location	Phone Number	Hours of Operation
City of Redding Development Services Department	777 Cypress Avenue Redding, CA 96001	530-225-4020	MON – FRI: 8:00 am – 5:00 pm
City of Redding Website	http://www.cityofredding.org/departments/development-services/planning/projects	NA	NA

Note: Repository sites noted above will also contain the forthcoming Draft EIR and supporting technical appendices.

SCOPING MEETINGS

Handouts and informational materials made available at the scoping meetings are listed below. Appendices A and B include copies of these materials.

- Sign-In Sheet
- Notice of Preparation
- PowerPoint Presentation
- Comment Cards

Agency Scoping Meeting

The City held an agency scoping meeting on June 26, 2018 in the Caldwell Park Conference Room at City Hall that provided an opportunity for the government agencies to obtain more information on the proposed project and to ask questions regarding the proposed project, and to provide formal scoping comments. The meeting was held between 1:30 pm and 2:00 pm. A representative from the Shasta County Mosquito and Vector Control attended the meeting.

Planning Commission Scoping Meeting

The City held a noticed Planning Commission hearing during the 30-day NOP public review period on June 26, 2018 in the City Council Chambers. This meeting provided an opportunity for the Planning Commission to be introduced to the proposed project, ask questions, and provide further direction on the overall scope of the EIR. The meeting was held between 4:00 pm and 5:30 pm. Six (6) individuals from the public provided oral comments and suggestions to the Commission.

NEWSPAPER ADVERTISEMENT

The date and location of the public scoping meeting was advertised in the Redding Record Searchlight, a paper of local circulation. The advertisement provided a brief synopsis of the project, including the date and time of the Planning Commission scoping session.

3.0 SCOPING COMMENTS

This section summarizes the comments raised by the public and agencies during the scoping process for the Dignity Health Redding North State Pavilion Project EIR. This summary is based upon both written and oral comments that were received during the 30-day NOP public review period that circulated from June 8, 2018 through July 9, 2018. All written and oral comments received during the public comment period for the NOP were reviewed for this report, including comments received during the public scoping meeting, and those comments submitted via email.

Four (4) comment letters were received during the scoping process, and six (6) individuals presented oral comments during the June 26, 2018 scoping meeting. Two (2) government agencies and two (2) private organizations submitted written comments. Section 3.1 discusses the key issues that were raised by the public during the scoping process. Appendix C, contains all comment letters from government

agencies, private organizations, and private citizens received during the scoping period in their original format as submitted by commenters.

GOVERNMENT AGENCIES *(see Appendix C-1)*

California Department of Fish and Wildlife
Native American Heritage Commission

PRIVATE ORGANIZATIONS *(see Appendix C-2)*

Ms. Karin Knorr, Knorr Management, Inc. (representing Cobblestone Shopping Center)
Mr. Mike Jones, Stream and Greenways Alliance

3.1 KEY ISSUES RAISED DURING THE PUBLIC COMMENT PERIOD

As discussed above, written and oral comments and suggestions were provided by members of the public, organizations, and government agencies. The discussion below presents a summary of key issues identified from the written and oral comments received on the proposed project during the scoping period. It should be noted that three (3) of the six (6) oral comments received during the June 26, 2018 planning commission meeting were in direct support of the proposed project.

In general, the summary comments noted below have been, in large part, paraphrased with a focus on key issues of concern, questions and general comments/suggestions. Where one or more comments address a similar issue or concern, those comments were combined together and summarized to minimize redundancy. Appendix C presents all written comments received from the general public, government agencies, and private organizations in their original format as submitted to the City of Redding. The specific issues raised during the public scoping process are summarized below according to topic.

AESTHETICS

- Ensure aesthetics, light and glare impacts are discussed and appropriately addressed.

BIOLOGICAL RESOURCES

- Impact to deer and other wildlife in the adjacent neighborhood due to the increase in cut-through traffic.
- Also see July 3, 2018 letter submitted by California Department of Fish and Wildlife (CDFW)

CULTURAL RESOURCES

- Greenville Rancheria should be included in consultation under AB-52.
- An historical marker onsite was suggested to note prior Wintu use of the site.
- AB-52 and SB-18 tribal consultation compliance.
- Also see June 27, 2018 letter submitted by the Native American Heritage Commission.

HAZARDS AND HAZARDOUS MATERIALS

- General concerns submitted regarding the past historical use of the project site and the need to ensure appropriate level of investigation is conducted.
- Removal of residual hazardous materials if encountered.

HYDROLOGY AND WATER QUALITY

- Ensure delineated floodplain in the parking lot does not cause the downstream base flood elevation to rise.

TRANSPORTATION AND TRAFFIC

- Concerns related to increased cut-through traffic along Wilshire once the project is completed.
- Two (2) commenters suggested the inclusion of speed tables along Wilshire as a form of mitigation.
- Encourage the project to promote intelligent traffic patterns.

OTHER QUESTIONS, CONCERNS AND COMMENTS

- Shasta County Mosquito and Vector Control expressed an interest in maintaining existing access to Henderson Open Space area for continued mosquito and vector control maintenance.
- The Riverfront Specific Plan should be reviewed to document project interaction with the plan.

4.0 NEX STEPS IN THE EIR PROCESS

4.1 EIR EVENTS AND DOCUMENTS

While scoping is the initial step in the environmental review process, additional opportunities to comment on the project EIR will be provided. The City will provide for additional public input when the Draft EIR is released for public review, and during the public meetings for the Draft EIR. Table 2, EIR EVENTS AND DOCUMENTS, below presents the proposed timeline for the proposed Dignity Health North State Pavilion environmental review process, and identifies where in the process the public and agencies can provide additional input in the environmental review process. Please note that the dates below are preliminary in nature and subject to change.

Table 2
EIR EVENTS AND DOCUMENTS

Event		Purpose	Date
Completed Events and Documentation			
Notice of Preparation	Release of NOP	Notified interested parties and agencies of the County's intent to prepare an EIR.	June 8, 2018
	Public Review Period	NOP and Initial Study released for 30-day public/agency review period to provide for public comments on the scope of the EIR.	June 8th to July 9, 2018
Agency Scoping Meeting	One Agency Scoping Meeting was Held	Presented information on the project and provided opportunity for agency comments in a public forum.	June 26, 2018
Planning Commission Scoping Meeting	One NOP Public Hearing before the Planning Commission was Held	Presented information on the project and provided opportunity for Planning Commission, agency, and public comments in a public forum.	June 26, 2018
Scoping Report for CEQA NOP Process	Submittal of Scoping Meeting Report	Reported public and agency comments on the proposed project and environmental issues of concern to the public and agencies. This report includes comments made during the scoping process for the CEQA NOP.	July 2018
Upcoming Events, Documentation, and Approximate Dates			
Draft EIR	Release of Draft EIR	Draft EIR Notice of Completion is filed with the State Clearinghouse. EIR presents analysis of impacts and proposes mitigation measures for the proposed project and alternatives brought forward for analysis. Includes other required analysis per CEQA.	February – March 2019
	Public Review Period	45-day minimum CEQA-required public review period.	March – April 2019
	Draft EIR Public Meeting	Allows for public comment on the Draft EIR	April 2019
Final EIR	Release of Final EIR	Final EIR issued by the City, including responses to public comments.	August 2019
	Decision on the Project	Should the City certify the Final EIR, a Notice of Determination is filed with the State Clearinghouse.	September 2019

Notes:
1. The NOP was mailed to property owners within 1/4 -mile of the proposed project, federal, State, and local regulatory agencies, and elected officials.
2. Refer to the City's website for specific EIR document dates: http://www.cityofredding.org/departments/development-services/planning/projects.

4.2 GUIDELINES FOR COMMENTING ON THE DRAFT EIR

The purpose of the public review of the Draft EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the State *CEQA Guidelines* states the following regarding standards from which adequacy is judged:

An EIR should be prepared with sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonable feasible.

Section 15204(a) of the State *CEQA Guidelines* provides guidance to assist members of the public and public agencies in preparing comments on a Draft EIR. Section 15204.5(a) states:

In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated.

Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviews should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts. And the geographic scope of the project. CEQA does not require a Lead Agency to conduct every test of perform all research, stud, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.

Pursuant to the State *CEQA Guidelines*, and effect is not considered significant in the absence of substantial evidence; therefore, comments should be accompanied by factual support. Section 15204(c) of the State *CEQA Guidelines* states:

Reviewers should explain the basis for their comments, and, should submit data or references offering facts, reasonable assumptions based on facts. Or expert opinion supported by facts in support of the comments. Pursuant to §15064 an effect shall not be considered significant in the absence of substantial evidence.

Appendices

Appendix A
Notice of Preparation

A-1: Notice of Preparation (Agency)
A-2: Notice of Preparation (County Clerk)
A-3: Environmental Initial Study & Notice of Completion
A-4: Notice of Preparation Distribution List

Appendix B
Scoping Meeting Materials

B-1: Planning Commission Agenda and Staff Report
B-2: Scoping Meeting Presentation
B-3: Scoping Meeting Comment Card
B-4: Scoping Meeting Sign-In Sheets

Appendix C
Comment Letters Received in Response to NOP

C-1: Comment Letters from Government Agencies
C-2: Comment Letter from Private Organizations

Appendix D
July 2017 Circulated Mitigated Negative Declaration

D-1: Public Review MND
D-2: Comment Letters Received

Appendix A
Notice of Preparation

A-1: Notice of Preparation (Agency)

CITY OF REDDING
777 CYPRESS AVENUE, REDDING, CA 96001
P.O. BOX 496071, REDDING, CA 96049-6071

AGENCY SCOPING MEETING FOR DIGNITY HEALTH NORTH STATE PAVILION

Date: June 7, 2018

To: Responsible and Trustee Agencies and Organizations

Subject: Agency Scoping Meeting for Environmental Impact Report for Dignity Health North State Pavilion (UP-2017-00001, PM-2017-00002, GPA-2017-00003, and RZ 2017-00004)

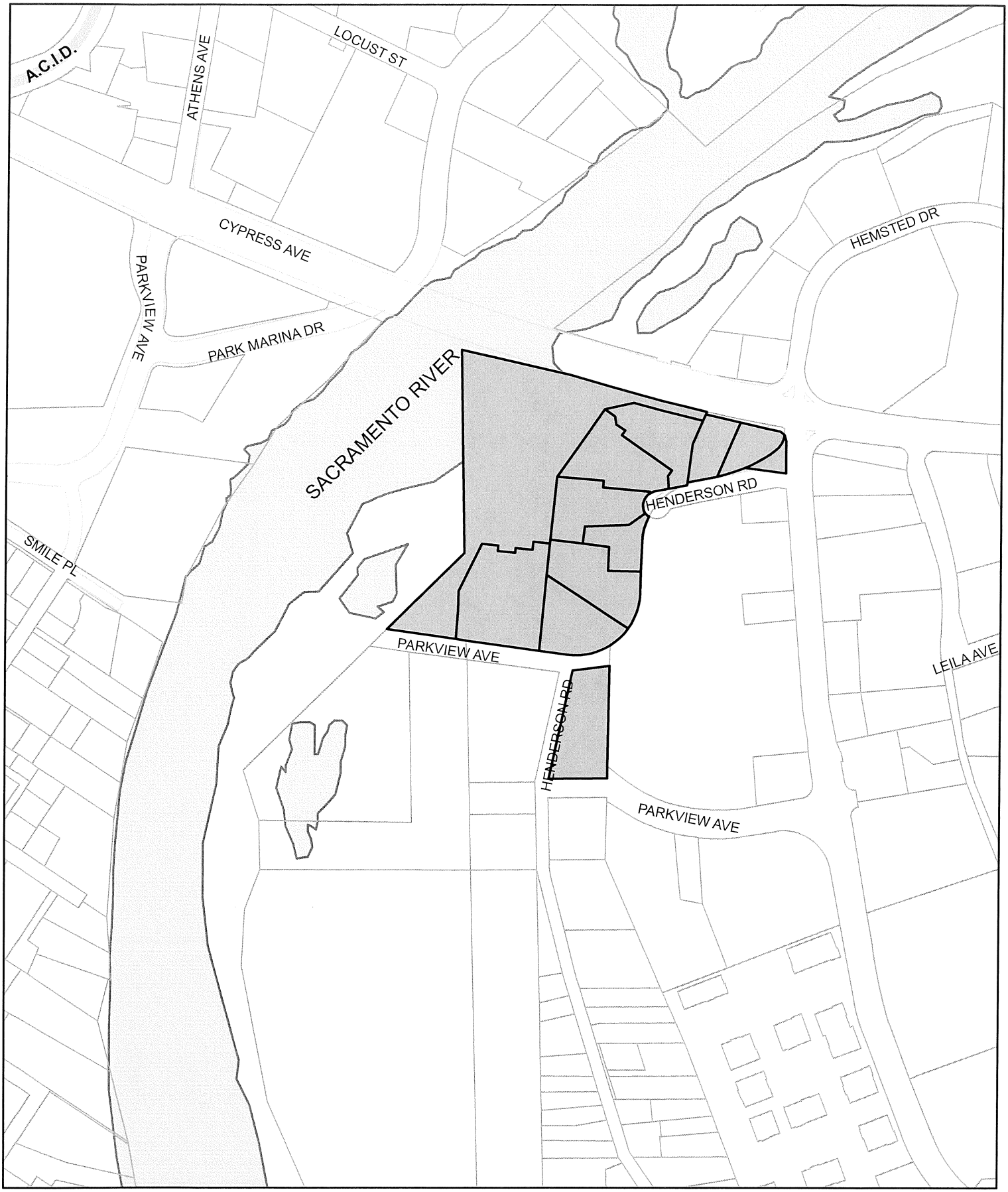
On **Tuesday, June 26, 2018, at 1:30 p.m.**, the City of Redding will hold a meeting with responsible and trustee agencies and organizations to determine the scope and content of the information which is to be included in the Environmental Impact Report (EIR) being prepared for the proposed Dignity Health North State Pavilion Project. The map on the back of this notice illustrates the project location. A copy of the project Initial Study/Notice of Preparation was previously forwarded to your agency/organization. The meeting will be held in the Caldwell Park Conference Room, which is located on the second floor of City Hall at 777 Cypress Avenue.

If you will be attending, please contact Lily Toy, Senior Planner, at (530) 225-4020.

Sincerely,

Paul Hellman, Planning Manager
Development Services Department

Dated: June 7, 2018
Attachment: Location Map



N W E S	**GIS DIVISION** INFORMATION TECHNOLOGY DEPARTMENT	**LOCATION MAP**	MTG. DATE:
	DATE PRODUCED: JUNE 6, 2018	DIGNITY HEALTH MERCY MEDICAL CENTER REDDING NORTH STATE PAVILION UP-2017-00001 / PM-2017-00002 / GPA-2017-00003 / RZ-2017-00001	ITEM:
	0 200 400 Feet		ATTACHMENT:
P:\Planning\MapDocs\Commission Maps\UP\UP-2017-00001.mxd			

A-2: Notice of Preparation (County Clerk)

City of Redding

Notice of Preparation

To: Shasta County Clerk
1643 Market Street
Redding, CA 96001

From: City of Redding
777 Cypress Avenue
Redding, CA 96001

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Redding will be the Lead Agency and will prepare an environmental impact report for the project identified below. An informational presentation on the proposed project will be made at the Redding Planning Commission meeting on **Tuesday, June 26, 2018, at 4 p.m.** The meeting will be held in the City Council Chambers at 777 Cypress Avenue, Redding, California. The purpose of this meeting is to solicit public comments on the scope and content of information to be included in an environmental impact report (EIR) being prepared for the proposed project. At this meeting the proposed project will be described and the initial determination leading to the decision to prepare an EIR will be discussed.

We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

In summary, Dignity Health is seeking to construct and operate a wellness center for ambulatory medical offices and clinics that would be distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping, and infrastructure on 10.55 acres of land. A use permit is being requested for the development of the project and to allow for a portion of the parking lot to encroach into the FEMA-regulated 100-year floodplain of the Sacramento River. A parcel map is being requested to merge all the parcels into one. The proposed project requires a General Plan amendment to amend the General Plan from the existing designations of "General Office," "General Commercial," and "Greenway" to "Public Facilities." A concurrent rezone is also required to amend the existing zoning from "GO" General Office and "GC" General Commercial to "PF" Public Facilities.

The complete project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study is attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than July 9, 2018. Please send your response to Lily Toy, Senior Planner, at the address shown above. We will need the name for a contact person in your agency.

Project Title: Dignity Health North State Pavilion (UP-2017-00001, PM-2017-00002, GPA-2017-00003, and RZ 2017-00004)

Project Applicant: Dignity Health Mercy Medical Center Redding (Dignity)

Date: June 7, 2018

Signature Paul G. Hellman
Title Paul Hellman, Planning Manager
Development Services Department
Telephone (530) 225-4020

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15373.

A-3: Environmental Initial Study & Notice of Completion

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2017072048

Project Title: Dignity Health North State Pavilion Project

Lead Agency: City of Redding Development Services Department | Contact Person: Lily Toy, Senior Planner

Mailing Address: 777 Cypress Avenue | Phone: (530) 225-4020

City: Redding | Zip: 96001 | County: Shasta

Project Location: County: Shasta | City/Nearest Community: City of Redding

Cross Streets: Cypress/Hartnell | Zip Code: 96002

Lat. / Long.: 40° 34′ 12″ N/ 122° 22′ 45″ W | Total Acres: 10.55

Assessor's Parcel No.: 107-400-008; 107-430-033, 034, 057, 059; 107-500-017, 018, 019, 020, 024, 025, 026

Sections: Section 6 | Twp.: 31 North | Range: 4 West | Base: MDBM

Within 2 Miles: State Hwy #: Interstate 5 | Waterways: Sacramento River

Airports: NA | Railways: NA | Schools: NA

Document Type:

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type:

☐ General Plan Update ☒ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☒ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type:

☐ Residential: Units ____ Acres ____
☒ Office: Sq.ft. 129,600 Acres 10.55 Employees 180
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational ____

☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☒ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☒ Schools/Universities
☒ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☒ Wildlife
☒ Growth Inducing
☒ Land Use
☒ Cumulative Effects
☐ Other ____

Present Land Use/Zoning/General Plan Designation:

Dignity is seeking to construct and operate a wellness center for ambulatory medical offices and clinics that would be distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure on 10.55 acres of land. The use permit request would allow for the development of the project and for a portion of the parking lot encroach into the FEMA regulated 100-year floodplain of the Sacramento River. A parcel map is being requested to allow the merging of all the parcels into once. The proposed project would require a general plan amendment to amend the general plan from the existing designations of "General Office," "General Commercial," and "Greenway" to "Public Facility." A concurrent rezone is also required to amend the existing zoning from "GO" General Office and "GC" General Commercial to "PF" Public Facility.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X	Air Resources Board	X	Office of Emergency Services
	Boating & Waterways, Department of	X	Office of Historic Preservation
X	California Highway Patrol		Office of Public School Construction
X	CalFire		Parks & Recreation
S	Caltrans District # 2		Pesticide Regulation, Department of
	Caltrans Division of Aeronautics	X	Public Utilities Commission
	Caltrans Planning (Headquarters)	S	Regional WQCB # 5
	Central Valley Flood Protection Board	X	Resources Agency
	Coachella Valley Mountains Conservancy		S.F. Bay Conservation & Development Commission
	Coastal Commission		San Gabriel & Lower L.A. Rivers and Mtns Conservancy
	Colorado River Board		San Joaquin River Conservancy
X	Conservation, Department of		Santa Monica Mountains Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	X	SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
S	Fish & Game Region # 1		Tahoe Regional Planning Agency
	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
	General Services, Department of	X	Water Resources, Department of
	Health Services, Department of		
	Housing & Community Development		
X	Integrated Waste Management Board		
X	Native American Heritage Commission	X	Other National Marine Fisheries Service
		S	Other U.S. Army Corps of Engineers
		X	Other U.S. Fish and Wildlife Service

Local Public Review Period (to be filled in by lead agency)

Starting Date June 8, 2018 Ending Date July 9, 2018

Lead Agency (Complete if applicable): City of Redding, Development Services Department

Consulting Firm: SHN Consulting Engineers & Geologists
Address: 350 Hartnell Avenue, Suite B
City/State/Zip: Redding, CA 96002
Contact: Mr. Bruce R. Grove, Jr.
Phone: 530-221-5424

Applicant: Dignity Health
Address: 10901 Gold Center Drive
City/State/Zip: Rancho Cordova, CA 95670
Phone:

Signature of Lead Agency Representative: **Date:** 06/07/18

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

ENVIRONMENTAL INITIAL STUDY

INITIAL STUDY CHECKLIST
References and Documentation

Dignity Health North State Pavilion Project

Use Permit UP-2017-00001
Parcel Map PM-2017-0002
General Plan Amendment GPA-2017-0003
Rezoning RZ-2017-0004

Prepared by:
CITY OF REDDING
Development Services Department
Planning Division
777 Cypress Avenue
Redding, California 96001

June 7, 2018

CITY OF REDDING
ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Dignity Health North State Pavilion Project (SCH No. 2017072048)

2. **Lead agency name and address**:

CITY OF REDDING
Development Services Department
Planning Division
777 Cypress Avenue
Redding, CA 96001

3. **Contact Person and Phone Number:** Lily Toy, CFM, Senior Planner (530) 245-7231

4. **Project Location:** The proposed 10.55-acre project site is located in the City of Redding, southwest of the intersection of Cypress Avenue and Hartnell Avenue, at the northerly terminus of Henderson Road. The site is being considered for development of the North State Pavilion Project, a health care facility, by Dignity Health Mercy Medical Center Redding. The site is located primarily in Township 31 North, Range 4 West, Section 6, of the U.S. Geological Survey's (USGS) Enterprise, 7.5-minute quadrangle (USGS, 1957). A small portion of the site is located in Township 31 North, Range 5 West, Section 1, of the Enterprise quadrangle (refer to the attached figures). The proposed project is comprised of twelve Assessor Parcel Numbers (APNs) identified as follows: 107-400-008; 107-430-033, -034, -057, -059; and 107-500-017, -018, -019, -020, -024, -025, -026.

5.

Applicant's Name and Address:
Dignity Health
10901 Gold Center Drive
Rancho Cordova, CA 95670

Representative's Name and Address:
Omni-Means, Ltd.
330 Hartnell Avenue, Suite B
Redding, CA 96002

6. **General Plan Designation:** "General Office," "General Commercial," and "Greenway"

7. **Zoning:** "GO" General Office and "GC" General Commercial

8. **Description of Project:** Dignity Health Mercy Medical Center Redding (Dignity) is proposing the development of the North State Pavilion Project in a campus-like setting whereby the buildings are compatible with each other from a site planning and architectural design perspective. The project is a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure on 10.55 acres of land. The use permit request is to allow for the development of the project and for a portion of the parking lot to encroach into the FEMA regulated 100-year floodplain of the Sacramento River. The parcel map request is to allow the merging of all the parcels into one. The general plan amendment request is a request to amend the general plan from the existing designations of "General Office," "General Commercial," and "Greenway" to "Public Facilities." Lastly, the rezoning request is to amend the existing zoning from "GO" General Office and "GC" General Commercial to "PF" Public Facilities.

The number of stories, approximate square footages, and building heights for each building are:

- Building "A" – 4 stories – 80,000 sq. ft. – Height varies from 64 to 72 feet
- Building "B" – 3 stories – 27,800 sq. ft. – Height varies from 52 to 58 feet
- Building "C" – 2 stories – 21,800 sq. ft. – Height varies from 36 to 44 feet

The project is currently proposed to be developed in two phases. Phase 1 will include Building "A" and phase 2 will consist of Buildings "B" and "C." Phase I is projected to be completed in 2022 and Phase II is projected to be completed in 2024. It is estimated that up to 180 persons will be employed once the project is completed. Potential uses and services may include, but are not limited to, the following:

- Administrative Offices
- Auditorium / Conference Rooms / Class Rooms
- Cafeteria
- Diagnostic Imaging
- Electrical / Mechanical Rooms
- Employee Lounge / Locker Rooms
- Family Medicine / Pediatrics
- Gift Shop
- Janitorial Rooms
- Laboratories
- Orthopedics
- Palliative Care
- Pharmacy
- Physical Therapy
- Physician Offices
- Radiology
- Reception / Waiting Areas
- Rehabilitation
- Urgent Care Center
- Visitor Lounges
- Women's Health & Wellness

Cafeteria services, physical therapy, and pharmacy services may be leased to outside service providers.

Overall, 549 parking spaces are proposed, including ADA and van accessible, compact, and motorcycle spaces. Bicycle racks will also be provided. For Phase I, 338 parking spaces are proposed.

The project includes proposed right-of-way improvements to Henderson Road (North and South), Parkview Avenue (South), and Parkview Avenue (Open Space Access). The improvements include, where applicable, street widening, paving and repaving, lane striping, curbs, gutters, sidewalks, and drainage structures. All utilities, including water, sewer, stormwater, electrical, natural gas, cable and telephone service lines and conduits, will be undergrounded.

9. **Surrounding Land Uses and Setting:** The project area is bounded on the west by the Henderson Open Space area, with the Sacramento River further to the west; on the east by Hartnell Avenue; on the north by the Cypress Avenue Bridge; and on the south by the Cobblestone Shopping Center, south of Parkview Avenue. Office and commercial uses are located across Cypress Avenue and Hartnell Avenue, respectively.

The Federal Emergency Management Agency (FEMA) 100-year floodplain of the Sacramento River inundates approximately 1.2 acres of the project site and the floodway of the Sacramento River inundates approximately 2.40 acres of the project site. A Letter of Map Revision (LOMR) has been submitted to FEMA proposing to shift the floodway and floodplain boundaries further westward resulting in the removal of the floodway from the project site and removing approximately 1.80 acres of the site from the 100-year floodplain.

Historical land uses of the project area and vicinity include use by Native Americans, ranching, and a bridge crossing location in the 1800s. Other historic land uses include a diversion of river flow into a horizontal paddlewheel facility in the early 1900s; a forest production, cement plant, and gravel operation in the 1940s through the 1960s; a gravel operation used in the construction of Interstate 5 during the 1960s and 1970s; a gasoline service station from 1972 to 1998; commercial uses some of which were removed in 2007 while the remainder vacated in 2017 and staging for the Cypress Bridge Replacement Project in 2007 to 2011. Remnants of some of these land uses are visible today.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** The City as Lead Agency for the proposed project has discretionary authority over the primary project proposal. To implement this project, the applicant may need to obtain, at a minimum, the following discretionary permits/approvals from other agencies:

- National Pollutant Discharge Elimination System (NPDES) Stormwater General Construction Permit

11. **Tribal Consultation:** Tribal consultation pursuant to AB 52 has been initiated. A response has not yet been received.

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.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

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

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

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

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

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

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Development Services Department, 777 Cypress Avenue, Redding, CA 96001. Contact Lily Toy, Senior Planner at (530) 225-4020.

Lily Toy, Senior Planner
Development Services Department

June 7, 2018
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the State *CEQA Guidelines* and used by the City of Redding in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.

- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- **Potentially Significant Impact Unless Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- **Potentially Significant Impact**. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

Prior environmental evaluations applicable to all or part of the project site:

- *City of Redding General Plan*, 2000
- *City of Redding General Plan Final Environmental Impact Report*, 2000, SCH #1998072103

List of attachments:

Attachment A – Project Exhibits

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

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) Scenic vistas are defined as expansive views of highly-valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as topography, water courses, outcrops, and natural vegetation, as well as man-made scenic structures. The project site is located on land that is highly visible from Cypress Avenue, the Sacramento River and across the Sacramento River from Park Marina Drive. The proposed project site encompasses approximately 10.55 acres of currently undeveloped vacant land. The topography of the proposed project site is flat with an elevation of approximately 480 feet above mean sea level (msl). The site is highly disturbed and previously supported multiple uses, including, but not limited to, a concrete plant, sand and gravel operation, greenhouse growing operation, and automotive-related businesses. Remnants of the past uses are still present (e.g., partially paved areas, concrete retaining walls, etc.). One vacant building is currently present on the site. The on-site plant communities/wildlife habitats, in order of abundance, consist of urban habitat, annual grassland, and riparian woodland; small stands or individuals of valley oaks and interior live oaks are present outside the riparian habitat, but do not form a distinct oak woodland community.

   The proposed project has the potential to alter the visual landscape from undeveloped land to office type uses; however, there are no existing significant topographical features of high scenic value within the proposed project site and the area is not regarded or designated as visually important or "scenic" in the City's *General Plan.* Additionally, development of the proposed project would not block or preclude views to any area containing important or what would be considered visually appealing landforms. Therefore, the proposed project would not have a significant impact on a scenic vista.

b) There are not any scenic resources located on-site. Areas immediately north and west of the proposed project along Cypress Avenue and Hartnell Avenue, respectively, have been developed with similar office and commercial uses.

   California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. According to Caltrans' California Scenic Highway Program and the National Scenic Byways Program, the proposed project is not in the vicinity of a federal or state scenic highway or any roadway that is considered eligible for designation as a scenic highway. Additionally, the proposed project site is not visible from a designated local scenic highway. Therefore, impacts associated with the discussed resources are less than significant.

c) The project area is bounded on the west by the Henderson Open Space area, with the Sacramento River further to the west; on the east by Hartnell Avenue; on the north by the Cypress Avenue Bridge; and on the south by the Cobblestone Shopping Center, south of Parkview Avenue. Office and commercial uses are located across Cypress Avenue and Hartnell Avenue, respectively.

The proposed project is located within an area designated in the *General Plan* as "General Office," "General Commercial," and "Greenway." The *General Plan* land use designations for surrounding properties include "General Office," "General Commercial," and "Greenway," with a small area south of the project site designated as "Residential, 2 to 3.5 dwelling units per acre."

The three buildings are proposed to be developed in a campus-like setting whereby the buildings are compatible with each other from a site planning and architectural design perspective. The location of the buildings interspersed on the site and visually "tied together" with landscaping, both adjacent to the buildings and within the parking areas, provide visual corridors primarily of the existing riparian areas within the Henderson Open Space area and beyond to the Sacramento River to the west and northwest.

The proposed buildings' architecture includes a mixture of materials including, but not limited to, metal, stone, cement plaster, and glazing. The buildings and associated facades will have varying heights, sun shades, awnings, canopies, raised parapets with cornices, and other decorative fixtures to provide articulation to the building elevations which, along with varying natural earth tone colors and patterns, provide variation in the appearance of the buildings.

Other project features include, but are not limited to, landscaping, hardscape features, emergency generator enclosures, solid waste bin enclosures, decorative fencing, monument signs, a pole sign, building signage, and parking lot, driveway and walkway lighting.

The proposed project would substantially change the character of the site from that of flat, undeveloped land to a campus-like setting. Therefore, visual changes to the proposed project site would be a potentially significant impact. Thus, the proposed project could result in the degradation of visual character or quality at the project site or in the surrounding area. This potentially significant impact will be evaluated in the EIR.

d) Light pollution occurs when nighttime views of the stars and sky are diminished by an over-abundance of light coming from the ground. Light pollution is a potential impact from the operation of any light source at night. Proper light shields, lighting design, and landscaping are commonly used to reduce light pollution generated from lighting by blocking the conveyance of light upwards. The result is that the lights are not visible from above; therefore, ambient light is not added to the nighttime sky. In addition, light reflecting off surfaces during daylight hours has the potential to create a source of glare in the vicinity of the proposed project.

Since the proposed project site is currently undeveloped, abundant sources of light are not produced onsite. Introduction of new lighting from the proposed project would include lights within and around the proposed buildings, lighting for surface parking lots, and security lighting on the various structures that would be developed as part of the project. The light generated by the proposed project would be typical of an office campus-type development. Additionally, the lighting plan for the proposed project would be designed in accordance with development standards as required by the Redding Municipal Code (RMC), Title 18 – Zoning Ordinance, which address the issue of light and glare. Lighting standards contained in the RMC are specifically enumerated for parking lots. These standards include the use of glare shields or baffles to reduce glare and control backlight. In addition to their applicability to parking lots, these standards would be applied to the remainder of the proposed project and also would include directional lighting. Lighting would be limited to what is necessary for safety and security purposes and would be directed away from adjacent properties and road rights-of-way. However, sensitive light receptors (e.g., riparian corridor, aquatic habitat, and residences on Henderson Road) in close proximity could be affected by nighttime light and glare generated by the proposed project. Therefore, the impacts from light and glare are potentially significant and will require further evaluation in the EIR.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Zoning Ordinance, Chapter 18.40.090
California Scenic Highway System, 2008
National Scenic Byways Program, 2008

II. AGRICULTURE 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 Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or 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?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				**X**
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The project site has not been historically used for agricultural purposes, nor does it possess soils that are prime for agricultural production. The site is not located within an area of Prime Farmland as identified by the California Department of Conservation's Important Farmland Series Mapping and Monitoring Program. The Soil Survey prepared by the Soil Conservation Service identifies the Riverwash, Cobbly alluvial land and Reiff fine sandy loam classifications on the property. Riverwash has little or no potential for farming. The areas of Cobbly alluvial land can be used as dryland pasture, but the potential for farming is limited. Reiff fine sandy loam, if irrigated, can be used to produce irrigated hay. These soil classifications and the past uses of the property do not represent prime suitability for agricultural use; therefore, development of the property would not result in a significant impact to agricultural resources.

b) The proposed project site is not under a current Williamson Act contract. Therefore, project implementation would not result in conflicts with existing agricultural zoning.

c) See discussions II.a and II.b, above.

Findings: In the course of the above evaluation, impacts associated with *Agricultural Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. As such, impacts to *Agricultural Resources* are not reasonably foreseeable and will not be addressed further in the EIR to be prepared for this project.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan Background Report, Chapter 9.4: Agricultural Lands
Farmland Mapping and Monitoring Program
United States Department of Agriculture, Soil Conservation Service and Forest Service, Soil Survey of Shasta County Area

III. AIR QUALITY: *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	**X**			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**X**			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	**X**			
d) Expose sensitive receptors to substantial pollutant concentrations?	**X**			
e) Create objectionable odors affecting a substantial number of people?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a-c) Shasta County, including the far northern Sacramento Valley, currently exceeds the state's ambient standards for ozone (smog) and particulates (fine, airborne particles). Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning. Even with application of measures to reduce emissions for individual projects, cumulative impacts are unavoidable when ozone and/or particulate emissions are involved. For example, the primary source of emissions contributing to ozone is from vehicles. Any project that generates vehicle trips has the potential of contributing incrementally to the problem. The Environmental Impact Report for the *General Plan* acknowledged this dilemma; as a result, Findings and a Statement of Overriding Considerations were adopted by the City Council for impacts to air quality resulting from growth supported under the *General Plan*.

The City's Air Quality Element of the *General Plan* establishes emission-reduction goals of 20 to 25 percent, depending on the projected level of unmitigated emissions for a project. Mitigation thresholds are established for the important regional/local pollutants, including: Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx), which are ozone precursors, and Inhalable Particulate Matter, 10 Micron (PM_{10}). The mitigation thresholds for these pollutants are tiered at two levels as follows:

Level "A"	**Level "B"**
25 pounds per day of NOx	137 pounds per day of NOx
25 pounds per day of ROG	137 pounds per day of ROG
80 pounds per day of PM_{10}	137 pounds per day of PM_{10}

If a project has unmitigated emissions less than the Level "A" threshold, then it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMMs) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise. Land uses that generate unmitigated emissions above Level "A" require application of appropriate Best Available Mitigation Measures (BAMMs), in addition to the SMMs, in order to achieve a net emissions reduction of 20 percent or more. If, after applying SMMs and BAMMs, a use still exceeds the Level "B" threshold, then a minimum of 25 percent of the unmitigated emissions exceeding 137 pounds per day must be offset by reducing emissions from existing sources of pollution; otherwise, an Environmental Impact Report is required.

Under policy of the Air Quality Element, a project has the potential to impact air quality primarily in two ways: (1) the project would generate vehicle trip emissions (with NOx, ROG, and PM_{10}) that contribute cumulatively to local and regional air quality conditions; and (2) fugitive dust (particulate/PM_{10}) emissions are possible during construction activities. The proposed project is expected to contribute a substantial amount of vehicle trip emissions; therefore, impacts are considered potentially significant. In order to calculate the unmitigated emissions for the key pollutants noted above, further analysis as part of the EIR is required.

d) The proposed project may generate PM_{10} emissions due to construction activities. Although these emissions would cease with the completion of construction work, residences adjacent to the proposed project to the south could be exposed to elevated dust levels. Ozone emissions generated by the proposed project could also have adverse impacts on adjacent residences. Therefore, impacts are considered potentially significant and will be further evaluated in the EIR.

e) Due to the characteristics of the proposed development, it is unlikely that the project would cause air emissions which would create objectionable odors affecting a substantial number of people. No impact has been identified.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
Shasta County APCD Air Quality Maintenance Plan and Implementing Measures
City of Redding General Plan, Air Quality Element
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103
CEQA Findings of Fact and Statement of Overriding Considerations for the *City of Redding General Plan Final Environmental Impact Report*, as adopted by the Redding City Council on October 3, 2000, by Resolution 2000-166
City of Redding General Plan Background Report, Chapter 9.7, Natural Resources and Air Quality

IV. BIOLOGICAL RESOURCES: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**X**			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**X**			
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?				**X**
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?			**X**	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**X**			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plan?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) A Biological Resources Assessment was prepared for the project by ENPLAN. The on-site plant communities/wildlife habitats consist of riparian woodland, annual grassland, and urban habitat; individuals or small stands of valley oaks, interior live oaks, blue oaks, and tree of heaven are present in places, however, they do not form a distinct oak woodland community. Field inspection confirmed that no special-status plant species are present, nor are any expected to be present or affected by the proposed work.

In summary, the study found that the site, which has been highly disturbed by past development, includes one sensitive habitat type: riparian woodland associated with the nearby Sacramento River. The habitats on the site may support several special-status animal species, including pallid bat, spotted bat, Townsend's big-eared bat, western red bat, and bald eagle. The Sacramento River, located just west of the site, is known to support Chinook salmon (fall-run, late-fall-run, winter-run, and spring-run) and Central Valley steelhead; the river reach is designated as critical habitat for Chinook salmon (winter-run and spring-run) and Central Valley steelhead. In addition, migratory birds could nest in vegetation and/or structures on the site in future nesting seasons. Impacts are considered potentially significant and will be further evaluated in the EIR.

b) A well-developed riparian woodland occurs in the floodplain of the Sacramento River to the west of the project site. The northwestern portion of the project site abuts the riparian woodland and approximately 0.4 acres of riparian (based on canopy cover) occurs within the western extension of the project site. Woody species present include Fremont cottonwood, valley oak, arroyo willow, sandbar willow, Himalayan blackberry, and wild grape. Nutsedge, curly dock, and other herbaceous species are present in the herbaceous layer. Wildlife species observed in association with the on-site riparian woodland included the turkey vulture, acorn woodpeck, killdeer, northern flicker, western scrub-jay, dark-eyed junco, and red-tailed hawk. Overall, the riparian woodland on the site has very high value to wildlife species. Therefore, impacts are considered potentially significant and will be further evaluated in the EIR.

c) Field inspection confirmed that no wetlands are present on-site; therefore, no impacts to Federally protected wetlands as defined by Section 404 of the Clean Water Act would occur.

d) Due to the scale of the proposed project, the movement of any native resident or migratory wildlife species or established native resident or migratory wildlife corridors is not anticipated to be significant.

e) The City has adopted a Tree Management Ordinance (Chapter 18.45 of the RMC) that promotes the conservation of mature, healthy trees in the design of new development. The ordinance also recognizes that the preservation of trees will sometimes conflict with necessary land-development requirements. The City's *General Plan EIR* further acknowledges that preservation of native trees will sometimes conflict with normal land development and that implementation of the *General Plan* will ultimately set aside over 7,000 acres of open space, much of which contains oak habitat. But efforts must still be made to retain existing trees if reasonably possible, and to sufficiently plant new trees in the context of the new development. A tree survey is required to identify natural trees and tree groups most suitable for preservation or "candidate trees/groups." Where all identified candidate trees/groups cannot be preserved, the set-aside of a natural area or areas within a project site that is particularly suitable for the planting, retention, and/or natural regeneration of trees is considered to be a desirable means of accomplishing the goals of the ordinance.

   Within the 0.4 acres of impacted riparian habitat, trees are proposed for removal. These trees consist of approximately 20 Fremont cottonwoods with a diameter at breast height (dbh) of six inches or greater. Four of the cottonwoods to be removed are in the 6 – 10 inch dbh range, eight are in the 12 - 18 inch dbh range, and five are in the 22 – 36 inch dbh range. In addition, three multi-trunked trees will be removed; one tree has three trunks measuring 22 inches, 18 inches, and 18 inches, a second has two trunks measuring 18 inches each, and a third has two trunks measuring 18 inches and 14 inches. Trees in the on-site riparian habitats to be retained consist of two valley oaks (10 inch dbh and 12 inch dbh) and three 12 inch dbh interior live oaks. Impacts are considered potentially significant and will be further evaluated in the EIR.

f) No habitat conservation plans or other similar plans have been adopted for the project site or project area. No impact would occur in this regard.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
California Department of Fish and Wildlife: Natural Diversity Data Base
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Municipal Code, Chapter 18.45, Tree Management Ordinance
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
Revised Biological Study Report-North State Pavilion, prepared by ENPLAN, December 2017

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

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) A cultural resources report dated April, 2017, was submitted by ENPLAN, who conducted a cultural resources survey on September 27, 2016. One new historic-era site was identified and recorded during the survey. However, the newly recorded site does not meet the eligibility criteria of the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) and requires no further consideration.

b) The project site was considered to have a potential for the presence of historic or prehistoric cultural resources due to the project site's location being adjacent to the Sacramento River and known sites nearby. Phase II of the archaeological study, dated May 22, 2017, was prepared by Natural Investigation Company who conducted the field work in February and March 2017. The Phase II testing determined that the project area does not contribute to any potential eligibility for listing in the NRHP or CRHR under any significance criteria. Considering the results of the Phase II study and the history of extensive disturbance within the project area and all its previous uses, the potential for discovery of intact archaeological deposits or features by implementation of this project is considered low. Based on the Phase II study, the boundaries of this archeological site south of Cypress Avenue have been redrawn. Although the potential for discovery of intact archaeological deposits or features by implementation of this project is considered low and the project area is considered ineligible for NRHP or CRHR inclusion, results from a previous recovery in 2007 justifies the recommendation for construction monitoring by a qualified archaeologist for ground-disturbing activity. Although no archaeological deposits or features were found during the Phase II study, monitoring will ensure that any additional archaeological deposits or features may be discovered are fully protected during implementation of the project. Based on the results of the excavations coupled with the evidence for extensive disturbance of the land, archaeological monitoring is recommended only within the portion of the site boundary in which ground-disturbing activities would exceed a depth of 40 cm (1.3 feet). Furthermore, the City's standard development conditions include a requirement that if any cultural materials are discovered by chance during construction, all work must stop in the area of the find, and the City must be notified. A qualified archaeological professional must then be retained by the City to review the discovered item(s) and to determine its significance and any appropriate measures. The EIR will identify specific mitigation measures to reduce impacts to less than significant levels.

c) No paleontological resources or unique geologic features have been identified on the proposed project site, and the potential for their occurrence is considered minimal. Impacts are considered less than significant.

d) There are no known burial sites on the proposed project site. If human remains are unearthed during future development of the site, the provisions of California Health and Safety Code Section 7050.5 shall apply. Under this Section, 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 Section 5097.98. Impacts are considered less than significant.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan Background Report, 1998
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103
Cultural Resources Report – North State Pavilion, prepared by ENPLAN, April 2017

VI. GEOLOGY AND SOILS: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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 Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?			**X**	
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
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?			**X**	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			**X**	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The project may 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:

There are no Alquist-Priolo earthquake faults designated in the Redding area of Shasta County. There are no other documented earthquake faults in the immediately vicinity that pose a significant risk. The most significant of these faults is the potentially active Battle Creek fault, located about 16 miles south of the site. The closest fault mapped to the site is the inactive Bear Creek fault, located about 13 miles to the southwest. The closest active fault, as zoned by the State, is the Hat Creek-McCarthur Fault System, located about 48 miles east of the site.

ii) Strong seismic ground shaking:

The impact of earthquakes on the project site depends on several factors including the particular fault, fault location, distance from the project site, and magnitude of the earthquake. Each of these factors can help determine the degree of shaking that could occur in the project area. The proposed project site is located in an area designated in the Health and Safety Element of the *General Plan* as having a low ground-shaking potential. Future structures proposed on the project site are required by State law and City ordinance to be constructed in accordance with the Uniform Building Code (UBC) and to adhere to all modern earthquake construction standards, including those relating to soil characteristics. Impacts are considered less than significant.

iii) Seismic-related ground failure, including liquefaction:

There is no evidence of ground slippage or subsidence occurring naturally on the proposed project site. The type of soils and underlying geology is identified as having a low potential for liquefaction.

iv) Landslides:

The proposed project site is located on a flat parcel surrounded by flat terrain. There are no documented landslide hazard areas identified within the immediate vicinity.

b) The project site contains two primary soil classifications: Cobbly alluvial land and Reiff fine sandy loam. Cobbly alluvial land consists of very gravelly, very cobbly, or very stony, coarse-textured alluvium. It is on flood plains of the Sacramento River and in some places it is along smaller streams. Reiff soils generally are near areas of Anderson, Churn, Perkins, and Tehama soils and of Cobbly alluvial land and Wet alluvial land. Cobbly alluvial land has rapid permeability while the Reiff fine sandy loam has moderately rapid permeability. These land types are excessively drained and runoff is very slow. The hazard of erosion is moderate with the Cobbly alluvial land type and is none to slight with the Reiff fine sandy loam. With the Cobbly alluvial land type, it is subject to frequent flooding, except that it is not subject to annual flooding. Shasta Dam protects much of this land type from flooding.

The proposed modification to the surface terrain is typical to site development and, based on the site soils, is not expected to alter the susceptibility of the land to unstable earth conditions or erosion. Standard grading-control measures are applicable to the proposed Project as City ordinances and other government agency regulations will be applied. This City of Redding Grading Ordinance requires the application of "Best Management Practices" (BMPs) in accordance with the City Erosion and Sediment Control Standards Design Manual (RMC Section 16.12.060, Subsections C, D, E). In practice, specific erosion-control measures are determined upon review of the final grading plan and are tailored to project-specific grading impacts. This will ensure that potential grading impacts are less than significant. Since the project is subject to uniformly applied ordinances and policies and the overall risk of erosion is not high, potential impacts related to soil erosion and sedimentation are less than significant.

c) See discussion VI.a, above.

d) There is a direct relationship between plasticity of a soil and the potential for expansive behavior, with expansive soil generally having a high plasticity. Thus, granular soils typically have a low potential to be expansive, whereas, clay-rich soils can have a low to high potential to be expansive. Testing performed on two selected samples on-site found plasticity index (PI) ranging from non-plastic to approximately 11. A PI value of 11 is associated with soils having a very low to low expansion potential. Impacts are considered less than significant

e) The proposed project does not involve the use of septic tanks or alternative wastewater disposal. No impact has been identified.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding Standard Specifications, Grading Ordinance, RMC Chapter 16.12
City of Redding General Plan Background Report, 1998
Geotechnical Report – Mercy Wellness Center Redding, California, prepared by CGI Technical Services, Inc., April 20, 2016
Soil Survey of Shasta County Area, United States Department of Agriculture, Soil Conservation Service and Forest Service, August 1974
Division of Mines and Geology Special Publication 42
State Regional Water Quality Control Board, Central Valley Region, Regulations related to Construction Activity Storm Water Permits and Storm Water Pollution Prevention Plans

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

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

   Direct GHG emissions include emissions from construction activities, area sources, and mobile (vehicle) sources. Typically, mobile sources make up the majority of direct emissions. Indirect GHG emissions are generated by incremental electricity consumption and waste generation. Electricity consumption is responsible for the majority of indirect emissions.

   The proposed project involves the construction and operation of a 129,600 square-foot medical office campus facility. The proposed project could generate both direct and indirect GHG emissions that may have a significant impact on the environment. Therefore, this issue will be further analyzed in the EIR.

b) The proposed project involves the construction and operation of a 129,600 square-foot medical office campus facility. As a result, the proposed project could generate both direct and indirect GHG emissions that may have a significant impact on the environment. This could result in potential conflicts with an applicable plan, policy, and/or regulation adopted for the purpose of reducing GHG emissions. Therefore, this issue will be further analyzed in the EIR.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, 2000

VIII. **HAZARDS AND HAZARDOUS MATERIALS:** *Would the project:*	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands?			X	

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) Small quantities of potentially hazardous substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. In addition, some potentially hazardous construction waste may be generated during the construction phase. Construction wastes from the site would be disposed of in accordance with the Standard Specifications in the California Code of Regulations. Compliance with federal and state laws would reduce the potential for hazards related to construction waste to a less than significant level.

Operation of the proposed project would not include the use or transportation of significant amounts of potentially hazardous materials, including fuels or other hazardous liquids. The proposed project would therefore not result in a significant hazard to workers, the public, or the environment through the routine transport, use, or disposal of hazardous materials. Compliance with applicable regulations and hazardous materials plans sufficiently minimizes potential exposure and risk.

b) Construction of the proposed project could expose construction workers, the public, or the environment to hazardous materials through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Small quantities of potentially hazardous substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the proposed project site. Accidental releases of these substances could potentially contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. Compliance with standard safety procedures and hazardous materials handling regulations will reduce any impacts to a less than significant level.

c) The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) The proposed project is not located on a site which is included on a list of hazardous materials sites and would not create a significant hazard to the public or the environment.

e) The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport.

f) The proposed project is not located within the vicinity of a private airstrip.

g) There are no indications at this time that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h) The project site does not have a wildland fire-hazard potential. The site has been disturbed in the past and is surrounded primarily by developed residential and commercial lots.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Health and Safety Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding General Plan Background Report, Chapter 10, Health and Safety Element, 1998

IX. HYDROLOGY AND WATER QUALITY: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements?	**X**			
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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)?	**X**			
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?	**X**			
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 a manner which would result in flooding on- or offsite?	**X**			
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	**X**			
f) Otherwise substantially degrade water quality?	**X**			
g) Place housing within 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	**X**			
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	**X**			
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?			**X**	
j) Inundation by seiche, tsunami, or mudflow?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The proposed project would be served by City sanitary sewer service; therefore, the proposed project would not involve any permitted discharges of waste material into ground or surface waters. In regards to water quality standards, the applicant shall prepare a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and post construction storm water development plans, in order to comply with the California Regional Water Quality Control Board requirements.

Construction of the proposed project would require grading, and result in soil compaction, removal of vegetation, and the creation of impervious surfaces, all of which could contribute to changes in drainage patterns and a significant increase in the amount of surface water runoff, erosion of soils and discharge of sediments into existing drainages and to riparian and wetland habitat located on and off the proposed project site. These impacts are potentially significant and will be further evaluated in the EIR.

b) Water service for the proposed project is to be provided by the City of Redding. A Water Demand Evaluation will be prepared and include the characterization of supply and demand conditions within the City's service area for current conditions and for conditions anticipated in 20 years, under normal, single-dry, and multi-dry hydrologic conditions as readily represented in existing City documents, using requirements in Water Code §10910 et seq. for guidance. The Water Demand Evaluation will confirm actual long

term water surplus or shortages that may impact availability in the City's service area. Impacts are considered potentially significant in this regard and further analysis is warranted in the EIR.

c, f) Grading will require excavations for footings and foundations varying from 2 to 4 feet to accommodate Building "C" located northeast of Building "A" and parallel to Henderson Road (North). Excavations between 5 and 10 feet will be required for Building "A." For Building "B," fills of up to 5 feet will be necessary. In the southern area of the site adjacent to the Henderson Open Space area, fills of 1 to 4 feet will be required and in the northern area, grading will occur with some cuts and fills of up to 2 feet in and around the area of Building "C." To the maximum extent feasible, the earthwork will be balanced between cut and fill. Maximum excavations are estimated at 10 feet and maximum fills of 12 feet. It is estimated that the maximum amount of earthwork will be 30,000 cubic yards (CYs) of which 15,000 CYs will be cut and 15,000 CYs will be fill. Existing retaining walls from previous site improvements will serve to identify transition areas between cuts and fills. Additional analysis will be provided in the EIR.

d,e) City of Redding Policy 1806 requires that all development include stormwater detention facilities designed to maintain existing predevelopment rates of runoff during a 10-, 25-, and 100-year storm event with a 6-hour duration. However, Policy 1806 does not apply to projects that are in close proximity to a natural waterway where there will not be development between the project and the waterway. The project is adjacent to the Henderson Open Space area and there will not be development within the open space area that will be negatively impacted. The project site will partially drain to an existing City storm-drain system located at the northwest corner and the remainder will drain directly to the Sacramento River. Furthermore, the project is proposing bioretention areas within landscaping areas throughout the project site to remove silt and pollution from surface runoff from the building areas and parking and driveway surfaces. Additional analysis will be provided in the EIR.

g) Flood zones are geographic areas that the Federal Emergency Management Agency (FEMA) has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

The FEMA 100-year floodplain of the Sacramento River inundates approximately 1.2 acres of the project site and the floodway of the Sacramento River inundates approximately 2.40 acres of the project site. A proposed Letter of Map Revision (LOMR) has been submitted to FEMA proposed the floodway and floodplain further westward resulting in the removed of the floodway from the project sire and approximately 1.80 acres of the site within FEMA's 100 year floodplain. Additional analysis will be provided in the EIR.

h) The proposed LOMR will result in having a portion of the parking lot inundated by the FEMA 100-year floodplain. A flood study has been performed by Pacific Hydrologic Incorporated, dated February 2, 2016. The assessment concludes the parking lot as presently anticipated will not increase the water surface elevation or the extent of inundation during the most probable 100-year flood. The project is proposed under an anticipated LOMR; otherwise, portions of Buildings "A" and "B" would either be in the floodway or the 100-year floodplain. Additional analysis will be provided in the EIR.

i) Two major dams are located in the general vicinity of the proposed project: Shasta Dam and Whiskeytown Dam. The anticipated inundation resulting from the unlikely failure of these dams has been documented in the *General Plan*. According to this documentation, the proposed project would not be affected by the unlikely failure of either of these dams. Additionally, there are no levees near the proposed project.

j) The threat of a tsunami wave is not applicable to inland, central valley communities such as Redding. Seiches could potentially be generated in either Shasta or Whiskeytown Lakes during an earthquake. However, neither lake has been identified in the Health and Safety Element of the *General Plan* as having any risk to the City under such circumstances. In addition, there is no documented threat of mudflows affecting the proposed Project site. No impact has been identified.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
Federal Emergency Management Agency
City of Redding Storm Drain Master Plan, 1993

X. LAND USE AND PLANNING: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Physically divide an established community?				**X**
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?	**X**			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The project does not have the potential to physically divide an established community. Although fencing is proposed along the north and west perimeters of the project site, openings are being provided to allow tenants, patients and the general public to access the Henderson Open Space area from the project site. No impact has been identified.

b) The City's *General Plan* serves as the overall guiding policy document for land use, development, and environmental quality in the City of Redding. The *General Plan* includes policies, standards, implementation programs, quantified objectives, the General Plan Diagram, and circulation diagrams. The *General Plan* planning area is divided into five primary sectors, each of which is shaped by its unique characteristics, history, and issues.

The proposed project area is approximately 10.55 acres in size. The project area is currently zoned "GO" General Office and "GC" General Commercial, and has General Plan designations of "General Office," "General Commercial," and "Greenway." Although medical offices are allowed within the existing zoning districts, the applicant is proposing a rezoning to "PF" Public Facilities and a general plan amendment to "Public Facilities." Implementation of the proposed project would be subject to approval of a use permit, parcel map, general plan amendment and rezoning. The appropriateness of the proposed project with regard to its consistency with the policies of the *General Plan* adopted for the purpose of avoiding or mitigating an environmental effect will be evaluated in the EIR.

c) The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plans for the proposed project site or area.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Community Development Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding General Plan, Natural Resources Element, 2000

XI. MINERAL RESOURCES: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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?				**X**
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the State Division of Mines and Geology as being a resource of regional significance and is intended to help maintain any quarrying operations and protect them from encroachment of incompatible uses. The project would not 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. There are no known mineral resources of regional value located on or near the proposed project site.

b) The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated in the City's *General Plan* or other land use plan. The proposed project is not located within or adjacent to a specific plan adopted by the City. The proposed project is not identified in the *General Plan* as having any known mineral resource value, or as being located within any "Critical Mineral Resource Overlay" area. No impact has been identified.

Findings: In the course of the above evaluation, impacts associated with *Mineral Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. As such, impacts to *Mineral Resources* are not reasonably foreseeable and will not be addressed further in the EIR to be prepared for this project.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000

XII. NOISE: *Would the project result in:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**X**			
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels			**X**	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	**X**			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	**X**			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				**X**
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?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The project site is located on the east side of the Sacramento River on the south side of the Cypress Avenue Bridge. The City of Redding *General Plan* Noise Element establishes 45 dBA L_{dn} as the standard acceptable interior noise level for office land uses. There is not an established criterion for outdoor activity areas for office uses.

The proposed project would introduce new noise into the area. In addition, the proposed project would increase the amount of traffic on roadways in the vicinity, which would also increase noise along these roads. Increased traffic levels would generate increased noise levels. These impacts are potentially significant and will be further evaluated in the EIR.

b) Ground borne vibrations are usually associated with heavy vehicle traffic (including railroad traffic), and with heavy equipment operations. Vehicle traffic generated by the proposed project would be mostly passenger vehicles, with some light and medium trucks. This is not expected to generate significant vibrations. The proposed project would not result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels. Less than significant impacts are anticipated.

c) The proposed project consists of a medical office campus-like development on land that is currently vacant; therefore, it would likely lead to a permanent increase in ambient noise levels. This impact is considered potentially significant and will be further evaluated in the EIR.

d) During the construction of the proposed project, there will be a temporary increase in noise in the project vicinity above existing ambient noise levels. The most noticeable construction noise will be related to grading, utility excavation, and land-clearing activity. The City's Grading Ordinance (RMC Chapter 16.12.120.H) limits grading-permit-authorized activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. No operations are allowed on Sunday. Although heavy construction work is limited by existing regulation additional analysis is warranted in the EIR.

e) The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport.

f) The proposed project is not located within the vicinity of a private airstrip.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Noise Element, 2000
Redding Municipal Code, Chapter 16.12.120
City of Redding General Plan, Transportation Element, 2000

XIII. POPULATION AND HOUSING: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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)?	**X**			
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) Typical established local thresholds of significance for housing and population growth pursuant to the State *CEQA Guidelines* §15064.7, include effects that would induce substantial growth or concentration of a population beyond City projections, alter the location, distribution, density, or growth rate of the population beyond that projected in the *General Plan* Housing Element, result in a substantial increase in demand for additional housing, or create a development that significantly reduces the ability of the City to meet housing objectives set forth in the *General Plan* Housing Element.

Implementation of the proposed project would result in the construction of a new 129,000 square-foot medical office campus with up to 180 employees. Proposed project implementation could induce direct and indirect population growth in the area. Additional analysis is required in the EIR to determine the growth inducing potential of the proposed project.

b) The proposed project would not displace any existing housing. No impact has been identified.

c) The project site is currently undeveloped. The project would not result in the displacement of people. No impact would occur in this regard.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Housing Element, 2014

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

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

Fire and Police Protection:

The City would provide fire and police protection services to the proposed project; therefore, development of the project would increase demand for these protection services. Potential project impacts on fire and police protection are potentially significant and will be further evaluated in the EIR.

Schools:

The proposed project is located in the Enterprise Elementary School District and Shasta Union High School District and may contribute to the total student enrollment in these districts. Although implementation of the proposed project would not result in the direct addition of new housing units, there is a relationship between developments of this nature and the potential increase in the number of school-age children as the result of increased employees who work and may also reside within the school districts. Therefore, the proposed project will be required to pay development impact fees on a per square foot. These fees are collected at the building permit stage. The payment of school fee as mitigation is consistent with Section 65995(3)(h) of the California Government Code and is considered adequate mitigation for indirect impacts on school facilities and potential impacts are considered less than significant.

Parks:

Although the proposed project would increase the intensity of the land use, impacts to parks and recreational facilities in the project area would not be considered substantial, as no residential uses are proposed. The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, a less than significant impact is anticipated.

Other public facilities:

The proposed project could potentially affect other public or government facilities, such as libraries. Because the proposed project involves a substantial change in the land use, an increased demand on public facilities could potentially occur. Potential impacts to public facilities and the potential to build new offices and buildings to serve the public will be evaluated in the EIR.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Public Facilities Element, 2000

XV. RECREATION:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The proposed project would not 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.

The proposed project is estimated to accommodate up to 180 employees. Assuming that all of the jobs were new, implementation of the proposed project could lead to demand for additional parkland to serve the added population. However, construction of new parks and recreational facilities is not a direct physical impact of this project, and any further analysis of this subject would be speculative at this time. Secondary impacts of a growing population are managed through existing *General Plan* policy mechanisms requiring that land be dedicated or fees be paid as a condition of the creation of additional residential lots. Therefore, implementation of the proposed project would have a less than significant impact on parks and recreational facilities.

b) The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. School facilities are typically used for sports and recreation. The City of Redding also has a number of recreational facilities throughout the City. In addition, there are tens of thousands of acres of rivers, lakes, forests, and other public land available for recreation in Lassen National Park, the Shasta and Whiskeytown National Recreation Areas, the National Forests, and other public land administered by the Bureau of Land Management. Therefore, less than significant impacts are anticipated in this regard.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR prepared for this proposed project.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan, Recreation Element, 2000
City of Redding General Plan, Public Facilities Element, 2000

XVI. TRANSPORTATION/TRAFFIC: *Would the project:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	**X**			
b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highway?	**X**			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				**X**
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**X**			
e) Result in inadequate emergency access?				**X**
f) Result in inadequate parking capacity?				**X**
g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	**X**			

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a,b) Project approval would allow for the development a new 129,600 square-foot medical office campus on the 10.55-acre undeveloped site. The proposed project is estimated to generate approximately 4,697 daily trips, 311 weekday AM peak hour trips, and 330 weekday PM peak hour trips. This is considered a potentially significant impact. To address potential increases in traffic volumes (including cumulative traffic impacts), pedestrian safety, level of service standards and traffic load/capacity concerns, the Traffic Impact Analysis that was prepared for the proposed project will be examined and incorporated into the EIR.

c) The proposed project site is located outside the established Approach Zones for both the Redding Municipal Airport and Benton Airpark; therefore, there is no potential to interfere with airport operations. No impacts are anticipated in this regard.

d) The proposed project is expected to increase traffic volumes on local roadways. It is possible that some of the existing local roadways and intersections may not be designed to accommodate the volume of traffic that would occur as a result of the proposed project. This could lead to increased safety hazards. This impact is potentially significant and will be further evaluated in the EIR.

e) The *General Plan* Health and Safety Policy HS4J generally requires that commercial type developments with 150 or more employees have at least two public connection points as may be determined necessary by the Fire Marshal. In accordance with this policy HS4J, the site design includes several public access points as follows: one full access southern driveway at Henderson Road/Parkview Avenue; two full access driveway to Henderson Road (North). No impacts are anticipated in this regard.

f) Parking for the proposed project would be provided by onsite surface parking totaling 549 parking spaces. No impact is anticipated.

g) Existing transit service is provided primarily by the Redding Area Bus Authority (RABA). RABA provides fixed route service, express route service and demand response service to the general public within the urbanized area of Shasta County. RABA operates 14 fixed routes within the Cities of Redding, Shasta Lake and Anderson. Route 5 is a north-south direction service on Hartnell Avenue and an east-west route along Cypress Avenue with service provided from the Downtown Transit Center to Hartnell Avenue at Parkview Avenue. Two bus stops are located adjacent to the project site along Route 5: one northbound at Hartnell

Avenue/Parkview Avenue and one southbound at Hartnell Avenue/Parkview Avenue. The proposed project is expected to generate moderate demand for transit service. Therefore, further analysis and discussion is warranted in the EIR.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR to be prepared for this proposed project.

Documentation:
City of Redding General Plan, Transportation Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding Parks, Trails, and Open Space Master Plan, 2002
City of Redding Traffic Impact Fee Program
City of Redding Bikeway Action Plan 2010–2015
Redding Area Bus Authority System Map and Route Guide, October 2000
Traffic Impact Analysis Report – Dignity Mercy Medical Center North State Pavilion, prepared by Omni-Means, Ltd., April 2017

XVII. TRIBAL CULTURAL RESOURCES: *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	**X**			
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**X**			

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a, b) Regarding Native American Outreach, ENPLAN sent out a request for comments to the Wintu Tribe on September 6, 2016 and the City of Redding sent out a notification of consultation to the Redding Rancheria on January 12, 2017. No response was received at that time. The City has re-initiated AB-52 and will document its findings as part of the EIR's Tribal Cultural Resources section.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR to be prepared for this proposed project.

Documentation:
Cultural Resources Report – North State Pavilion, dated April, 2017 by ENPLAN.

XVIII. **UTILITIES AND SERVICE SYSTEMS:** *Would the project:*	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	X			
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?	X			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d) Have sufficient water supplies available to serve the project which serves or may serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X			
g) Comply with Federal, State, and local statutes and regulations related to solid waste?			X	

Discussion: Based on a field review by the Planning Division and other agency staff, information provided by the applicant, existing information available to the Planning Division, and observations made on the project site and in the vicinity, the following findings can be made:

a) The proposed project would require wastewater sewer lines. The EIR will evaluate existing capacities, project generation, infrastructure connections, and will recommend applicable mitigation measures.

b) Implementation of the proposed project would require new infrastructure to support sewer and water service. The proposed project would generate increased demands for treated water and would generate new wastewater flows from the site. Existing water and wastewater treatment facilities are expected to have sufficient capacity to serve the proposed project. However, additional analysis is required to confirm that adequate treatment capacity exists to serve the increased demands of the proposed project. This impact is considered potentially significant and will be further analyzed in the EIR.

c) The proposed project would result in the creation of new impermeable surfaces on an existing undeveloped area. Therefore, to accommodate the increased runoff, the proposed project would require new stormwater drainage facilities. These facilities would be included as part of the proposed project. Impacts to existing facilities are considered potentially significant and will be evaluated in the EIR.

d) The proposed project site is located within the City's water service area. Development of the proposed project will require extension of water lines for domestic water use and fire protection purposes. New demands will be analyzed further in the EIR.

e) See discussion XVII.b, above.

f) The City would provide solid waste collection disposal service to the proposed project site. All solid waste generated in the City is disposed of in County operated landfills. Because the site is currently undeveloped, no solid waste is generated. As a result of proposed project implementation, the proposed development would result in an increase in the waste stream to area landfills. At present, information has not been received indicating whether or not the proposed project would be served by a landfill with

sufficient permitted capacity to accommodate the anticipated solid waste disposal needs. Therefore, further analysis and discussion is warranted in the EIR.

g) The City regulates and operates programs that promote the proper disposal of toxic and hazardous materials from households, including those created by the project. The proposed project would comply with Federal, State, and local statutes and regulations related to solid waste. Less than significant impacts are anticipated in this regard.

Findings: Additional project and environmental data, further discussion and analysis of environmental impacts, recommendations for mitigations for potential impacts, and a mitigation monitoring plan, will be included in the EIR to be prepared for this project.

Documentation:
City of Redding General Plan, Public Facilities Elements, 2000
City of Redding Water and Sewer Atlas

XVIV. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 the 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?	**X**			
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 the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	**X**			
c) Does the project have potential environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly?	**X**			

Discussion: Based on the analysis undertaken as part of this Initial Study the, following findings can be made:

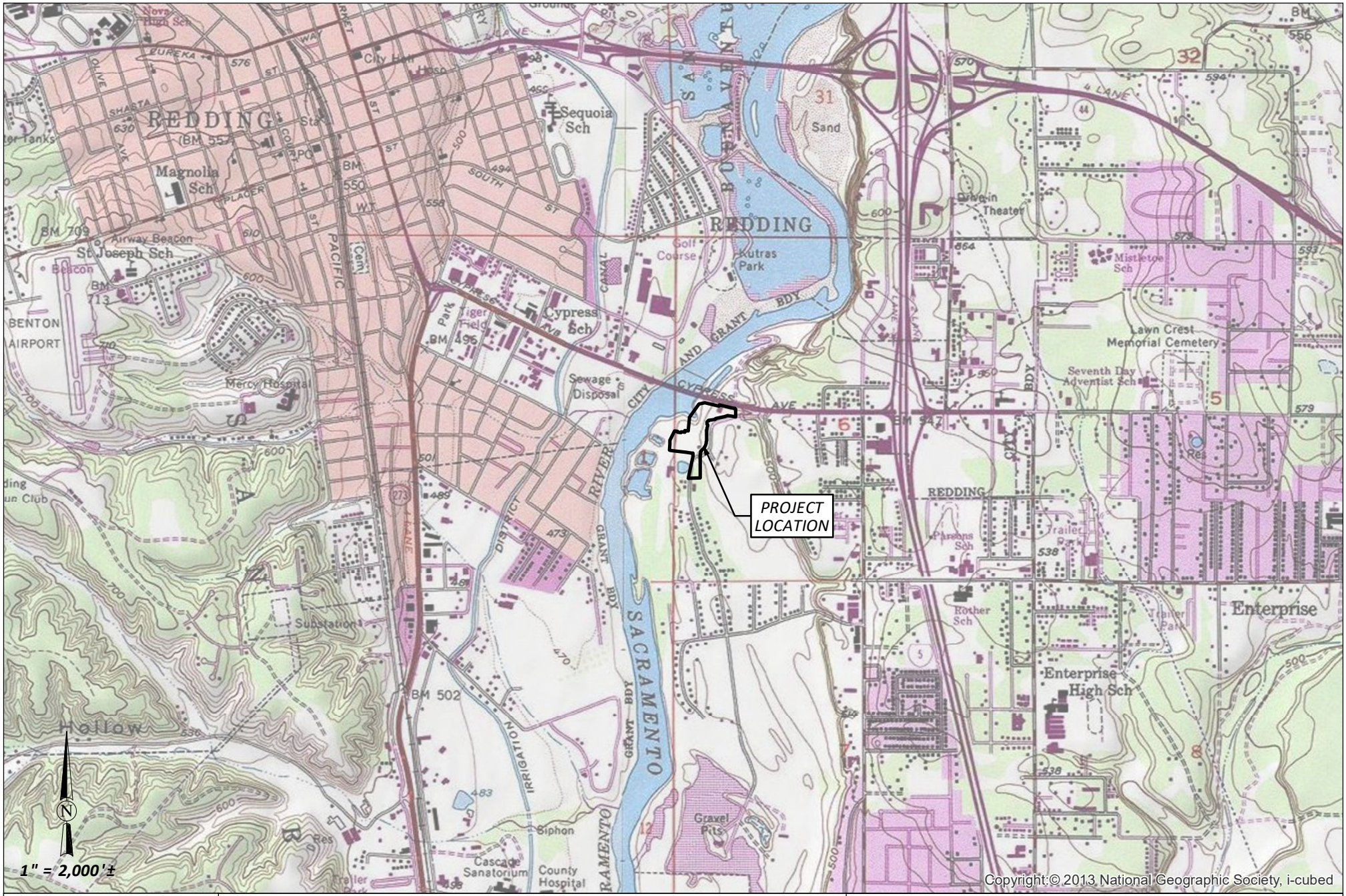
a) Based on the discussion and findings in Section IV. *Biological Resources*, there is evidence to support a finding that the proposed project would have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the 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.

Based on the discussion and findings in Section V. *Cultural Resources*, there is evidence to support a finding that the proposed project is not eligible for listing in the NRHP or CRHR under any significance criteria. Considering the results of the Phase II study and the history of extensive disturbance within the project area and all its previous uses, the potential for discovery of intact archaeological deposits or features by implementation of this project is considered low. Although no archaeological deposits or features were found during the Phase II study, monitoring will ensure that any additional archaeological deposits or features may be discovered are fully protected during implementation of the project.

b) Based on the discussion and findings in all Sections above, there is evidence to suggest that the proposed project would have impacts that are cumulatively considerable. A review of cumulative impacts for each issue area that has been identified as potentially significant will be required pursuant State *CEQA Guidelines* §15130. A determination of significance will be made for each issue.

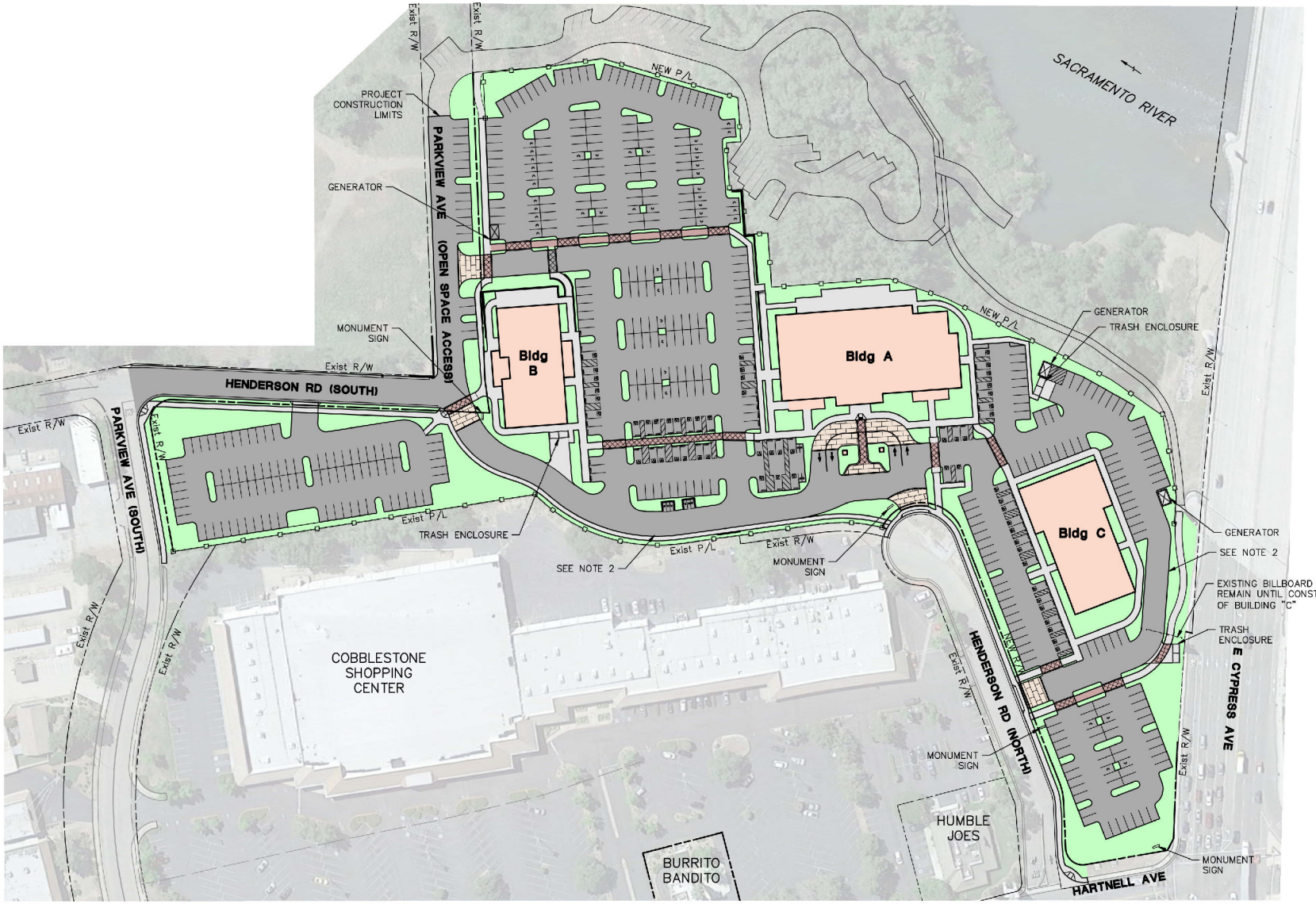
c) Based on the discussion and findings in all Sections above, there is evidence to support a finding that the proposed project has potential environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly. The EIR will include a comprehensive review of existing conditions, potential project impacts, and will recommend mitigation measures to reduce the level of significant related to short-term construction and long-term operations, as necessary.

Attachment A – Project Exhibits



SHN Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	USGS Figure 2

SHN Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Aerial Photograph Figure 3



LEGEND

- CITY PROJECTS (HENDERSON OPEN SPACE)
- DECORATIVE FENCE

NOTE:

1. DOBROWSKI HOUSE PARCEL PER 08-16-16 PURCHASE AND SALE AGREEMENT BETWEEN THE CITY OF REDDING AND DIGNITY HEALTH.
2. NO PARKING SIGNS SHALL BE INSTALLED ALONG MAIN ACCESS ROADWAYS, AS REQUIRED BY THE CITY OF REDDING.

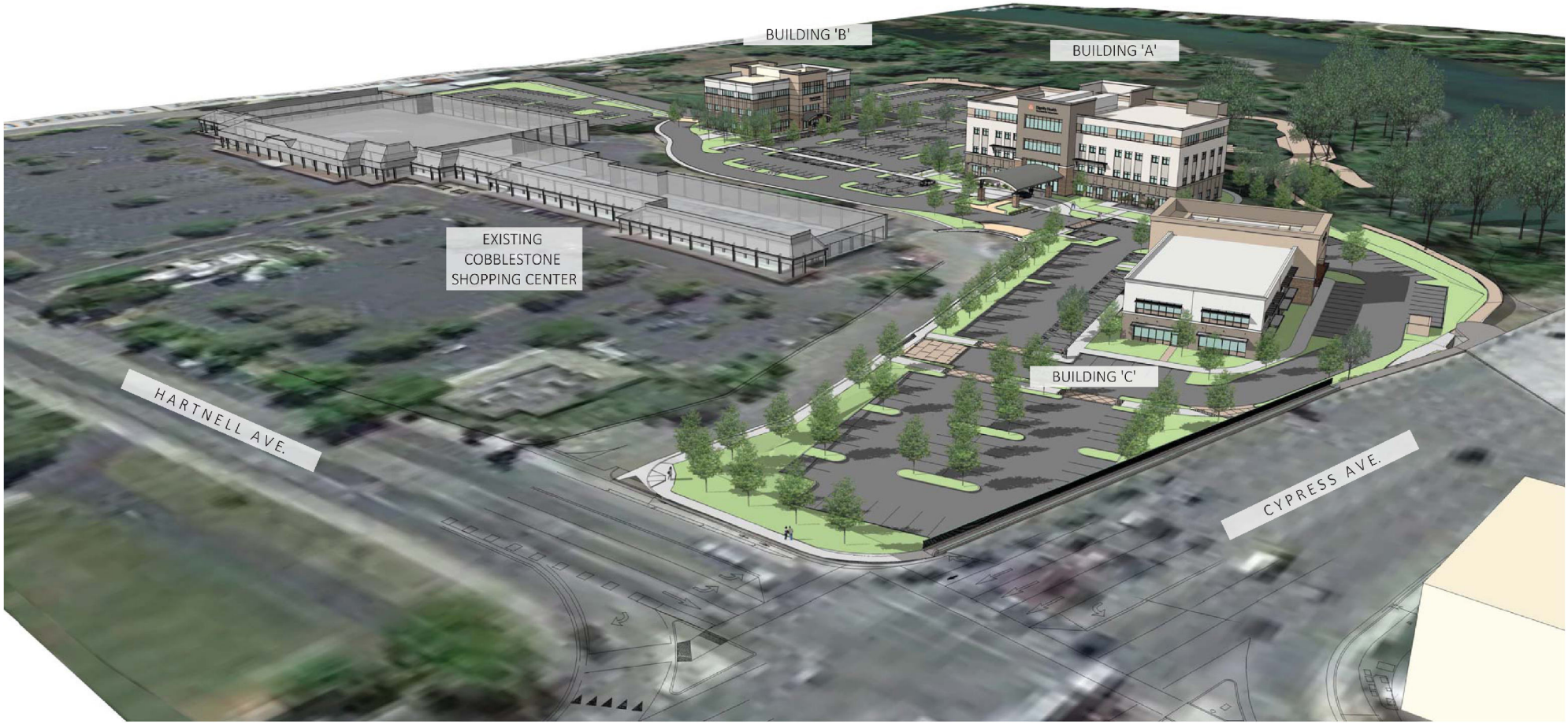
60' 0 60'
(IN FEET)
1 inch = 60 ft.

Consulting Engineers & Geologists, Inc.

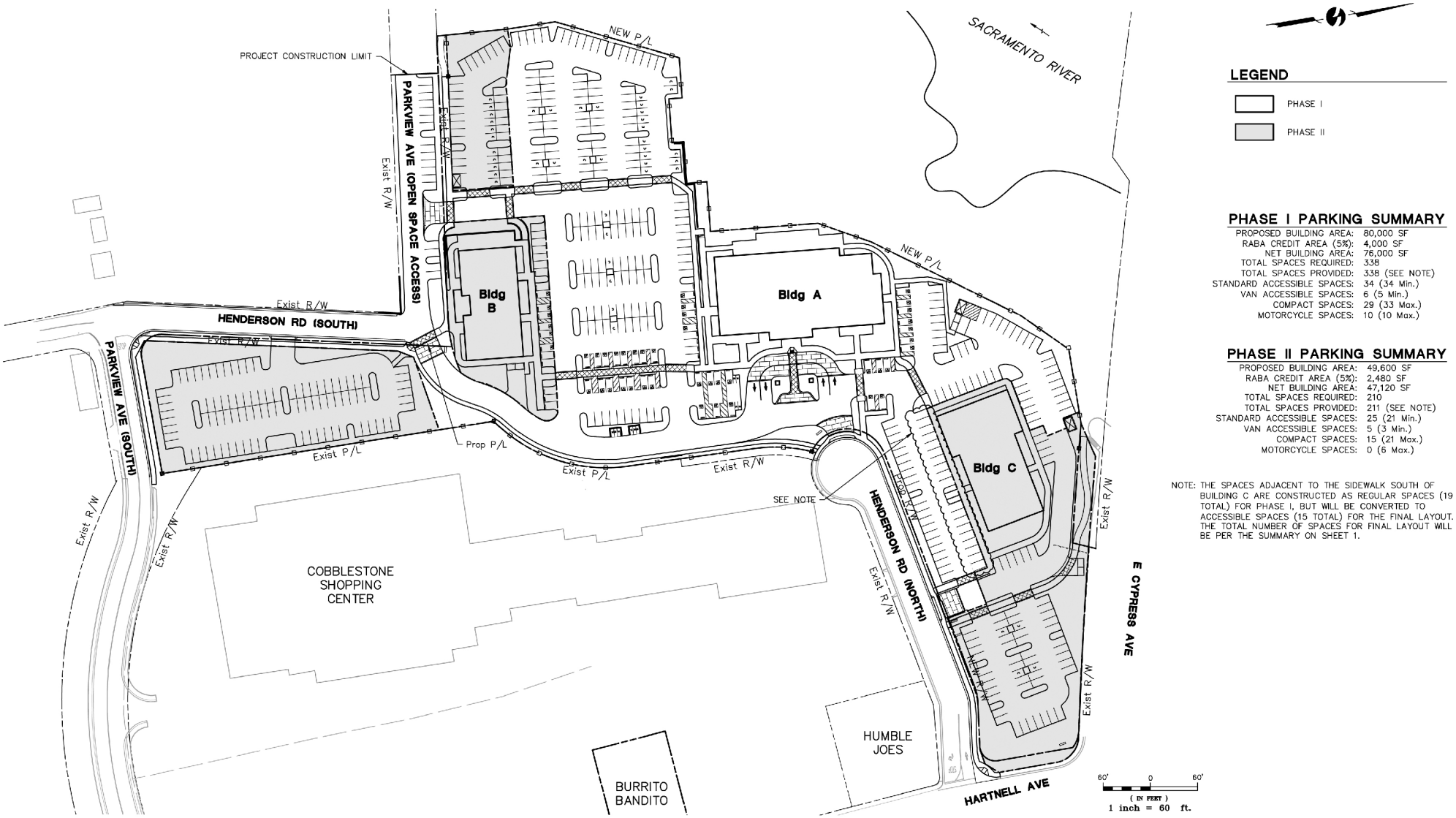
Dignity Health North State Pavilion Project

Overall Site Plan

Figure 4



SHN Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Oblique Photo Overview Figure 5



LEGEND

- PHASE I
- PHASE II

PHASE I PARKING SUMMARY

PROPOSED BUILDING AREA:	80,000 SF
RABA CREDIT AREA (5%):	4,000 SF
NET BUILDING AREA:	76,000 SF
TOTAL SPACES REQUIRED:	338
TOTAL SPACES PROVIDED:	338 (SEE NOTE)
STANDARD ACCESSIBLE SPACES:	34 (34 Min.)
VAN ACCESSIBLE SPACES:	6 (5 Min.)
COMPACT SPACES:	29 (33 Max.)
MOTORCYCLE SPACES:	10 (10 Max.)

PHASE II PARKING SUMMARY

PROPOSED BUILDING AREA:	49,600 SF
RABA CREDIT AREA (5%):	2,480 SF
NET BUILDING AREA:	47,120 SF
TOTAL SPACES REQUIRED:	210
TOTAL SPACES PROVIDED:	211 (SEE NOTE)
STANDARD ACCESSIBLE SPACES:	25 (21 Min.)
VAN ACCESSIBLE SPACES:	5 (3 Min.)
COMPACT SPACES:	15 (21 Max.)
MOTORCYCLE SPACES:	0 (6 Max.)

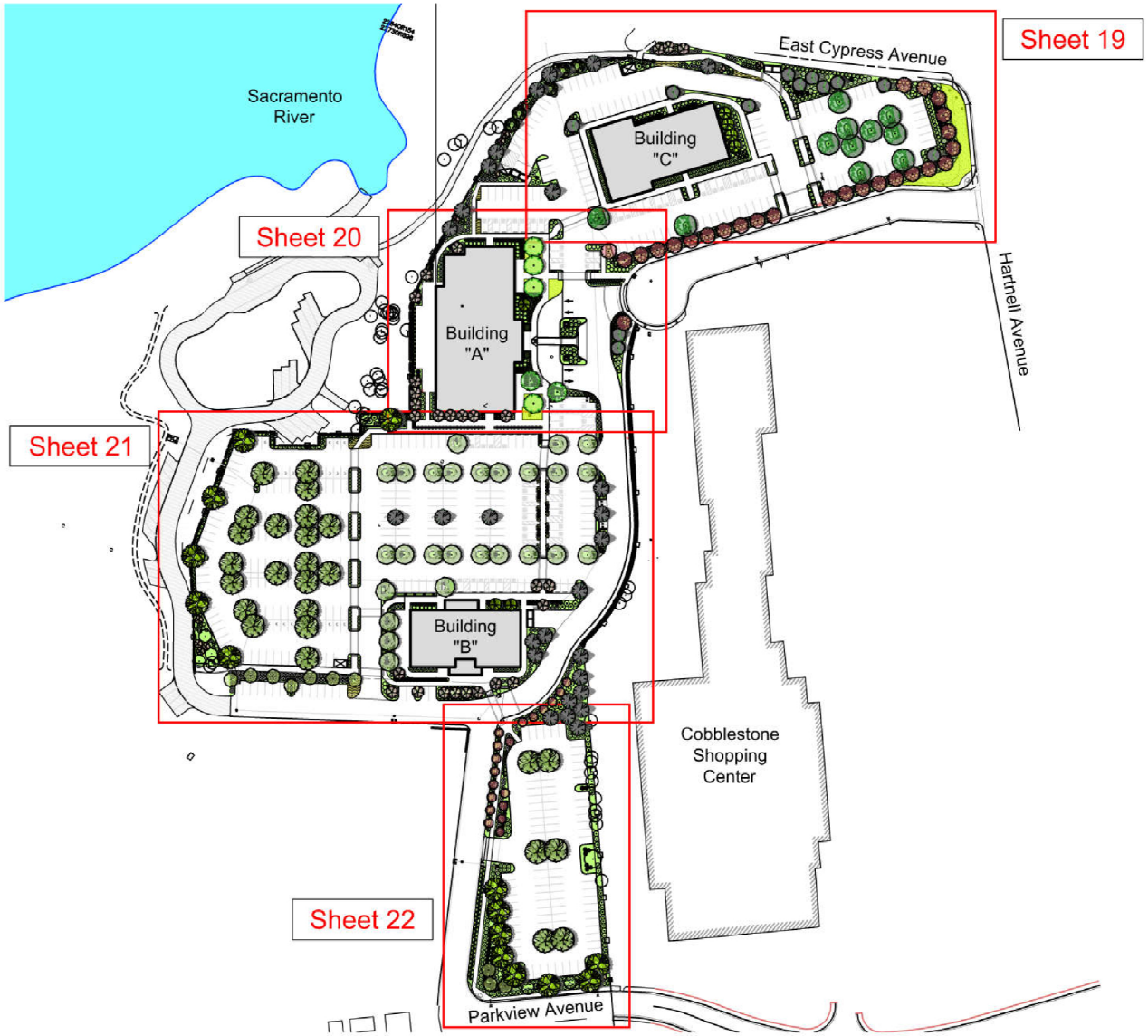
NOTE: THE SPACES ADJACENT TO THE SIDEWALK SOUTH OF BUILDING C ARE CONSTRUCTED AS REGULAR SPACES (19 TOTAL) FOR PHASE I, BUT WILL BE CONVERTED TO ACCESSIBLE SPACES (15 TOTAL) FOR THE FINAL LAYOUT. THE TOTAL NUMBER OF SPACES FOR FINAL LAYOUT WILL BE PER THE SUMMARY ON SHEET 1.

Consulting Engineers & Geologists, Inc.

Dignity Health North State Pavilion Project

Project Phasing Plan

Figure 6



TOTAL LANDSCAPE AREA: 92,100 square feet

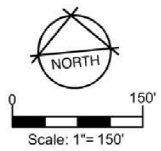
LANDSCAPE NOTES

- Landscaping is designed to transition from the commercial style along Hartnell Avenue to the natural feel along the Sacramento River.
- Plant material has been selected based on water use, esthetic factors, security, longevity, and low maintenance needs.
- The landscape and irrigation design will conform to the requirements of the California Model Water Efficient Landscape Ordinance and the City of Redding.
- Proposed irrigation includes in-line drip emitters (surface or subsurface installation) and high-efficient pop-up sprinklers.
- Irrigation controls will be weather based. The option of central control will be offered.

LANDSCAPE SUMMARY TABLE

Parking Spaces: 549
Required Parking Trees: 549 ÷ 4 = 138
Parking Trees Shown: 142

Required Parking Landscaping: 549 x 60 = 32,940 SF
Parking Landscaping Shown: 42,380 SF



Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Planting Plan Figure 8

Consulting Engineers & Geologists, Inc.

Dignity Health North State Pavilion Project

Planting Plan

Figure 9

Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Planting Plan Figure 10

Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Planting Plan Figure 11

NORTH ELEVATION
SCALE: 1/16"=1'-0"

WEST ELEVATION
SCALE: 1/16"=1'-0"

SOUTH ELEVATION
SCALE: 1/16"=1'-0"

EAST ELEVATION
SCALE: 1/16"=1'-0"

BUILDING 'A' ELEVATIONS

Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Building 'A' Elevation Figure 12

EAST ELEVATION

SCALE: 1/16"=1'-0"

NORTH ELEVATION

SCALE: 1/16"=1'-0"

WEST ELEVATION

SCALE: 1/16"=1'-0"

SOUTH ELEVATION

SCALE: 1/16"=1'-0"

BUILDING 'B'

Consulting Engineers & Geologists, Inc.

Dignity Health North State Pavilion Project

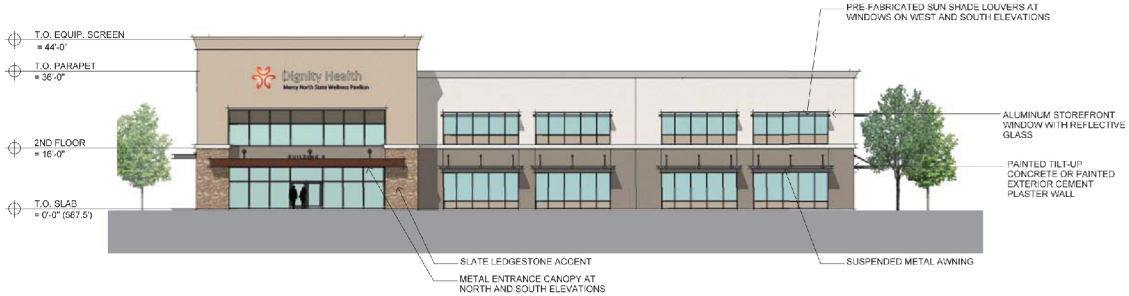
Building 'B' Elevation

Figure 13

EAST ELEVATION
SCALE: 1/16"=1'-0"

NORTH ELEVATION
SCALE: 1/16"=1'-0"

WEST ELEVATION
SCALE: 1/16"=1'-0"



SOUTH ELEVATION
SCALE: 1/16"=1'-0"

BUILDING 'C' ELEVATIONS

SHN Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Building 'C' Elevation Figure 14

VIEW A
FROM ACROSS RIVER, BELOW BRIDGE

SHN Consulting Engineers & Geologists, Inc.	Dignity Health North State Pavilion Project	Rendering Figure 15

A-4: Notice of Preparation Distribution List

SPECTRUM
5787 EASTSIDE ROAD
REDDING, CA 96001

GRANT ELEMENTARY SCHOOL
8835 SWASEY DRIVE
REDDING, CA 96001

REDDING ELEMENTARY SCHOOL DISTRICT
5885 EAST BONNYVIEW ROAD
REDDING, CA 96001

JUDY FLORES
SHASTA CO OFFICE OF EDUCATION
1644 MAGNOLIA AVENUE
REDDING, CA 96001-1513

SHASTA CO AIR QUALITY MGMT DISTRICT
1855 PLACER STREET STE 101
REDDING, CA 96001

KIM DELFINO DIRECTOR
DEFENDERS OF WILDLIFE
926 J STREET
SACRAMENTO, CA 95814

NEIL MANJI
CA DEPT OF FISH & WILDLIFE
601 LOCUST STREET
REDDING, CA 96001

RWQCB
364 KNOLLCREST DR STE 205
REDDING, CA 96002

MATTHEW KELLEY
US ARMY COPS OF ENGINEERS
310 HEMSTED DRIVE STE 310
REDDING, CA 96002-0935

CALIFORNIA STATE CEARINGHOUSE
1400 TENTH STREET, STE 113
SACRAMENTO, CA 95814

ENTERPRISE ELEMENTARY SCHOOL DISTRICT
1155 MISTLETOE LANE
REDDING, CA 96002

COLUMBIA ELEMENTARY SCHOOL
10142 OLD OREGON TRAIL
REDDING, CA 96003

SHASTA UNION HIGH SCHOOL DISTRICT
2200 EUREKA WAY
REDDING, CA 96001-0337

SHASTA CO PLANNING DIVISION
1855 PLACER STREET STE 103
REDDING, CA 96001

SHASTA CO PUBLIC HEALTH DEPT
2650 BRESLAURER WAY
REDDING, CA 96001

SHASTA ENVIRONMENTAL ALLIANCE ASP DAVID LEDGER
9110 CHAPARRAL DRIVE
REDDING, CA 96001

CALIFORNIA NATIVE PLANT SOCIETY
P O BOX 990194
REDDING, CA 96009-0194

US BUREAU OF RECLAMATION
16349 SHASTA DAM BLVD
SHASTA LAKE, CA 96019

US ARMY CORPS OF ENGINEERS
1325 "J" STREET
SACRAMENTO, CA 95814-2922

BRUCE MCPHEE
AT&T
4434 MOUNTAIN LAKES BLVD
REDDING, CA 96003

GATEWAY UNIFIED SCHOOL DISTRICT
4411 MOUNTAIN LAKES BLVD
REDDING, CA 96003

SHASTA CO ENVIROMENTAL HEALTH
1855 PLACER STREET STE 201
REDDING, CA 96001

SHASTA CO DEPT OF PUBLIC WORKS
1855 PLACER STREET, STE __
REDDING, CA 96001

SHASTA MOSQUITO ABATEMENT DISTRICT
19200 LATONA ROAD
ANDERSON, CA 96007

MARCELINO GONZALEZ
LOCAL DEVELOPMENT REVIEW MS6
CALTRANS DISTRICT 02
1657 RIVERSIDE DRIVE
REDDING, CA 96001-0536

WESTERN SHASTA RESOURCE CONSERVATION DIST
6270 PARALLEL ROAD
ANDERSON, CA 96007

US BUREAU OF LAND MANAGEMENT
6640 LOCKHEAD DRIVE
REDDING, CA 96002

ATTN: NANCI DENAYER
US POSTAL SERVICE
2323 CHURN CREEK RD
REDDING, CA 96049-9998

CALIFORNIA STATE CLEARINGHOUSE
P O BOX 3044
SACRAMENTO, CA 95812-3044

SHASTA COUNTY CLERK
P O BOX 990880
REDDING, CA 96099-0880

434
201 HARTNELL AVENUE LLC
100 E SAN MARCOS BLVD STE 200
SAN MARCOS, CA 92069

434
ADAMS DANIEL & HOLLY
2780 HENDERSON RD
REDDING, CA 96002

434
ADAMS FAMILY LIVING TRUST
5726 VIA MONTECITO
GRANITE BAY, CA 95746

434
ARJAN PARTAP INC
1409 PINE ST
REDDING, CA 96001

434
BAKER W JAXON TR ETAL
PO BOX 994248
REDDING, CA 96099

434
BALL DALE R
2760 HENDERSON RD
REDDING, CA 96002

434
BALL DALE R
2760 HENDERSON RD
REDDING, CA 96002

434
BARBER AUTO MALL PROPERTIES L
250 DITTMER RD
FAIRFIELD, CA 94534

434
BARGIONI LYNN M REV TRUST 201
3577 STONE RIDGE PLACE
REDDING, CA 96001

434
BEEMAN FAMILY 2012 TRUST
2015 EUREKA WY
REDDING, CA 96001

434
BENNETT JAY & TINA
2721 HENDERSON RD
REDDING, CA 96002

434
BRESHEARS 2007 TRUST
PO BOX 271
PALO CEDRO, CA 96073

434
BRIGGS GORDEN E & WILSON CARO
10257 SWEDE CREEK RD
PALO CEDRO, CA 96073

434
BROWN NOLAN
2864 KELLY LN
REDDING, CA 96002

434
CADUNGON ROLANDO V
2791 HENDERSON RD
REDDING, CA 96002

434
CARTER AARON W
1120 OLIVE AVE
REDDING, CA 96001

434
CASSIDY RITA TR
222 IRONWOOD LN
REDDING, CA 96003

434
CHAN FAMILY TRUST
40 FAIRFIELD WAY
SAN FRANCISCO, CA 94127

434
CHICOINE JOSEPH D & JAN M ETA
16016 ALHAMBRA LN
REDDING, CA 96001

434
COBBLESTONE BUSINESS PARK PRO
358 HARTNELL AVE STE A
REDDING, CA 96002

434
COBBLESTONE III
191 HARTNELL AVE
REDDING, CA 96002

434
CONRAD ETHAN
1300 NATIONAL DR STE 100
SACRAMENTO, CA 95834

434
CORNERSTONE COMMUNITY BANK
150 EAST CYPRESS AVENUE
REDDING, CA 96002

434
COX WILLIAM TAIT
PO BOX 493189
REDDING, CA 96049

434
CUSHMAN 2002 TRUST ETAL
358 HARTNELL AVE STE A
REDDING, CA 96002

434
DABNEY DELMAR P & JANE E REV
4664 ALTA CAMINO DR
REDDING, CA 96002

434
DIGNITY HEALTH
10901 GOLD CENTER DRIVE STE 3
RANCHO CORDOVA, CA 95670

434
DIGNITY HEALTH
3200 N CENTRAL AVENUE 23RD FL
PHOENIX, AZ 85012

434
EDWARDS PROPERTIES LLC
377 E CYPRESS AVE
REDDING, CA 96002

434
ESCALANTE BRUCE
PO BOX 492103
REDDING, CA 96049

434
FORNEY JUDITH
2881 SHOTWICK TRAIL
REDDING, CA 96002

434
FRANK CAMERON & CARMELO APRIL
PO BOX 5634
SHASTA LAKE, CA 96089

434
FRUITS BONNIE E 2017 TRUST
2814 HENDERSON ROAD
REDDING, CA 96002

434
GERARD LOUIS J JR & DIANE TR
10194 VICTORIA DR
REDDING, CA 96001

434
GONSKE CLEO
4161 ALTA CAMPO DR
REDDING, CA 96002

434
GRABENSTATTER KAREN ANN TR
2952 SHOTWICK TRAIL
REDDING, CA 96002

434
HAGLAN KEVIN & SHONDA J
4260 BRITTANY DR
REDDING, CA 96002

434
HAMAR PAMELA JANE REV LIV TRU
2940 KELLY LN
REDDING, CA 96002

434
HANNA FRANK C & PATRICIA C TR
10303 ORIOLE LN
PALO CEDRO, CA 96073

434
HIGGS CHARLES R & KAREN A
19086 CONDOR WAY
COTTONWOOD, CA 96022

434
HORN DAVID E
2831 HENDERSON RD
REDDING, CA 96002

434
HOWELL DORIS ANN
2886 SHOTWICK TRL
REDDING, CA 96002

434
HUDSON JAMES D & ERIKA TR
3333 KENTWOOD DR
REDDING, CA 96002

434
HUMBLE FAMILY TRUST 2015
2897 SHOTWICK TRAIL
REDDING, CA 96002

434
JANES TODD A & EDWARDS REBECC
PO BOX 992341
REDDING, CA 96099

434
KIRBY CHRISTOPHER S
PO BOX 991558
REDDING, CA 96099

434
KLETKE ROGER ALLEN & IRENE HA
20879 HWY 299E
REDDING, CA 96003

434
KORWIN PETER G
30 RAMONA DR
ORINDA, CA 94563

434
LASKOWSKY RANDY
3050 BECHELLI LN
REDDING, CA 96002

434
LINDSLEY LYNN D
2878 SHOTWICK TRL
REDDING, CA 96002

434
LITHIA REAL ESTATE INC
150 N BARTLETT ST
MEDFORD, OR 97501

434
LITHIA REAL ESTATE INC
150 N BARTLETT ST
MEDFORD, OR 97501

434
LORING CHERYL D TR
PO BOX 992558
REDDING, CA 96099

434
LOWDEN REDDING PARTNERS LLC
280 HEMSTED DR STE 200
REDDING, CA 96002

434
LUCE KEVIN DEAN & TAMI KAY
2745 HENDERSON RD
REDDING, CA 96002

434
MANTEI GARY A & G SHIRLENE TR
2855 HENDERSON RD
REDDING, CA 96002

434
MCQUEEN MARGARET A & ROBERT J
2786 HENDERSON RD
REDDING, CA 96002

434
MEYER DEAN M & SHIRLEY F TR
PO BOX 966
HAYFORK, CA 96041

434
MIMS MELISSA D
2717 HENDERSON RD
REDDING, CA 96002

434
MONDO FAMILY REAL ESTATE PART
686 SPRING ST
SANTA CRUZ, CA 95060

434
MUEGGE JOHN C
2704 HENDERSON RD
REDDING, CA 96002

434
NEWTON GLORIA
2865 SHOTWICK TRAIL
REDDING, CA 96002

434
NORRIS PHYLLIS A
2909 SHOTWICK TRL
REDDING, CA 96002

434
OPAL PROPERTIES LLC
2145 COURT ST
REDDING, CA 96001

434
PARTIDA LUIS C & MARIA G
2873 SHOTWICK TRL
REDDING, CA 96002

434
PERKINS MICHAEL R LIVING TRUS
3950 LITTLE APPLEGATE RD
JACKSONVILLE, OR 97530

434
PETRAS GUS CHARLES & JODY A T
825 NORTHRIDGE DRIVE
REDDING, CA 96001

434
PRESTON JOANNE 2014 TRUST
2935 SHOTWICK TRL
REDDING, CA 96002

434
PRINS ARLO & RITA 1991 REV FA
22217 OLD 44 DR
PALO CEDRO, CA 96073

434
RDG HOMES LLC
1095 HILLTOP DR #348
REDDING, CA 96003

434
REDDING CITY OF
760 PARKVIEW AV
REDDING, CA 96001

434
REUTHER EDWARD F & JAN L TR
3000 PARK MARINA DR
REDDING, CA 96001

434
RIVER COMMONS 2016 LP
550 HOWE AVE STE 100
SACRAMENTO, CA 95825

434
RIVERBRIDGE DEVELOPMENT
2851 PARK MARINA DR #300
REDDING, CA 96001

434
ROBERTSON D & L FAM LTD PRTNR
8359 ELK GROVE FLORIN RD 103-
SACRAMENTO, CA 95829

434
ROKNIPUR INVESTMENT GROUP LLC
28041 SMYTH DR
VALENCIA, CA 91355

434
SEVEN AS ENTERPRIZES LLC
555 CYPRESS AVE
REDDING, CA 96001

434
SHASTA-TRINITY SCHLS INS GRP
350 HARTNELL AVE STE D
REDDING, CA 96002

434
STONE TOMMY H & JANICE E TR
PO BOX 1580
COTTONWOOD, CA 96022

434
STRAWN KELLY L
28034 OAK RUN TO FERN RD
OAK RUN, CA 96069

434
TESORO SIERRA PROPERTIES LLC
PO BOX 592809
SAN ANTONIO, TX 78259

434
TOP DOLLAR INVESTMENTS INC
1060 PALISADES AVENUE
REDDING, CA 96003

434
TRUMBULL GILLIAN L 2007 TRUST
3882 APPALACHIAN WAY
REDDING, CA 96001

434
TUMINO VINCENT JR & LUCILLE T
PO BOX 493144
REDDING, CA 96049

434
U-HAUL REAL ESTATE COMPANY
PO BOX 29046
PHOENIX, AZ 85038

434
VENTURE NO 3822
12028 N COUNTY RD 200 W
WHEATFIELD, IN 46392

434
WADE RUSSELL S & BEVERLY J
PO BOX 720327
REDDING, CA 96099

434
WALSH DOLORES M & AMICK DAVID
2841 HENDERSON RD
REDDING, CA 96002

434
WEDEMEYER ERIC & DEBBIE 2013
2877 SHOTWICK TRL
REDDING, CA 96002

434
WERNER CHARLES A & CORNELIA O
2711 HENDERSON RD
REDDING, CA 96002

434

WHITE MARK BRIAN
3066 BRENT RD
REDDING, CA 96002

434

WILCOX MITCHEL & PATRICIA
2903 HENDERSON RD
REDDING, CA 96002

434

WILSON VICTORIA M
2730 HENDERSON RD
REDDING, CA 96002

434

WOODCOOK FAMILY TRUST
2700 HENDERSON RD
REDDING, CA 96002

434

YOUNG THOMAS M & BETTY C TR
1187 DUSTY LN
REDDING, CA 96002

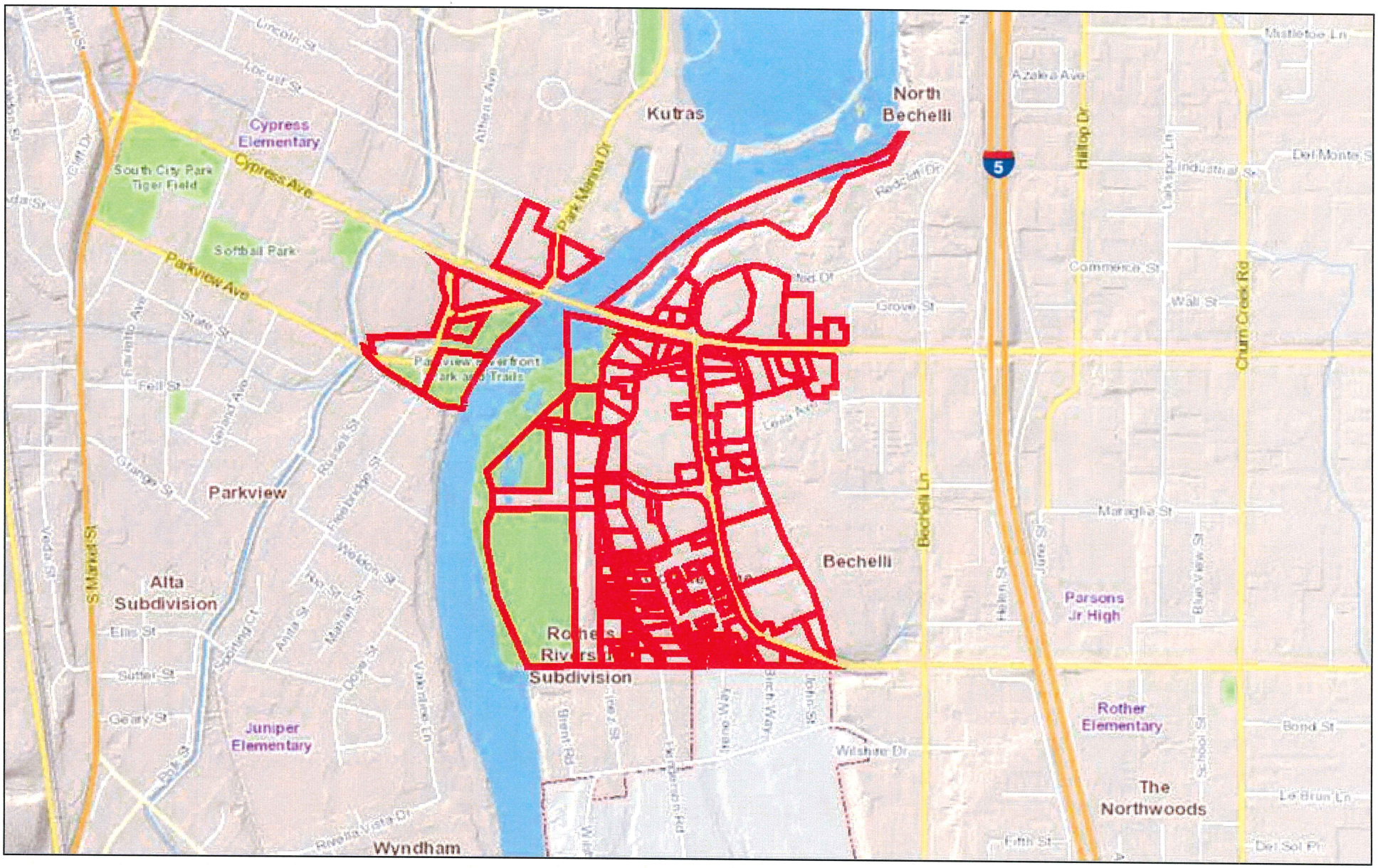
LOFTON MOORE 434
DIGNITY HEALTH
10901 GOLD CENTER DRIVE STE 3
RANCHO CORDOVA CA 95670

RUSS WENHAM 434
OMNI-MEANS LTD
330 HARTNELL AVENUE STE B
REDDING CA 96002

JANET LAURAIN 434
ADAMS BROADWELL JOSEPH &
CARDOZO
601 GATEWAY BLVD STE 1000
SOUTH SAN FRANCISCO CA 94080

434
ERNEST & CATHERINE BORGEL
200 WILSHIRE DRIVE
REDDING CA 96002

EIR-2017-01423 Property Owner Notification



April 18, 2018

Search Results: Parcel

Override 1

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA,

Internal Map Viewer
City of Redding GIS

4-18-18

Appendix B
Scoping Meeting Materials

B-1: Scoping Meeting Presentation

Environmental Impact Report Scoping Meeting

Dignity Health North State Pavilion Project

Use Permit UP-2017-00001
Parcel Map PM-2017-0002
General Plan Amendment GPA-2017-0003
Rezoning RZ-2017-0004

City of Redding
Planning Commission Meeting
June 26, 2018

Purpose of Today's Presentation

- Overview of California Environmental Quality Act
- Purpose of Scoping
- Environmental Impact Report Process
- Approach to Environmental Analysis
- CEQA Process
- Input on Issues the Draft EIR Should Address

What is CEQA?

- CEQA is the California Environmental Quality Act (per a statute passed in 1970)
  - Required for projects subject to discretionary approvals
  - A system of checks & balances for land use development & management actions
  - Requires an analysis of potential effects on the environment

CEQA Purpose and Objectives

- Provide information to decision makers and public about environmental consequences of actions ***before they are made***
  - Evaluate anticipated physical environmental effects
  - Identify ways to avoid or reduce those effects
  - Public opportunity to comment on the environmental issues

What CEQA *Does Not* Do

- Advocate for or oppose a project
- Require project denial due to adverse effects
- Address economic or social concerns
- Discuss the merits of the proposed project

The merits of the project may be discussed at future public hearings with the Planning Commission and City Council

Scoping

- Notice of Preparation (NOP)
  - Notifies agencies and the public than an EIR will be prepared
  - CEQA checklist – initial evaluation of potential environmental effects
  - Distributed for a 30-day public review period
  - Comments received as part of the NOP will be included in the Draft EIR

Scoping (continued)

- Environmental Checklist
  - Aesthetics
  - Agricultural Resources
  - Air Quality
  - Biological Resources
  - Cultural Resources
  - Geology & Soils
  - Greenhouse Gases
  - Hazards & Hazardous Materials
  - Hydrology & Water Quality
  - Land Use & Planning
  - Noise
  - Population & Housing
  - Public Services
  - Mineral Resources
  - Recreation
  - Tribal Cultural Resources
  - Transportation & Traffic
  - Utilities & Service Systems

Purpose of EIR Scoping

- To allow the public and agencies to provide *input* on the scope and content of the environmental impact analysis
- Scoping comments inform the scope of the Draft EIR's analysis:
  - Specific environmental issues of concern
  - Potentially significant environmental effects to be analyzed in depth
  - Potential mitigation measures
  - Alternatives to be considered
  - Identify issues that should not be studied in detail

Environmental Impact Report (EIR)

- Highest level of environmental review under CEQA
- Extensive public review and input process
- Objective disclosure document focusing on:
  - Anticipated physical environmental impacts
  - Ways in which the significant effects can be mitigated
  - Alternatives to the proposed project that could reduce or eliminate significant effects

EIR (continued)

- Adequacy of the EIR measured by:
  - Independent review in good faith
  - Full disclosure of all potential environmental impacts
  - Findings and conclusions based on substantial evidence
    - *Information based on facts, not speculation*
  - Unbiased document that neither supports nor opposes the project

Educate decision makers to make an informed decision on the project

Analysis in the Draft EIR

- Threshold-based Analysis
- Short-Term Impacts
- Long-Term Impacts
- Cumulative Impacts
- Project Alternatives
- Identify feasible mitigation measures to avoid or reduce impacts
- Identify significant unavoidable impacts

CEQA Process

- NOP 30-day Public Circulation
- NOP comment period ends on *July 9, 2018 at 5:00 p.m.*
- Draft EIR (45-day public review)
- Final EIR
  - Responses to comments
  - Changes or corrections to the Draft EIR
  - Mitigation Monitoring Program
- Responses provided to commenting agencies
- EIR Hearings

Public Participation the "Backbone of CEQA"

- Public comments are encouraged during this meeting
- Written comments will be accepted instead of or in addition to verbal comments
- Please limit comments to environmental issues to be analyzed in the EIR
- Discussions of the merits of the proposed project is reserved for future hearings

Submission of Written Comments

- Please submit written comments (or e-mails) to:

  CITY OF REDDING
  Development Services Department
  Planning Division
  Dignity Health North State Pavilion Project
  NOP Comments
  Attention: Lily Toy, Senior Planner
  777 Cypress Avenue
  Redding, CA 96001
  ltoy@cityofredding.org

- Comments must include, name, address, e-mail, or contact number
- Comment cards available at today's meeting

Future Public Comment Opportunities

- Draft EIR 45-day Public Circulation
- Planning Commission Draft EIR Hearing
- Planning Commission Final EIR Adequacy Hearing
- City Council Final EIR Certification Hearing

Commission and Public Comments

B-2: Scoping Meeting Comment Card

PUBLIC SCOPING SUGGESTIONS/COMMENTS

DIGNITY HEALTH NORTH STATE PAVILION
(UP-2017-00001, PM-2017-00002, GPA-2017-00003, RZ-2017-00004)
Environmental Impact Report

PUBLIC COMMENT PERIOD: June 8, 2018 – July 9, 2018
COMMENT DEADLINE: July 9, 2018 at 5:00 p.m.

NOTE: Name, address and phone number are not required in order to provide a comment. You are not limited to utilizing this comment card and comments may be submitted to the City in any written manner.

Name:

Agency (if applicable):

Mailing Address:

Phone Number: Email:

Comments (continue on back):

Submit this card or other written comments to:

CITY OF REDDING
DEVELOPMENT SERVICES DEPARTMENT
Planning Division
777 Cypress Avenue
Redding, CA 96001
Attention: Lily Toy, CFM, Senior Planner
Email: ltoy@cityofredding.org
Fax: (530) 225-4495

Comments (continued):

B-3: Scoping Meeting Sign-In Sheets

DIGNITY HEALTH NORTH STATE PAVILION
(UP-2017-00001, PM-2017-00002, GPA-2017-00003, RZ-2017-00004)
Environmental Impact Report

SIGN-IN SHEET

AGENCY SCOPING MEETING
June 26, 2018
1:30 PM

CITY OF REDDING
777 Cypress Avenue
Redding, California, 96001

	NAME	ADDRESS	PHONE	E-MAIL
1.	Bruce Grove	SHN Consulting	530-221-5424	bgrove@shn-engr.com
2.	Lily Toy	City of Redding	530-515-3055	ltoy@cityofredding.org
3.	Russ Wenham	GHD Inc.	530 242 1700	russ.wenham@ghd.com
4.	Peter Bonkrude	Shasta Mosquito	530-365-3768	pbonkrude@shastamosquito.org
5.				
6.				
7.				
8.				
9.				
10.				
11.				

Appendix C
Comment Letters Received in Response to NOP

C-1: Comment Letters from Government Agencies

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

July 3, 2018

Lily Toy, Senior Planner
Planning Division
City of Redding
777 Cypress Avenue
Redding, CA 96001

Subject: Review of the Notice of Preparation for the Dignity Health North State Pavilion, UP-2017-00001, PM-2017-00002, GPA-2017-00003, and RZ-2017-00004, State Clearinghouse Number 2017072048, City of Redding, Shasta County

Dear Ms. Toy:

The California Department of Fish and Wildlife (Department) has reviewed the Notice of Preparation (NOP) dated June 7, 2018, for the above-referenced project (Project). The Department appreciates this opportunity to comment on the Project, relative to impacts to biological resources.

The Department is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA). As the Trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and their habitat necessary for biologically sustainable populations of those species (Fish & G. Code, §§ 1801 and 1802). As the Trustee Agency for fish and wildlife resources, the Department provides requisite biological expertise to review and comment upon CEQA documents, and makes recommendations regarding those resources held in trust for the people of California.

The Department may also assume the role of Responsible Agency. A Responsible Agency is an agency other than the Lead Agency that has a legal responsibility for carrying out or approving a project. A Responsible Agency actively participates in the Lead Agency's CEQA process, reviews the Lead Agency's CEQA document and uses that document when making a decision on a project. The Responsible Agency must rely on the Lead Agency's CEQA document to prepare and issue its own findings regarding a project (CEQA Guidelines, §§ 15096 and 15381). The Department most often becomes a Responsible Agency when a Lake or Streambed Alteration Agreement (Fish & G. Code, § 1600 et. seq.) or a California Endangered Species Act (CESA) Incidental Take Permit (Fish & G. Code, § 2081(b)) is needed for a project. The Department relies on the CEQA document prepared by the Lead Agency to make a finding and decide whether to issue the permit or agreement. It is important that the Lead Agency's Environmental Impact Report (EIR) considers the Department's

Responsible Agency requirements. For example, CEQA requires the Department to include additional feasible alternatives or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect a project would have on the environment (CEQA Guidelines, section 15096 (g) (2).

The Department offers the following comments and recommendations on this Project in our role as a Trustee and Responsible Agency.

Project Description and Location

The Project as proposed is the construction and operation of a wellness center that would be distributed among three buildings totaling approximately 129,600 square feet. The Project would also include associated parking, landscaping and infrastructure on 10.55 acres of land. "*The use permit request would allow for the development of the project and for a portion of the parking lot encroach into the FEMA regulated 100-year floodplain of the Sacramento River*." In addition, a parcel map is being requested to consolidate all parcels into one, a general plan amendment to amend the general plan from General Office, General Commercial, and Greenway to Public Facility and a rezone to amend the existing zoning from General Office and General Commercial to Public Facility.

The Project is located at the southwest corner of the intersection of Cypress Avenue and Hartnell Avenue and at the northerly terminus of Henderson Road within the City of Redding.

Comments and Recommendations

The Department commented during the Early Consultation and Mitigated Negative Declaration for this Project on January 26, 2017 and August 21, 2017, respectively. To enable Department staff to adequately review and comment on the proposed Project, we recommend the following information be included in the draft Environmental Impact Report, as applicable.

1. A complete assessment of the flora and fauna within and adjacent to the Project area should be conducted, with particular emphasis upon identifying special-status species including rare, threatened, and endangered species. This assessment should also address locally unique species, rare natural communities, and wetlands. The assessment area for the Project should be large enough to encompass areas potentially subject to both direct and indirect Project affects. Both the Project footprint and the assessment area (if different) should be clearly defined and mapped in the draft EIR. If previous surveys have been conducted, they should be less than two years old.

a. The Department's California Natural Diversity Data Base (CNDDB) should be searched to obtain current information on previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. In order to provide an adequate assessment of special-status species potentially occurring within the Project vicinity, the search area for CNDDB occurrences should include all U.S.G.S 7.5-minute topographic quadrangles with Project activities, and all adjoining 7.5-minute topographic quadrangles. The EIR should discuss how and when the CNDDB search was conducted, including the names of each quadrangle queried, or why any areas may have been intentionally excluded from the CNDDB query. As a reminder, the Department cannot and does not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers. Likewise, your contribution of data to the CNDDB is equally important to the maintenance of the CNDDB. Whenever possible, we request that data be submitted using our online field survey form along with a map with the rare populations or stands indicated.

b. A complete assessment of rare, threatened, and endangered invertebrate, fish, wildlife, reptile, and amphibian species should be presented in the draft EIR. Rare, threatened, and endangered species to be addressed shall include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). Seasonal variations in use of the Project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service. Links to some survey procedures are provided on the Department's website.[1]

c. Species of Special Concern status applies to animals generally not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist (see CEQA Guidelines, section 15380 and CEQA Guidelines Appendix G (IV)(a)). Species of Special

[1] https://www.wildlife.ca.gov/Conservation/Survey-Protocols

Concern (SSC) should be considered during the environmental review process. CEQA (California Public Resources Code §§ 21000-21177) requires State agencies, local governments, and special districts to evaluate and disclose impacts from "projects" in the State. Section 15380 of the CEQA Guidelines clearly indicates that species of special concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

d. Sections 15063 and 15065 of the CEQA Guidelines, which address how an impact is identified as significant, are particularly relevant to SSCs. Project-level impacts to listed (rare, threatened, or endangered species) species are generally considered significant thus requiring lead agencies to prepare an Environmental Impact Report to fully analyze and evaluate the impacts. In assigning "impact significance" to populations of non-listed species, analysts usually consider factors such as population-level effects, proportion of the taxon's range affected by a project, regional effects, and impacts to habitat features.

e. Fully Protected animals may not be taken or possessed at any time and the Department is not authorized to issue permits or licenses for their incidental take[2]. Fully Protected animals should be considered during the environmental review process and all Project-related take must be avoided.

f. A thorough assessment of rare plants and rare natural communities should be conducted, following the Department's March 2018 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*.

g. A detailed vegetation map should be prepared, preferably overlaid on an aerial photograph. The map should be of sufficient resolution to depict the locations of the Project site's major vegetation communities, and show Project impacts relative to each community type. The Department's preferred vegetation classification system should be used to name the polygons; however, the vegetation classification ultimately used should be described in detail. Additional information for vegetation mapping can be found on the Department's website[3]. Special Status natural communities should be specifically noted on the map.

[2] Scientific research, take authorized under an approved NCCP, and certain recovery actions may be allowed under some circumstances; contact the Department for more information.
[3] https://www.wildlife.ca.gov/Data/VegCAMP

h. The draft EIR should include survey methods, dates, and results; and should list all plant and animal species (with scientific names) detected within the Project study area. Special emphasis should be directed toward describing the status of rare, threatened, and endangered species in all areas potentially affected by the Project. All necessary biological surveys should be conducted in advance of the draft EIR circulation, and should not be deferred until after Project approval.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, should be included.

   a. The draft EIR should present clear thresholds of significance to be used by the Lead Agency in its determination of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. (CEQA Guidelines 15064.7)

   b. CEQA Guidelines, section 15125 (a-e), direct that knowledge of environmental conditions at both the local and regional levels is critical to an assessment of environmental impacts and that special emphasis shall be placed on resources that are rare or unique to the region.

   c. Impacts associated with initial Project implementation as well as long-term operation and maintenance of the Project shall be addressed in the EIR pursuant to CEQA Guidelines 15126.2 (a).

   d. In evaluating the significance of the environmental effect of the Project, the Lead Agency should consider direct physical changes in the environment, which may be caused by the Project and reasonably foreseeable indirect physical changes in the environment, which may be caused by the Project. Expected impacts should be quantified (e.g., acres, linear feet, number of individuals taken, volume or rate of water extracted, etc. to the extent feasible).

   e. Project impacts should be analyzed relative to their effects on off-site habitats and species. Specifically, this may include public lands, open space, downstream aquatic habitats, areas of groundwater depletion, or any other natural habitat or species that could be affected by the Project (CEQA Guidelines Appendix G (IV and IX).

   f. Impacts to and maintenance of wildlife corridor/movement areas and other key seasonal use areas should be fully evaluated and provided

(CEQA Guidelines Appendix G (IV)).

g. A discussion of impacts associated with increased lighting, noise, human activity, impacts of free-roaming domestic animals including dogs and cats, changes in drainage patterns, changes in water volume, velocity, quantity, and quality, soil erosion, and/or sedimentation in streams and watercourses on or near the Project site.

h. The Department recognizes the effects of artificial lighting on birds and other nocturnal species. The effects are numerous and include impacts to singing and foraging behavior, reproductive behavior, navigation, and altered migration patterns. To minimize adverse effects of artificial light on wildlife, the Department recommends that lighting fixtures associated with the Project be downward facing, fully-shielded and designed and installed to minimize photo-pollution.

i. A cumulative effects analysis shall be developed for species and habitats potentially affected by the Project. This analysis shall be conducted as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts to species and habitats.

3. A range of Project alternatives shall be analyzed to ensure that the full spectrum of alternatives to the proposed Project are fully considered and evaluated. Alternatives, which avoid or otherwise minimize impacts to sensitive biological resources shall be identified.

    a. If the Project will result in any impacts described under the Mandatory Findings of Significance (CEQA Guidelines section 15065) the impacts must be analyzed in depth in the draft EIR, and the Lead Agency is required to make detailed findings on the feasibility of alternatives or mitigation measures to substantially lessen or avoid the significant effects on the environment. When mitigation measures or Project changes are found to be feasible, such measures should be incorporated into the Project to lessen or avoid significant effects.

4. Mitigation measures for adverse Project-related impacts to sensitive plants, animals, and habitats should be developed and thoroughly discussed. Mitigation measures should first emphasize avoidance and reduction of Project impacts. For unavoidable impacts, the feasibility of on-site habitat restoration or enhancement should be discussed. If on-site mitigation is not feasible, off-

site mitigation through habitat creation, enhancement, acquisition and preservation in perpetuity should be addressed.

a. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for most impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful. If considered, these types of mitigation measures must be discussed with the Department prior to release of the draft EIR.

b. Areas reserved as mitigation for Project impacts shall be legally protected from future direct and indirect development impacts. Potential issues to be considered include public access, conservation easements, species monitoring and management programs, water pollution, and fire management.

c. Plans for restoration and revegetation should be prepared by persons with expertise in northern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and/or seeding rates; (c) a schematic depicting the mitigation area; (d) planting/seeding schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for long-term conservation of the mitigation site.

5. Please include fuel modification impacts on vegetation in the biological resources section of the draft EIR. All impacts, including future maintenance, should be quantified and described.

6. Take of species of plants or animals listed as endangered or threatened under CESA is unlawful unless authorized by the Department. However, a CESA 2081(b) Incidental Take Permit may authorize incidental take during Project construction or over the life of the Project. The draft EIR must state whether the Project could result in any amount of incidental take of any CESA-listed species. Early consultation for incidental take permitting is encouraged, as significant modification to the Project's description and/or mitigation measures may be required in order to obtain a CESA Permit. Information on how to obtain an Incidental Take Permit is available through the Department's website at: https://www.wildlife.ca.gov/Conservation/CESA/Incidental-Take-Permits.

The Department's issuance of a CESA Permit for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA will consider the Lead Agency's Negative Declaration or Environmental Impact Report for the Project. The Department may require additional mitigation measures for the issuance of a CESA Permit unless the Project CEQA document addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA Permit.

To expedite the CESA permitting process, the Department recommends that the draft EIR addresses the following CESA Permit requirements:

a. The impacts of the authorized take are minimized and fully mitigated;

b. The measures required to minimize and fully mitigate the impacts of the authorized take and: (1) are roughly proportional in extent to the impact of the taking on the species; (2) maintain the applicant's objectives to the greatest extent possible, and (3) are capable of successful implementation;

c. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and

d. Issuance of the permit will not jeopardize the continued existence of a State-listed species.

7. The Department has responsibility for wetland and riparian habitats. It is the policy of the Department to strongly discourage development in wetlands or conversion of wetlands to uplands. We oppose any development or conversion, which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, Project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. The EIR should demonstrate that the Project will not result in a net loss of wetland habitat values or acreage.

   a. The Project location has the potential to support aquatic, riparian, or wetland habitat. A delineation of lakes, streams, and associated riparian habitats potentially affected by the Project should be provided for

agency and public review. This report should include a preliminary jurisdictional delineation including wetlands identification pursuant to the U. S. Fish and Wildlife Service wetland definition as adopted by the Department. Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers. The jurisdictional delineation should also include mapping of ephemeral, intermittent, and perennial stream courses potentially impacted by the Project. In addition to "federally protected wetlands" (see CEQA Appendix G), the Department considers impacts to any wetlands (as defined by the Department) as potentially significant.

b. The Project may require a Lake or Streambed Alteration Agreement, pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to the applicant's commencement of any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank (which may include associated riparian resources) of a river, stream or lake, or use material from a streambed. The Department's issuance of a Lake or Streambed Alteration Agreement for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA may consider the local jurisdiction's (Lead Agency) Negative Declaration or Environmental Impact Report for the Project. To minimize additional requirements by the Department pursuant to Section 1600 et seq. and/or under CEQA, the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. The project as proposed requires notification to the Department pursuant to 1600 et seq. of the Fish and Game Code. A Streambed Alteration Agreement notification package may be obtained through the Department's website at https://www.wildlife.ca.gov/Conservation/LSA.

8. CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e)). Please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed

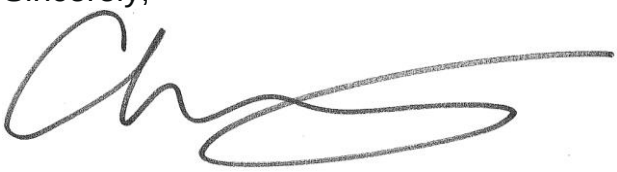
form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

9. Impacts to the adjacent open space conservation easement should be discussed in the DEIR, including indirect impacts due to light, noise, altered hydrology, and fuel modification activities.

10. A cumulative impacts discussion on the loss of Great Valley Valley Oak and Great Valley Cottonwood Riparian Forest should be included in the draft EIR as there has been a considerable loss of this vegetation type in the City of Redding. The Department recommends avoiding the riparian forest entirely or preserving as much of the riparian forest as possible. Mitigation measures should be developed to offset the loss of the remaining riparian habitat.

If you have any questions, please contact Amy Henderson, Environmental Scientist, at (530) 225-2779, or by e-mail at Amy.Henderson@wildlife.ca.gov.

Sincerely,



Adam McKannay
Interior Cannabis and LSA Permitting Supervisor

ec: Lily Toy
ltoy@ci.redding.ca.us

State Clearinghouse
state.clearinghouse@opr.ca.gov

Amy Henderson
California Department of Fish and Wildlife
amy.henderson@wildlife.ca.gov

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

June 27, 2018

Lily Toy
City of Redding
777 Cypress Avenue
Redding, CA 96001

RE: SCH#2017072048 Dignity Health North State Pavilion Project

Dear Ms. Toy,

The Native American Heritage Commission has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions, please contact me at my email address: frank.lienert@nahc.ca.gov

Sincerely,

Frank Lienert
Associate Governmental Program Analyst

cc: State Clearinghouse

C-2: Comment Letter from Private Organizations

Toy, Lily

From: Karin Knorr <kknorr@knorrmanagement.com>
Sent: Wednesday, June 27, 2018 12:36 PM
To: Hellman, Paul; Toy, Lily
Subject: Letter of Support from Ethan Conrad
Attachments: Dignity Health (3).doc

Dear Mr. Hellman and Ms Toy,

Please find attached the letter of support for the Dignity Health project from Ethan Conrad, the owner of the Cobblestone Shopping Center, directly to the east of the project. Ethan is really disappointed to hear that the project has been delayed so long as we feel this is a catalyst to leasing out our Raley's space.

Thank you,

Karin Knorr, CSM, CPM®
Knorr Management, Inc.
1401 1/2 Solano St.
Corning, CA. 96021
Tel 530-824-6458
Fax 530-824-4035
Cell 916-825-2746
www.knorrmanagement.com

ETHAN CONRAD
PROPERTIES INC.

June 25, 2018

City of Redding
Development Services
777 Cypress Ave.
Redding, CA. 96001
Via Email: phellman@ci.redding.ca.us

Re: Dignity Health Development
Redding, CA

Ladies and Gentlemen,

We would like to express our support in seeing the Dignity Health project proceed without further delay. As you may know, the Cobblestone Shopping Center recently underwent a major remodel and revitalization. Part of our incentive to buy this shopping center was its proximity to the new Dignity Health building and the positive traffic to be created. We believe that these two projects, side by side, constitute a major improvement in this part of Redding, not only with job creation but with cleaning up a blighted and problem area.

Since we have remodeled the Cobblestone Shopping Center we have seen crime and homeless loitering decrease at the center, simply because we are not allowing it. We continue to see loitering and criminal activity on the Dignity Health site, which will change when they finish construction and take control of the property. This is a hotbed issue that needs immediate resolution. The existence of viable and thriving businesses, with proper security, will deter the illegal camps and will no longer allow hiding places for criminal activity.

Dignity will create a solid destination building and assist with the rejuvenation of the Hartnell area, benefitting all supporting businesses. The number of employees and customers at the site will attract a new grocery anchor at our center, furthering job growth and increasing tax revenue in our city. It is vitally important for Redding that the infrastructure around Hartnell remains strong and the addition of Dignity Health and our future anchor promises to achieve that goal.

We fully support Dignity Health to become part of the Cobblestone Community and ask for your commitment in helping to expedite this project. It will be a positive impact on the lives of the community and the business surrounding it.

Sincerely,

Ethan Conrad
CEO

1300 National Drive, Suite 100 Sacramento, CA 95834
(916) 779-1000 Fax (916) 779-1200
www.ethanconradprop.com

Appendix D
July 2017 Circulated
Mitigated Negative Declaration

D-1: Public Review MND

ENVIRONMENTAL INITIAL STUDY

INITIAL STUDY CHECKLIST
References and Documentation

Dignity Health North State Pavilion Project
Use Permit UP-2017-00001
Parcel Map PM-2017-00002
General Plan Amendment GPA-2017-00003
Rezoning RZ-2017-00004

Prepared by:
CITY OF REDDING
Development Services Department
Planning Division
777 Cypress Avenue
Redding, California 96001

July 20, 2017

CITY OF REDDING
ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Dignity Health North State Pavilion Project

2. **Lead agency name and address:**

   CITY OF REDDING
   Development Services Department
   Planning Division
   777 Cypress Avenue
   Redding, CA 96001

3. **Contact Person and Phone Number:** Lily Toy, Senior Planner (530) 225-4020

4. **Project Location:** Various parcels of lands off Henderson Road (see Location Map attached)

5. **Applicant's Name and Address:** Dignity Health, Lofton Moore, 10901 Gold Center Drive, Rancho Cordova, CA 95670

6. **General Plan Designation:** "General Office," "General Commercial," and "Greenway"

7. **Zoning:** "GO" General Office and "GC" General Commercial

8. **Description of Project:** Dignity Health Mercy Medical Center Redding (Dignity) is proposing the development of the North State Pavilion Project in a campus-like setting whereby, the buildings are compatible with each other from a site planning and architectural design perspective. The project is a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure on 10.55 acres of land. The use permit request is to allow for the development of the project and for a portion of the parking lot to encroach into the Federal Emergency Management Agency (FEMA) regulated 100-year floodplain of the Sacramento River. The parcel map request is to allow the merging of all the parcels into one. The general plan amendment request is a request to amend the general plan from the existing designations of "General Office," "General Commercial," and "Greenway" to "Public Facility." Lastly, the rezoning request is to amend the existing zoning from "GO" General Office and "GC" General Commercial to "PF" Public Facility.

   The number of stories, approximate square footages, and building heights for each building are:

   - Building "A" – 4 stories – 80,000 Sq. Ft. – Heights vary from 64 to 72 feet
   - Building "B" – 3 stories – 27,800 Sq. Ft. – Heights vary from 52 to 58 feet
   - Building "C" – 2 stories –21,800 Sq. Ft. – Heights vary from 36 to 44 feet

   The project is currently proposed to develop in two phases. Phase 1 will include Building "A" which is 80,000 square feet in size. Phase I is projected to be completed in 2019. It is estimated that up to 180 persons will be employed once the project is completed. Potential uses and services to be located within all the buildings may include, but are not limited to the following:

   - Administrative Offices
   - Auditorium / Conference Rooms / Class Rooms
   - Cafeteria
   - Diagnostic Imaging
   - Electrical / Mechanical Rooms
   - Employee Lounge / Locker Rooms
   - Family Medicine / Pediatrics
   - Gift Shop
   - Janitorial Rooms
   - Laboratories
   - Orthopedics
   - Palliative Care
   - Pharmacy
   - Physical Therapy
   - Physician Offices
   - Radiology
   - Reception/Waiting Areas
   - Rehabilitation
   - Urgent Care Center
   - Visitor Lounges
   - Women's Health & Wellness

Cafeteria services, physical therapy, and pharmacy services may more than likely be leased to outside service providers.

Overall, 549 parking spaces are proposed, which include ADA and van accessible spaces, compact and motorcycle spaces. Bicycle racks will also be provided. Phase I proposes 338 parking spaces. The proposed project will accommodate the Dobrowsky House of approximately 2,250 square feet, should the opportunity to relocate it from its current site present itself. The house, built in the 1920's, is proposed to be demolished to accommodate a new Shasta County Courthouse in the downtown area. Should the Dobrowsky House be relocated to the project site, the square footage will be reduced to approximately 122,850 square feet. Accordingly, parking will be reduced to 519 spaces.

The project proposes right-of-way improvements to Henderson Road (North), Parkview Avenue (South), Henderson Road (South), and Parkview Avenue (Open Space Access). The improvements include, where applicable; street widening, paving and repaving, lane striping, curb, gutters, sidewalks, and drainage structures. All utilities, including water, sewer, stormwater, electrical, natural gas, cable and telephone service lines and conduits will be undergrounded. Fire hydrants and electrical transformers will be located per City of Redding standards and requirements.

9. **Surrounding Land Uses and Setting:** The project area consists of lands totaling approximately 10.55 acres generally located at the southwest corner of Cypress and Hartnell Avenues just south of the Cypress Avenue Bridge. The project area is bounded on the west by the Henderson Open Space, with the Sacramento River further to the west; the eastern boundary is generally defined by an existing primarily vacant shopping center, formerly referenced as the Raley's Shopping Center; on the north by Cypress Bridge; and the south by the Cobblestone Shopping Center, south of Parkview Avenue. The Federal Emergency Management Agency (FEMA) 100-year floodplain of the Sacramento River inundates approximately 1.2 acres of the project site and the floodway of the Sacramento River inundates approximately 2.40 acres of the project site. A proposed Letter of Map Amendment has been submitted to FEMA proposing the floodway and floodplain further westward resulting in the removal of the floodway from the project site and approximately 1.80 acres of the site within FEMA's 100-year floodplain. Historical land uses of the project area and vicinity include use by Native Americans, ranching, and a bridge crossing location in the 1800s. Other historic land uses include a diversion of river flow into a horizontal paddlewheel facility in the early 1900s; a forest products, cement plant, and gravel operation in the 1940s through the 1960s; a gravel operation used in the construction of Interstate 5 during the 1960s and 1970s; a gasoline service station from 1972 to 1998; commercial uses some of which were removed in 2007 while the remainder still exists today; and staging for the Cypress Bridge Replacement Project in 2007 to 2011. The remnants of some of these land uses are visible today.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** A 1602 permit will be necessary from the California Department of Fish and Wildlife.

11. **Tribal Consultation:** A letter requesting consultation was sent to the Redding Rancheria on January 12, 2017, pursuant to AB 52. A response has not been received.

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 or Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

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

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

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

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

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

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Development Services Department, 777 Cypress Avenue, Redding, CA 96001. Contact Lily Toy at (530) 225-4020.

Lily Toy, Senior Planner
Development Services Department

July 20, 2017

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Utilities and Service System
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Circulation
- Tribal Cultural Resources
- Hydrology and Water Quality

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the State *CEQA Guidelines* and used by the City of Redding in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

Prior environmental evaluations applicable to all or part of the project site:

- *City of Redding General Plan*, 2000
- *City of Redding General Plan Final Environmental Impact Report*, 2000, SCH #1998072103

List of attachments/references:

Attachment A – Location map
Attachment B – Site plan
Attachment C – URBEMIS air quality computer model, dated July 7, 2017
Attachment D – Cultural Resources Inventory Report, dated April 2017, by ENPLAN. (On file with the Planning Division)
Attachment E – Phase II Subsurface Archaeological Testing, dated May 22, 2017, by Natural Investigations Company. (On file with the Planning Division)
Attachment F – Biological Study Report for the North State Pavilion Project, dated April 2017, by ENPLAN. (On file with the Planning Division)
Attachment G – Flood Study by Pacific Hydrologic Incorporated, dated February 2, 2016 (On file with the Planning Division)

Attachment H – Noise Study for Dignity Health Mercy Medical Center North State Pavilion, dated April 27, 2017, by J.C. Brennan & Associates, Inc. (On File with the Planning Division)

Attachment I – Traffic Impact Analysis Report for Dignity Mercy Medical Center Redding North State Pavilion, dated April 2017, by Omni-Means, Ltd. (On File with the Planning Division)

SUMMARY OF MITIGATION MEASURES:

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

Discussion:

a, b, c) The project site is located on land that is highly visible as viewed primarily along Cypress Avenue, the Sacramento River and across the River along Park Marina Drive. The City's Planning Division has reviewed the site design and building elevations and has determined the proposed design is in conformance with the City's General Plan, Zoning Code and Commercial Design Guidelines. Therefore, the project does not represent a significant adverse visual impact. The project site is not located adjacent to a state-designated scenic highway.

The three buildings are proposed to be developed in a campus-like setting whereby, the buildings are compatible with each other from a site planning and architectural design perspective. The location of the buildings interspersed on the site and visually "tied together" with landscaping, both adjacent to the buildings and within the parking areas, provide visual corridors primarily of the existing riparian areas within the Henderson Open Space and beyond to the Sacramento River to the west and northwest.

The proposed buildings' architecture includes a mixture of materials including, but not limited to; metal, stone, cement plaster, and glazing. The buildings and associated facades will have varying heights, sun shades, awnings, canopies, raised parapets with cornices, and other decorative fixtures to provide articulation to the building elevations which, along with varying natural earth tone colors and patterns, provide variation in the appearance of the buildings. The raised parapets with cornices also serve to provide screening of mechanical equipment.

Other project features include, but are not limited to landscaping, hardscape features, emergency generator enclosures, solid waste bin enclosures, decorative fencing, monument signs, a pole sign, building signage, and parking lot, driveway and walkway lighting.

Construction activities for the project would likely be limited to normal daytime hours (i.e., 6:00 a.m. to 7:00 p.m. on weekdays from May 15 through September 15, 7:00 a.m. to 7:00 p.m. on weekdays from September 16 through May 14, and from 9:00 a.m. to 8:00 p.m. on weekends and holidays in accordance with RMC §18.40.100). The proposed project would not require nighttime lighting for construction activities. Thus, no impact would occur in this regard.

d) Light produced from the development of the proposed project will result from building and parking lot lighting. As part of the project review process, site lighting is reviewed for aesthetic concerns as well as on-site conflicts and off-site glare. The project is located next to sensitive receptors (e.g., riparian corridor, aquatic habitat, residences on Henderson Road and vehicular traffic

on Cypress Avenue).

As the City of Redding does not have a quantitative threshold for light spillover, guidance from the Electric Power Research Institute (EPRI) and the Institute of Lighting Engineers (ILE) was used as they have established recommendations for limiting light trespass onto adjacent residential properties. The project area is located in an E3 Environmental Zone which is defined as "Areas of medium ambient brightness. This environmental zone includes urban residential areas. Based on these environmental zones, the ILE and EPRI have established recommendations for limiting light trespass onto adjacent residential properties. Between dusk and 11:00 PM, trespass illumination onto the residential parcels to the south shall not exceed 0.9 foot-candles and between 11:00 PM and 7:00 AM shall not exceed 0.3 foot-candles.

Shielding of lighting as required by City Ordinance will minimize any impact to a level of less than significant. The following standard condition will be applicable and therefore any potential impact will be less than significant.

Standard Condition Regarding Lighting
In accordance with Chapter 18.40.090, Lighting, of the Redding Municipal Code, any new roof-mounted or freestanding exterior lighting shall be designed, located, directed, and shielded in such a manner so as to prevent objectionable light at, and glare across, the property lines. A lighting detail/photometric study demonstrating how this requirement will be satisfied shall be submitted with the building permit application.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Zoning Ordinance, Chapter 18.40.090

Mitigation:
None necessary.

II. AGRICULTURE 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 Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or 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?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				**X**
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				**X**

Discussion:

a-c) The project site has not been historically used for agricultural purposes, nor does it possess soils that are prime for agricultural production. The site is not located within an area of Prime Farmland as identified by the California Department of Conservation's Farmland Mapping and Monitoring Program. The Soil Survey prepared by the Soil Conservation Service identifies the Riverwash, Cobbly alluvial land and Reiff fine sandy loam classifications on the property. Riverwash has little or no potential for farming. The areas of Cobbly alluvial land can be used as dryland pasture, but the potential for farming is limited. Reiff fine sandy loam, if irrigated, can be used to produce hay. These soil classification and past use of the property do not represent prime suitability for agricultural use; therefore, development of the property would not result in any impact to agricultural resources.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan Background Report, Chapter 9.4: Agricultural Lands
California Department of Conservation's Farmland Mapping and Monitoring Program
United States Department of Agriculture, Soil Conservation Service and Forest Service, Soil Survey of Shasta County Area.

Mitigation:
None necessary.

III. AIR QUALITY: *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X

Discussion:

a-c) Shasta County, including the far northern Sacramento Valley, currently exceeds the state's ambient standards for ozone (smog) and particulates (fine, airborne particles). Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning. Even with application of measures to reduce emissions for individual projects, cumulative impacts are unavoidable when ozone and/or particulate emissions are involved. For example, the primary source of emissions contributing to ozone is from vehicles. Any project that generates vehicle trips has the potential of contributing incrementally to the problem. The Environmental Impact Report for the *General Plan* acknowledged this dilemma and, as a result, Findings and a Statement of Overriding Considerations were adopted by the City Council for impacts to air quality resulting from growth supported under the *General Plan*.

The Air Quality Element of the *General Plan* establishes emission-reduction goals of 20 to 25 percent, depending on the projected level of unmitigated emissions for a project. Mitigation thresholds are established for the important regional/local pollutants, including: Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx), which are ozone precursors, and Inhalable Particulate Matter, 10 Micron (PM_{10}). The mitigation thresholds for these pollutants are tiered at two levels as follows:

Level "A"	**Level "B"**
25 pounds per day of NOx	137 pounds per day of NOx
25 pounds per day of ROG	137 pounds per day of ROG
80 pounds per day of PM_{10}	137 pounds per day of PM_{10}

If a project has unmitigated emissions less than the Level "A" threshold, then it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMMs) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise. Land uses that generate unmitigated emissions above Level "A" require application of appropriate Best Available Mitigation Measures (BAMMs), in addition to the SMMs, in order to achieve a net emission reduction of 20 percent or more. If, after applying SMMs and BAMMs, a use still exceeds the Level "B" threshold, then a minimum of 25 percent of the unmitigated emissions exceeding 137 pounds per day must be offset by reducing emissions from

existing sources of pollution; otherwise, an Environmental Impact Report is required.

Under policy of the Air Quality Element, a project has the potential to impact air quality primarily in two ways: (1) the project would generate vehicle trip emissions (with NOx, ROG, and PM_{10}) that contribute cumulatively to local and regional air quality conditions; and (2) fugitive dust (particulate/PM_{10}) emissions are possible during construction activities. As a commercial development, a project does not have the potential to generate significant emission concentrations of other pollutants subject to state and federal ambient air quality standards.

In order to calculate the unmitigated emissions for the key pollutants noted above, the current URBEMIS air quality computer model was used as prescribed in the Air Quality Element. The results were as follows:

	ROG	**NOx**	**PM_{10}**
Total Emissions (lbs./day)	3.39	4.66	11.06

These results indicate that the project would result in ROG, NOx, and PM_{10} emissions well below the Level "A" threshold. Standard Mitigation Measures (SMMs) as identified in the Air Quality Element of the General Plan are incorporated into the project as standard construction requirements to minimize potential effects to air quality. Thus, special construction-related mitigation is not required in this case.

Hence, the application of SMMs is incorporated into the project in order to strive toward the *General Plan* net-reduction objective of 20 percent to address small-scale cumulative effects. SMMs applicable to this project address primarily short-term impacts related to construction. For the most part, these requirements are standard development regulations in the City promulgated in the City Grading Ordinance and Uniform Building Code. Application of special mitigation to achieve a level of less than significant is not necessary since actions for compliance are already included in existing uniformly applied regulations and construction standards. The following City standard regulations will apply during grading and construction activities to control dust and PM_{10} emissions apply to the project.

1. Nontoxic soil stabilizers shall be applied according to manufacturer's specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
2. All grading operations shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour.
3. Temporary traffic control shall be provided as appropriate during all phases of construction to improve traffic flow (e.g., flag person).
4. Construction activities that could affect traffic flow shall be scheduled in off-peak hours.
5. Active construction areas, haul roads, etc., shall be watered at least twice daily or more as needed to limit dust.
6. Exposed stockpiles of soil and other backfill material shall either be covered, watered, or have soil binders added to inhibit dust and wind erosion.
7. All trucks hauling solid and other loose material shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of CVC Section 23114. This provision is enforced by local law enforcement agencies.
8. All public roadways used by the project contractor shall be maintained free from dust, dirt, and debris caused by construction activities. Streets shall be swept at the end of the day if visible soil materials are carried onto adjacent public paved roads. Wheel washers shall be used where vehicles enter and exit unpaved roads onto paved roads, or trucks and any equipment shall be washed off leaving the site with each trip.
9. Alternatives to open burning of cleared vegetative material on the project site shall be used unless otherwise deemed infeasible by the City Planning Division. Suitable alternatives include, but are not limited to, on-site chipping and mulching and/or hauling to a biomass fuel site.

d) Potential impacts to neighboring homes (sensitive receptors) from fugitive dust caused during construction are mitigated by application of the SMMs discussed above.

e) The project does not involve land use that could generate objectionable odors affecting substantial number of people.

Documentation:
Shasta County APCD Air Quality Maintenance Plan and Implementing Measures
City of Redding General Plan, Air Quality Element
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103, Chapter 8.6, Air Quality,
CEQA Findings of Fact and Statement of Overriding Considerations for the *City of Redding General Plan Final Environmental Impact Report*, as adopted by the Redding City Council on October 3, 2000, by Resolution 2000-166
City of Redding General Plan Background Report, Chapter 9.7, Natural Resources and Air Quality
URBEMIS (2007, v 9.2.4) Air Quality Computer Model Results for Dignity Health North State Pavilion dated July 7, 2017

Mitigation:
None necessary.

IV. BIOLOGICAL RESOURCES: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
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?			X	
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?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plan?				X

Discussion:
a-e) The General Plan identifies four habitat types as potentially sensitive and requiring special consideration or protection. These include: riparian, vernal pools, aquatic, and wetlands. Most special status species common to the region are associated with these habitat types. The proposed project has the potential to impact riparian areas and to a lesser degree aquatic habitat associated with the Sacramento River which extends to within approximately 70 feet of the northwestern site boundary.

A Biological Resources Assessment was prepared for the project by ENPLAN. The on-site plant communities/wildlife habitats consist of a Valley Foothill Riparian woodland (approximately 0.2-acres), Riparian Woodland (approximately 0.4-acres based on canopy cover), annual grassland, (approximately 1.5-acres) and urban habitat (approximately 8.8-acres); individuals or small stands of valley oaks, interior live oaks, blue oaks, and tree of heaven are present in various areas, however, they do not form a distinct oak woodland community. Field inspections/evaluations on June 10, June 24, October 21, and November 7, 2016, confirmed that no wetlands or special-status plant species are present, nor are any expected to be present or affected by the proposed work

In summary, the study found that the site, which has been highly disturbed by past development, includes one sensitive habitat type: riparian woodland canopy associated with well-developed riparian woodland occurring in the floodplain of the Sacramento River to the west of the project site. The habitats on the site may support several special-status animal species, including pallid bat, spotted bat, Townsend's big-eared bat, western red bat, and bald eagle. The Sacramento River, located just west of the site, is known to support Chinook salmon (fall-run, late-fall-run, winter-run, and spring-run) and Central Valley steelhead; the river reach is designated as critical habitat for Chinook salmon (winter-run and spring-run) and Central Valley steelhead. In addition, migratory birds could nest in vegetation and/or structures on the site during future nesting seasons.

A well-developed riparian woodland occurs in the floodplain of the Sacramento River to the west of the project site. A steep slope extends along the northwestern boundary of the project site, separating the highly disturbed project site from the riparian community. No project-related development will occur on or below the slope. The project proposal calls for a lot line adjustment that would transfer the entire riparian habitat on and below the slope into City of Redding ownership. This area would be incorporated into the Henderson Open Space. As previously noted, the northwestern portion of the project site abuts the riparian woodland and approximately 0.4 acres of riparian woodland (based on canopy cover) occurs within the western extension of the project site. Woody species present include Fremont cottonwood, valley oak, arroyo willow, sandbar willow, Himalayan blackberry, and wild grape. Nutsedge, curly dock, and other herbaceous species are present in the herbaceous layer. Wildlife species observed in association with the on-site riparian woodland included the turkey vulture, acorn woodpeck, killdeer, northern flicker, western scrub-jay, dark-eyed junco, and red-tailed hawk. Overall, the riparian woodland on the site has very high value to wildlife species.

Within the 0.4 acres of impacted riparian habitat, some trees are proposed for removal. These trees consist of approximately 20 Fremont cottonwoods with a diameter at breast height (dbh) of six inches or greater. Four of the cottonwoods to be removed are in the 6 – 10 inch dbh range, eight are in the 12 - 18 inch dbh range, and five are in the 22 – 36 inch dbh range. In addition, three multi-trunked trees will be removed; one tree has three trunks measuring 22 inches, 18 inches, and 18 inches, a second has two trunks of both being 18 inches, and a third has two trunks of 18 inches and 14 inches. Trees in the on-site southwesterly riparian habitats (the end of the Parkview Avenue (Open Space Access)) to be retained consist of two valley oaks (10 inch dbh and 12 inch dbh) and three 12 inch dbh interior live oaks. At the field review meeting on October 21, 2016, CDFW Senior Environmental Scientist Amy Henderson recommended that riparian woodland be avoided where feasible and that mitigation be provided where avoidance is not feasible.

Although not as important as riparian woodland protection, preservation of mature trees in non-riparian areas is also recommended to maintain the biological values of the site. Loss of the annual grassland and other aspects of urban habitats on the site is of minor concern as the biological values of these habitats would be offset (in kind or out-of-kind) by landscaping associated with the proposed project. Refer to the June 9, 2017, Omni-Means Proposed Tree Removal Plan, Sheet 13 of 33 to identify the type, numbers and location of mature trees to be maintained and removed. Also refer to the May 3, 2017, Landscape Layout by Michael Lander, ASLA, Sheets 17 and 18 of 33 identifies the type and number of trees (142) and landscaping (42,380) associated with the proposed project to be planted.

Implementation of Mitigations Measures 21 and 32 will serve to minimize the loss of riparian habitat and offset the unavoidable loss of riparian habitat, respectively.

The Biological Resources Assessment identified that no special-status animal species were observed on the project site during the wildlife evaluation. A checklist of wildlife species observed is presented in Appendix F in the ENPLAN Assessment. However, as documented in Appendix D, pallid bats may roost in trees and structures on the site; spotted bats may roost in structures on the site; Townsend's big-eared bats may roost in the on-site structures; and western red bats and bald eagles may roost/nest in the on-site riparian woodland. In addition, Chinook salmon (fall-run, late-fall-run, winter-run, and spring-run) and Central Valley steelhead are known to utilize the nearby Sacramento River, which extends to within 70 feet of the northwestern site boundary.

Removal of riparian woodland along the Sacramento River and trees and buildings in upland areas, could result in the loss of potential roosting habitat for bats. The riparian woodland provides high quality foraging and roosting habitat for western red bat, while on-site buildings and non-riparian trees provide marginal habitat for pallid and possibly spotted bats. The on-site buildings do not include an attic or overhangs; no evidence of bat guano or urine staining was observed on the building exteriors. The non-riparian trees on the site offer lower habitat values for bats than do the large riparian trees; however, even on the non-riparian trees it is possible that bats could roost in trunk cavities or under loose bark. At the field review meeting on October 21, 2016, CDFW staff recommended that a qualified bat biologist conduct an assessment of the site to evaluate the site's potential to support roosting

bats and to recommend appropriate avoidance/minimization measures to protect roosting bats during construction. Implementation of Mitigation Measure 43 would reduce the potential impact to a less than significant level.

Nesting bald eagles, if present at the time of construction, could be directly or indirectly affected by site development. Direct effects could include mortality resulting from removal of a tree/shrub containing an active nest with eggs or chicks. Indirect effects could include nest abandonment by adults in response to loud noise levels or human encroachment, or a reduction in the amount of food available to young birds due to changes in feeding behavior by adults. In California, the nesting season for bald eagles is between January 1 and August 31. To avoid impact, removal of potential nesting habitat or limiting construction activities to other times of the year (before January 1 or after August 31) is recommended. However, CDFW has determined that the local nesting season is between February 1 and August 31. Implementation of Mitigation Measure 54 would reduce the potential impact to a less than significant level.

Salmonids would not be directly affected by site development, but could be indirectly affected. Indirect effects on salmonids could potentially occur if sediments or other pollutants enter the Sacramento River and degrade rearing habitat and/or spawning habitat. In a worst-case scenario, fish could die or be impaired by asphyxiation if sediment-laden water fouls their gills, and developing embryos and/or alevins in spawning gravels downstream could die or be impaired from lack of oxygen resulting from siltation of the streambed. Potential indirect effects on salmonids will be minimized through implementation of best management practices for erosion control and spill prevention. The Best Management practices will be identified in the Storm Water Pollution Prevention Plan to be prepared for the project in compliance with the National Pollutant Discharge Elimination System (NPDES) permit for construction storm water discharge.

Implementation of the mitigation measures and other site development practices would ensure that biological resources are not adversely affected. These practices include implementation of spill prevention and erosion control measures and the propose site landscaping. Implementation of mitigation measures and site development practices would avoid or reduce potential significant biological impacts to levels below that of significance.

f) No habitat conservation plans or other similar plans have been adopted for the project site or project area. No impact would occur in this regard.

Documentation:
California Department of Fish and Wildlife: Natural Diversity Data Base
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Municipal Code, Chapter 18.45, Tree Management Ordinance
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
Biological Study Report for North State Pavilion by Omni-Means, Limited, dated April 2017 (On File with the Planning Division)

Mitigation:
Mitigation Measure 1 – *To minimize the Loss of Riparian Habitat*

a. Erect construction fencing along the outer edges of the construction zone as shown in Figure 4 of the Biological Study Report for North State Pavilion by Omni-Means, Limited, dated April 2017, to prevent accidental entry into riparian habitat and/or under riparian canopy. The fencing shall be regularly inspected and maintained throughout the duration of construction, and shall be removed upon completion of construction.
b. Where work must occur under the canopy of riparian vegetation planned for retention, the lower branches of the trees shall be pruned (not broken) as needed to allow access under the canopy.
c. Stockpile equipment and materials outside of riparian canopy, in designated staging areas.

Mitigation Measure 2 – *Offset the Unavoidable Loss of Riparian Habitat*

The proposed removal of approximately 20 Fremont Cottonwoods in riparian habitat shall be mitigated through off-site planting of Fremont Cottonwoods at a minimum 3:1 ratio. Planting should occur as close to the project site as possible and be in close proximity to the Sacramento River. A vegetation planting and management plan shall be prepared that identifies the planting area size and location, planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements. The plan shall be reviewed and approved by CDFW and the City of Redding. The applicant shall be responsible for ensuring that the planting plan is fully implemented.

Mitigation Measure 3 – *Avoid the "Take" of Roosting Bats.*

Prior to removal of riparian habitat or mature (≥12 inch dbh) non-riparian trees, a qualified biologist shall inspect the affected vegetation. If bats are determined to be roosting or could potentially roost on the affect vegetation, the biologist shall develop and oversee implementation of appropriate measures to avoid the "take" of roosting bats.

Mitigation Measure 4 – *Avoid Disturbing Nesting Bald Eagles and Migratory Birds.*

If possible, vegetation removal and initiation of intensive site construction activities should occur before February 1 or after August 31 to avoid impacts on nesting bald eagles and migratory birds. If vegetation removal or initiation/re-initiation of intensive site construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than seven days prior to the beginning of the on-site activity. If nesting birds are found, the nest shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest (or no closer than 660 feet from an active bald eagle nest). If the construction activity is not visible from the nest and similar types of human activities occur within one mile of the nest a 330-foot buffer zone is recommended. For smaller birds that are habituated to human activity, such as cliff swallows nesting on the Cypress Avenue Bridge, a buffer zone of 100 to 200 feet may be sufficient to prevent indirect take. A smaller buffer distance for the nesting bald eagles and migratory birds is authorized by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service.

V. CULTURAL RESOURCES: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				**X**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				**X**
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		
d) Disturb any human remains, including those interred outside of dedicated cemeteries?		**X**		

Discussion:

a, b, d) A cultural resources report, dated April 2017, was submitted by ENPLAN, who conducted a cultural resources survey on September 27, 2016. One new historic-era site was identified and recorded during the survey. However, the newly recorded site does not meet the eligibility criteria of the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) and requires no further consideration. However, their conclusion recommended that further investigation and evaluation of the project site be conducted to fully evaluate the prehistoric and historic archaeological constituents of the project site.

Based on ENPLAN's study and previous studies, one undertaken in1977 and a more recent one in 2007 for the Cypress Bridge Replacement Project, the project site was considered to have a potential for the presence of historic or prehistoric cultural resources due to the project site's location being adjacent to the Sacramento River and known sites nearby. Based on the ENPLAN recommendation, a Phase II subsurface architectural testing and evaluation, dated May 22, 2017, was prepared by Natural Investigations Company, who conducted the field work in February and March 2017. The Phase II testing determined that the project area does not contribute to any potential eligibility for listing in the NRHP or CRHR under any significance criteria. Considering the results of the Phase II study and the lengthy history of extensive disturbance within the project area and all its previous uses, the potential for discovery of intact archaeological deposits or features by implementation of this project is considered low. Based on the Phase II study, the boundaries of this archaeological site south of Cypress Avenue have been redrawn. Although the potential for discovery of intact archaeological deposits or features by implementation of the project project is considered low and the project area is considered ineligible for NRHP or CRHR inclusion, results from a previous recovery in 2007 justifies the recommendation for a construction monitoring mitigation by a qualified archaeologist for ground-disturbing activity.

Although no archaeological deposits or features were found during the Phase II study, monitoring will ensure that if any additional archaeological deposits or features are discovered that they are fully protected during implementation of the project. Based on the results of the excavations coupled with the evidence for extensive disturbance of the land, archaeological monitoring is recommended only within the portion of the site boundary in which ground-disturbing activities would exceed a depth of 40 cm (1.3 feet). Furthermore, the City's standard development conditions include a requirement that if any cultural materials are discovered by chance during construction, all work must stop in the area of the find, and the City must be notified. At the applicant's expense, a qualified archaeological professional must then be retained by the City to review the discovered item(s) and to determine its significance and any appropriate measures. The condition includes a note to be placed on all construction plans informing the construction contractor of this requirement. Implementation of Mitigation Measure 5 would reduce potential impacts to a less than significant level.

c) No unique geologic features, fossil-bearing strata, or paleontological sites are known to exist on the project site.

Documentation:
City of Redding General Plan Background Report, 1998
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103
Cultural Resources Report – North State Pavilion, dated April 2017, by ENPLAN. (On File with the Planning Division)
Phase II Subsurface Archaeological Testing and Evaluation – North State Pavilion, by Natural Investigations Company dated May 22, 2017. (On File with the Planning Division)

Mitigation:
Mitigation Measure 5 – Archaeological monitoring is required within the archaeological site boundary in which ground-disturbing activities will exceed a depth of 40 cm (1.3 feet). Monitoring shall be conducted by a professional archaeologist whose objectives would be to ensure proper evaluation and treatment of any intact and potentially significant cultural material inadvertently exposed. Archaeological monitoring shall be included as a prerequisite of any grading permit or improvement-plan approval should the plans propose ground-disturbing activities with a depth of 40 cm (1.3 feet) or greater within the archaeological site boundary. If, during the course of development, any archaeological, historical, or paleontological resources are uncovered, discovered, or otherwise detect or observed, construction activities in the affect area shall cease. The findings are deemed potentially significant by the archaeologist, appropriate treatment and mitigation shall be required in accordance with State laws, as reviewed and approved by the City, prior to resumption of work in the area affected. A written confirmation of the monitoring work and any findings shall be provided to the City by the archaeologist.

VI. GEOLOGY AND SOILS: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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 Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?				**X**
b) Result in substantial soil erosion or the loss of topsoil?				**X**
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-				**X**

VI. GEOLOGY AND SOILS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X

Discussion:

a, c, d) There are no Alquist-Priolo earthquake faults designated in the Redding area of Shasta County. There are no other documented earthquake faults in the immediate vicinity that pose a significant risk, and the site is located in an area designated in the Health and Safety Element of the *General Plan* as having a low ground-shaking potential. The project is not located on or near any documented landslide hazard areas, and there is no evidence of ground slippage or subsidence occurring naturally on the site. The type of soils and underlying geology is identified as having no potential for liquefaction. No portion of the site falls within the 100-year floodplain of the Sacramento River or any creek.

b) The project site contains two primary soil classifications: Cobbly alluvial land and Reiff fine sandy loam. Cobbly alluvial land consists of very gravelly, very cobbly, or very stony, coarse-textured alluvium. It is on flood plains of the Sacramento River and in some places it is along smaller streams. Reiff soils generally are near areas of Anderson, Churn, Perkins, and Tehama soils and of Cobbly alluvial land and Wet alluvial land. Cobbly alluvial land has rapid permeability while the Reiff fine sandy loam has moderately rapid permeability. These land types are excessively drained and runoff is very slow. The hazard of erosion is moderate with the Cobbly alluvial land type and is none to slight with the Reiff fine sandy loam. With the Cobbly alluvial land type, it is subject to frequent flooding, except that it is not subject to annual flooding. Shasta Dam protects much of this land type from flooding. Proposed grading consists of a foundations and pads for the three buildings and the associated infrastructure, parking, and landscaping.

The project is subject to certain erosion-control requirements mandated by existing City and State regulations. These requirements include:

- *City of Redding Grading Ordinance.* This ordinance requires the application of "Best Management Practices" (BMPs) in accordance with the City Erosion and Sediment Control Standards Design Manual (Redding Municipal Code Section 16.12.060, Subsections C, D, E). In practice, specific erosion-control measures are determined upon review of the final project improvement plans and are tailored to project-specific grading impacts.
- *California Regional Water Quality Board "Construction Activity Storm Water Permit."* This permit somewhat overlaps the City's Grading Ordinance provision by applying state standards for erosion-control measures during construction of the project.
- *California Regional Water Quality Control Board "Project Storm Water Pollution Prevention Plan (SWPPP)."* This plan emphasizes stormwater best management practices and is required as part of the Construction Activity Storm Water Permit. The objectives of the SWPPP are to identify the sources of sediment and other pollutants that affect the quality of stormwater discharges and to describe and ensure the implementation of practices to reduce sediment and other pollutants in stormwater discharges.
- *California Department of Fish and Wildlife "1600 Agreement."* This notification is required for any work within a defined streambed and will be applicable to impacts to Sacramento River.
- *U.S. Army Corps of Engineers Nationwide Permit.* A new Nationwide 29 Permit (residential developments) will be required from the U.S. Army Corps of Engineers to address impacts to jurisdictional waters.

Actions for compliance with these regulations are addressed under standard conditions of approval, which are uniformly applied to all land development projects. Since the project is subject to uniformly applied ordinances and policies and the overall risk of erosion is low, potential impacts related to soil erosion and sedimentation are less than significant.

e) The proposed project does not involve the use of septic tanks or alternative wastewater disposal. The proposed project will connect to City sewer. No impact has been identified.

Documentation:
City of Redding Health and Safety Element, figures 4-1 (Ground Shaking Potential) and 4.2 (Liquefaction Potential)
City of Redding General Plan Final Environmental Impact Report
City of Redding General Plan Background Report, 1998
City of Redding Grading Ordinance, RMC Chapter 16.12
City of Redding Standard Specifications, Grading Practices
City of Redding Standard Development Conditions for Discretionary Approvals (subdivisions, use permits, site development permits, etc.)
Soil Survey of Shasta County Area, United States Department of Agriculture, Soil Conservation Service and Forest Service, August 1974
Division of Mines and Geology Special Publication 42
State Regional Water Quality Control Board, Central Valley Region, Regulations related to Construction Activity Storm Water Permits and Storm Water Pollution Prevention Plans

Mitigation:
None necessary.

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

Discussion:
a) In 2005, the Governor of California signed Executive Oder S-3-05, establishing that it is the State of California's goal to reduce statewide greenhouse gas (GHG) emission levels. Subsequently, in 2006, the California State Legislature adopted Assembly Bill AS 32, the California Global Warming Solutions Act. In part, AB 32 requires the California Air Resources Board to develop and adopt regulations to achieve a reduction in the State's GHG emissions to year 1990 levels by year 2020.

California Senate Bill SB97 established that an individual project's effect on GHG emission levels and global warming must be assessed under CEQA. SB97 further directed that the State Office of Planning and Research (OPR) develop guidelines for the assessment of a project's GHG emissions. Those guidelines for GHG emissions were subsequently included as amendments to the CEQA Guidelines. The guidelines did not establish thresholds of significance and there are currently no state, regional, county, or city guidelines or thresholds with which to direct project-level CEQA review. As a result, the City of Redding has utilized the best available information to develop a threshold until a specific quantitative threshold is adopted by the state or regional air district.

As the Lead Agency, the City has opted to utilize a quantitative non-zero project-specific threshold using a methodology recommended by the California Air Pollution Officers (CAPCOA) and accepted by the California Air Resources Board. According to CAPCOA's *Threshold 2.3, CARB Reporting Threshold,* 10,000 metric tons of carbon-dioxide equivalents per year (mtCO2eq/yr) is recommended as a quantitative non-zero threshold. According to the CAPCOA, this threshold would be equivalent to 550 dwelling units, 400,000 square feet of office use, 120,000 square feet of retail, or 70,000 square feet of supermarket use. This approach is estimated to capture over half the future residential and commercial development projects and is designed to support the goals of AB 32 and not hinder it.

The United States Environmental Protection Agency (EPA) identifies four primary constituents that are most representative of the GHG emissions. They are:

- **Carbon Dioxide (CO_2):** Emitted primarily through the burning of fossil fuels. Other sources include the burning of solid waste

and wood and/or wood products and cement manufacturing.

- **Methane (CH_4):** Emissions occur during the production and transport of fuels, such as coal and natural gas. Additional emissions are generated by livestock and agricultural land uses, as well as the decomposition of solid waste.
- **Nitrous Oxide (N_2O):** The principal emitters include agricultural and industrial land uses and fossil fuel and waste combustion.
- **Fluorinated Gases:** These can be emitted during some industrial activities. Also, many of these gases are substitutes for ozone-depleting substances, such as CFC's, which have been used historically as refrigerants. Collectively, these gases are often referred to as "high global-warming potential" gases.

The primary generators of GHG emissions in the United States are electricity generation and transportation. The EPA estimates that nearly 85 percent of the nation's GHG emissions are comprised of carbon dioxide (CO_2). The majority of CO_2 is generated by petroleum consumption associated with transportation and coal consumption associated with electricity generation. The remaining emissions are predominately the result of natural-gas consumption associated with a variety of uses.

With regard to the project, the predominant associated GHG is CO_2 generated by motor-vehicle travel to and from the site. To a substantially lesser degree, the project will result in CH_4 emissions associated with use of electric power generated by the Redding Electric Utility (REU), though it should be noted that REU distributes power from a variety of sources, including hydroelectric, wind, and natural gas.

According to the California Air Pollution Control Officers Association's (CAPCOA) publication, *CEQA and Climate Change,* published in January 2008, there is currently not a single computer model that is capable of estimating all of a project's direct and indirect GHG emissions. However, the Urban Emissions Model (URBEMIS) is designed to model emissions associated with development of urban land uses. URBEMIS attempts to summarize criteria air pollutants and CO_2 emissions that would occur during operation of new development. URBEMIS was developed and is approved for statewide use by CARB. One of the shortfalls of URBEMIS is that the model does not contain emission factors for GHGs other than CO_2 except for methane (CH_4) from mobile sources, which is converted to CO_2. This may not be a major problem since CO_2 is the most important GHG from land development projects.

The emissions from the project as indicated by the URBEMIS model are significantly below the City of Redding's air quality thresholds, as well as GHG emissions thresholds put forth by CARB. Therefore, the project will not contribute significantly to GHG emissions in the air basin. No mitigation measures are required.

On a larger scale, the City of Redding's General Plan acknowledges that land use decisions have an impact on climate and air quality. Land use decisions that result in low or very low density on the periphery of the community increase the amount of vehicle-miles traveled (VMT), which increases vehicle emissions. In response to this impact, the City's *General Plan* includes a number of goals and policies in the Community Development and Design Element, Transportation Element, and Housing Element that promote a compact urban form and encourage infill development, advocate higher housing density, and ensure connectivity to citywide bikeways and pedestrian plans. The goal of these policies is to reduce VMT, which also reduces emissions and reduces a wide variety of air quality impacts. Since automobiles are considered a major source of GHG emission, each vehicle trip reduced also reduces GHG emissions.
[1] CPCOA website, July 19, 2010

Documentation:
City of Redding General Plan, 2000
URBEMIS (2007, v 9.2.4) Air Quality Computer Model

Mitigation:
None necessary.

VIII. HAZARDS AND HAZARDOUS MATERIALS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X

VIII. HAZARDS AND HAZARDOUS MATERIALS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands?				X

Discussion:

a, b, c, d) The nature of the project as medical offices does not present a significant risk related to hazardous materials or emissions. There are no documented hazardous material sites located on or near the project.

e, f) The project is located outside the established approach/departure clear zones for Redding Municipal Airport, a distance of approximately 5.75 miles to the southeast. The project's proposed commercial office land use would not conflict with operations of the Airport or present a safety hazard to people employed at the facilities. Benton Airpark, a public small plane facility is located approximately 1.5 miles to the west of the site. There are no private airstrips in the project vicinity.

g) The project does not involve a use or activity that could interfere with emergency-response or emergency-evacuation plans for the area.

h) The project site does not have a wildland fire-hazard potential. The site has been disturbed in the past and is surrounded primarily by developed residential and commercial parcels.

Documentation:

City of Redding General Plan, Health and Safety Element, 2000

Mitigation:

None necessary.

IX. HYDROLOGY AND WATER QUALITY: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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)?				X
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?				X
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 a manner which would result in flooding on- or offsite?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?				X
g) Place housing within 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		X		
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?			X	
j) Inundation by seiche, tsunami, or mudflow?				X

Discussion:

a) Since the project would be served by City sanitary sewer service, the project would not involve any permitted discharges of waste material into ground or surface waters. Temporary increases in erosion or sediment transport commonly occurs during construction. However, the project is subject to standard City and State requirements defined under Section VI., *Geology and Soils*, that minimize the potential for erosion or siltation on- or off-site. Therefore, any impact due to temporary erosion or sediment transport is less than significant.

b) The project would utilize City water service for domestic uses and fire protection. The proposed project would not impact groundwater supplies.

c, f) Grading will require excavations for footing and foundations varying from 2 to 4 feet to accommodate Building "C" located northeast of Building "A" and parallel to Henderson Road (North). Excavations between 5 and 10 feet will be required for Building "A." For Building "B," fills of up to 5 feet will be necessary. In the southern area of the site adjacent to the Henderson Open Space area, fills of 1 to 4 feet will be required and in the northern area, grading will occur with some cuts and fills of up to 2 feet in and around the area of Building "C." To the maximum extent feasible, the earthwork will be balanced between cut and fill. Maximum excavations are estimated at 10 feet and maximum fills of 12 feet. It is estimated that the maximum amount of earthwork will be 30,000 cubic yards (CYs) of which 15,000 CYs will be cut and 15,000 CYs will be fill. Existing retaining walls from previous site improvements will

serve to identify transition areas between cuts and fills.

The project is subject to standard City and State requirements defined under Section VI., *Geology and Soils*, that minimize the potential for erosion or siltation on- or off-site. The final improvement plans for the project must also incorporate specific design measures intended to limit pollutant discharges in stormwater from urban improvements as established under the State's National Pollutant Discharge Elimination System (NPDES) general permit, which the City is now obligated to follow in accordance with State Water Quality Control Order No. 2003-0005-DWQ. Feasible Best Management Practices (BMPs) would be incorporated in the final design of the project's storm-drain system, as approved by the City Engineer, based on the BMPs listed in the latest edition of the California Storm Water Quality Association Storm Water Best Management Practices Handbook.

d, e) City of Redding Policy 1806 requires that all development include stormwater detention facilities designed to maintain existing predevelopment rates of runoff during a 10-, 25-, and 100-year storm event with a 6-hour duration. However, Policy 1806 does not apply to projects that are in close proximity to a natural waterway where there will not be development between the project and the waterway. The project is adjacent to the Henderson Open Space area and there will not be development within the open space area that will be negatively impacted. The project site will partially drain to an existing City storm-drain system located at the northwest corner, partially to an existing City storm drain system located at the southern end of the site, and the remainder will drain directly to the Sacramento River. Furthermore, the project is proposing bioretention areas within landscaping areas throughout the project site to remove silt and pollution from surface runoff from the building areas, parking and driveway surfaces.

g, h, i) Currently, the Federal Emergency Management Agency (FEMA) 100-year floodplain of the Sacramento River inundates approximately 1.2 acres of the project site and the floodway of the Sacramento River inundates approximately 2.40 acres of the project site. A proposed Letter of Map Revision (LOMR) has been submitted to FEMA proposing the floodway and floodplain further westward resulting in the removal of the floodway from the project site and approximately 1.80 acres of the site within FEMA's 100-year floodplain. The proposed LOMR will result in having a portion of the parking lot inundated by the FEMA 100-year floodplain. However, the proposed parking will be raised above the base flood elevation and therefore will not be impacted during 100-year flood events. A flood study has been performed by Pacific Hydrologic Incorporated, dated February 2, 2016. The assessment concludes the parking lot as presently anticipated will not increase the water surface elevation or the extent of inundation during the most probable 100-year flood. The project is proposed under anticipated LOMR, otherwise portions of Buildings "A" and "B" would either be in the floodway or the 100-year floodplain. Therefore, prior to the issuance of a certificate of occupancy, the LOMR shall be approved by FEMA.

j) The threat of a tsunami wave is not applicable to inland, central valley communities such as Redding. Seiches could potentially be generated in either Shasta or Whiskeytown Lakes during an earthquake. However, neither lake has been identified in the Health and Safety Element of the General Plan as having any risk to the City under such circumstances. There is no documented threat of mudflows affecting the project site.

Documentation:
City of Redding General Plan Background Report, Chapter 10, Health and Safety Element, 1998
Federal Emergency Management Agency Floodplain regulations, FIRM maps 06089C1539G and 06089C1553G, dated March 17, 2011
City of Redding Storm Drain Master Plan, Montgomery-Watson Engineers 1993
Flood Study by Pacific Hydrologic Incorporated, dated February 2, 2016

Mitigation:
Mitigation 6 - Prior to the issuance of a certificate of occupancy, the Letter of Map Revision to revise the floodway and 100-year floodplain shall be approved by FEMA.

X. LAND USE AND PLANNING: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Physically divide an established community?				**X**

X. LAND USE AND PLANNING: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion:

a) The project does not have the potential to physically divide an established community. Although fencing is proposed along the north and west perimeter of project site, openings are being provided to allow tenants, patients and the general public to access the Henderson Open Space area to the west from the project site.

b) The project is approximately 10.55 acres in size. The project area is currently zoned for office and commercial, "GO" and "GC" Zoning Designations, and has a General Plan designation of "General Office," "General Commercial," and "Greenway." Although medical offices are allowed within the existing zoning districts, the applicant is proposing a rezoning to "PF" Public Facilities and a general plan amendment to "Public Facilities." The project is compatible with the applicable policies and regulations of the City's General Plan and Zoning Ordinance and does not conflict with any other Plan adopted by a jurisdictional agency for the purpose of avoiding or mitigating an environmental effect.

c) There is no habitat conservation or natural community conservation plans applicable to the site.

Documentation:

City of Redding General Plan, Community Development Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding General Plan, Natural Resources Element, 2000

Mitigation:

None necessary.

XI. MINERAL RESOURCES: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?				X

Discussion:

a, b) The project site is not identified in the General Plan as having any known mineral-resource value or as being located within any "Critical Mineral Resource Overlay" area. There is no impact.

Documentation:

City of Redding General Plan, Natural Resources Element, 2000

Mitigation:
None necessary.

XII. NOISE: *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
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?				X

Discussion:

a, b, c) The project site is located on the east side of the Sacramento River on the south side of Cypress Bridge. The City of Redding *General Plan* Noise Element establishes 45 dBA L_{dn} as the standard acceptable interior noise level for office land uses. There is not an established criterion for outdoor activity areas for office land uses.

A noise study was performed by J.C. Brennan & Associates dated April 27, 2017. The study determined that Cypress Avenue is predicted to range between 53-65 dBA L_{dn} at the proposed project buildings. Based upon a typical 25 dB exterior-to-interior noise level reduction achieved by modern building construction, interior noise levels of 28-40 dBA L_{dn} would be expected. Therefore, traffic noise exposure would comply with the City of Redding 45 dBA L_{dn} interior noise level standard for office land uses without additional noise control measures.

In regards to the project generation of exterior noise, the study determined that the project is predicted to generate exterior noise levels of 51 dBA L_{dn}, or less, at the nearest sensitive receptors. These noise levels would comply with the City of Redding 55 dBA L_{dn} daytime exterior noise level standard. This conclusion assumes that the backup generator for Building B would generate a noise level of 75 dBA L_{dn}, or less, at a distance of 7 meters (23 feet). Additionally, the generator shall be exercised (tested) during daytime hours only. Nighttime operation of the Building B generator could exceed the City's nighttime noise level standard of 45 dBA L_{eq}; however, nighttime operation would likely only occur under a widespread power loss scenario. Under these circumstances, noise from operation of emergency power generators is exempt from noise regulations. Since the hours of operation are not certain at this time, Mitigation Measures 7 and 8 are necessary to ensure that the nighttime noise generated from Building B generator will not impact the adjacent sensitive receptors. Mitigation Measure 8 is also applicable to generators serving Buildings A and C.

The study has additionally determined that the proposed project will not result in the following:

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

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

d) During the construction of the proposed project, there will be a temporary increase in noise in the project vicinity above existing ambient noise levels. The most noticeable construction noise will be related to grading, utility excavation, and land-clearing activity. The City's Grading Ordinance (RMC Chapter 16.12.120.H) limits grading-permit-authorized activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. No operations are allowed on Sunday. Since heavy construction work associated with the project is limited in scope and by existing regulation, the anticipated noise impact to neighboring residents is considered less than significant. While this impact is predicted to be less than significant, Mitigation Measures 9 and 10 are required to further reduce project construction noise at sensitive receptors.

e, f) The project site is located approximately 5.75 miles northwest from the Redding Municipal Airport and is not within any of the noise contours of the airport. There are no private airstrips in the vicinity of the project site.

Documentation:
City of Redding General Plan, Noise Element, 2000
City of Redding Grading Ordinance Redding Municipal Code, Section 16.12.120
City of Redding General Plan, Transportation Element, 2000
City of Redding Zoning Ordinance Redding Municipal Code, Section 18.40.100
City of Redding Municipal Airport Area Plan
Noise Study for Dignity Health Mercy Medical Center North State Pavilion, dated April 27, 2017, by J.C. Brennan & Associates, Inc. (On File with the Planning Division)

Mitigations:
Mitigation 7 - Prior to issuance of a building permit, the project applicant shall provide to the satisfaction of the City of Redding Development Services Department, an acoustical analysis that demonstrates that operational noise levels from the use of emergency generators do not exceed 75 dBA Leq as measured at a distance of 7 meters (23 feet) feet from the generator.
Mitigation 8 - Generators shall be exercised during daytime hours only.
Mitigation 9 - Locate fixed construction equipment such as compressors and generators as far as possible from sensitive receptors. Shroud or shield all impact tools, and muffle or shield all intakes and exhaust ports on power construction equipment.
Mitigation 10 - All heavy trucks used for soil or materials hauling shall not use local residential streets during project construction.

XIII. POPULATION AND HOUSING: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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)?				**X**
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Discussion:
a, b, c) The project will improve road access to the City's Henderson Open Space Area as planned and anticipated by the Redding *General Plan*. The project would not induce unplanned population growth and does not propose the extension of any new roads or utilities not anticipated by the *General Plan*. The project does not displace substantial numbers of people or substantial numbers of existing housing.

Documentation:
City of Redding General Plan, Housing Element, 2014

Mitigation:
None necessary.

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

Discussion:
This project is required to contribute to the City of Redding development fees to address impacts related to fire, police, schools, and parks. Tenants or patients of the development may require the services of the Redding Fire Department in the event of an emergency. The development of this project would require adequate water pressure in the waterlines and must comply with the Uniform Fire and Building Codes used by the City of Redding. Tenants or patients of the project may also require the services of the Redding Police Department in the event of an emergency. The site is located within City of Redding boundaries and currently receives City services. The construction of commercial buildings can generate secondary impacts to local schools by inducing growth. The impacts upon public services associated with this project are considered less than significant.

Documentation:
City of Redding General Plan, Public Facilities Element, 2000

Mitigation:
None necessary.

XV. RECREATION:	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
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?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Discussion:
a, b) Impacts to park facilities are considered no impact. As a nonresidential development project, the proposal is not expected to generate any significant additional demand for recreation opportunities or impact existing or proposed recreational facilities in Redding. The proposed project does not facilitate access to the Henderson Open Space area of recreational benefit to the community.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan, Recreation Element, 2000
City of Redding General Plan, Public Facilities Element, 2000

Mitigation:
None necessary.

XVI. TRANSPORTATION/TRAFFIC: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?		X		
b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highway?		X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?				X

Discussion:

a, b, d) A traffic analysis was prepared for the project by Omni-Means, Limited dated April 2017. Although the project is planned to be completed in two phases, for the purpose of the traffic analysis, the project was analyzed in one phase. The study determined the project impacts on traffic would be considered less than significant with either the payment of city-wide traffic impact fees (TIF) or the construction of improvements. Below are the recommended improvements. The required improvements that are necessary prior to project occupancy are those at the Hartnell and Cypress Avenue intersection to mitigate the impacts under the Existing Plus Project Scenario. The remaining improvements will be mitigated through the payment of the project's pro-rata cost share. Mitigation Measures 11, 12, and 13 specifically address the required improvements and payment of the project's pro-rata cost share.

Hartnell Avenue & Cobblestone Shopping Center (Main Driveway) This mitigation is required due to the assumption that the Cobblestone Shopping Center will redevelop to full occupancy. Since the Shopping Center redevelopment is the core event that will trigger the mitigation, the driveway mitigation will be the responsibility of the future Shopping Center redevelopment and not the project.

Option 1:

- Restriping of the following:
- Restripe southbound left turn lane to a two-way turn lane.
- Restripe eastbound left turn lane to a left/thru lane and a right turn pocket; or

Option2:

- Construct a traffic signal; or

Option 3:

- Eliminate southbound left turn movement.
- Eliminate westbound left turn movement.
- Convert southbound left turn lane into acceptance pocket for the eastbound left turn.

Hartnell Avenue & Cypress Avenue Prior to occupancy of the project, construction of mitigations for the Existing Plus Project impact will be necessary. The remaining mitigations listed under Year 2035 Plus Project impact will be mitigated by payment of the project's pro-rata cost share.

Existing Plus Project Conditions

- Construct a southbound left turn pocket
- Construct a southbound thru/right lane
- Convert intersection to an eight phase traffic signal
- Due to additional queuing on the northbound approach, the project will be required to construct a narrow raised concrete median on Hartnell Avenue to restrict left turns out from the intersection of Hartnell Avenue and Henderson Road (North)

Year 2035 Plus Project Conditions

- Construct dual left turn pockets for the westbound approach
- Expand southbound Hartnell Avenue to accommodate dual left turns from Cypress Avenue

c) The project site is located outside the Approach Zones for both the Redding Municipal Airport and Benton Airpark; therefore, there is no potential to interfere with airport operations. No impacts are anticipated in this regard.

e) Access to the site is provided by way of Henderson Road and Parkview Road. The City's Fire Department has performed a review of the project to ensure that the design will provide adequate emergency access. No impact to emergency access would occur as a result of the proposed project. Additionally, the completed project would ultimately help improve emergency access into portions of the Henderson Open Space Area.

e) The project has been designed to provide vehicle parking in compliance with the City's parking standards; therefore, there are no impacts with respect to parking.

f) The project would not conflict with adopted policies, plans, or programs supporting alternative transportation. The Redding Area Bus Authority (RABA) has reviewed the plan and has not required a bus turnout at this time for this project.

Documentation:

City of Redding General Plan, Transportation Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding Parks, Trails, and Open Space Master Plan, 2002
City of Redding Traffic Impact Fee Program
City of Redding Bikeway Action Plan 2010–2015
Redding Area Bus Authority System Map and Route Guide, October 2000
Traffic Impact Analysis Report for Dignity Mercy Medical Center Redding North State Pavilion by Omni-Means, Limited dated April 2017 (On File with the Planning Division)

Mitigations:

Mitigation 11 - Prior to issuance of a Certificate of Occupancy for the first building, the following improvements shall be completed at the intersection of Hartnell and Cypress Avenues:

- Construct a southbound left turn pocket
- Construct a southbound thru/right lane
- Convert intersection to an eight phase traffic signal
- Due to additional queuing on the northbound approach, the project will be required to construct a narrow raised concrete median on Hartnell Avenue to restrict left turns out from the intersection of Hartnell Avenue and Henderson Road (North)

Mitigation 12 - Payment of a pro-rata cost share representing 32 percent of the cost for restriping for the following improvements at Hartnell Avenue & Cobblestone Shopping Center (Main Driveway) as listed below:

- Restripe southbound left turn lane to a two-way turn lane.
- Restripe eastbound left turn lane to a left/thru lane and a right turn pocket.

The fee shall be established based on an engineer's cost estimate of the restriping plan prepared by the permittee and approved by the City Engineer. The fee shall be deposited with the City of Redding prior to issuance of a certificate of occupancy.

Mitigation 13 - Payment of a pro-rata cost share representing 33 percent of the cost for the following improvements at the intersection of Hartnell and Cypress Avenues:

- Construct dual left turn pockets for the westbound approach.
- Expand southbound Hartnell Avenue to accommodate dual left turns from Cypress Avenue.

The fee shall be established based on an engineer's cost estimate of the improvement plan prepared by the permittee and approved by the City Engineer. The fee shall be deposited with the City of Redding prior to issuance of a certificate of occupancy.

XVII. TRIBAL CULTURAL RESOURCES: *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				**X**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				**X**

Discussion:

a, b) As discussed under Section V, Cultural Resources, a cultural resources report dated April 2017, was prepared by ENPLAN, who conducted a cultural resources survey on September 27, 2016, which resulted in a Phase II study prepared by Natural Investigations Company, dated May 22, 2017.

Considering the results of the cultural resources survey, Phase II study, and the lengthy history of extensive disturbance within the project area and all its previous uses, the potential for discovery of intact archaeological deposits or features by implementation of this project is considered low. However as discussed previously, mitigation measures are required. See the mitigation measures under Section V, Cultural Resources.

Regarding Native American Outreach, the City of Redding sent out a notification of consultation to the Redding Rancheria. No response has been received. ENPLAN sent a request for a Sacred Lands Search and Native American contact list to the Native American Heritage Commission (NAHC) on June 13, 2016. The NAHC responded on June 15, 2016, noting that their records did not indicate the presence of sacred lands in the project vicinity. Request for comment letters were sent on September 6, 2016, to Kelli Hayward, Wintu Tribe of Northern California; Marilyn Delgado, Chairperson, Nor-Rel-Muk Nation; Caleen Sisk-Franco, Tribal Chair, Winnemem Wintu Tribe; Mickey Gemmill, Chairperson, Pit River Tribe; Tribal Historic Preservation Officer, Pit River Tribe; Jack Potter Jr., Chairperson, Redding Rancheria; and James Hayward Sr., Cultural Resources Program Manager, Redding Rancheria. No responses were received. In addition, ENPLAN sent a Request for Comment letter to the Shasta Historical Society on September 15, 2016. No response was received.

Documentation:

Cultural Resources Report – North State Pavilion, dated April 2017 by ENPLAN. (On File with the Planning Division)

Phase II Subsurface Archaeological Testing and Evaluation – North State Pavilion, by Natural Investigations Company dated May 22, 2017. (On File with the Planning Division)

Mitigation:
None necessary.

XVIII. **UTILITIES AND SERVICE SYSTEMS:** *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
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?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project which serves or may serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with Federal, State, and local statutes and regulations related to solid waste?				X

Discussion:
Adequate utilities and service systems are available to the project; therefore, potential significant impacts to utilities are considered to be less than significant. Water and sewer services will be provided by the City of Redding. The developer will be connecting to an existing sewer along Parkview Avenue. Storm water will be collected and detained on-site and transferred via an underground conveyance system to three connection points. One connection is to the City's storm-drain system located at the northwest corner of the project site and the other two will each tie into a proposed culvert at the west property line of the Henderson Open Space project site and will daylight within the Henderson Open Space Area. The developer will be responsible to locate an on-site detention facility outside the building pad and provide detention facilities to accommodate the building and parking areas. The City of Redding Solid Waste Division will collect solid waste. The proposed project will provide the required trash enclosures as shown on the site plan. Pacific Gas and Electric Company will provide natural gas service, and the City of Redding will provide electrical services. AT&T can provide land line telephone services. Spectrum can provide cable services. The developer will be responsible to coordinate the relocation and/or extension of existing gas, electric, and telephone lines to the buildings.

Documentation:
City of Redding General Plan, Public Facilities Elements, 2000
City of Redding Water and Sewer Atlas

Mitigation:
None necessary.

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

Discussion:
Based on the analysis undertaken as part of this Initial Study, the following findings can be made:

a) The project has the potential to directly impact sensitive riparian and wetland habitat and related special status species. However, mitigation measures have been identified and will be implemented by the project to minimize potential impacts to acceptable levels (discussion under Section IV, Biological Resources). No potential significant impacts to cultural or tribal resources have been identified.

Future projects within the resource area include the Henderson-Parkview Open Space Restoration, Trail, and Kayak Launch Access Project, and a Side Channel Restoration Project for which the California Department of Water Resources is the lead agency. Potential impacts from the future Side Channel Restoration Project are unknown, while the Henderson-Parkview Open Space Restoration, Trail, and Kayak Launch Access Project located directly west of the Dignity project site, has prepared a Biological Study Report. Based on the current information, the Henderson-Parkview Open Space Restoration, Trail, and Kayak Launch Access Project have the potential to affect up to 400 square feet (0.009 acre) of valley foothill riparian habitat as a result of understory brush removal and may permanently impact two trees, an alder and an interior live oak. Mitigation to the Henderson Project will be implemented at a 3:1 ratio to offset the direct and temporal loss of riparian habitat, therefore, no net impact will occur. In addition to mitigation, the proposed Henderson Project includes a restoration component that includes: invasive species removal in a 20-acre area; 4-acres of California Native planting, including a one-acre pollinator garden; and aquatic shade planting along the Sacramento River, where feasible. The restoration component will result in a net benefit to VFR within the project area. Given the proposed mitigation measures for all of the proposed projects, including the Dignity North State Pavilion, potential impacts are not cumulatively considerable.

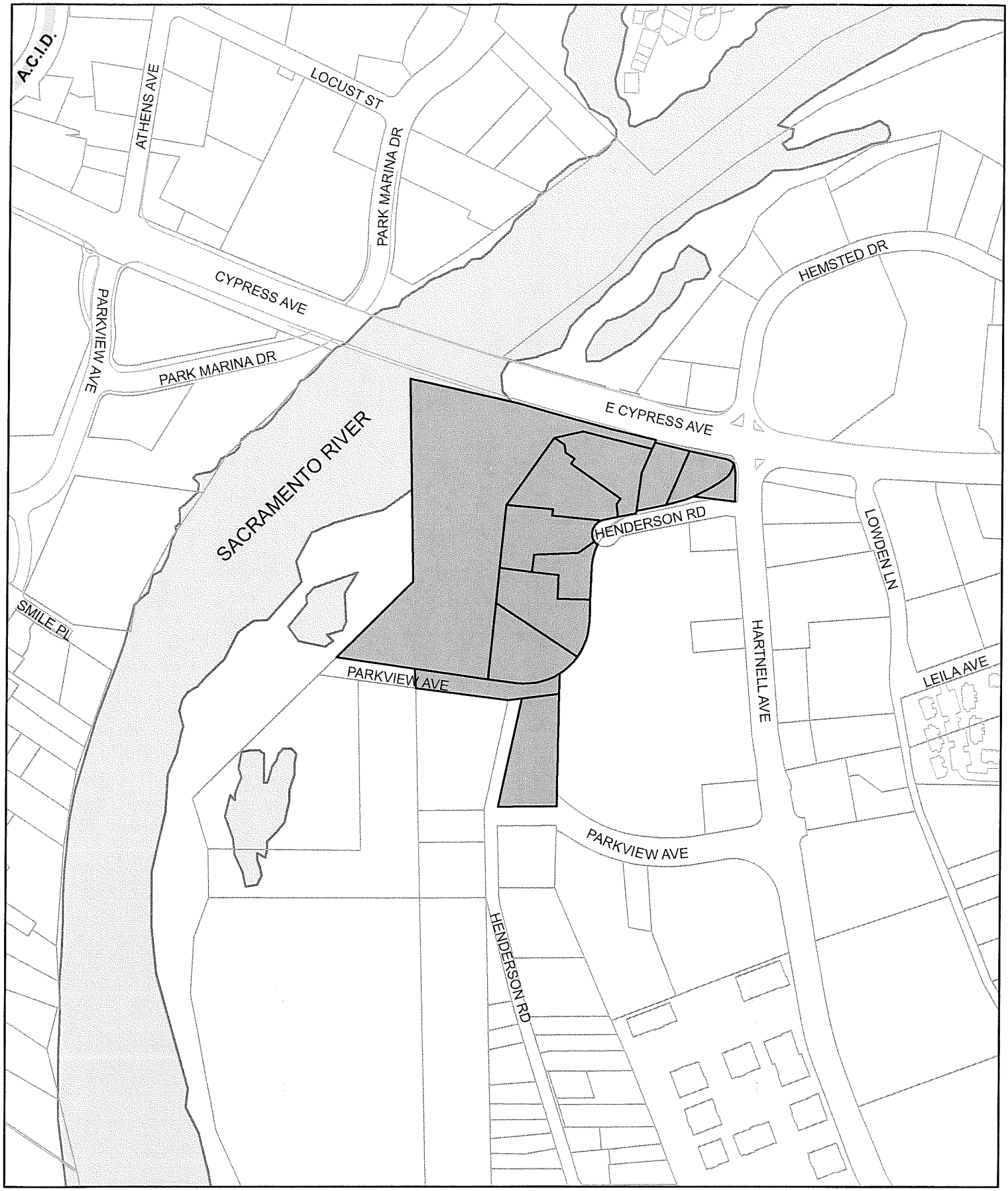
As discussed in Section III, the proposed project will contribute to region-wide cumulative air quality impacts. However, under policy of the *General Plan*, application of Standard Mitigation Measures (SMMs) and Best Available Mitigation Measures (BAMMS) will reduce potential impacts from this project to a level less than significant.

b) As discussed in Section IV, the project may permanently affect up to 0.2 acres of Valley Foothill Riparian habitat and 0.4 acres of Riparian Woodland habitat (based on canopy cover), including up to 20 Fremont Cottonwoods. Mitigation will be implemented at a 3:1 ratio to offset the direct and temporal loss of riparian habitat. Within the Urban Habitat area impacts include the potential removal of 8 Fremont cottonwoods, 12 valley oaks, 7 interior live oaks, 2 maples, one California sycamore, and one Mulberry.

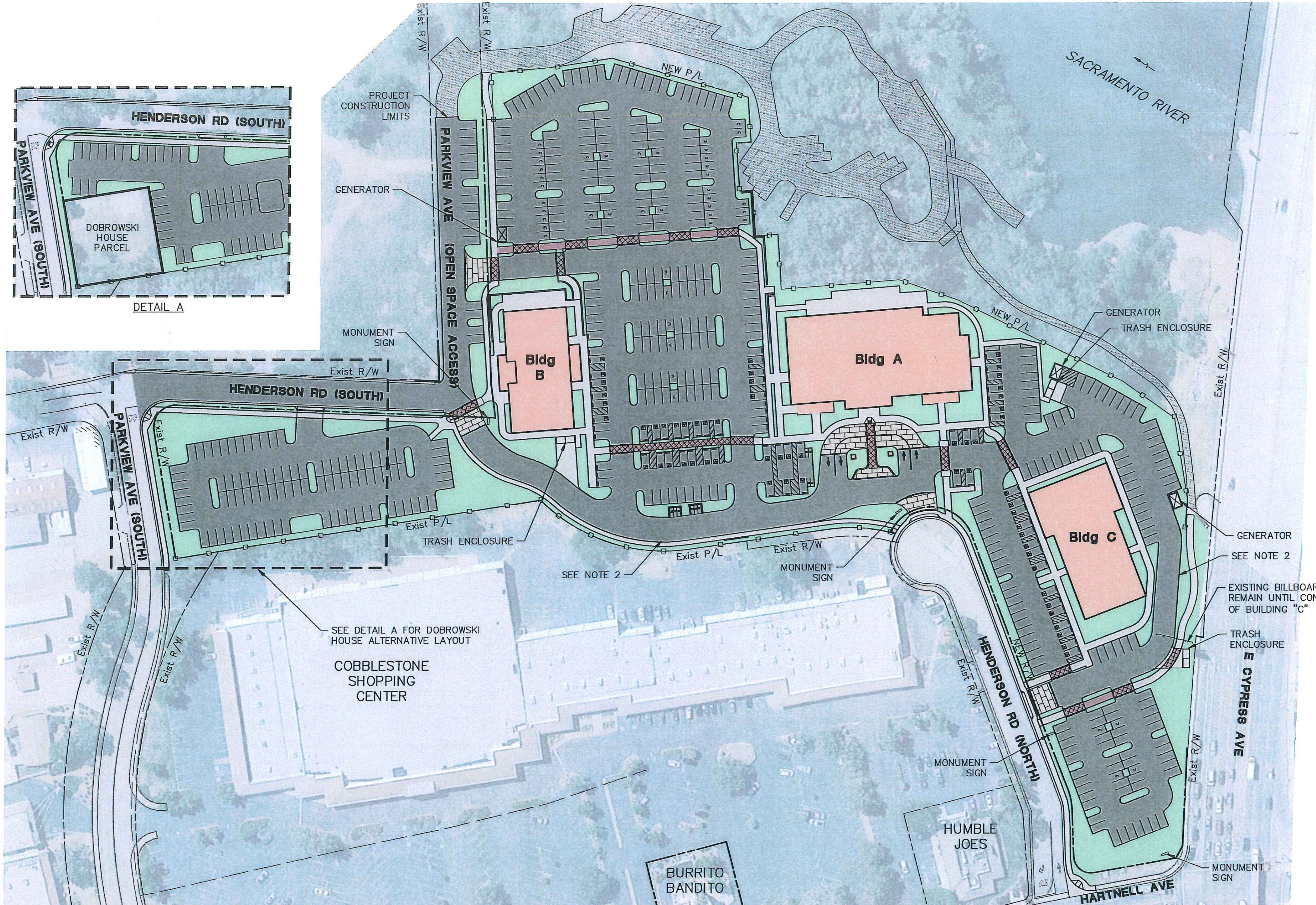
Avoidance and minimization will be implemented where feasible. However, where avoidance is not feasible, mitigation will be implemented at a 3:1 ratio to offset the direct and temporal loss of riparian habitat.

The proposed project includes avoidance, minimization, and mitigation and will result in no net loss of resources or net environmental impacts, therefore; the incremental cumulative effects of the project are insignificant and no additional mitigation measures are proposed.

c) As discussed herein, the project does not have characteristics which could cause substantial adverse effects on human beings, either directly or indirectly.



N W E S	**GIS DIVISION** INFORMATION TECHNOLOGY DEPARTMENT	**LOCATION MAP**	MTG. DATE:
	DATE PRODUCED: JANUARY 5, 2017	DIGNITY HEALTH MERCY MEDICAL CENTER REDDING NORTH STATE PAVILION UP-2017-00001 \ PM-2017-00002 \ GPA-2017-00003 \ RZ-2017-00004 \ PLA-2017-00005	ITEM: ATTACHMENT:
	0 200 400 Feet		
	P:\PLANNING\DWG\UP-2017-00001_PM-02_GPA-03_RZ-04_PLA-05.MXD		



LEGEND

CITY PROJECTS (HENDERSON OPEN SPACE)

DECORATIVE FENCE

NOTE:

1. DOBROWSKI HOUSE PARCEL PER 08-16-16 PURCHASE AND SALE AGREEMENT BETWEEN THE CITY OF REDDING AND DIGNITY HEALTH.
2. NO PARKING SIGNS SHALL BE INSTALLED ALONG MAIN ACCESS ROADWAYS, AS REQUIRED BY THE CITY OF REDDING.

NOT FOR CONSTRUCTION

60' 0 60'
(IN FEET)
1 inch = 60 ft.

June 9, 2017

6/8/2017 3:53 PM J:\PRJ\1966\1966EX025.DWG

NORTH STATE PAVILION

OVERALL SITE PLAN-AERIAL UNDERLAY

omni·means A GHD company

Redding, Cailifornia

Dignity Health

SHEET 3 OF 33

REDDING
330 Hartnell Ave, Suite B
Redding, CA 96002
(530) 242-1700
www.omnimeans.com

also in:
ROSEVILLE
VISALIA
WALNUT CREEK
SAN LUIS OBISPO & NAPA

7/7/2017 2:57:30 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name:

Project Name: North State Pavilion

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2008 TOTALS (tons/year unmitigated)	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
2009 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2010 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2011 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2012 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2013 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2014 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16

2015 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2016 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2017 TOTALS (tons/year unmitigated)	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2018 TOTALS (tons/year unmitigated)	0.32	1.21	1.28	0.00	0.97	0.07	1.04	0.20	0.06	0.27	242.09

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.16	0.16	0.27	0.00	0.00	0.00	190.05

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	3.23	4.50	38.63	0.06	11.06	2.12	6,152.59
TOTALS (tons/year, mitigated)	3.23	4.50	38.63	0.06	11.06	2.12	6,152.59
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	3.39	4.66	38.90	0.06	11.06	2.12	6,342.64

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

D-2: Comment Letters Received

Toy, Lily

From: duanemilleman@charter.net
Sent: Saturday, August 19, 2017 9:55 AM
To: Toy, Lily
Subject: Use Permit Application UP-2017-00001

Dear Ms. Toy,

You recently received a email from Mr. Mike Jones which addressed the Notice of Intent to Adopt Mitigated Negative Declaration and Use Permit Application UP-2017-00001. This email is in response to that email from Mr. Jones.

As the email in question clearly shows pursuing Use Permit Application UP-2017-00001 would be to ignore the laws pertaining to the use of said property. We are all use to government agencies ignoring the laws of the land on issues such as this one, and others as well.. It would be nice if, in this case, our city officials would decide to follow the same rules the rest of us have to abide by.

Duane Milleman
Member of SAGA

Toy, Lily

From: Mike Jones <mjonesrdg@gmail.com>
Sent: Monday, August 21, 2017 8:35 AM
To: Toy, Lily
Cc: Hellman, Paul
Subject: Notice of Intent to adopt Mitigated Negative Declaration UP-2017-00001 Comment Letter #2

Ms. Lily Toy
Senior Planner
City of Redding

RE: Notice of Intent to Adopt Mitigated Negative Declaration and UP-2017-00001

Ms. Toy,

Please include these comments (Letter # 2) in our Planning Commission's packet.

18.51.120 - Environmental review.

Any application for encroachment into a flood-fringe area shall be subject to environmental clearance under the California Environmental Quality Act (CEQA). Any encroachment which significantly raises the projected flood levels on adjacent property or has the potential to increase erosion or diverts the natural flow of water shall be subject to an environmental impact report. The environmental impact report shall evaluate the area needed to make a determination, taking into consideration the cumulative and long-term impact of the proposed encroachment, the relationship of the project to the purpose of this chapter and alternatives to the proposed project.

18.51.130 - Whenever a *floodway* or floodplain is to be altered or relocated.

Preparation of the conditional LOMR application by the applicant's engineer and approval of the conditional LOMR by FEMA will be required prior to issuance of a grading permit or building permit. Approval of the final LOMR is typically required prior to final building permit approval (certificate of occupancy)

18.51.160 - Prohibitions.

No building permit, license, certificate or other approval or entitlement shall be issued or given by the city or any department or employee thereof with respect to any improvement until the design of the improvement has been approved, as provided in this chapter, and the one-hundred-year flood elevation has been determined

18.51.170 - Nuisance.

A.

Any improvement constructed, located, repaired, altered or maintained contrary to the provisions hereof, after the effective date of this chapter, is hereby declared to be unlawful and a public nuisance. If any permit is issued based on plans or other submittals by the applicant or his or her representative which are contrary

to this chapter or planning commission approval, the applicant shall be responsible for correcting any work done under such permit in order to bring it into conformance with the approved design.

B.

Any grading or filling within the floodplain contrary to the provisions of this chapter is hereby declared unlawful and a public nuisance.

C.

When the city engineer has been made aware of the unlawful deposit of filling or grading within the floodplain, he or she shall advise the property owner by registered mail that such material shall be removed within thirty working days and that a riparian reclamation plan must be submitted for approval by the planning commission within the same period of time. Thereafter, the property owner will have nine months to implement the approved plan. The city-approved reclamation plan shall be recorded and shall remain in the title report until the city is satisfied that compliance has been achieved. Within thirty days of planning commission approval, the property owner shall deposit improvement security based on the value of reclamation improvements to ensure that the plan is implemented. Until such time as the property is restored to its natural conditions, no building, grading or use permit shall be issued for improvement of the property.

Respectfully submitted,

Mike Jones, President

Stream and Greenways Alliance

Bcc: SAGA Officers

Toy, Lily

From: Mike Jones <mjonesrdg@gmail.com>
Sent: Friday, August 18, 2017 1:38 PM
To: Toy, Lily
Subject: Dignity Health Notice of Intent to adopt Mitigated Neg. Dec.

August 18, 2017

Ms. Lily Toy, CFM
Senior Planner
Development Services Department
City of Redding
777 Cypress Ave.
Redding, Ca.

Dear Ms. Toy

Stream And Greenways Alliance (SAGA) has carefully reviewed the Notice of Intent to Adopt Mitigated Negative Declaration and Use Permit Application UP-2017-00001 and have concluded that the documents provided are insufficient and substantially inaccurate as lawfully required for a determination that environmental impacts are mitigated as required by the California Environmental Quality Act to adopt a Mitigated Negative Declaration.

The "Location Map" and "Location Narrative" are inconsistent with each other. The narrative describes an area of 10.55 acres while the area shown on the Map is approximately twice that.

In an MND, reduction of impacts must be to an extent defined as "clearly to a less than significant level". Proposed mitigation for impacts to riparian vegetation *(Biological Resources Mitigation Measure #2*) improperly defers mitigation plans for impacts upon mature trees to a future time and lacks evidence that mitigation measures, as offered, are feasible or desirable. Planting of Fremont Cottonwood at the rate of 3:1, as a proposed mitigation, would require over an acre and a quarter of riverside land near the project site. The applicant does not have access to any such land area. A Mitigation Monitoring Plan is required *(21086.6 Resources Code)*.

Biological Resources Mitigation Measures fail to include the importance of habitat that may be impacted that is known to be utilized by other raptors such as osprey and red-tailed hawk and water fowl such as herons, egrets, and kingfishers.

Mitigation Measure #6 relies upon an approval from another agency (FEMA) with no guarantees of issuance. It should be noted that a Letter of Map Revision may be challenged. *(Municipal Code 18.51.030 (B) 3 Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation to the planning commission. Such appeals shall be reviewed consistent with the variance and exception procedures of Title 44, Section 60.6 of the Rules and Regulations of the National Flood Insurance Program (44 CFR 59, etc.)"*

It should also be noted that "field observation" controls when a conflict appears in the location of floodplain or floodway lines. The proposed project would be within the 100 year Floodway. Channelized flood water above the proposed Map
Revision is well documented.

Biological Resources 4(e). The project would conflict with local ordinances protecting riparian habitat in stream corridors. Municipal Code 18.48.040 (Buffer zone) requires setbacks from Riparian Habitat such as mature cottonwood trees. Vegetation must not be removed or otherwise disturbed. Planned removal of mature trees constitutes a violation of this ordinance.

The documents describing Stormwater Runoff Management includes details of detention basins with drain rock and filter material. While this choice and configuration of materials would satisfy stormwater runoff treatment requirements, it would not be able to support the planting and growth of trees in the absence of top-soil. Trees to be planted as located on the Landscape Layout Plans, propose to utilize detention basins for tree plantings. One or the other could be chosen, but not both.

The Stormwater Management Plan relies upon conveyance of the entire stormwater runoff of the lower parking area, to be provided by others. The provision of culverts, ditches, or drain swales by others is uncertain and subject to legal challenge. The applicant must show an alternate plan for stormwater conveyance that is both feasible and desirable prior to approval.

The proposed Stormwater Management Plan calculates for drainage probabilities during a limited time and river level stage but does not address stormwater management during flood events. During high flow regimes, drainage systems would be disabled. Further, flood events could cause backflushing of the detention basins and thus, pour concentrated pollutants. into the Sacramento River.

Project documents related to *Hydrology* express the floodway and floodplain impacts of project drainage but do not include required impact studies of Hydraulic forces upon the parking lot or upon parking lot elements such as: retaining walls, fencing, (regulations do not allow walls or fences to be constructed) light standards, bumpers, and retention basins. The Proposed parking Lot would divert or redirect flood water and cause increased localized velocities, erosion of neighboring development, and undermining of retaining wall footings. A Mitigated Negative Declaration must not be approved with the omission of these studies.

Project documents regarding *Land Use and Planning (b)* rely upon General Plan Amendments and Rezoning in order to qualify a "No Impact" Designation. Application for rezoning may be approved for some areas of development and not others. The Use "Parking Lot" conflicts with the existing General Plan, local ordinances, strategic long-range planning for a Sacramento River Parkway.

The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency would cause a significant effect on the environment and would be irreversible if implemented. *(Public Resources Code §21100.1)*

Impacts upon Recreation associated with these documents do not consider the loss of prime recreational land area that is currently available to the citizens of this community. Conversion of Greenway zoned land to "Parking Facility" constitutes a significant negative impact that is erroneously omitted from mitigation plans.

Respectfully submitted by:
Stream And Greenways Alliance (SAGA)

Mike Jones, President

bcc: SAGA (officers) Amy (CDFW), Dan (Audubon) David (Native Plant Soc.)

ADAMS BROADWELL JOSEPH & CARDOZO

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TEL: (650) 589-1660
FAX: (650) 589-5062

August 21, 2017

VIA EMAIL AND MAIL

Ms. Lily Toy, Senior Planner
Planning Division of the Development Services Department
City of Redding
777 Cypress Avenue
Redding, CA 96001
Email: ltoy@ci.redding.ca.us

Re: Comments on the Initial Study / Mitigated Negative Declaration for the Dignity Health North State Pavilion Project (UP-2017-00001, PM-2017-00002, GPA-2017-00003, RZ-2017-00004)

Dear Ms. Toy:

We write on behalf of the Redding Residents for Responsible Development ("Redding Residents") to provide comments on the Initial Study ("IS") and Mitigated Negative Declaration ("MND") (collectively "IS/MND") prepared by the City of Redding ("City") for the Dignity Health North State Pavilion Project (UP-2017-00001, PM-2017-00002, GPA-2017-00003, RZ-2017-00004) ("Project"), proposed by Dignity Health Mercy Medical Center Redding ("Applicant").

The Project would be located on 10.55 acres at the southwest corner of Cypress and Hartnell Avenues, just south of the Cypress Avenue Bridge. The Project is located within the Federal Emergency Management Agency ("FEMA") 100-year floodplain for the Sacramento River. The Project involves the construction of three buildings totaling approximately 129,600 square feet with associated parking, landscaping, and infrastructure. The buildings will house a wellness center for ambulatory medical offices and clinics. The Project will require the following discretionary entitlements: a use permit for development and to encroach into the FEMA 100-year floodplain; a parcel map; a general plan amendment to amend the general plan from the existing designations of "General Office," "General

Commercial," and "Greenway," to "Public Facility;" and a rezoning from GO-General Office and GC-General Commercial to PF-Public Facility.

Based upon our review of the IS/MND and supporting documentation, we conclude that the MND fails to comply with the requirements of the California Environmental Quality Act[1] ("CEQA"). The IS/MND fails to identify and explain the Project's potentially significant environmental impacts and propose enforceable measures that can reduce those impacts to a less than significant level.

As explained in these comments, there is more than a fair argument that the Project will result in potentially significant impacts relating to air quality, public health, greenhouse gas emissions, hazards, and biological resources. The City may not approve the Project until it prepares an environmental impact report ("EIR") that adequately analyzes the Project's potentially significant direct, indirect and cumulative impacts, and incorporates all feasible mitigation measures to avoid or minimize these impacts.

We prepared these comments with the assistance of air quality and hazards experts Matt Hagemann and Hadley Nolan of Soil/Water/Air Protection Enterprise ("SWAPE") and biological resources expert Scott Cashen. SWAPE's technical comments and curricula vitae are attached hereto as **Attachment A**.[2] Mr. Cashen's comments and curricula vitae are attached hereto as **Attachment B**.[3]

I. STATEMENT OF INTEREST

Redding Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. Redding Residents includes International Brotherhood of Electrical Workers Local 340, Plumbers & Steamfitters Local 228, and Sheet Metal Workers Local 104, and their members and their families who live and/or work in the City of Redding and Shasta County.

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[1] Pub. Resources Code, §§ 21000 et seq.; 14 Cal. Code Regs. §§ 15000 et seq. ("CEQA Guidelines").
[2] **Attachment A**: Letter from Matt Hagemann and Hadley Nolan to Natalie Kuffel re: Comments on the Dignity Health North State Pavilion Project, August 15, 2017 ("SWAPE Comments").
[3] **Attachment B**: Letter from Scott Cashen to Natalie Kuffel re: Comments on the Initial Study and Mitigated Negative Declaration for the Dignity Health North State Pavilion Project, August 15, 2017 ("Cashen Comments"). Note, the documents cited in the Cashen Comments are included on a compact disc that was mailed with this letter.

Redding Residents have a strong interest in enforcing the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. AN EIR IS REQUIRED

CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR.[4] "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR protects not only the environment, but also informed self-government."[5] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[6]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances.[7] CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[8]

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[4] See Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.
[5] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goletta Valley*), internal citations omitted.
[6] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[7] See Pub. Resources Code, § 21100.
[8] Pub. Resources Code, §§ 21080, subd. (d), 21082.2, subd. (d); CEQA Guidelines, §§ 15002, subd. (k)(3), 15064, subds. (f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123 (*Laurel Heights II*); *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602 (*Quail Botanical*).

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review *would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur*, and (2) there is *no substantial evidence* in light of the whole record before the public agency that the project, as revised, *may* have a significant effect on the environment.[9]

Courts have held that if "no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[10] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[11] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[12]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[13] According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (f):

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[9] Pub. Resources Code, § 21064.5 (emphasis added).
[10] See, e.g., *Communities for a Better Environment. v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[11] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[12] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; see also *Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 (*Friends of B Street*) ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[13] CEQA Guidelines, § 15384, subd. (a).

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.

Furthermore, CEQA documents, including EIRs and MNDs, must mitigate significant impacts through measures that are "fully enforceable through permit conditions, agreements, or other legally binding instruments."[14] Deferring formulation of mitigation measures to post-approval studies is generally impermissible.[15] Mitigation measures adopted after Project approval deny the public the opportunity to comment on the Project as modified to mitigate impacts.[16] If identification of specific mitigation measures is impractical until a later stage in the Project, specific performance criteria must be articulated and further approvals must be made contingent upon meeting these performance criteria.[17] Courts have held that simply requiring a project applicant to obtain a future report and then comply with the report's recommendations is insufficient to meet the standard for properly deferred mitigation.[18]

With respect to this Project, the IS/MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts, and fails to provide substantial evidence to conclude that impacts will be mitigated to a less-than-significant level. Because the IS/MND lacks basic information regarding the Project's potentially significant impacts, the IS/MND's conclusion that the Project will have a less-than-significant impact on the environment is unsupported.[19] The City failed to gather the relevant data to support its finding of no significant impacts. Moreover, substantial evidence shows that the Project may result in potentially significant impacts. Therefore, a fair

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[14] CEQA Guidelines, § 15126.4, subd. (a)(2).
[15] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309; Pub. Resources Code, § 21061.
[16] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical, supra,* 29 Cal.App.4th at p. 1604, fn. 5.
[17] *Ibid.*
[18] *Ibid.*
[19] Pub. Resources Code, § 21064.5.

argument can be made that the Project may cause significant impacts requiring the preparation of an EIR.

III. THERE IS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT IMPACTS

Under CEQA, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[20] As discussed below, there is a fair argument supported by substantial evidence that the Project may result in significant impacts relating to air quality, public health, greenhouse gas emissions, hazards, and biological resources. The City is therefore required to prepare an EIR to evaluate the Project's impacts and propose mitigation measures to reduce those impacts to a less-than-significant level.

A. The IS/MND fails to properly analyze air quality impacts and additional mitigation measures are required.

The Redding General Plan creates a system for analyzing project-level air quality impacts.[21] All projects must be mitigated with the Standard Mitigation measures ("SMMs") in order to reduce cumulative air quality impacts. If a project exceeds the Level "A" thresholds of: 25 pounds per day of oxides of nitrogen ("NOx"), 25 pounds per day of reactive organic gases ("ROG"), or 80 pounds per day of inhalable particulate matter ("PM"), then the City must impose the Best Available Mitigation Measures ("BAMMs") in addition to the SMM.[22]

In the IS/MND, the City determined that the Level "A" thresholds were not exceeded that therefore only required the Project to implement the SMMs.[23] However, as noted by our air quality experts SWAPE, the City looked at the annual operational emissions, which are denoted in tons, rather than the pounds per day

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[20] Pub. Resources Code, § 21082.2; CEQA Guidelines, § 15064, subds. (f), (h); *Laurel Heights II, supra,* 6 Cal. 4th at p. 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical, supra,* 29 Cal.App.4th at pp. 1601-1602.
[21] See *City of Redding 2000-2020 General Plan, Air Quality Element,* pp. 25-32.
[22] *Id.* at p. 26.
[23] IS, pp. 8-9.

emissions when making this determination.[24] When the pounds per day emissions are analyzed, SWAPE determined that the Project's NOx emissions (at 32 pounds per day) would exceed the 25 pounds per day Level A threshold.[25] Accordingly, the City must also impose all feasible and appropriate BAMMs.

B. Substantial evidence supports a fair argument that the Project may result in potentially significant impacts to the public health of nearby residents.

The IS/MND does not evaluate the potential health risk posed by the Project to nearby sensitive receptors from exposure to diesel particulate matter ("DPM").[26] DPM is a byproduct of diesel fuel combustion and is emitted by on-road vehicles and off-road construction equipment. As SWAPE demonstrates, there is substantial evidence that the Project could have a potentially significant health risk impact to certain nearby individuals when these toxic air contaminants are analyzed.[27]

SWAPE's analysis indicates that a more refined health risk assessment must be conducted by the City before the Project can be approved.[28] If this health assessment determines that the Project could cause a potentially significant health risk impact, then additional mitigation measures to reduce DPM must be imposed. SWAPE has proposed multiple mitigation measures that could reduce the Project's DPM emissions.[29]

C. The IS/MND's greenhouse gas threshold is not supported by substantial evidence.

The IS/MND uses a threshold of 10,000 metric tons of carbon dioxide equivalents ("MTCO2e") per year to analyze greenhouse gas ("GHG") impacts.[30] According to the IS/MND, this threshold was recommended by the California Air Pollution Control Officers Association ("CAPCOA"), but in fact, CAPCOA

[24] SWAPE Comments, p. 1.
[25] SWAPE Comments, pp. 2-3.
[26] SWAPE Comments, p. 3.
[27] SWAPE Comments, p. 7.
[28] *Ibid.*
[29] SWAPE Comments, pp. 8-13.
[30] IS, p. 16.

recommended a threshold that was less than one tenth of the threshold used by the City: 900 MTCO2e per year.

An agency's selection of a significance threshold must be supported by substantial evidence.[31] Moreover, as stated by the California Supreme Court, "when the agency chooses to rely completely on a single quantitative method to justify a no-significance finding, CEQA demands the agency research and document the quantitative parameters essential to that method. Otherwise, decision makers and the public are left with only an unsubstantiated assertion that the impacts—here, the cumulative impact of the project on global warming—will not be significant."[32] Here, the City has failed to select a threshold that is supported by substantial evidence and has therefore not substantiated its assertion that GHG impacts will be less-than-significant.

As acknowledged by the City, this threshold would only capture 50 percent of all residential and commercial development. CAPCOA recommended that bright-line thresholds capture 90 percent of emissions and created a generally applicable threshold of 900 MTCO2e per year.[33] It was this 90 percent capture concept that was included by California Air Resources Board ("CARB") in its recommendations on CEQA thresholds.[34] Multiple air quality districts built upon that 90 percent capture concept to develop thresholds particular to their area. For example, Santa Barbara County adopted a bright-line numeric threshold of 1,000 MTCO2e per year for industrial stationary-source projects, and Sacramento Metropolitan Air Quality Management District adopted a 1,100 MTCO2e threshold for construction activities and land development projects in their operational phase.[35] In comparison, the 10,000 MTCO2e per year threshold was merely something that was "considered by the Market Advisory Committee for inclusion in a Greenhouse Gas Cap and Trade System."[36] While some air districts use the 10,000 MTCO2e per year threshold for

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[31] CEQA Guidelines, § 15064.7, subd. (b).
[32] *Center for Biological Diversity v. California Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 228.
[33] CAPCOA, *CEQA & Climate Change*, January 2008, at pp. 42-45, available at http://www.energy.ca.gov/2008publications/CAPCOA-1000-2008-010/CAPCOA-1000-2008-010.PDF
[34] CARB, *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases Under the California Environmental Quality Act*, October 24, 2008.
[35] See THE 2017 CLIMATE CHANGE SCOPING PLAN UPDATE, p. 135, fn. 210, available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf
[36] CAPCOA, *supra*, p. 45.

stationary sources,[37] we are not aware of any air district that has adopted such a high threshold for commercial and residential development.

Because the City has not created its own threshold to capture 90 percent of emissions, it should rely on the threshold developed by CAPCOA of 900 MTCO2e per year.[38] The Project's greenhouse gas emissions are 6,351 MTCO2e per year, exceeding this threshold. Accordingly, the Project could have a cumulatively considerable significant impact on climate change.[39]

The City should also consider the recent guidance provided by the California Air Resources Board ("CARB") in its 2017 Climate Change Scoping Plan Update.[40] This is the most current information available about the GHG emissions reductions needed to achieve the State's climate long-term goals. Because this Project will not be operational until after 2020, it cannot rely on outdated 2020 goals.[41] In the updated Scoping Plan, CARB recommends that "all new land use development implement all feasible measures to reduce GHG emissions to do its 'fair share' in supporting the State's goals" and states that "achieving no net increase in GHG emissions is the correct overall objective."[42]

D. The IS/MND relies on an inadequate basis for determining the significance of impacts from hazards.

According to our hazards expert, SWAPE, a Phase I Environmental Site Assessment should have been prepared under standard environmental due diligence practices. Without this information, the City cannot ensure that there will be a less-than-significant impact to the environment from hazards that may be

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[37] See, e.g., Sacramento Metropolitan Air Quality Management District, *SMAQMD GHG Thresholds of Significance Concepts*, August 2014, p. 6-10, available at http://www.airquality.org/LandUseTransportation/Documents/Ch6GHG%20FINAL12-2016.pdf and South Coast Air Quality Management District, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, December 2008, available at http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2

[38] SWAPE Comments, p. 15.

[39] SWAPE Comments, p. 16.

[40] See THE 2017 CLIMATE CHANGE SCOPING PLAN UPDATE, p. 134, available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

[41] *Center for Biological Diversity v. California Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204, 223.

[42] 2017 Climate Change Scoping Plan Update, *supra,* at pp. 105-106.

contained onsite from previous development.[43] This site was previously used as a gasoline service station from 1972 to 1998, which is evidence that contamination could exist and must be further analyzed and mitigated, if necessary.[44]

E. There is substantial evidence of numerous potentially significant impacts to biological resources.

Our biological resources consultant, Scott Cashen, discovered numerous issues with the analysis conducted in the IS/MND and the proposed mitigation. Because of those issues, Mr. Cashen has concluded that the Project could have significant impacts on several sensitive biological resources.[45]

First, Mr. Cashen notes that the Project site contains vegetation communities that are considered sensitive resources in the State of California and are "critically imperiled" or "imperiled." The potential impact to these vegetation communities is not discussed in the IS/MND or the accompanying biological study report.[46] Nor does the IS/MND discuss the potential cumulative impacts to these sensitive resources from this development and other development that will further imperil these vegetation communities.[47] By evaluating only two related projects within less than half a mile of the Project site, the IS/MND overlooks this potentially significant impact. While lead agencies have discretion to select their geographic range, the selection must be supported by substantial evidence. The IS/MND's selected range does not comport with relevant CEQA case law.[48]

Second, Mr. Cashen found that the MND fails to disclose that multiple special-status species occur at, or immediately adjacent to, the Project site. Those species include: western pond turtle, yellow warbler, yellow-breasted chat, ringtail,

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[43] SWAPE Comments, pp. 21-22.
[44] IS, p. 3.
[45] Cashen Comments, p. 19.
[46] Cashen Comments, pp. 1-2.
[47] *Id.* at pp. 13-14.
[48] See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1216 (cumulative impacts analysis inadequate for failing to analyze project 3.6 miles away); *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 739 (projects within 5 miles should be considered); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 721-725 (entire air basin should be considered when analyzing cumulative air quality impacts).

and western spadefoot.[49] Mr. Cashen has provided substantial evidence that each of these species could be significantly impacted by the Project development.[50]

Third, the IS/MND fails to consider how edge effects (lighting, noise, and human activity associated with the Project) will affect nearby habitats.[51] Mr. Cashen found that these edge effects could significantly impact nearby habitats.[52]

Fourth, the IS/MND fails to analyze and mitigate a potentially significant impact to avian populations caused by the buildings' design features. Specifically, Mr. Cashen notes that the Project's buildings, with their large reflective windows adjacent to vegetation and open spaces, will pose a collision risk for a number of bird species that use the Sacramento River and associated riparian habitat.[53]

Fifth, the IS/MND does not provide sufficient mitigation for an identified significant impact. The IS/MND found that the Project had the potential to "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."[54] However, as discussed by Mr. Cashen, the IS/MND proposes no mitigation to lessen this potentially significant impact.[55] Therefore, this potentially significant impact has not been reduced to a less-than-significant level. Moreover, Mr. Cashen has provided substantial evidence that this Project, in conjunction with the nearby Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project, could create a substantial barrier that may hinder wildlife movement.[56]

Finally, three of the mitigation measures proposed in the IS/MND to address significant impacts to biological resources are insufficient. Each of the mitigation measure's deficiencies is discussed in turn below.

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[49] Cashen Comments, pp. 4-7.
[50] *Id.* at pp. 7-8.
[51] *Id.* at pp. 8-10.
[52] *Ibid.*
[53] *Id.* at pp. 11-13.
[54] IS, p. 10.
[55] Cashen Comments, p. 10.
[56] *Ibid.*

a. Mitigation Measure 2 – Offset the Unavoidable Loss of Riparian Habitat

As previously stated, the Project site contains an "imperiled" or "critically imperiled" natural community that will be impacted by the Project. In order to offset the loss of riparian habitat, the IS/MND proposes planting Fremont Cottonwoods offsite and a minimum 3:1 ratio.[57] The City relies on a future "vegetation planting and management plan" to ensure the success of this measure. This represents deferred mitigation as the details provided in the MND are insufficient standards and guidelines for future actions.[58] The City also fails to note whether the land will be protected in perpetuity under a conservation easement.[59]

But even more importantly, it is not clear how many trees will be replaced and whether other vegetation will also be required in order to recreate the lost habitat. According to the tree removal plan, 28 Fremont Cottonwoods would be removed by the Project. But only 20 Cottonwood trees are mentioned in the mitigation measure.[60] Additionally, 20 other native trees will be removed as part of the Project.[61] There is no indication that these trees will be replaced. Finally, there is no requirement within the mitigation measure to replace the other riparian vegetative species that will be destroyed by the Project and are a necessary part of a riparian habitat. The City must mitigate the significant impact caused by the Project, which is the loss of riparian habitat, not simply the loss of the Cottonwood trees.[62] As currently drafted, Mitigation Measure 2 is insufficient to mitigate this significant impact to a less-than-significant level.

b. Mitigation Measure 3 – Avoid the "Take" of Roosting Birds

Mitigation Measure 3, like Mitigation Measure 2, impermissibly defers important details about how the measure will be implemented. In order to prevent

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[57] MND, p. 3.
[58] See *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 281 (finding a habitat management plan to be ineffective because it did not describe anticipated management actions or include standards or guidelines for actions that might be taken).
[59] See *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477 (finding habitat mitigation to be sufficient where on-site and off-site preserved area was "placed within a conservation easement and managed by a nonprofit management firm under a long-term management plan").
[60] Cashen Comments, p. 15.
[61] *Ibid.*
[62] *Ibid.*

a take of roosting bats, the measure requires that a "qualified biologist" inspect the vegetation that will be removed and develop and oversee "appropriate measures." The measure provides no standards for selecting the biologist or determining whether the proposed mitigation is "appropriate." Moreover, no guidance is given on how the biologist should inspect the site and how often the inspections should occur, which could lead to the biologist failing to notice a roosting bat.[63] Finally, no inspection is required prior to the demolition of structures on the Project site. These structures could provide a roosting habitat for the pallid bat.[64] Accordingly, Mr. Cashen has determined that the Project's impact on special-status bats remains potentially significant.[65]

c. Mitigation Measure 4 – Avoid Disturbing Nesting Bald Eagles and Migratory Birds

Mitigation Measure 4 is similarly flawed. Measure 4 requires a survey by a "qualified biologist" if vegetation removal occurs during the nesting season. As stated by Mr. Cashen, this measure "fails to establish minimum standards for the pre-construction nesting bird survey, including the qualifications of the biologist, acceptable survey techniques, level of effort, and extent to which the survey needs to extend into 'adjacent' habitat."[66] Additionally, Mr. Cashen notes that the buffer sizes provided in the measure is insufficient to protect bald eagles, which require a 1-mile buffer from construction activities.[67] Therefore, the Project has the potential to significantly impact bald eagles and other migratory birds, despite Mitigation Measure 4.

IV. CONCLUSION

There is substantial evidence supporting a fair argument that the Project may result in potentially significant adverse impacts that were not identified in the IS/MND, and thus have not been adequately analyzed or mitigated. We urge the City to fulfill its responsibilities under CEQA by withdrawing the IS/MND and preparing a legally adequate EIR to address the potentially significant impacts described in this comment letter and the attached letters from SWAPE and Scott

[63] *Id.* at pp. 16-17.
[64] *Id.* at p. 17.
[65] *Ibid.*
[66] *Ibid.*
[67] *Id.* at p. 18.

Cashen. This is the only way the City and the public will be able to ensure that the Project's significant environmental impacts are mitigated to less-than-significant levels.

Thank you for your attention to these comments.

Sincerely,

Natalie B. Kuffel

NBK:ljl

Attachments

ATTACHMENT A

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August 15, 2017

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Subject: Comments on the Dignity Health North State Pavilion Project

Dear Ms. Kuffel,

We have reviewed the July 2017 Initial Study and Mitigated Negative Declaration (IS/MND) for the Dignity Health North State Pavilion Project ("Project") located in the City of Redding ("City"). The Project is a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping, and infrastructure on 10.55 acres of land.

Our review concludes that IS/MND fails to adequately evaluate the Project's Air Quality, Greenhouse Gas (GHG), and Hazards and Hazardous Waste impacts. As a result, emissions and health impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A Project-specific Draft Environmental Impact Report (DEIR) should be prepared to adequately assess and mitigate the potential air quality, GHG, and hazards impacts that the Project may have on the surrounding environment.

Air Quality

Inadequately Determined Significance of Air Quality Impact

The IS/MND fails to adequately determine the significance of the Project's air quality impact resulting from Project operation. Specifically, our review demonstrates that the IS/MND incorrectly compares the Project's estimated annual ROG, NOx, and PM10 operational emissions to the City of Redding's daily mitigation thresholds. As a result, the Project's air quality impact is misrepresented and the Project's emissions are inadequately mitigated. Furthermore, our review demonstrates that when the correct emissions estimates are compared to thresholds, the Project's criteria air pollutant emissions would exceed thresholds, contrary to what is stated in the IS/MND. Finally, because the IS/MND incorrectly

determines that the Project's emissions would not exceed thresholds, it fails to implement the Best Available Mitigation Measures (BAMMs) to reduce the Project's emissions, which violates requirements set forth in the City of Redding's General Plan. Until an updated air quality analysis is prepared that adequately evaluates and mitigates the Project's air quality impacts, the Project should not be approved.

The IS/MND relies upon mitigation thresholds set forth in the City of Redding's General Plan to determine the significance of the Project's air quality impact (IS, p. 8). The Air Quality Element report, located within the City's General Plan, provides specific mitigation thresholds for NOx, ROG, and PM10 emissions using two sets of tiered thresholds, referred to as Level "A" and Level "B" (see excerpt below) (IS, p. 8).

Level "A"	**Level "B"**
25 pounds per day of NOx	137 pounds per day of NOx
25 pounds per day of ROG	137 pounds per day of ROG
80 pounds per day of PM_{10}	137 pounds per day of PM_{10}

According to the IS/MND, if a project's unmitigated emissions are less than the specific Level "A" thresholds for ROG, NOx, and PM10 emissions, then the Project is classified as a "minor project" and is only required to implement applicable Standard Mitigation Measures (SMMs), as identified in the Air Quality Element report. If the proposed Project generates emissions above the Level "A" threshold, then the Project is required to implement Best Available Mitigation Measures (BAMMs), in addition to the SMMs, in order to achieve a net emissions reduction of 20 percent or more (IS, p. 8). Finally, if the Project's emissions still exceed the Level "B" threshold after application of SMMs and BAMMs, then additional mitigation is required to offset emissions from existing sources of pollution (IS, p. 8-9).

The IS/MND uses the California Air Resource Board's (CARB) Urban Emissions Model (URBEMIS) 2007, Version 9.2.4, to estimate emissions resulting from construction and operation of the proposed Project (IS, p. 9). The Project's URBEMIS Combined Winter Emissions output file, provided in Attachment C of the IS/MND, indicates that the Project's operational activities would produce a maximum of approximately 20 pounds per day (lbs/day) of ROG, approximately 32 lbs/day of NOx, and approximately 61 lbs/day of PM10 (see excerpt below) (Attachment C, Combined Winter Emissions Report, p. 2).

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5
TOTALS (lbs/day, unmitigated)	20.20	32.08	221.45	0.30	60.63	11.63

As demonstrated in the excerpt above, operation of the proposed Project will generate approximately 32 pounds of NOx emissions per day, which exceeds the 25 lbs/day Level "A" threshold set forth in the City's General Plan. Therefore, based on information disclosed in the City's Air Quality Element report, the IS/MND should have implemented BAMMs in order to reduce the Project's operational emissions by

a minimum of 20 percent. Review of the IS/MND's air quality analysis, however, demonstrates that this is not the case. In fact, not only does the IS/MND fail to identify and implement BAMMs into the Project's design, but the IS/MND asserts that the emissions estimates provided by the URBEMIS model demonstrate that the proposed Project will *not* generate ROG, NOx, or PM10 emissions that exceed the Level "A" threshold for each air pollutant (IS, p. 9). Review of the URBEMIS output files demonstrates that the IS/MND reaches this conclusion by comparing the Project's *annual* ROG, NOx, and PM10 emissions estimates to the Level "A" *daily* thresholds for ROG, NOx, and PM10. The excerpt below was taken from the IS/MND's air quality analysis, which demonstrates the emissions estimates the IS/MND relies upon to conclude that "the project would result in ROG, NOx, and PM10 emissions well below the Level "A" threshold" (see excerpt below) (IS, p. 9).

	ROG	NOx	PM_{10}
Total Emissions (lbs./day)	3.39	4.66	11.06

According to table above, which was produced by the Project Applicant, the Project's emissions do not exceed the Level "A" threshold. However, review of the Project's URBEMIS output files demonstrate that the emissions estimates provided in the table above are the proposed Project's annual emissions, not daily emissions (see excerpt below) (Attachment C, Combined Annual Emissions Report, p. 2).

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5
TOTALS (tons/year, unmitigated)	3.39	4.66	38.90	0.06	11.06	2.12

As shown in the excerpt above, the URBEMIS *annual* emissions output file demonstrates that the Project will generate approximately 3.39 tons per year (tons/yr) of ROG emissions, approximately 4.66 tons/yr of NOx emissions, and approximately 11.16 tons/yr of PM10 emissions (Attachment C, Combined Annual Emissions Report, p. 2). Therefore, the IS/MND's assertion that the Project's emissions would not exceed the Level "A" thresholds is entirely incorrect (IS, p. 9). As a result, we find the Project's air quality impact analysis to be unreliable. An updated air quality analysis must be prepared that adequately evaluates the Project's air quality impact. Furthermore, the Project Applicant should implement all applicable BAMM measures, as required by the City's General Plan, to reduce impacts to a less than significant level. Until such an analysis is prepared, the Project should not be approved.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND fails to evaluate, whatsoever, the potential health risk posed to nearby sensitive receptors as a result of exposure to diesel particulate matter (DPM) emissions generated during Project construction and operation, and fails to offer a reason for omitting such an analysis. In fact, the IS/MND makes no mention of the potential cancer risk or health-risk impacts resulting from exposure to toxic air contaminants (TAC) emissions, such as DPM, a known human carcinogen, associated with construction

or operation of the Project. Instead, the IS/MND briefly mentions the potential impacts posed to nearby residents resulting from construction-related fugitive dust emissions. The IS/MND states,

> "Potential impacts to neighboring homes (sensitive receptors) from fugitive dust caused during construction are mitigated by application of the SMMs discussed above" (IS, p. 9).

This, however, does not address the potential cancer risk posed to sensitive receptors near the Project site, since it fails to evaluate the significance of the potential DPM emissions generated during Project construction and operation. It is reasonable to assume that a significant amount of DPM will be emitted during Project construction, seeing as the Project proposes to utilize a total of twenty pieces of off-road construction equipment for a minimum of six hours per day throughout each phase of Project construction (Attachment C, Combined Annual Emissions Report, p. 5-6). Additionally, the Project's proposed land uses will result in frequent truck deliveries and passenger car trips to and from the Project site, which will generate diesel exhaust emissions over the duration of Project operation.

The IS/MND should have conducted some sort of quantitative analysis and should have compared the results of this analysis to applicable thresholds. According to the California Air Pollution Control Officers Association (CAPCOA),

> "Air districts are uniform in their recommendation to use the significance thresholds that have been established under each district's 'Hot Spots' and permitting programs. For the majority of the air districts the excess cancer risk significance threshold is set at 10 in a million".[1]

Therefore, the IS/MND should have conducted an assessment that compares the Project's construction and operational health risks to this threshold in order to determine the Project's health risk impact. By failing to prepare a health risk assessment, the IS/MND fails to provide a comprehensive analysis of the sensitive receptor impacts that may occur as a result of exposure to substantial air pollutants.

Furthermore, the IS/MND's omission of a quantified health risk is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.[2] This guidance document describes the types of projects that warrant the preparation of a health risk assessment. Construction activities for the proposed Project will produce emissions of DPM through the exhaust stacks of the twenty pieces of construction equipment that the Project proposes to use over an approximate 212-day construction duration (Attachment C, Combined Annual Emissions Report, p. 6-7). The OEHHA document recommends that all short-term projects lasting at least two months be

[1] "Health Risk Assessments for Proposed Land Use Projects." CAPCOA, July 2009, *available at:* http://www.valleyair.org/transportation/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf, p. 11

[2] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html

evaluated for cancer risks to nearby sensitive receptors.[3] Once construction is complete, Project operation will generate truck trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to DPM emissions. The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR). The IS/MND does not provide the expected lifetime of the Project, but we can reasonably assume that the Project will operate for at least 30 years if not more. Therefore, per OEHHA guidelines, health risk impacts from Project construction and operation should have been evaluated by the IS/MND. These recommendations reflect the most recent health risk assessment policy, and as such, an assessment of health risks to nearby sensitive receptors from construction and operation should be included in a revised CEQA evaluation for the Project.

In an effort to demonstrate the potential risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level health risk assessment using the annual PM10 exhaust emissions estimate from the Project's URBEMIS model. The results of our assessment, as described below, demonstrate that exposure to construction and operational DPM emissions may result in a potentially significant health risk impact.

As of 2011, the Environmental Protection Agency (EPA) recommends AERSCREEN as the leading air dispersion model, due to improvements in simulating local meteorological conditions based on simple input parameters.[4] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[5] and the California Air Pollution Control Officers Associated (CAPCOA)[6] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary screening health risk assessment of the Project's construction and operational impact to sensitive receptors using the annual PM10 exhaust estimates from the Project's URBEMIS model. The IS/MND fails to disclose how close the nearest sensitive receptors are to the Project site. However, using Google Earth, we determined that the nearest sensitive receptor is located approximately 272 meters from the Project site. Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, starting from the infantile stage of life. We also assumed that construction and operation of the Project would occur in quick succession, with no gaps

[3] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18
[4] "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[5] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[6] "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

between each Project phase. The annual emissions from the Project's URBEMIS model indicate that construction activities will generate approximately 140 pounds of DPM over the 212-day construction period.[7] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{140\ lbs}{212\ days} \times \frac{453.6\ grams}{lb} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.003467\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.003467 grams per second (g/s). Additionally, the IS/MND's URBEMIS model's annual emissions indicate that operational activities will generate approximately 22,120 pounds of DPM over a 29.4-year operational period. Applying the same equation used to estimate the construction DPM emission rate, we estimated the following emission rate for Project operation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{22{,}120\ lbs}{365\ days} \times \frac{453.6\ grams}{lb} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.3182\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.3182 (g/s). Operational activity was simulated as a 10.55-acre rectangular area source in AERSCREEN, which is consistent with the Project acreage provided in the IS/MND (IS, p. 2), with dimensions of 231 meters by 185 meters. A release height of three meters was selected to represent the height of exhaust stacks on construction equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[8] For example, for the MEIR the single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.178 µg/m^3 DPM at approximately 275 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1178 µg/m^3 for Project construction at the MEIR. Additionally, the MEIR the single-hour concentration estimated by AERSCREEN for Project operation is approximately 108.1 µg/m^3 DPM at approximately 275 meters downwind.

[7] According to the URBEMIS output files, the architectural phase of Project construction begins on 9/1/2018. During this time only ROG emissions are generated, as the Project does not use any diesel off-road construction equipment. Therefore, the Project does not emit any PM10 emissions until the grading phase of construction, which begins on 4/1/2018. Thus, we utilized a construction duration of 212 days (beginning on 4/1/2018 and ending on the last day of Project construction, 10/30/2018) in order to conduct the construction health risk assessment, which represents the duration that PM10 emissions were generated during Project construction.

[8] http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf

Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 10.81 µg/m^3 for Project operation at the MEIR.

OEHHA recommends that a 30-year exposure duration be used as the basis for estimating cancer risk at the MEIR.[9] Consistent with OEHHA guidance, exposure to the MEIR was assumed to begin in the infantile stage of life to provide the most conservative estimate of air quality hazards. We determined the concentration of emissions from construction and operation from AERSCREEN. The results of our calculations are shown below.

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	**Duration (years)**	**Concentration (µg/m^3)**	**Breathing Rate (L/kg-day)**	**ASF**	**Cancer Risk**
Construction	0.58	0.1178	1090	10	1.1E-05
Operation	1.42	10.81	1090	10	2.5E-03
Infant Exposure Duration	***2.00***			***Infant Exposure***	***2.5E-03***
Operation	14.00	10.81	572	3	3.9E-03
Child Exposure Duration	***14.00***			***Child Exposure***	***3.9E-03***
Operation	14.00	10.81	261	1	6.0E-04
Adult Exposure Duration	***14.00***			***Adult Exposure***	***6.0E-04***
Lifetime Exposure Duration	**30.00**			**Lifetime Exposure**	**7.04E-03**

The excess cancer risk to adults, children, and infants at the MEIR located 275 meters away, over the course of Project construction and operation are 600, 3,900, and 2,500 in one million, respectively. Furthermore, the excess cancer risk over the course of a residential lifetime (30 years) at the MEIR is approximately 7,040 in one million. Consistent with OEHHA guidance, exposure was assumed to begin in the infantile stage of life to provide the most conservative estimates of air quality hazards. The infant, child, adult, and lifetime cancer risks exceed the 10 in one million threshold. As a result, the Project could have a potentially significant health risk impact to the MEIR.

It should be noted that our analysis represents a screening-level health risk assessment, which is known to be more conservative, and tends to err on the side of health protection.[10] The purpose of a screening-level health risk assessment, however, is to determine if a more refined health risk assessment needs to be conducted. If the results of a screening-level health risk are above applicable thresholds, then the Project needs to conduct a more refined health risk assessment that is more representative of site specific concentrations. Our screening-level health risk assessment demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined health risk assessment must be prepared to examine air quality impacts generated by Project construction and

[9] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-1.
[10] https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 1-5

operation using site-specific meteorology and specific equipment usage schedules. A Project-specific DEIR must be prepared to adequately evaluate the Project's health risk impact, and should include additional mitigation measures to reduce these impacts to a less-than-significant level.[11]

Mitigation Measures Available to Reduce Construction Emissions

Our health risk assessment demonstrates that Project construction-related DPM emissions would result in a significant health risk impact. Therefore, additional mitigation measures must be identified and incorporated in a Project-specific DEIR to reduce these emissions to a less than significant level.

Additional mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce Greenhouse Gas (GHG) levels, as well as reduce criteria air pollutants, such as particulate matter.[12] Diesel particulate matter ("DPM") is a byproduct of diesel fuel combustion, and is emitted by on-road vehicles and by off-road construction equipment. Mitigation for criteria pollutant emissions should include consideration of the following measures in an effort to reduce construction emissions.

Limit Construction Equipment Idling Beyond Regulation Requirements

Heavy duty vehicles will idle during loading/unloading and during layovers or rest periods with the engine still on, which requires fuel use and results in emissions. The California Air Resources Board ("CARB") Heavy-Duty Vehicle Idling Emissions Reduction Program limits idling of diesel-fueled commercial motor vehicles to five minutes. Reduction in idling time beyond the five minutes required under the regulation would further reduce fuel consumption and thus emissions. The Project applicant must develop an enforceable mechanism that monitors the idling time to ensure compliance with this mitigation measure.

Require Implementation of Diesel Control Measures

The Northeast Diesel Collaborative ("NEDC") is a regionally coordinated initiative to reduce diesel emissions, improve public health, and promote clean diesel technology. The NEDC recommends that contracts for all construction projects require the following diesel control measures: [13]

- All diesel onroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA 2007 onroad emissions standards or (2) emission control technology verified by EPA[14] or the California Air Resources Board (CARB)[15] to reduce PM emissions by a minimum of 85 percent.

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[11] See mitigation measures listed in section titled "Additional Feasible Mitigation Measures Available to Reduce Operational Emissions" on p. 15 of this comment letter. The measures listed on p. 15-19 would effectively reduce operational DPM emissions, as well as GHG emissions.

[12] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[13] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

[14] For EPA's list of verified technology: http://www3.epa.gov/otaq/diesel/verification/verif-list.htm

[15] For CARB's list of verified technology: http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.
- All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85 percent for engines 50 horse power (hp) and greater and by a minimum of 20 percent for engines less than 50 hp.
- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[16] approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

Repower or Replace Older Construction Equipment Engines

The NEDC recognizes that availability of equipment that meets the EPA's newer standards is limited.[17] Due to this limitation, the NEDC proposes actions that can be taken to reduce emissions from existing equipment in the *Best Practices for Clean Diesel Construction* report.[18] These actions include but are not limited to:

- Repowering equipment (i.e. replacing older engines with newer, cleaner engines and leaving the body of the equipment intact).

Engine repower may be a cost-effective emissions reduction strategy when a vehicle or machine has a long useful life and the cost of the engine does not approach the cost of the entire vehicle or machine. Examples of good potential replacement candidates include marine vessels, locomotives, and large construction machines.[19] Older diesel vehicles or machines can be repowered with newer diesel engines or in some cases with engines that operate on alternative fuels (see section "Use Alternative Fuels for Construction Equipment" for details). The original engine is taken out of service and a new engine with reduced emission characteristics is installed. Significant emission reductions can be achieved, depending on the newer engine and the vehicle or machine's ability to accept a more modern engine and emission control system. It should be noted, however, that newer engines or higher tier engines are not necessarily cleaner engines, so it is important that the Project Applicant check the actual emission standard level of the current (existing) and new engines to ensure the repower product is reducing emissions for PM10. [20]

- Replacement of older equipment with equipment meeting the latest emission standards.

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[16] Biodiesel lends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf

[17] http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf

[18] http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf

[19] http://www3.epa.gov/otaq/diesel/technologies/engines.htm

[20] Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information, *available at:* https://nepis.epa.gov/Exe/ZyPDF.cgi/P100CVIS.PDF?Dockey=P100CVIS.PDF

Engine replacement can include substituting a cleaner highway engine for a nonroad engine. Diesel equipment may also be replaced with other technologies or fuels. Examples include hybrid switcher locomotives, electric cranes, LNG, CNG, LPG or propane yard tractors, forklifts or loaders. Replacements using natural gas may require changes to fueling infrastructure.[21] Replacements often require some re-engineering work due to differences in size and configuration. Typically there are benefits in fuel efficiency, reliability, warranty, and maintenance costs.[22]

Install Retrofit Devices on Existing Construction Equipment

PM emissions from alternatively-fueled construction equipment can be further reduced by installing retrofit devices on existing and/or new equipment. The most common retrofit technologies are retrofit devices for engine exhaust after-treatment. These devices are installed in the exhaust system to reduce emissions and should not impact engine or vehicle operation.[23] It should be noted that actual emissions reductions and costs will depend on specific manufacturers, technologies and applications.

Use Electric and Hybrid Construction Equipment

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[24] report also proposes the use of electric and/or hybrid construction equipment as a way to mitigate criteria pollutant emissions, such as particulate matter. When construction equipment is powered by grid electricity rather than fossil fuel, direct emissions from fuel combustion are replaced with indirect emissions associated with the electricity used to power the equipment. Furthermore, when construction equipment is powered by hybrid-electric drives, emissions from fuel combustion are also greatly reduced and criteria air pollutants would be 100% reduced for equipment running on electricity. Electric construction equipment is available commercially from companies such as Peterson Pacific Corporation[25] and Komptech USA[26], which specialize in the mechanical processing equipment like grinders and shredders. Construction equipment powered by hybrid-electric drives is also commercially available from companies such as Caterpillar[27]. For example, Caterpillar reports that during an 8-hour shift, its D7E hybrid dozer burns 19.5 percent fewer gallons of fuel than a conventional dozer while achieving a 10.3 percent increase in productivity. The D7E model burns 6.2 gallons per hour compared to a conventional dozer which burns 7.7 gallons per hour.[28] Fuel usage and savings are dependent on the make and model of the

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[21] National Clean Diesel Campaign, p. 19 *available at*: https://www.epa.gov/sites/production/files/2017-02/documents/fy17-state-program-guide-2017-02.pdf

[22] Cleaner Diesels: Low Cost Ways to Reduce Emissions from Construction Equipment, p. 29 *available at*: https://www.epa.gov/sites/production/files/2015-09/documents/cleaner-diesels-low-cost-ways-to-reduce-emissions-from-construction-equipment.pdf

[23] https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel

[24] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[25] Peterson Electric Grinders Brochure, *available at:* http://www.petersoncorp.com/wp-content/uploads/peterson_electric_grinders1.pdf

[26] Komptech Green Efficiency Brochure, *available at:* https://www.komptech.com/index.php?eID=tx_nawsecuredl&u=0&g=0&t=1499460496&hash=62966444 9e3954477f6857f98ad1d73f8f2ec20d&file=fileadmin/komptech/brochures/Green_Efficiency_eng_2015.pdf

[27] http://www.cat.com/en_US/products/new/power-systems/electric-power-generation.html

[28] http://s7d2.scene7.com/is/content/Caterpillar/C811572

construction equipment used. The Project Applicant should calculate project-specific savings and provide manufacturer specifications indicating fuel burned per hour.

Institute a Heavy-Duty Off-Road Vehicle Plan

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[29] report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring hour meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, prior to the construction of a Project the contractor should submit a certified list of all diesel vehicles, construction equipment, and generators to be used on site. [30] The list should include the following: [31]

- Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
- For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.

Implement a Construction Vehicle Inventory Tracking System

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[32] report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring engine run time meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, for each onroad construction vehicle, nonroad construction equipment, or generator, the contractor should submit to the developer's representative a report prior to bringing said equipment on site that includes: [33]

- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
- The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.

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[29] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[30] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf
[31] USEPA's Construction Fleet Inventory Guide is a useful tool in identifying the information required. http://www2.epa.gov/sites/production/files/2015-09/documents/construction-fleet-inventory-guide.pdf
[32] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[33] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

- The Certification Statement[34] signed and printed on the contractor's letterhead.

Furthermore, the contractor should submit to the developer's representative a monthly report that, for each onroad construction vehicle, nonroad construction equipment, or generator onsite, includes: [35]

- Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
- Any problems with the equipment or emission controls.
- Certified copies of fuel deliveries for the time period that identify:
    - Source of supply
    - Quantity of fuel
    - Quality of fuel, including sulfur content (percent by weight).

In addition to those measures, we also recommend that the City require the Applicant to implement the following mitigation measures, called "Enhanced Exhaust Control Practices,"[36] that are recommended by the Sacramento Metropolitan Air Quality Management District ("SMAQMD"):

1. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.
    - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
    - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
    - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
    - The District's Equipment List Form can be used to submit this information.
    - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
2. The project representative shall provide a plan for approval by the lead agency and District demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent CARB fleet average.
    - This plan shall be submitted in conjunction with the equipment inventory.

[34] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf The NEDC Model Certification Statement can be found in Appendix A, p. 10.
[35] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf
[36] http://www.airquality.org/LandUseTransportation/Documents/Ch3EnhancedExhaustControlFINAL10-2013.pdf

- Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
- The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

3. The project representative shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.
    - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly.
    - A visual survey of all in-operation equipment shall be made at least weekly.
    - A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.
4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supersede other District, state or federal rules or regulations.

When combined together, these measures offer a cost-effective way to incorporate lower-emitting equipment into the Project's construction fleet, which subsequently, reduces particulate matter emissions released during Project construction. A DEIR must be prepared to include additional mitigation measures, as well as include an updated air quality assessment to ensure that the necessary mitigation measures are implemented to reduce construction emissions. Furthermore, the Project Applicant needs to demonstrate commitment to the implementation of these measures prior to Project approval to ensure that the Project's construction-related emissions are reduced to the maximum extent possible.

Greenhouse Gas

Failure to Adequately Evaluate Project's Greenhouse Gas Impact

The IS/MND evaluates the Project's greenhouse gas (GHG) impact by comparing the Project's estimated GHG emissions to a "quantitative non-zero project-specific threshold" of 10,000 metric tons per year of carbon dioxide equivalents (MT CO_2e/yr) "using a methodology recommended by the California Air Pollution Officers (CAPCOA) and accepted by the California Air Resources Board" (IS, p. 16). Based off this analysis, the IS/MND determines that since the Project's GHG emissions are approximately 6,343 $MTCO_2e$/yr, which is below the 10,000 $MTCO_2e$/yr screening threshold, "the project will not contribute significantly to GHG emissions in the air basin" (IS, p. 17). This significance determination, however, is incorrect, as the 10,000 MT CO_2e/yr threshold that the IS/MND relies upon to determine Project significance is inconsistent with recommendations set forth by CAPCOA, contrary to what is stated in the IS/MND. As a result, the IS/MND's GHG threshold is not supported by substantial evidence.

CEQA requires public agencies in California to analyze potential adverse impacts from proposed projects undertaken by a public agency. In an effort to provide guidance on how to analyze GHG emissions, the California Air Resource Board (CARB) developed a preliminary draft staff proposal called *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*.[37] The standards and guidelines proposed in this report have not been formally adopted as the state or local standard for determining the cumulative significance of the proposed Project's GHG emissions on global climate change. In its report, CARB introduced the concept of using bright-line mass numeric thresholds based on capturing 90 percent of emissions in a particular sector. [38] Subsequently, several air districts, such as the Sacramento Metropolitan Air Quality Management District (SMAQMD) and the South Coast Air Quality Management District (SCAQMD), used this concept to develop screening thresholds that capture at least 90 percent of all GHG emissions generated by new stationary sources and land development projects.[39,40] Therefore, in order to be consistent with CARB recommendations and the methods employed by various other air districts to evaluate GHG emissions from proposed developments, the IS/MND should also have utilized a GHG screening threshold that captures 90 percent of all emissions generated by new or modified stationary source projects. Review of the IS/MND's GHG analysis, however, demonstrates that this is not the case. Instead of relying upon a screening threshold as described above, the IS/MND relies upon a CARB Reporting Threshold that captures approximately 50 percent of future residential and commercial development emissions. The IS/MND states,

> "As the Lead Agency, the City has opted to utilize a quantitative non-zero project-specific threshold using a methodology recommended by the California Air Pollution Officers (CAPCOA) and accepted by the California Air Resources Board. According to CAPCOA's *Threshold 2.3, CARB Reporting Threshold,* 10,000 metric tons of carbon-dioxide equivalents per year (MT CO_2e/yr) is recommended as a quantitative non-zero threshold. According to the CAPCOA, this threshold would be equivalent to 550 dwelling units, 400,000 square feet of office use, 120,000 square feet of retail, or 70,000 square feet of supermarket use. This approach is estimated to capture over half the future residential and commercial development projects and is designed to support the goals of AB 32 and not hinder it" (IS, p. 16).

[37] "Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act." ARB, October 24, 2008, *available at:* https://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf

[38] "Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act." ARB, October 24, 2008, *available at:* https://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf

[39] "SMAQMD GHG Thresholds of Significance Concepts." Sacramento Metropolitan Air Quality Management District, August 2014, *available at:* http://www.airquality.org/LandUseTransportation/Documents/Ch6GHG%20FINAL12-2016.pdf, p. 6-10.

[40] "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans". SCAQMD, December 2008, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2

According to CAPCOA, however, reliance on such a threshold is less effective at capturing a large portion of GHG emissions generated by proposed developments, and therefore, would result in less mitigation, when compared to lower screening thresholds.[41] According to CAPCOA,

> "Approach 2-based thresholds can be more or less effective at capturing substantial portions of the GHG inventory associated with new development depending on where the quantitative or qualitative thresholds are set. Lower thresholds will capture a broader range of projects and result in greater mitigation. Based on the review of project data for the select municipalities described in the Approach 2 section above, thresholds based on the CARB Reporting Threshold/Cap and Trade Entry Level (Threshold 2.4) or CEQA definitions of "Statewide, Regional or Areawide" projects (Threshold 2.6) will result in a limited capture of the GHG inventory. Lower quantitative or qualitative thresholds (Thresholds 2.1, 2.2 and 2.5) could result in capture of greater than 90 percent of new development".[42]

Therefore, in order to support the goals set forth in AB 32, the IS/MND should have used a screening threshold that captures a greater percentage of emissions generated by new developments. CAPCOA recommends a screening threshold of 900 MT CO_2e/yr to capture 90 percent of future development-related emissions.[43] According to CAPCOA's *CEQA and Climate Change* report,

> "A single quantitative threshold was developed in order to ensure capture of 90 percent or more of likely future discretionary developments. The objective was to set the emission threshold low enough to capture a substantial fraction of future residential and nonresidential development that will be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions".[44]

Furthermore, the report states,

> "This threshold would require the vast majority of new development emission sources to quantify their GHG emissions, apportion the forecast emissions to relevant source categories, and develop GHG mitigation measures to reduce their emissions".[45]

Therefore, in order to be consistent with recommendations set forth by CARB and CAPCOA, the IS/MND should have chosen a GHG screening threshold that captures 90 percent of the emissions generated new residential and office developments, which would be achieved by using a screening threshold of 900 MT CO_2e/yr.

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[41] "CEQA and Climate Change." CAPCOA, January 2008, *available at:* http://www.energy.ca.gov/2008publications/CAPCOA-1000-2008-010/CAPCOA-1000-2008-010.PDF, p. 53
[42] "CEQA and Climate Change." CAPCOA, January 2008, *available at:* http://www.energy.ca.gov/2008publications/CAPCOA-1000-2008-010/CAPCOA-1000-2008-010.PDF, p. 54
[43] "CEQA and Climate Change." CAPCOA, January 2008, *available at:* http://www.energy.ca.gov/2008publications/CAPCOA-1000-2008-010/CAPCOA-1000-2008-010.PDF, p. 42
[44] *Ibid.*
[45] *Ibid,* p. 44

Using the emissions estimates from the Project's URBEMIS output files, we compared the Project's total GHG emissions to a screening threshold of 900 MT CO_2e/yr. The URBEMIS output files demonstrate that construction of the Project would generate approximately 8 MT CO_2e per year (when amortized over Project lifetime) and operation of the Project would generate approximately 6,343 MT CO_2e per year (Attachment C, Combined Annual Emissions Report, p. 2). When the Project's construction emissions and operational emissions are combined, we find that the Project's GHG emissions would exceed a screening threshold of 900 MT CO_2e/yr (see table below).

Annual Greenhouse Gas Emissions	
Emission Source	**Proposed Project (MT CO_2e/yr)**
Construction Emissions (Amortized)	8
Operational Emissions	6,343
Project Total	**6,351**
Screening Threshold	**900**
Exceed?	***Yes***

As you can see in the table above, when we compare the Project's emissions to a screening threshold of 900 MT CO_2e/yr, we find that the Project's emissions would greatly exceed this threshold, thus resulting in a potentially significant impact. The results of this analysis provide substantial evidence that when the Project's emissions are compared to a more appropriate threshold, the Project could result in a significant GHG impact, contrary to what is stated in the IS/MND. Therefore, a Project-specific DEIR must be prepared to adequately evaluate the Project's GHG impact, and additional mitigation should be implemented where necessary, as is required by CEQA.

Mitigation Measures Available to Reduce Operational Emissions

Our analysis demonstrates that the Project's GHG emissions may present a potentially significant GHG impact. In an effort to reduce the Project's GHG emissions, we identified several additional mitigation measures that are applicable to the Project. Additional mitigation measures that could be implemented to reduce operational GHG emissions include, but are not limited to, the following: [46]

- Use passive solar design, such as: [47,48]
    - Orient buildings and incorporate landscaping to maximize passive solar; heating during cool seasons, and minimize solar heat gain during hot seasons; and
    - Enhance natural ventilation by taking advantage of prevailing winds.
- Reduce unnecessary outdoor lighting by utilizing design features such as limiting the hours of operation of outdoor lighting.

[46] http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf
[47] Santa Barbara Air Pollution Control District, Scope and Content of Air Quality Sections in Environmental Documents, September 1997.
[48] Butte County Air Quality Management District, Indirect Source Review Guidelines, March 1997.

- Develop and follow a "green streets guide" that requires:
    - Use of minimal amounts of concrete and asphalt;
    - Installation of permeable pavement to allow for storm water infiltration; and
    - Use of groundcovers rather than pavement to reduce heat reflection.[49]
- Implement Project design features such as:
    - Shade HVAC equipment from direct sunlight;
    - Install high-albedo white thermoplastic polyolefin roof membrane;
    - Install high-efficiency HVAC with hot-gas reheat;
    - Install formaldehyde-free insulation; and
    - Use recycled-content gypsum board.
- Provide education on energy efficiency to residents, customers, and/or tenants. Provide information on energy management services for large energy users.
- Meet "reach" goals for building energy efficiency and renewable energy use.
- Limit the use of outdoor lighting to only that needed for safety and security purposes.
- Require use of electric or alternatively fueled sweepers with HEPA filters.
- Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
- Plant low-VOC emitting shade trees, e.g., in parking lots to reduce evaporative emissions from parked vehicles.
- Use CARB-certified or electric landscaping equipment in project and tenant operations; and introduce electric lawn, and garden equipment exchange program.
- Install an infiltration basin to provide an opportunity for 100% of the storm water to infiltrate on-site.

Furthermore, the Kimball Business Park Project Final Environmental Impact Report includes various feasible mitigation measures that would reduce on-site area emissions that are applicable to the proposed Project's commercial and retail land uses, and include, but are not limited to: [50]

- Increase in insulation such that heat transfer and thermal bridging is minimized.
- Limit air leakage through the structure and/or within the heating and cooling distribution system.
- Use of energy-efficient space heating and cooling equipment.
- Installation of electrical hook-ups at loading dock areas.
- Installation of dual-paned or other energy efficient windows.
- Installation of automatic devices to turn off lights where they are not needed.

[49] *See* Irvine Sustainable Travelways "Green Street" Guidelines; www.ci.irvine.ca.us/civica/filebank/blobdload.asp?BlobID=8934; and Cool Houston Plan; www.harc.edu/Projects/CoolHouston.

[50] Mitigation Monitoring Plan for the Kimball Business Park Project Final Environmental Impact Report, July 2016, *available at*: http://www.cityofchino.org/home/showdocument?id=13244

- Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings.

Finally, additional, feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce GHG levels.[51] GHG emissions are produced during fuel combustion, and are emitted by on-road vehicles and by off-road equipment. Therefore, to reduce the Project's mobile-source GHG emissions, consideration of the following measures should be made.

Reduce VMT by Increasing Transit Accessibility

Making transit more accessible encourages the use of other modes of transportation and therefore reduces VMT. According to CAPCOA, implementation of this mitigation measure would reduce mobile source emissions by 0.5 to 24.6 percent. The Project would need to include, at a minimum, the following design features:

- A transit station/stop with high-quality, high-frequency bus service located within a five to ten-minute walk, or roughly a quarter of a mile from stop to edge of development
- Or a rail station located within a 20-minute walk or roughly half a mile from station edge to development
- Fast, frequent, and reliable transit service connecting to a high percentage of regional destinations
- Neighborhood designed for walking and bicycling

Provide Electric Vehicle Parking

This mitigation measure implements accessible electric vehicle parking to reduce tailpipe emissions. Design features include conductive/inductive electric vehicle charging stations and signage prohibiting parking of non-electric vehicles.

Unbundle Parking Costs from Property Costs

This measure would unbundle parking costs from property costs. Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost. This removes the burden from those who do not wish to utilize a parking space. Parking will be priced separately from home rents/purchase prices or office leases. An assumption is made that the parking costs are passed through to the vehicle owners/drivers utilizing the parking spaces.

Implement Commute Trip Reduction (CTR) Program

The Project could implement a voluntary Commute Trip Reduction (CTR) program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The main difference between a voluntary and a required program is:

- Monitoring and reporting is not required

[51] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

- No established performance standards (i.e. no trip reduction requirements)

The CTR program will provide workers with assistance in using alternative modes of travel. The CTR program should include all of the following to apply the effectiveness reported by the literature:

- Carpooling encouragement
- Ride-matching assistance
- Preferential carpool parking
- Flexible work schedules for carpools
- Half time transportation coordinator
- Vanpool assistance
- Bicycle end-trip facilities

Provide Ride-Sharing Programs

Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The Project can include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. The Project can promote ride-sharing programs through a multi-faceted approach such as:

- Designating a certain percentage of parking spaces for ride sharing vehicles
- Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
- Providing a web site or message board for coordinating rides

Implement Subsidized or Discounted Transit Program

This Project could provide subsidized/discounted daily or monthly public transit passes. The Project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer or development. Many entities use revenue from parking to offset the cost of such a Project.

Provide End of Trip Facilities

The Project can provide "end-of-trip" facilities for bicycle riders including showers, secure bicycle lockers, and changing spaces. End-of-trip facilities encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of-trip facilities provide the added convenience and security needed to encourage bicycle commuting.

Implement Car-Sharing Program

This Project could implement a car-sharing program to allow people to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees. The car-sharing program could be created through a local partnership or through one of many existing car-share companies. Car-sharing programs may be grouped into three general categories: residential- or citywide-based, employer-based, and

transit station-based. Transit station-based programs focus on providing the "last-mile" solution and link transit with commuters' final destinations.

Provide Employer-Sponsored Vanpool/Shuttle

The Project could implement an employer-sponsored vanpool or shuttle. A vanpool will usually service workers' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration, if not more. The driver usually receives personal use of the van, often for a mileage fee. Scheduling is within the employer's purview, and rider charges are normally set on the basis of vehicle and operating cost.

Implement Commute Trip Reduction Marketing

The Project can implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include:

- New employee orientation of trip reduction and alternative mode options
- Event promotions
- Publications

Implement Preferential Parking Permit Program

The Project can provide preferential parking in convenient locations (such as near public transportation or building front doors) in terms of free or reduced parking fees, priority parking, or reserved parking for commuters who carpool, vanpool, ride-share or use alternatively fueled vehicles. The Project should provide wide parking spaces to accommodate vanpool vehicles.

Price Workplace Parking

The Project can implement workplace parking pricing at its employment centers. This may include: explicitly charging for parking for its employees, implementing above market rate pricing, validating parking only for invited guests, not providing employee parking and transportation allowances, and educating employees about available alternatives.

Implement Employee Parking "Cash-Out"

The Project may require employers to offer employee parking "cash-out." The term "cashout" is used to describe the employer providing employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to the cost of the parking space to the employer.

Implement Transit Access Improvements

This Project can improve access to transit facilities through sidewalk/ crosswalk safety enhancements and bus shelter improvements.

Expand Transit Network

The Project may expand the local transit network by adding or modifying existing transit service to enhance the service near the Project site. This will encourage the use of transit and therefore reduce VMT.

Provide Local Shuttles

The Project can provide local shuttle service through coordination with the local transit operator or private contractor. The local shuttles will provide service to transit hubs, commercial centers, and residential areas.

When combined together, these measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduces emissions released during Project operation. A DEIR must be prepared to include additional mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce Project emissions to below thresholds. Furthermore, the Project Applicant needs to demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project's emissions are reduced to the maximum extent possible.

Hazards and Hazardous Waste

Inadequate Basis for Determining Hazards and Hazardous Materials Impacts

The IS/MND failed to analyze the presence of hazardous conditions at the Project site using standard environmental due diligence practices. Therefore, the conclusions reached in the IS/MND are unreliable to determine if significant impacts from Hazards and Hazardous Waste exist at the Project site.

No Phase I Environmental Site Assessment ("ESA") was conducted for the Project site, a routine step taken in CEQA matters. A Phase I ESA should be prepared for the Project site by a certified professional and included in a DEIR. Any conditions identified as hazardous in the Phase I should be addressed through mitigation in the DEIR.

Standards for performing a Phase I ESA have been established by the US EPA and the American Society for Testing and Materials Standards ("ASTM").[52] Phase I ESAs are conducted to identify conditions indicative of releases of hazardous substances and include:

- a review of all known sites in the vicinity of the subject property that are on regulatory agency databases undergoing assessment or cleanup activities;
- an inspection;
- interviews with people knowledgeable about the property; and
- recommendations for further actions to address potential hazards.

Phase I ESAs conclude with the identification of any "recognized environmental conditions" ("RECs") and recommendations to address such conditions. A REC is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a

[52] http://www.astm.org/Standards/E1527.htm

past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. Phase I ESAs have been routinely prepared in the Redding area

- The July 5, 2016 Initial Study prepared for the Churn Creek Marketplace included a Phase I ESA to provide the foundation for determining project hazards and hazardous waste impacts.[53]
- The February 2017 Initial Study prepared for the Shasta-Tehama-Trinity Joint Community College District Regional Public Safety Training Facility also relied upon a Phase I ESA in evaluating impacts from hazardous waste.[54]

The conclusion that Hazards and Hazardous Materials present "no impact" for Project site, as made in the Initial Study, is unsubstantiated. Consistent with professional due diligence procedures and practices in the Shasta County area, a Phase I ESA, completed by a licensed environmental professional is necessary to identify recognized environmental conditions. If RECs are identified, then a Phase II ESA should be conducted, which includes the collection of soil, soil vapor and groundwater samples, as necessary, to identify the extent of contamination and the need for cleanup to reduce exposure potential to the public, including workers nearby receptors.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Hadley Nolan

[53] http://www.cityofredding.org/home/showdocument?id=9124

[54] http://www.shastacollege.edu/Participatory%20Committees/Facilities%20Planning/Documents/CEQA%20Initial%20Study%20Checklist%20and%20Documentation%20for%20the%20Regional%20Public%20Safety%20Training%20Facility.pdf

ATTACHMENT A-1

Dignity Health Construciton

Start date and time 08/14/17 12:19:23
AERSCREEN 14147

Dignity Health Construction

Dignity Health Construction

---------- DATA ENTRY VALIDATION ----------

** AREADATA **	METRIC	ENGLISH
Emission Rate:	0.347E-02 g/s	0.275E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	231.00 meters	757.87 feet
Area Source Width:	185.00 meters	606.96 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	91808	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations
Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

 Dominant Surface Profile: Urban
 Dominant Climate Type: Average Moisture

 AERSCREEN output file:
 Dignity Health Construciton.out

 *** AERSCREEN Run is Ready to Begin

 No terrain used, AERMAP will not be run
****

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR   started 08/14/17 12:20:33
 ****

  Running AERMOD
 Processing Winter

Processing surface roughness sector 1

****
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 6

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD
 Processing Spring

Processing surface roughness sector  1

**************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0
```

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 6

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0
```

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 6

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD
 Processing Autumn

Processing surface roughness sector  1

**************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0
```

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 6

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


FLOWSECTOR   ended 08/14/17 12:21:08

REFINE       started 08/14/17 12:21:08

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

REFINE ended 08/14/17 12:21:11

```
 ********************************************
 AERSCREEN Finished Successfully
 With no errors or warnings
 Check log file for details
 ********************************************

 Ending date and time  08/14/17 12:21:12
```

Dignity Health Construciton_max_conc_distance

Concentration	Distance	Elevation	Season/Month	Zo	sector	Date	H0
U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT
0.23379E+01	1.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.25210E+01	25.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.26938E+01	50.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.28520E+01	75.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.30024E+01	100.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.31259E+01	125.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
* 0.31363E+01	127.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.29335E+01	150.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.21972E+01	175.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.18045E+01	200.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.15238E+01	225.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.13270E+01	250.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.11784E+01	275.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10612E+01	300.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.96713E+00	325.00	0.00	Winter	0-360	10011001	-1.30						
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0

```
   0.88818E+00       350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.82095E+00       375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76334E+00       400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71351E+00       425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66855E+00       450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62822E+00       475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.59201E+00       500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.55896E+00       525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.52889E+00       550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.50170E+00       575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.47664E+00       600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.45360E+00       625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.43245E+00       650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.41289E+00       675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.39478E+00       700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.37822E+00       725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

```
   0.36254E+00       750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.34797E+00       775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.33453E+00       800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.32179E+00       825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.31010E+00       850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.29906E+00       875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.28864E+00       900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.27883E+00       925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.26969E+00       950.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.26107E+00       975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.25297E+00      1000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.24539E+00      1025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.23813E+00      1050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.23131E+00      1075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.22488E+00      1100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.21882E+00      1125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

```
   0.21304E+00      1150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.20757E+00      1175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.20240E+00      1200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.19751E+00      1225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.19289E+00      1250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.18847E+00      1275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.18425E+00      1300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.18026E+00      1325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.17649E+00      1350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.17287E+00      1375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16942E+00      1400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16616E+00      1425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16307E+00      1450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16012E+00      1475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.15729E+00      1500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.15458E+00      1525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.15200E+00      1550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14953E+00      1575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14717E+00      1600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14491E+00      1625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14272E+00      1650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14062E+00      1675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13862E+00      1700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13671E+00      1725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13488E+00      1750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13311E+00      1775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13140E+00      1800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12977E+00      1825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12820E+00      1850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12668E+00      1875.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12521E+00      1900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12379E+00      1924.99      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.12244E+00      1950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12113E+00      1975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11986E+00      2000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11864E+00      2025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11746E+00      2050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11631E+00      2075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11518E+00      2100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11409E+00      2125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11303E+00      2150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11201E+00      2175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11101E+00      2200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11002E+00      2225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10906E+00      2250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10812E+00      2275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10721E+00      2300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10633E+00      2325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.10547E+00      2350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10464E+00      2375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10381E+00      2400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10302E+00      2425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10225E+00      2450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10149E+00      2475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10075E+00      2500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10003E+00      2525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.99307E-01      2550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.98604E-01      2575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.97915E-01      2600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.97241E-01      2625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.96579E-01      2650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.95931E-01      2675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.95292E-01      2700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.94665E-01      2725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.94054E-01      2750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.93457E-01      2775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.92871E-01      2800.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.92296E-01      2825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.91728E-01      2850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.91169E-01      2875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.90619E-01      2900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.90079E-01      2925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.89548E-01      2950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.89027E-01      2975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.88515E-01      3000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.88012E-01      3025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.87516E-01      3050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.87028E-01      3075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.86547E-01      3100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.86074E-01      3125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.85606E-01      3150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.85141E-01      3175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.84682E-01      3200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.85488E-01      3225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.85022E-01      3250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.84562E-01      3275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.84108E-01      3300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.83661E-01      3325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.83219E-01      3350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.82784E-01      3375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.82354E-01      3400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.81929E-01      3425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.81510E-01      3450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.81097E-01      3475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.80689E-01      3500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.80285E-01      3525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.79887E-01      3550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.79494E-01      3575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.79105E-01      3600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78721E-01      3625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78342E-01      3650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77967E-01      3675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77597E-01      3700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77231E-01      3725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76869E-01      3750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76511E-01      3775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76158E-01      3800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75808E-01      3825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75462E-01      3850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75121E-01      3875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.74782E-01      3900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.74448E-01      3925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

```
   0.74117E-01      3950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.73790E-01      3975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.73467E-01      4000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.73147E-01      4025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72830E-01      4050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72516E-01      4075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72206E-01      4100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71899E-01      4125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71596E-01      4150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71295E-01      4175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70997E-01      4200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70703E-01      4225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70411E-01      4250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70123E-01      4275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.69837E-01      4300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.69554E-01      4325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

```
   0.69273E-01      4350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68996E-01      4375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68721E-01      4400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68449E-01      4425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68179E-01      4450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67912E-01      4475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67648E-01      4500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67386E-01      4525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67127E-01      4550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66869E-01      4575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66615E-01      4600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66362E-01      4625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66112E-01      4650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65865E-01      4675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65619E-01      4700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65376E-01      4725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

```
   0.65135E-01      4750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64896E-01      4775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64659E-01      4800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64424E-01      4825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64191E-01      4850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63961E-01      4875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63732E-01      4899.99      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63506E-01      4924.99      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63281E-01      4950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63058E-01      4975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62837E-01      5000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
```

dignityhealthoperation

Start date and time 08/01/17 13:26:35
AERSCREEN 11126

Dignity Health Operation

Dignity Health Operation

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.3182 g/s	2.525 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	231.00 meters	757.87 feet
Area Source Width:	185.00 meters	606.96 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	91808	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations
Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

 Dominant Surface Profile: Urban
 Dominant Climate Type: Average Moisture

 AERSCREEN output file:
 dignityhealthoperation.out

 *** AERSCREEN Run is Ready to Begin

 No terrain used, AERMAP will not be run
****

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR   started 08/01/17 13:31:49
 ****

  Running AERMOD
 Processing Winter

Processing surface roughness sector 1

****
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   6
```

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 40

    ********   WARNING MESSAGES   ********

                *** NONE ***

 ****

  Running AERMOD
 Processing Spring

Processing surface roughness sector 1

****
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   6
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   6
```

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

    ********   WARNING MESSAGES   ********

                *** NONE ***

****
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 40

    ********   WARNING MESSAGES   ********

                *** NONE ***

 ****

  Running AERMOD
 Processing Autumn

Processing surface roughness sector 1

****
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   6
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***


FLOWSECTOR   ended 08/01/17 13:32:28

REFINE       started 08/01/17 13:32:28

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
REFINE       ended 08/01/17 13:32:31

 ********************************************
 AERSCREEN Finished Successfully
 With no errors or warnings
 Check log file for details
 ********************************************

 Ending date and time  08/01/17 13:32:31
```

dignityhealthoperation_max_conc_distance

Concentration	Distance	Elevation	Season/Month	Zo sector	Date	H0
U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT
0.21454E+03	1.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.23134E+03	25.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.24720E+03	50.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.26172E+03	75.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.27552E+03	100.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.28685E+03	125.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
* 0.28781E+03	127.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.26920E+03	150.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.20163E+03	175.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.16559E+03	200.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.13984E+03	225.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.12177E+03	250.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10814E+03	275.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.97385E+02	300.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.88750E+02	325.00	0.00	Winter	0-360	10011001	-1.30
0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0

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   0.81505E+02       350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75336E+02       375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70049E+02       400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65477E+02       425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.61350E+02       450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.57649E+02       475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.54326E+02       500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.51294E+02       525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.48535E+02       550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.46040E+02       575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.43739E+02       600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.41625E+02       625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.39684E+02       650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.37890E+02       675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.36227E+02       700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.34708E+02       725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.33269E+02       750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.31932E+02       775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.30698E+02       800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.29529E+02       825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.28457E+02       850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.27444E+02       875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.26487E+02       900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.25587E+02       925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.24748E+02       950.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.23958E+02       975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.23214E+02      1000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.22518E+02      1025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.21852E+02      1050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.21226E+02      1075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.20636E+02      1100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.20081E+02      1125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.19549E+02      1150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.19048E+02      1175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.18573E+02      1200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.18125E+02      1225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.17701E+02      1250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.17295E+02      1275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16908E+02      1300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16542E+02      1325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.16196E+02      1350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.15863E+02      1375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.15547E+02      1400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.15248E+02      1425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14964E+02      1450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14694E+02      1475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14434E+02      1500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.14185E+02      1525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.13948E+02      1550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13722E+02      1575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13506E+02      1600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13298E+02      1625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.13097E+02      1650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12904E+02      1675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12721E+02      1700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12546E+02      1725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12377E+02      1750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12215E+02      1775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.12059E+02      1800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11908E+02      1825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11764E+02      1850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11625E+02      1875.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11490E+02      1900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11360E+02      1924.99      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.11236E+02      1950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11115E+02      1975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.11000E+02      2000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10887E+02      2025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10779E+02      2050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10673E+02      2075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10570E+02      2100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10470E+02      2125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10373E+02      2150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10278E+02      2175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10187E+02      2200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10096E+02      2225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.10008E+02      2250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.99221E+01      2275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.98387E+01      2300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.97574E+01      2325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.96786E+01      2350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.96020E+01      2375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.95266E+01      2400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.94540E+01      2425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.93830E+01      2450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.93136E+01      2475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.92457E+01      2500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.91790E+01      2525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.91131E+01      2550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.90485E+01      2575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.89853E+01      2600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.89234E+01      2625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.88628E+01      2650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.88032E+01      2675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.87446E+01      2700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.86871E+01      2725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.86310E+01      2750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.85763E+01      2775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.85225E+01      2800.01      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.84696E+01      2825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.84175E+01      2850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.83662E+01      2875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.83158E+01      2900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.82662E+01      2925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.82175E+01      2950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.81697E+01      2975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.81227E+01      3000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.80765E+01      3025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.80310E+01      3050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.79862E+01      3075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.79421E+01      3100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78987E+01      3125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.78558E+01      3150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78130E+01      3175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77709E+01      3200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78449E+01      3225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.78021E+01      3250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77599E+01      3275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.77183E+01      3300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76772E+01      3325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.76367E+01      3350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75967E+01      3375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75573E+01      3400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.75184E+01      3425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.74799E+01      3450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.74420E+01      3475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.74045E+01      3500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.73675E+01      3525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.73309E+01      3550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72948E+01      3575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72592E+01      3600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.72240E+01      3625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71892E+01      3650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71548E+01      3675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.71208E+01      3700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70872E+01      3725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70540E+01      3750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.70212E+01      3775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.69887E+01      3800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.69566E+01      3825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.69249E+01      3850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68935E+01      3875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68625E+01      3900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.68318E+01      3925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.68015E+01      3950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67715E+01      3975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67418E+01      4000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.67124E+01      4025.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66833E+01      4050.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66546E+01      4075.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.66261E+01      4100.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65979E+01      4125.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65701E+01      4150.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65425E+01      4175.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.65152E+01      4200.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64881E+01      4225.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64614E+01      4250.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64349E+01      4275.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.64086E+01      4300.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63827E+01      4325.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.63570E+01      4350.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63315E+01      4375.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.63063E+01      4400.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62813E+01      4425.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62566E+01      4450.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62321E+01      4475.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.62078E+01      4500.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.61838E+01      4525.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.61600E+01      4550.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.61364E+01      4575.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.61130E+01      4600.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.60898E+01      4625.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.60669E+01      4650.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.60442E+01      4675.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.60216E+01      4700.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.59993E+01      4725.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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   0.59772E+01      4750.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.59552E+01      4775.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.59335E+01      4800.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.59120E+01      4825.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.58906E+01      4850.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.58694E+01      4875.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.58485E+01      4900.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.58277E+01      4925.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.58070E+01      4950.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.57866E+01      4975.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
   0.57663E+01      5000.00      0.00        Winter       0-360   10011001   -1.30
0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   310.0
   2.0
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ATTACHMENT A-2

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist
California Certified Hydrogeologist
Qualified SSWPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a comunity adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the dischrge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

ATTACHMENT A-3

HADLEY KATHRYN NOLAN

SOIL WATER AIR PROTECTION ENTERPRISE
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Email: hadley@swape.com

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES **B.S. ENVIRONMENTAL SCIENCES & ENVIRONMENTAL SYSTEMS AND SOCIETY** *JUNE 2016*

PROJECT EXPERIENCE

SOIL WATER AIR PROTECTION ENTERPRISE ***SANTA MONICA, CA***

AIR QUALITY SPECIALIST

SENIOR PROJECT ANALYST: CEQA ANALYSIS & MODELING

- Modeled construction and operational activities for proposed land use projects using CalEEMod to quantify criteria air pollutant and greenhouse gas emissions.
- Organized reports containing figures and tables comparing results of criteria air pollutant analyses to CEQA thresholds.
- Utilized AERSCREEN, a U.S. EPA recommended screening level dispersion model, to evaluate the health risk impact to sensitive receptors using ambient air concentrations.
- Conducted quantitative construction and operational health risk assessments for school children and residential infant, child, and adult sensitive receptors.
- Prepared reports to evaluate project-specific impacts and results of air quality, greenhouse gas, and health risk analyses conducted for several land use redevelopment projects.
- Reviewed Air Quality and Health Risk Analyses for proposed land developments subject to CEQA review to determine adequacy of analyses and to verify compliance with local, state, and regional regulations.
- Determined significance of proposed land use developments and their impact on local and regional air quality based on quantified criteria air pollutant and greenhouse gas emissions and compliance with CEQA regulations and guidelines.

SENIOR PROJECT ANALYST: GREENHOUSE GAS MODELING AND DETERMINATION OF SIGNIFICANCE

- Evaluated environmental impact reports for proposed projects to identify issues and inconsistencies with the methodology used to quantify and assess the project's greenhouse gas (GHG) impact.
- Quantified GHG emissions for proposed projects using CalEEMod to produce tables and figures that compare the model's GHG emissions estimates to applicable CEQA thresholds and reduction targets.
- Determined compliance of proposed land use developments with AB 32 GHG reduction targets, with GHG significance thresholds recommended by Air Quality Management Districts in California, and with guidelines set forth by CEQA.

PROJECT ANALYST: EXPOSURE ASSESSMENT OF LEAD PRODUCTS FOR PROPOSITION 65 COMPLIANCE DETERMINATION

- Calculated human exposure and lifetime health risk for over 300 lead products undergoing Proposition 65 compliance review.
- Compiled and analyzed laboratory testing data and produced tables, charts, and graphs to exhibit emission levels.
- Compared finalized testing data to Proposition 65 Maximum Allowable Dose Levels (MADLs) to determine level of compliance.
- Prepared final analytical lead exposure Certificate of Merit (COM) reports and organized supporting data for use in environmental enforcement statute Proposition 65 cases.

ACCOMPLISHMENTS

- **Academic Honoree,** Dean's List, University of California, Los Angeles ***MAR 2013, MAR 2014, JAN 2015, JAN 2016***

ATTACHMENT B

August 15, 2017

Ms. Natalie B. Kuffel
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on the Initial Study and Mitigated Negative Declaration for the Dignity Health North State Pavilion Project

Dear Ms. Kuffel:

This letter contains my comments on the City of Redding's ("County") Initial Study ("IS") and Mitigated Negative Declaration ("MND") for the Dignity Health North State Pavilion Project ("Project"). Dignity Health ("Applicant") proposes to construct and operate a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping, and infrastructure on 10.55 acres of land in the City of Redding.

I am an environmental biologist with 24 years of professional experience in wildlife ecology and natural resource management. I have served as a biological resources expert for over 100 projects in California. My experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"), and submitting written comments in response to CEQA and NEPA documents. My work has included the preparation of written and oral testimony for the California Energy Commission, California Public Utilities Commission, and Federal courts. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University. A true and correct copy of my current curriculum vitae is attached hereto.

The comments herein are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, consultations with other biological resource experts, and the knowledge and experience I have acquired during more than 24 years of working in the field of natural resources management.

EXISTING CONDITIONS

Sensitive Natural Communities

The Applicant's biologists, ENPLAN, used the California Wildlife Habitat Relationship ("CWHR") habitat classification system to classify habitat types at the Project site. The CWHR habitat classification system was designed to classify habitat types—not

vegetation communities, including sensitive vegetation communities tracked by the California Natural Diversity Database ("CNDDB"). If the vegetation classification system used by the CNDDB is applied, the riparian vegetation on the Project site qualifies as Great Valley Valley Oak Riparian Forest,[1] or perhaps more appropriately, either: (a) Great Valley Cottonwood Riparian Forest, or (b) Great Valley Mixed Riparian Forest.[2] These vegetation communities are considered sensitive resources in the State of California. The Great Valley Valley Oak Riparian Forest community has a NatureServe rank of G1 S1, which means it is "critically imperiled" at both the worldwide and statewide levels.[3] Natural communities with a rank of 1 are at very high risk of extinction due to extreme rarity (often fewer than 6 viable occurrences and/or less than 2,000 acres), very steep declines, or other factors. The other two communities have a NatureServe rank G2 S2, which means they are "imperiled" at both the worldwide and statewide levels. Natural communities with a rank of 2 are at high risk of extinction due to their very restricted range, very few occurrences (often 6-20 viable occurrences and/or 2,000-10,000 acres), steep declines, or other factors.

Botanical Surveys

ENPLAN's Biological Study Report ("BSR") fails to provide sufficient information on the botanical survey that was conducted for the Project. The BSR only states that the survey was conducted "in general accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2009)."[4] This statement is relatively meaningless without accompanying information on the survey methods, including: (a) the survey area (including the extent to which the survey extended into the surrounding buffer zone), and (b) the level of effort (e.g., total man-hours). As described in the survey protocol (i.e., CDFW 2009), this information should be included in the Project's environmental documents.[5]

Contrary to survey guidelines issued by the California Department of Fish and Wildlife ("CDFW"), ENPLAN did not visit reference sites to confirm potentially occurring special-status plant species were evident and identifiable at the time of the surveys.[6] As a

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[1] BSR, p. 6.

[2] de Becker S, A Sweet. 1998. Crosswalk between WHR and California vegetation classifications. Pages 21-39 *in*: KE Mayer, WF Laudenslayer, eds. 1998. A Guide to Wildlife Habitats of California. State of California, The Resources Agency, Department of Forestry and Fire Protection, Sacramento, California. *See also* Holland RF, CL Roye. 1989. Great Valley Riparian Habitats and the National Registry of Natural Landmarks. USDA Forest Service Gen. Tech. Rep. PSW-110.

[3] California Natural Diversity Database. 2017 Aug 2. RareFind 5. California Department of Fish and Wildlife. *See also* < http://davisherb.ucdavis.edu/CNPSActiveServer/hollandlist.aspx>. *See also* <http://davisherb.ucdavis.edu/CNPSActiveServer/intro.html#tnchp>. *See also* Master LL, D Faber-Langendoen, R Bittman, GA Hammerson, B Heidel, L Ramsay, K Snow, A Teucher, A Tomaino. 2012. NatureServe Conservation Status Assessments: Factors for Evaluating Species and Ecosystem Risk. NatureServe, Arlington, VA.

[4] BSR, p. 4.

[5] California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. p. 6.

[6] *Ibid*, p. 4.

result, ENPLAN and the City do not have the basis for concluding that: "[m]ost of the special-status plant species potentially occurring on the site would have been evident at the time the fieldwork was conducted."[7]

Special-status Bats

The Project site may contain roost sites for several special-status bat species. These include the pallid bat, spotted bat, Townsend's big-eared bat, and western red bat.[8]

The availability of suitable roost sites is the limiting factor for most bat populations.[9] Bats have low fecundity and are extremely sensitive to noise and other types of anthropogenic disturbance, especially during the reproductive season and during hibernation.[10] As a result, the loss of, or disturbance to, bat roosts is the primary reason for the decline of most bat species in the Western United States.[11]

Specialized techniques are generally required to detect bat roosts (especially for tree-roosting species such as the pallid bat and western red bat).[12] ENPLAN did not implement those techniques, and thus, their surveys did not provide reliable information on the presence of bat roosts at the Project site. This precludes proper understanding of the environmental setting. It also precludes the ability to evaluate the severity of Project impacts and the adequacy of the proposed mitigation.

Wildlife Surveys

More than 225 species of birds, mammals, reptiles, and amphibians depend on California's riparian habitats.[13] Indeed, riparian ecosystems harbor the most diverse bird communities in the arid and semiarid portions of the western United States.[14] Despite its importance, riparian habitat has been decimated over the past 150 years. Currently riparian habitat covers 2% to 15% of its historic range in California (depending on bioregion).[15] Due to their biological wealth and severe degradation, riparian areas are the most critical habitat for conservation of Neotropical migrants and resident birds in the West, and the loss of riparian habitats may be the most important cause of population decline among landbird species in western North America.[16]

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[7] BSR, p. 4.

[8] BSR, pp. 12 through 15.

[9] Western Bat Working Group. 2005 (Update). Species Accounts. Available at: <http://wbwg.org/western-bat-species/>.

[10] *Ibid. See also* Gruver J, D Keinath. 2006. Townsend's Big-eared Bats (*Corynorhinus townsendii)*: A technical conservation assessment. USDA Forest Service, Rocky Mountain Region, p. 4.

[11] *Ibid.*

[12] Western Bat Working Group. Survey Matrix. Available at: <http://wbwg.org/matrices/survey-matrix/>.

[13] Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. 156 pp.

[14] *Ibid.*

[15] *Ibid*

[16] *Ibid*

The IS and BSR fail to disclose the imperiled status of riparian vegetation in the Project region and the important ecological value of the riparian habitat that remains in the Project area. This issue is compounded by the lack of effort that ENPLAN devoted to documenting wildlife species that may be affected by the Project. For example, 102 species of birds have been detected at the Henderson Open Space, which is located immediately west of the Project site.[17] However, ENPLAN detected only 14 bird species (and no other wildlife taxa) during their two surveys.[18] They also acknowledged that: "[m]any of the special-status animal species potentially occurring on the site would not have been evident at the time the fieldwork was conducted."[19] This provides evidence that ENPLAN's surveys were not comprehensive, and that the list of species provided in the BSR misrepresents the actual number of species that could be affected by the Project.

The IS and BSR Fail to Discuss All Special-status Species that Could be Impacted by the Project

The IS and BSR fail to disclose the following special-status species that could occur at, or immediately adjacent to, the Project site: western pond turtle, yellow warbler, yellow-breasted chat, ringtail, and western spadefoot. The Biological Resources Assessment ("BRA") that was prepared for the Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project concluded that the first four species could occur in the Henderson Open Space (the BRA did not analyze the western spadefoot, and thus, it did not provide a determination on the potential for that species to occur).[20]

Western Pond Turtle

The western pond turtle is a California Species of Special Concern. The Henderson Open Space contains ponds that could be used as breeding sites by the western pond turtle (Figure 1). Pond turtles use terrestrial habitat for nesting and protection from predators, and female pond turtles have been reported ranging as far as 500 meters from a waterbody to find suitable nesting habitat.[21] Pond turtles nests are typically located in open, grassy areas.[22] The grassland portions of the Project site provide suitable nesting substrates for pond turtles and they are within 500 meters of suitable aquatic habitat. As a result, pond turtles and their nest sites have the potential to occur in the Project area.

[17] eBird. 2017. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2017 Aug 11).

[18] BSR, Appendix F.

[19] BSR, p. 4.

[20] North State Resources, Inc. 2016 July. Henderson Open Space Recreational Trail Project: Biological Resources Assessment. Table 3.

[21] Jennings MR, MP Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report to the California Department of Fish and Game. pp. 98 through 103. *See also* Reese DA, HH Welsh Jr. 1998. Habitat use by western pond turtles in the Trinity River, California. Journal of Wildlife Management 62(3):842-853.

[22] Holland DC. 1994. The western pond turtle: habitat and history. U.S. Department of Energy, Bonneville Power Administration, Portland, Oregon. 11 chapters + appendices.

Figure 1. Ponds located adjacent to the Project site. Red line depicts western boundary of the proposed parking lot between Building 'A' and Building 'B'.

Western Spadefoot

The western spadefoot is a California Species of Special Concern. It is almost completely terrestrial, entering water only to breed.[23] When using terrestrial habitats, western spadefoots are generally below ground in burrows, which they construct themselves. Radio telemetry data indicate spadefoot burrows may be up to 860 feet from breeding sites.[24] Most of the Project site is located within 860 feet of ponds that may be used as breeding sites by western spadefoots. As a result, western spadefoots may occur at the Project site.

Yellow Warbler

The yellow warbler is a California Species of Special Concern. Yellow warblers are associated with riparian vegetation, such as the riparian vegetation present at the Project site.[25] There are records of yellow warblers occurring in Henderson Open Space.[26] The

[23] Jennings MR, MP Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report to the California Department of Fish and Game. p. 94.

[24] Baumberger, K. 2013. Uncovering a fossorial species: Home range and habitat preference of the western spadefoot, *Spea hammondii* (Anura: Pelobatidae), in Orange County protected areas (MS Thesis, California State University, Fullerton).

[25] Shuford WD, T Gardali. Editors. 2008. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern

presence of these birds during the breeding season (i.e., during May 2015) strongly suggests they were nesting at that location.[27] Because yellow warblers exhibit a high degree of site fidelity, it is likely they continue to nest in riparian vegetation at the Henderson Open Space, and potentially at the Project site.[28]

Yellow-breasted Chat

The yellow-breasted chat is a California Species of Special Concern. Yellow-breasted chats are associated with riparian vegetation along the border of streams, creeks, sloughs, and rivers.[29] Blackberry, wild grape, willow, and other plants that form dense thickets and tangles are frequently selected as nesting strata.[30] Riparian vegetation with these plant species is present on the Project site.[31] In addition, there are records of yellow-breasted chats occurring at sites along the Sacramento River north and south of the Project area.[32] As a result, yellow-breasted chats have the potential to occur at the Project site.

Ringtail

The ringtail is a fully protected species under California Fish and Game Code Section 4700, which means it may not be "taken" or possessed at any time. It occurs in various riparian habitats at low to middle elevations.[33] Ringtails are usually not found more than 1 km (0.6 mi) from permanent water.[34] Ringtails may occur in the riparian woodland in the Henderson Open Space and at the Project site.[35]

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in California. Western Field Ornithologists and California Department of Fish and Game. pp. 332 through 339.

[26] eBird. 2017. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2017 Aug 8).

[27] *Ibid.*

[28] Shuford WD, T Gardali. Editors. 2008. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Western Field Ornithologists and California Department of Fish and Game. pp. 332 through 339.

[29] *Ibid*, pp. 351 through 358.

[30] *Ibid.*

[31] BSR, p. 8 and Appendix E.

[32] eBird. 2017. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2017 Aug 8).

[33] CDFG. 2005 (Update). Species Account for Ringtail. California Wildlife Habitat Relationships version 8.1 personal computer program. Sacramento, California.

[34] *Ibid.*.

[35] North State Resources, Inc. 2016 July. Henderson Open Space Recreational Trail Project: Biological Resources Assessment. Table 3.

IMPACTS

The IS and BSR Fail to Disclose and Analyze Potentially Significant Impacts to the Western Pond Turtle, Western Spadefoot, Yellow Warbler, Yellow-breasted Chat, and Ringtail

Western Pond Turtle

Female pond turtles often lay two clutches in a single year, with the interval between clutches ranging from 27 to 43 days.[36] The natural incubation period for pond turtle eggs is 80-126 days.[37] Hatchlings appear to overwinter in the nest.[38] Consequently, if pond turtles use the Project site for nesting, their eggs or hatchlings would be present on the site throughout most of the year. Eggs, hatchlings, and potentially adult turtles would be highly susceptible to being crushed or trampled during construction of the Project.

Western Spadefoot

Project activities could impact western spadefoots in at least two ways. First, ground disturbance activities associated with construction of the Project could cause direct mortality of spadefoots if burrows are crushed, or if dispersing individuals are crushed by humans or equipment. Second, construction activities that produce low frequency noise and vibration near burrows may trigger emergence cues, resulting in emergence during poor environmental conditions.[39] Disturbances that cause spadefoots to emerge at inappropriate times can result in detrimental effects such as mortality or reduced fitness.[40]

Yellow Warbler and Yellow-breasted Chat

The Project could have direct impacts on the yellow warbler and yellow-breasted chat through the direct loss of birds, nests, eggs, and habitat. In addition, human activity and noise associated with the Project could disturb birds that are nesting in areas surrounding the Project site. Disturbance to nesting birds can disrupt brooding, foraging, and sheltering activities, which can result in nest abandonment or failure, or reduced reproductive success.

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[36] Scott NJ, GB Rathbun, TG Murphey, MB Harker. 2008. Reproduction of Pacific Poind Turtles (*Actinemys marmorata*) in Coastal Streams of Central California**.** Herpetological Conservation and Biology 3(2):143-148.

[37] Ernst CH, JE Lovich. 2009. Turtles of the United States and Canada. Second edition. Johns Hopkins University Press. 827 pp.

[38] Jennings MR, MP Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report to the California Department of Fish and Game. pp. 98 through 103.

[39] *Ibid*. *See also* Dimmitt MA, R Ruibal. 1980. Environmental correlates of emergence in spadefoot toads (*Scaphiopus*). J. Herpetol. 14:21-29.

[40] U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. U.S. Fish and Wildlife Service, Portland, Oregon. pp. II-220 through II-235.

Ringtail

Ringtails den and raise young in tree hollows, rock crevices, other animals' abandoned burrows, and abandoned buildings. The Project could have direct impacts on the ringtail if these features are removed during construction (especially during the breeding season). In addition, human activity and noise associated with the Project could indirectly impact ringtails by altering normal brooding, foraging, and sheltering activities, which could cause "take" in violation of Fish and Game Code Section 4700.

Edge Effects

Lighting, noise, and human activity associated with the Project will affect nearby habitats. In addition, the Project would generate conditions conducive to the spread of invasive plants, and conditions that may benefit predator populations. The IS fails to disclose and analyze these potentially significant "edge effects," including the potential for the Project to contribute to cumulatively significant edge effects (i.e., in conjunction with the Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project).[41]

Lighting

Artificial light that alters the natural patterns of light and dark in ecosystems is termed "ecological light pollution." This is different from the broad-scale phenomenon "astronomical light pollution," whereby stars and other celestial bodies are washed out by light that is either directed or reflected upward.[42] Ecological light pollution has demonstrable effects on the behavioral and population ecology of organisms, with serious implications on community ecology.[43]

Although the Project includes new night lighting, the IS fails to identify: (a) the height and abundance of new lights; (b) the types of lights that will be installed; (c) the luminosity of the bulbs; and (d) the location of light fixtures. This information is essential to evaluating Project impacts, because effects to wildlife due to night lighting are dependent on the *illumination* (light incident per unit area), *intensity* (the number of photons per unit area) and *spectral content* (expressed by wavelength).

The IS indicates new night lighting associated with the Project would be shielded.[44] This would minimize astronomical light pollution, but not necessarily ecological light

[41] *See* 21 June 2017 comment letter from Curt Babcock, CDFW, to Lily Toy, City of Redding Planning Division regarding the MND for the Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project. p. 2.

[42] Longcore T, C Rich. 2004. Ecological Light Pollution. Frontiers in Ecology and the Environment 2:191-198.

[43] *Ibid*.

[44] IS, pp. 6 and 7.

pollution (i.e., shielded lights can still cause ecological light pollution).[45] The IS fails to analyze the Project's contribution to ecological light pollution, and the effects ecological light pollution could have on fauna in habitats adjacent to the Project site.

Noise

The IS fails to disclose, analyze, or provide mitigation for the potentially significant impacts that noise and vibration from the Project may have on wildlife. Animals rely on hearing to avoid predators, obtain food, and communicate.[46] Noise and vibration have the potential to disrupt these activities, and otherwise reduce fitness through injury (e.g., hearing loss), energy loss (from movement away from the noise source), reduction in food intake, and habitat avoidance and abandonment.[47] Given this knowledge, almost all animal species in the vicinity of the Project site may be adversely affected by Project noise.

Human Activity

Human activity can have negative impacts on ecosystems, plants, and wildlife. Impacts can be caused by trampling, soil compaction, erosion, disturbance (due to noise and motion), pollution, nutrient loading, and introduction of non-native invasive plant species. The IS fails to analyze the effects that human activity associated with the Project may have on adjacent ecosystems (i.e., the Sacramento River and conservation lands in the Henderson Open Space).

Invasive Plants

It is well established that construction and other ground disturbance activities promote the establishment and spread of non-native plants (i.e., weeds), both on and off-site. The introduction and spread of non-native plants as a result of the Project has the potential to result in numerous adverse environmental effects. For example, non-native plants can displace native (and perhaps sensitive) plant species, and they can degrade wildlife habitat by eliminating food sources, cover, and breeding sites. The IS fails to disclose, analyze, or provide mitigation for these potentially significant impacts.

Predators

Implementation of the Project would enhance conditions favorable for predators (e.g., raccoons, skunks, jays, and crows). These predators can decimate bird, small mammal,

[45] Longcore T, C Rich. 2004. Ecological Light Pollution. Frontiers in Ecology and the Environment 2:191-198.

[46] Francis CD, JR Barber. 2013. A framework for understanding noise impacts on wildlife: an urgent conservation priority. Frontiers in Ecology and the Environment 11:305-313. *See also* Rabin LA, B McCowan, SL Hooper, DH Owings. 2003. Anthropogenic Noise and its effect on Animal Communication: An Interface Between Comparative Psychology and Conservation Biology. International Journal of Comparative Psychology Vol. 16(2/3):172-193.

[47] National Park Service, 1994. Report to Congress, Report on effects of aircraft overflights on the National Park System.

and herptile communities.[48] For example, small remnant patches of breeding bird habitat in urban areas may contain such low numbers of a particular species that small increases in predation rates can cause extirpation.[49] In such cases, increased densities of predators subsidized by the surrounding urban landscape can be sufficient to cause loss of the species.[50] Because the MND does not incorporate mitigation to prevent the Project from augmenting predator populations, impacts to native prey species remain potentially significant.

WILDLIFE MOVEMENT

Valley foothill riparian habitat adjacent to the Sacramento River provides a movement corridor for wildlife.[51] The IS indicates the Project's impacts on this wildlife movement corridor would be "less-than-significant with mitigation incorporated."[52] There are three reasons why this conclusion is not justified.

First, the IS fails to include any analysis of the Project's effects on the wildlife movement corridor. As a result, the City's conclusion that impacts on wildlife movement would be less than significant is arbitrary and not supported by evidence.

Second, the IS suggests mitigation would be required to mitigate the impacts on wildlife movement to a less-than-significant level. However, the IS fails to identify the specific mitigation measure(s) that would mitigate the impacts to insignificant levels. Moreover, none of mitigation measures incorporated into the MND mitigate site-specific impacts to wildlife movement. In particular, Mitigation Measure 2 (i.e., the only habitat compensation measure) does not mitigate the impacts because it allows the Applicant to plant cottonwoods at an off-site location (which would not mitigate site-specific impacts to wildlife movement).

Third, the Project, in conjunction with the Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project, would create a nearly solid matrix of new roads, buildings, and parking lots between the Cobblestone Shopping Center and the Sacramento River.[53] These features would create a substantial barrier and may hinder wildlife movement along the east side of the river.

[48] Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. pp. 13 and 17. *See also* Crooks KR, ME Soulé. 1999. Mesopredator release and avifaunal extinctions in a fragmented system. Nature 400:563-566.

[49] *Ibid.*

[50] *Ibid.*

[51] City of Redding. 2017. Initial Study for the Henderson-Parkview Open Space Restoration, Trail, and Kayak Access Project. p. 12.

[52] IS, p. 10.

[53] IS, p. 32, Overall Site Plan-Aerial Underlay.

Avian Collisions

The Sacramento River and associated riparian habitat supports a diverse and abundant assemblage of resident bird species.[54] In addition, it provides important "stopover" habitat for birds that migrate along the Pacific Flyway, and at finer spatial scales (e.g., locally and regionally).[55] As discussed below, the Project's buildings would pose a potentially significant collision hazard to these birds. The IS fails to disclose, analyze, or provide mitigation for this potentially significant hazard.

I. BACKGROUND

Collision with windows is second only to predation by domestic cats as an anthropogenic source of avian mortality.[56] Klem (2009) estimated over one billion birds are killed each year due to collisions with clear and reflective sheet glass in the U.S. alone.[57,58] Klem (2009) further estimated that between one and five percent of the total migratory population of birds in North America dies in window crashes annually.[59] The visual system of birds is simply not capable of perceiving glass as a physical obstacle.[60] Scientists have determined that bird mortality caused by collisions with structures is "biologically significant,"[61] and that avian mortality from window collisions is contributing to population declines of special-status species and birds in general.[62]

Almost every type of architectural glass under the right conditions reflects the sky, clouds, or nearby trees and vegetation.[63] Glass that reflects the environment presents birds with the appearance of safe routes, shelter, and possibly food ahead. However, when birds try to fly to the reflected habitat, they hit the glass.

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[54] eBird. 2017. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2017 Aug 8).

[55] *Ibid.*

[56] Parkins KL, SB Elbin, E Barnes. 2015. Light, Glass, and Bird–building Collisions in an Urban Park. Northeastern Naturalist 22(1):84-94.

[57] Klem D Jr. 2009. Avian Mortality At Windows: The Second Largest Human Source of Bird Mortality on Earth. Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics. 244-251.

[58] Daniel Klem Jr. is an ornithologist known for his pioneering research into the mortality of birds due to glass windows. He is Sarkis Acopian Professor of Ornithology and Conservation Biology at Muhlenberg College. Dr. Klem has been publishing peer-reviewed studies on bird-window collisions since 1989. *See* <http://www.muhlenberg.edu/main/academics/biology/facultystaff/danielklemjr/>.

[59] Klem D Jr. 2009. Avian Mortality At Windows: The Second Largest Human Source of Bird Mortality on Earth. Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics. 244-251.

[60] Klem D Jr. 2009. Preventing Bird-Window Collisions. The Wilson Journal of Ornithology 121(2):314–321.

[61] Longcore T, C Rich, SA Gauthreaux Jr. 2005. Scientific Basis to Establish Policy Regulating Communications Towers to Protect Migratory Birds. WT Docket No. 03-187, Federal Communications Commission Notice of Inquiry. Available at: <https://ecfsapi.fcc.gov/file/6517288491.pdf>.

[62] Klem D Jr. 2009. Preventing Bird-Window Collisions. Wilson Journal of Ornithology 121(2):314-321. *See also* Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. Journal of Field Ornithology. 61(1):120-128.

[63] San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

II. PROJECT-SPECIFIC HAZARDS

A poorly designed building can kill hundreds of birds per year.[64] A few variables in particular have proven to be especially lethal to birds. As described below, the Project would possess several of those variables.

1. Buildings with reflective windows, large windows, or a high percentage of glass.

Studies have shown that buildings with large windows or a high percentage of glass kill a disproportionately high number of birds.[65] Buildings with reflective windows are especially deadly, particularly when the windows are located at or below the canopy height of trees or other landscape features that attract birds. [66]

The buildings associated with the proposed Project would have windows with reflective glass.[67] In addition, the buildings would have large expanses of glass windows at or below the canopy height of trees along the Sacramento River and installed as part of the Project's landscaping. These two factors would make the buildings especially hazardous to birds.

2. Buildings with windows located adjacent to extensive vegetation.

Numerous studies have provided evidence that buildings with windows adjacent to extensive vegetation kill numerous birds.[68] In suburban areas, buildings with these features have been documented to kill an average of 30 birds per year (per building).[69] This combination may be even more lethal in urban areas. Studies of Manhattan structures with large swaths of windows adjacent to large open spaces have recorded well

[64] Hager SB, H Trudell, KJ McKay, SM Crandall, L Mayer. 2008. Bird Density and Mortality at Windows. Wilson Journal of Ornithology 120(3):550-564.

[65] Klem D Jr, CJ Farmer, N Delacretaz, Y Gelb, PG Saenger. 2009. Architectural and Landscape Risk Factors Associated with Bird-Glass Collisions in an Urban Environment. Wilson Journal of Ornithology 121(1):126-134. *See also* Parkins KL, SB Elbin, E Barnes. 2015. Light, Glass, and Bird–building Collisions in an Urban Park. Northeastern Naturalist 22(1):84-94. *See also* Hager SB, H Trudell, KJ McKay, SM Crandall, L Mayer. 2008. Bird Density and Mortality at Windows. Wilson Journal of Ornithology 120(3):550-564.

[66] San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp. *See also* Gelb Y, N Delacretaz. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. Northeastern Naturalist 16(3):455-470. *See also* Klem D Jr. 1989. Bird Window Collisions. The Wilson Bulletin 101(4):606-620.

[67] Omni-Means. 2017 Jun 8. North State Pavilion: Building Elevations. Available at: <http://www.cityofredding.org/home/showdocument?id=11117>.

[68] San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp. *See also* Gelb Y, N Delacretaz. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. Northeastern Naturalist 16(3):455-470. *See also* Klem D Jr, CJ Farmer, N Delacretaz, Y Gelb, PG Saenger. 2009. Architectural and Landscape Risk Factors Associated with Bird-Glass Collisions in an Urban Environment. Wilson Journal of Ornithology 121(1):126-134.

[69] Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. Journal of Field Ornithology. 61(1):120-128. *See also* O'Connell TJ. 2001. Avian Window Strike Mortality at a Suburban Office Park. The Raven 72(2):141-149.

over 100 collisions per year (per structure).[70]

All three buildings proposed for the Project would have vegetation adjacent to windows.[71] This presents a hazard because birds are attracted to vegetation. The windows of the buildings will reflect this vegetation. Birds will be deceived by the illusion, and thus when they try to leave, they will perceive the reflected habitat as actual habitat and fly into the windows.[72]

3. Windows adjacent to open spaces.

Buildings with large windows facing an open space area are especially lethal to birds.[73] Building 'A' would have large expanses of glass facing, and immediately adjacent to, riparian habitat along the Sacramento River.[74] This combination of glass in close proximity to habitat would undoubtedly result in a substantial number of bird kills.

Cumulative Impacts

Numerous past and present projects (e.g., dams, water diversions, and urban and agricultural developments) have had a significant impact on the Sacramento River ecosystem. The IS fails to discuss those projects and the effects they have had on biological resources. For example, the IS fails to discuss the amount of Great Valley Riparian Forest that historically existed, the amount that currently exists, and the amount that remains threatened by development. The IS's failure to establish this context precludes proper understanding of the cumulative impacts setting, and thus, the relative significance of Project impacts (e.g., to Great Valley Riparian Forest).

The IS does not define the geographic scope of the City's cumulative impacts analysis. However, the IS's list of cumulative projects is limited to two "future" projects in the immediate vicinity (< 0.5 mile) of the proposed Project.[75] This suggests the geographic scope applied to the City's cumulative impacts analysis was extremely small. The IS fails to justify limiting the geographic scope to such a small area.

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[70] Gelb Y, N Delacretaz. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. Northeastern Naturalist 16(3):455-470.

[71] Omni-Means. 2016 Dec 6. North State Pavilion: Lanscape Layout and Planting Plan. Sheets 18 through 27.

[72] Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. Journal of Field Ornithology. 61(1):120-128. *See also* San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

[73] Gelb Y, N Delacretaz. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. Northeastern Naturalist 16(3):455-470. *See also* San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

[74] Omni-Means. 2017 Jun 8. North State Pavilion: Building Elevations. Available at: <http://www.cityofredding.org/home/showdocument?id=11117>.

[75] The IS (p. 29) identifies the Side Channel Restoration Project (also known as the North Cypress Bridge Project) as a future project. However, that project was completed on January 2, 2017. *See*: <https://docs.wixstatic.com/ugd/c88b6b_13f165253e38479280e1b870068c826a.pdf>.

The IS's cumulative impacts section concludes with the statement that the Project "will result in no net loss of resources or net environmental impacts, therefore; the incremental cumulative effects of the project are insignificant and no additional mitigation measures are proposed."[76] The City does not have the basis for that conclusion because the compensatory mitigation proposed in the MND is limited to the planting of cottonwood trees. Because the MND does not include compensatory mitigation for other sensitive resources that may be eliminated by the Project (e.g., bat roosts, bald eagle nests, and terrestrial habitat for western pond turtle and western spadefoot), the City does not have the basis for the conclusion that the Project would result in no net loss of resources.

The IS Fails to Disclose and Analyze the Adverse Effects of Soil Stabilizers

According to the BSR:

> Best management practices for soil stabilization, sediment control, and spill prevention shall be implemented throughout the duration of the project to ensure that sediment/pollutant transport into the Sacramento River is minimized, which would in turn minimize the potential for adverse impacts to fish and the aquatic ecosystem. These Best Management Practices shall be specified in the storm water pollution prevention plan to be prepared for the project. Soild stabilization measures would include covering disturbed areas with mulch, temporary seeding, use of soil binders, or installation of soil blankets.[77]

In addition, according to the IS: "[n]ontoxic soil stabilizers shall be applied according to manufacturer's specifications to all inactive construction areas (previously graded areas inactive for ten days or more)."[78]

Most soil stabilizers, including varieties that are "non-toxic" to humans, can have adverse effects on the environment.[79] Because the BSR and IS fail to identify the specific type of soil stabilizer that would be used at the Project site, it is impossible to evaluate the potentially significant adverse effects that the soil stabilizer may have on the environment.

MITIGATION

Measure #2 (Riparian Vegetation)

Portions of the Project site contain an "imperiled" or "critically imperiled" natural community. The mitigation proposed in the MND (i.e., Mitigation Measure 2) would not mitigate the Project's impacts on that natural community. First, the mitigation measure is unclear. It states: "[t]he proposed removal of approximately 20 Fremont Cottonwoods in riparian habitat shall be mitigated through off-site planting of Fremont Cottonwoods at a

[76] IS, p. 30.

[77] BSR, p. 26. [emphasis added].

[78] IS, p. 9.

[79] US Army Corps of Engineers. 2007. Environmental Evaluation of Dust Stabilizer Products. Vicksburg, Miss: US Army Corps of Engineers, Engineer Research and Development Center, Environmental Laboratory. 58 pp.

minimum 3:1 ratio."[80] The Project, however, entails the removal of 28 Fremont cottonwoods—not 20 cottonwoods.[81] As a result, it is unclear whether the Applicant would be required to plant 60 cottonwoods or 84 cottonwoods.

Second, the Project entails the removal of 20 other native trees (i.e., 12 valley oaks, 7 interior live oaks, and 1 California sycamore), primarily within the riparian zone.[82] The MND does not require any mitigation for the removal of these trees.

Third, although the MND requires replacement of cottonwoods, it does not require replacement of the other riparian species (e.g., willows, wild grape, and nutsedge) that contribute to the functions and values of the natural community.[83] As a result, the proposed mitigation may replace cottonwoods, but it would not replace the sensitive natural community impacted by the Project.

Fourth, the MND defers critical information associated with the mitigation. This includes: (a) potential locations for the off-site mitigation, (b) size of the planting area, (c) objectives of the mitigation, (d) success criteria for the proposed mitigation, (e) monitoring and reporting requirements, (f) remedial actions if success criteria are not achieved, (g) the mitigation management plan, and (h) the timeframe for the mitigation activities. This information is essential to assessing the value of the proposed mitigation. Because the MND fails to provide that information, it provides no assurances that the proposed mitigation would mitigate Project impacts to less than significant levels.

Fifth, the MND fails to establish a mechanism (e.g., conservation easement or deed restriction) that ensures the mitigation site would be protected in perpetuity. It also fails to establish a funding mechanism (e.g., endowment) that ensures sufficient funds are available to manage the mitigation site in perpetuity for the purpose of conservation.

Sixth, the MND fails to establish a clear enforcement mechanism that ensures the mitigation site is successful. It states: "[t]he City shall be responsible for ensuring that the planting plan is fully implemented."[84] The City must also establish the enforcement mechanism that would ensure the mitigation site achieves specific success criteria and is protected in perpetuity.

Finally, the mitigation proposed in the MND fails to ensure the Project would result in "no net loss of resources or net environmental impacts" as claimed in the IS.[85] The riparian community on and adjacent to the Project site is "well developed" and has very high value to wildlife.[86] The MND fails to incorporate a monitoring and adaptive management plan that ensures these characteristics and values remain after the Project is

[80] MND, p. 3.
[81] Omni-Means. 2017 Jun 9. North State Pavilion: Proposed Tree Removal Plan, Sheet 13 of 33.
[82] *Ibid.*
[83] BSR, p. 8.
[84] MND, p. 3.
[85] IS, p. 30.
[86] BSR, pp. 8 and 9.

implemented (e.g., are not eliminated or degraded by edge effects). Similarly, the MND fails to ensure the proposed mitigation would replace the functions and values that are lost due to construction of the Project (e.g., due to tree removal). The City cannot automatically assume that the Project would result in "no net loss" of high value wildlife habitat simply because it is requiring the Applicant to plant cottonwood trees. Successful habitat restoration involves considerably more than the establishment of native vegetation in a natural setting.[87] It also must consider the suite of biotic and abiotic factors that affect habitat suitability and quality. As Morrison (2002) and others have pointed out, the success of a habitat restoration project should be judged by how wildlife species respond to it.[88] The MND does not incorporate any measures of, or performance standards for, use of the mitigation site by wildlife. As a result, it does not ensure that the Project would result in no net loss of high value wildlife habitat.

For these reasons, impacts to riparian vegetation and habitat at the Project site remain potentially significant.

Measure #3 (Bats)

Mitigation Measure 3 requires a qualified biologist to inspect affected vegetation prior to removal of riparian habitat or mature, non-riparian trees.[89] Then, if bats are determined to be roosting or could potentially roost on the affected vegetation, the biologist shall develop and oversee implementation of appropriate measures to avoid "take" of roosting bats.[90] The proposed mitigation is far too vague to ensure that "take" of roosting bats is avoided and that Project impacts to bats are less than significant.

First, the MND fails to define what would constitute a "qualified biologist" and the party that would be responsible for approving the qualifications of the proposed biologist.

Second, the MND fails to define the methods that should be used to "inspect" the affected vegetation. This is important because many bat species cannot be detected through a simple visual inspection. For example, western red bat roost sites are generally hidden from view from all directions except below, and thus, they cannot be reliably detected through a standard preconstruction survey.[91]

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[87] Kus BE. 1998. Use of Restored Riparian Habitat by the Endangered Least Bell's Vireo (*Vireo belliipusillus)*. Restoration Ecology 6(1):75-82.

[88] Morrison ML. 2002. Wildlife Restoration: Techniques for Habitat Analysis and Animal Monitoring. Island Press: Washington (DC). p. 1. *See also* Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. p. 142. *See also* USGS Western Ecological Research Center [webpage]. n.d. Bird Use of Restored Riparian Habitat. Available at: <http://www.werc.usgs.gov/Project.aspx?ProjectID=46>.

[89] MND, p. 3.

[90] *Ibid.*

[91] Western Bat Working Group. 2005 (Update). Species Accounts. Available at: <http://wbwg.org/western-bat-species/>.

Third, the MND suggests the survey would be limited to a one-time inspection of trees that would be removed for construction of the Project. This would be insufficient to avoid potentially significant impacts to special-status bats. Most bat species are extremely sensitive to noise, vibration, and human activity near the roost site.[92] A single disturbance event can lead to roost abandonment, and if poorly timed, mortality of pups.[93] As a result, noise, vibration, and human activity associated with construction of the Project have the potential to affect bats roosting outside of the Project footprint.

Fourth, the structures that exist at the Project site provide potentially suitable roosting habitat for the pallid bat.[94] The mitigation proposed in the MND does not require any surveys for bat roosts in those structures prior to their removal.

Fifth, the MND fails to identify the "appropriate measures" that could be implemented to avoid impacts to roosting bats, nor does it require evidence that whatever methods the Applicant proposes are feasible and effective. This issue is exacerbated by the MND's failure to incorporate any monitoring and reporting requirements for the proposed mitigation.

For these reasons, Project impacts to special-status bats remain potentially significant.

Measure #4 (Bald Eagle and Other Bird Nests)

Nesting Bird Surveys

Mitigation Measure 4 requires a survey for bird nests in and adjacent to the work area if vegetation removal or initiation of intensive site construction activities must occur during the nesting season.[95] As described below, the proposed mitigation measure suffers many of the same flaws as Mitigation Measure 3.

The MND fails to establish minimum standards for the pre-construction nesting bird survey, including the qualifications of the biologist, acceptable survey techniques, level of effort, and extent to which the survey needs to extend into "adjacent" habitat. This issue is exacerbated by the MND's failure to incorporate a reporting requirement for the proposed mitigation.

Nest finding is labor intensive and can be extremely difficult due to the tendency of many species to construct well-concealed or camouflaged nests.[96] As a result, most studies that involve locating bird nests employ a variety of search techniques. These include watching parental behavior (e.g., carrying nest material or food), territory mapping, and

[92] *Ibid.*
[93] *Ibid.*
[94] BSR, p. 13.
[95] MND, p. 3.
[96] DeSante DF, GR Geupel. 1987. Landbird productivity in central coastal California: the relationship to annual rainfall and a reproductive failure in 1986. Condor. 89:636-653.

systematically searching nesting substrates.[97] Based on the density and vertical complexity of vegetation in and adjacent to the Project site, it would be impossible for a biologist to reliably locate all bird nests that could be affected by Project activities unless considerable time is devoted to the effort (i.e., various search techniques across multiple days). Recognizing the inherent difficulty in locating bird nests, resource agencies recommend limiting activities that could impact nesting birds to the non-breeding season. U.S. Fish and Wildlife Service ("USFWS") guidelines state:

> If a proposed project or action includes the potential for take of migratory birds and/or the loss or degradation of migratory bird habitat and work cannot occur outside the migratory bird nesting season (either the primary or maximum nesting season), project proponents will need to provide the USFWS with an explanation for why work has to occur during the migratory bird nesting season. Further, in these cases, project proponents also need to demonstrate that all efforts to complete work outside the migratory bird nesting season were attempted, and that the reasons work needs to be completed during the nesting season were beyond the proponent's control.[98]

Buffer Distances

According to the MND, if nesting birds are found, no vegetation removal or construction activities shall occur within 500 feet of an active nest (660 feet for an active bald eagle nest).[99] The bald eagle is protected under the federal Bald and Golden Eagle Protection Act. In addition, it is a fully protected species under California Fish and Game Code Section 3511. The USFWS recommends a buffer size of one mile for construction activities near bald eagle nests.[100] The IS and MND provide no evidence that a buffer distance that is 12.5% of the distance recommended by the USFWS would be sufficient to avoid impacts to a bald eagle nest.

Noises and human activities can flush birds from their nests, or keep birds from returning to their nests. Even brief absence by parent birds can lead to missed feedings, predation on eggs or young, or to overheating, chilling, or desiccation of eggs or young.[101] Furthermore, if young birds are disturbed prior to fledging, they may attempt to fly prematurely.[102] This can cause injuries, or in birds that cannot regain flight if they end up on the ground. Nevertheless, the MND states: "[i]f the construction activity is not visible from the nest and similar types of human activities occur within 1 mile of the nest a 330-foot buffer zone is recommended."[103] This caveat is not justified for the bald eagle and

[97] Martin TE, GR Geupel. 1993. Nest-Monitoring Plots: Methods for Locating Nests and Monitoring Success. J. Field Ornithol. 64(4):507-519.

[98] U.S. Fish and Wildlife Service, Migratory Bird Management. 2010. Suggested Priority of Migratory Bird Conservation Actions for Projects. p. 1.

[99] MND, p. 3.

[100] 24 Jun 2015 and 11 Jul 2017 email communications to Scott Cashen from Heather Beeler, Eagle Permit Coordinator, USFWS.

[101] Call M. 1979. Habitat management guides for birds of prey. U.S. Department of the Interior, Bureau of Land Management. Technical Note 338. 70 pp.

[102] *Ibid.*

[103] MND, p. 3.

most of the other bird species that may nest in the Project area because it ignores the cumulative effects that noise and human activities can have on nesting birds. In short, the more disturbance events, the longer parent birds are absent from the nest.

CONCLUSION

Due to the issues discussed above, it is my professional opinion that the Project could have significant impacts on several sensitive biological resources. The MND that was prepared for the Project has not provided the mitigation necessary to ensure those impacts are reduced to less-than-significant levels.

Sincerely,

Scott Cashen, M.S.
Senior Biologist

ATTACHMENT B-1

Scott Cashen, M.S.
Senior Wildlife Ecologist

Scott Cashen has 23 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with numerous taxa, ecoregions, biological resource issues, and environmental regulations. As a biological resources expert, Mr. Cashen is knowledgeable of the various agency-promulgated guidelines for field surveys, impact assessments, and mitigation. Mr. Cashen has led field investigations on several special-status species, including ones focusing on the yellow-legged frog, red-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and various forest carnivores.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process of over 80 solar, wind, biomass, and geothermal energy projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support. Mr. Cashen has provided expert witness testimony on several of the Department of the Interior's "fast-tracked" renewable energy projects. His testimony on those projects helped lead agencies develop project alternatives and mitigation measures to reduce environmental impacts associated with the projects.

Mr. Cashen was a member of the independent scientific review panel for the Quincy Library Group project, the largest community forestry project in the United States. As a member of the panel, Mr. Cashen was responsible for advising the U.S. Forest Service on its scientific monitoring program, and for preparing a final report to Congress describing the effectiveness of the Herger-Feinstein Forest Recovery Act of 1998.

AREAS OF EXPERTISE

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy development
- Scientific field studies, grant writing and technical editing

EDUCATION

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)
Thesis: *Avain Use of Restored Wetlands in Pennsylvania*
B.S. Resource Management - The University of California, Berkeley (1992)

PROFESSIONAL EXPERIENCE

Litigation Support / Expert Witness

Mr. Cashen has served as a biological resources expert for over 100 projects subject to environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his clients with an assessment of biological resource issues. He then submits formal comments on the scientific and legal adequacy of the project's environmental documents (e.g., Environmental Impact Statement). If needed, Mr. Cashen conducts field studies to generate evidence for legal testimony, or he can obtain supplemental testimony from his deep network of species-specific experts. Mr. Cashen has provided written and oral testimony to the California Energy Commission, California Public Utilities Commission, and U.S. district courts. His clients have included law firms, non-profit organizations, and citizen groups.

REPRESENTATIVE EXPERIENCE

Solar Energy

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- California Flats Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy Project
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- McCoy Solar Project
- Mt. Signal and Calexico Solar
- Panoche Valley Solar
- San Joaquin Solar I & II
- San Luis Solar Project
- Stateline Solar Project
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project
- Willow Springs Solar

Geothermal Energy

- Casa Diablo IV Geothermal Project
- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Orni 21 Geothermal Project
- Western GeoPower Plant

Wind Energy

- Catalina Renewable Energy Project
- Ocotillo Wind Energy Project
- SD County Wind Energy Ordinance
- Searchlight Wind Project
- Shu'luuk Wind Project
- Tres Vaqueros Repowering Project
- Tule Wind Project
- Vasco Winds Relicensing Project

Biomass Facilities

- CA Ethanol Project
- Colusa Biomass Project
- Tracy Green Energy Project

Other

- DRECP
- Carnegie SVRA Expansion Project
- Lakeview Substation Project
- Monterey Bay Shores Ecoresort
- Phillips 66 Rail Spur
- Valero Benecia Crude By Rail
- World Logistics Center

Project Management

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of the projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

REPRESENTATIVE EXPERIENCE

Wildlife Studies

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (*CA State Parks*)
- "KV" Spotted Owl and Northern Goshawk Inventory: (*USFS, Plumas NF*)
- Amphibian Inventory Project: (*USFS, Plumas NF*)
- San Mateo Creek Steelhead Restoration Project: (*Trout Unlimited and CA Coastal Conservancy, Orange County*)
- Delta Meadows State Park Special-Status Species Inventory: (*CA State Parks, Locke*)

Natural Resources Management

- Mather Lake Resource Management Study and Plan – (*Sacramento County*)
- Placer County Vernal Pool Study – (*Placer County*)
- Weidemann Ranch Mitigation Project – (*Toll Brothers, Inc., San Ramon*)
- Ion Communities Biological Resource Assessments – (*Ion Communities, Riverside and San Bernardino Counties*)
- Del Rio Hills Biological Resource Assessment – (*The Wyro Company, Rio Vista*)

Forestry

- Forest Health Improvement Projects – (*CalFire, SD and Riverside Counties*)
- San Diego Bark Beetle Tree Removal Project – (*SDG&E, San Diego Co.*)
- San Diego Bark Beetle Tree Removal Project – (*San Diego County/NRCS*)
- Hillslope Monitoring Project – (*CalFire, throughout California*)

Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

REPRESENTATIVE EXPERIENCE

Biological Assessments/Biological Evaluations ("BA/BE")

- Aquatic Species BA/BE – Reliable Power Project (*SF Public Utilities Commission*)
- Terrestrial Species BA/BE – Reliable Power Project (*SF Public Utilities Commission*)
- Management Indicator Species Report – Reliable Power Project (*SF Public Utilities Commission*)
- Migratory Bird Report – Reliable Power Project (*SF Public Utilities Commission*)
- Terrestrial and Aquatic Species BA – Lower Cherry Aqueduct (*SF Public Utilities Commission*)
- Terrestrial and Aquatic Species BE – Lower Cherry Aqueduct (*SF Public Utilities Commission*)
- Terrestrial and Aquatic Species BA/BE – Public Lands Lease Application (*Society for the Conservation of Bighorn Sheep*)
- Terrestrial and Aquatic Species BA/BE – Simon Newman Ranch (*The Nature Conservancy*)

Avian

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory *(CA State Parks: Locke)*
- Study design and lead bird surveyor - Placer County Vernal Pool Study *(Placer County: throughout Placer County)*
- Surveyor - Willow flycatcher habitat mapping *(USFS: Plumas NF)*
- Independent surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects *(Ducks Unlimited/USGS: San Pablo Bay)*
- Study design and Lead Investigator - Bird use of restored wetlands research *(Pennsylvania Game Commission: throughout Pennsylvania)*
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County *(HCV Associates: Napa)*

- Surveyor - Baseline inventory of bird abundance following diesel spill *(LFR Levine-Fricke: Suisun Bay)*
- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site *(City of Fairfield: Fairfield, CA)*
- Surveyor - Burrowing owl relocation and monitoring *(US Navy: Dixon, CA)*
- Surveyor - Pre-construction burrowing owl surveys *(various clients: Livermore, San Ramon, Rio Vista, Napa, Victorville, Imperial County, San Diego County)*
- Surveyor - Backcountry bird inventory *(National Park Service: Eagle, Alaska)*
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor – Pre-construction surveys for nesting birds (*various clients and locations)*

Amphibian

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys *(USFS: Plumas NF)*
- Surveyor - Foothill yellow-legged frog surveys *(PG&E: North Fork Feather River)*
- Surveyor - Mountain yellow-legged frog surveys *(El Dorado Irrigation District: Desolation Wilderness)*
- Crew Leader - Bullfrog eradication *(Trout Unlimited: Cleveland NF)*

Fish and Aquatic Resources

- Surveyor - Hardhead minnow and other fish surveys *(USFS: Plumas NF)*
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping *(City of Fairfield: Fairfield, CA)*
- GPS Specialist - Salmonid spawning habitat mapping *(CDFG: Sacramento River)*
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use *(CA Coastal Conservancy: Gualala River estuary)*
- Crew Leader - Exotic species identification and eradication *(Trout Unlimited: Cleveland NF)*

Mammals

- Principal Investigator – Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)
- Scientific Advisor –Study on red panda occupancy and abundance in eastern Nepal *(The Red Panda Network: CA and Nepal)*
- Surveyor - Forest carnivore surveys *(University of CA: Tahoe NF)*
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals *(US Navy: Skagg's Island, CA)*
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

Natural Resource Investigations / Multiple Species Studies

- Scientific Review Team Member – Member of the scientific review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units *(CDF: San Diego, San Bernardino, and Riverside Counties)*
- Biological Resources Expert – Peer review of CEQA/NEPA documents (*various law firms, non-profit organizations, and citizen groups)*
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites *(SDG&E: San Diego County)*
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan *(Trout Unlimited: Cleveland NF)*
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park *(County of Sacramento: Sacramento, CA)*
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property *(Yuba County, CA)*
- Lead Investigator - Wildlife Strike Hazard Management Plan *(HCV Associates: Napa)*
- Lead Investigator - Del Rio Hills Biological Resource Assessment *(The Wyro Company: Rio Vista, CA)*
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California's Wildlife Habitat Relationships (CWHR) Model *(University of California: Tahoe NF)*

Forestry

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen's experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

REPRESENTATIVE EXPERIENCE

- Lead Consultant - CalFire fuels treatment projects *(SD and Riverside Counties)*
- Lead Consultant and supervisor of harvest activities – San Diego Gas and Electric Bark Beetle Tree Removal Project *(San Diego)*
- Crew Leader - Hillslope Monitoring Program *(CalFire: throughout California)*
- Consulting Forester – Forest inventories and timber harvest projects *(various clients throughout California)*

Grant Writing and Technical Editing

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

PERMITS

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS

The Wildlife Society

Cal Alumni Foresters

Mt. Diablo Audubon Society

OTHER AFFILIATIONS

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

TEACHING EXPERIENCE

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

PUBLICATIONS

Gutiérrez RJ, AS Cheng, DR Becker, S Cashen, et al. 2015. Legislated collaboration in a conservation conflict: a case study of the Quincy Library group in California, USA. Chapter 19 *in*: Redpath SR, et al. (eds). Conflicts in Conservation: Navigating Towards Solutions. Cambridge Univ. Press, Cambridge, UK.

Cheng AS, RJ Gutiérrez RJ, S Cashen, et al. 2016. Is There a Place for Legislating Place-Based Collaborative Forestry Proposals?: Examining the Herger-Feinstein Quincy Library Group Forest Recovery Act Pilot Project. Journal of Forestry.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 1 – Northern
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

August 21, 2017

Lily Toy
Planning Division
City of Redding
777 Cypress Avenue
Redding, CA

Subject: Review of the Planning Application for UP-2017-00001, PM-2017-00002, GPA-2017-00003, and RZ-2017-00004, Dignity Health North State Pavilion Project, Redding, Shasta County

Dear Ms. Toy:

The California Department of Fish and Wildlife (Department) has reviewed the Mitigated Negative Declaration (MND) dated July 20, 2017, for the above-referenced project (Project). As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and their habitat. As a responsible agency, the Department administers the California Endangered Species Act and other provisions of the Fish and Game Code that conserve the State's fish and wildlife public trust resources. The Department offers the following comments and recommendations on this Project in our role as a trustee and responsible agency pursuant to the California Environmental Quality Act, (California Public Resources Code §21000 et seq.).

Project Description

The Project as described in the Planning Application is

> *"to develop a 10.77-acre site with a medical center for Dignity Health. The project is a wellness center for ambulatory medical offices and clinics distributed amongst three buildings totaling approximately 129,600 square feet with associated parking, landscaping and infrastructure. The use permit request is to allow for the development of the project and for a portion of the parking lot to encroach into the Feral Emergency Management Agency regulated 100-year floodplain of the Sacramento Rivers. The parcel map request is to allow the merging of all the parcels into one. The general plan amendment request is a request to amend the general plan from the existing designations of 'General Office,' 'General Commercial,' and 'Greenway' to 'Public Facility.' Lastly, the rezoning request is to amend the existing zoning from 'GO' General Office and 'GC' General Commercial to 'PF' Public Facility."*

The Project is located at the end of Henderson Road just west of Hartnell and south of the Cypress Bridge.

Comments and Recommendations

The Department has the following comments as it pertains to the plan designs dated June 9, 2017, Biological Study Report prepared by ENPLAN dated April 2017, and the MND. The Department commented on this Project during early consultation on January 26, 2017. The Department appreciates that the City of Redding has incorporated many of our previous comments into the MND.

Planting Plan

The Department recommends eastern redbud be removed from the species list unless it can be proven to be genetically incompatible and cannot cross-pollinate with native western redbud. The Department recommends Chinese pistache be removed from the species list as it is starting to spread into wildlands in and around Redding. The Department recommends oleander removed from the species list as this has become a huge problem in the Keswick area and on the river trail within riparian habitat. The Western Sycamore (*Platanus racemosa)* that is proposed is not native to this area; however, if identified for use, the City should ensure that it is not a hybrid, but is the native Californian species. The nearest known native, and most northern population, is in Battle Creek.

Proposed Tree Removal Plan

The Tree Removal Plan shows Japanese privet being retained onsite. This species spreads and has the potential to become invasive in the Central Valley. The species is on the California Invasive Plant Council's watch-list, and should not be retained.

Mitigation Measures

Mitigation Measure 2 is mentioned twice within the MND. On page 3 it states that the off-site planting plan will be reviewed and approved by the City of Redding but on page 12 that same measure states it will be reviewed and approved by CDFW and the City of Redding. The Department would like to review and approve that mitigation plan.

Mitigation Measure 3 states that, "*a qualified biologist shall inspect the affected vegetation*." It should say, a qualified **bat** biologist as stated in the Biological Resources Report dated April 2017.

The following comments are from the Department's letter dated January 26, 2017. These were not addressed in the MND.

Coordination With Other Projects

In addition to this Project, this general area has two additional projects proposed to be considered during environmental review. One is a proposed parking and kayak launch which the City of Redding is designing and the other is a federal project to restore a side channel for salmon rearing

The Central Valley Project Improvement Act (CVPIA), section 3406 (b)(13) ("B13") directs the Department of the Interior "to develop and implement a continuing program for the purpose of restoring and replenishing, as needed, salmonid spawning gravel lost due to the construction and operation of Central Valley Project dams and other actions that have reduced the availability of spawning gravel and rearing habitat in the Sacramento River from Keswick Dam to Red Bluff Diversion Dam"[1]. The Bureau of Reclamation along with the Department of Water Resources, National Marine Fisheries Service, the Department, Western Shasta Resource Conservation District, U.S. Fish and Wildlife Service, State Water Resources Control Board, and the City of Redding are implementing a series of projects on the Sacramento River per the Upper Sacramento River Anadromous Fish Habitat Restoration Program. The Cypress Avenue Bridge South project is located within the Henderson Open Space area adjacent to the Project site.

The Department recommends the Project be designed in coordination with the agencies involved in the ongoing B13 planning process as well as the City of Redding to further explore the habitat improvement potential for the Project site. If the Dignity Health will be using this area for off-site mitigation, it would be prudent to identify at this time, as the other projects may end up needing the same area for their mitigation.

Lighting

The Department recognizes the effects of artificial lighting on birds and other nocturnal species. The effects are numerous and include impacts to singing and foraging behavior, reproductive behavior, navigation, and altered migration patterns. To minimize adverse effects of artificial light on wildlife, the Department recommends lighting fixtures associated with the Project be downward facing, fully-shielded and designed and installed to minimize photo-pollution.

Low Impact Development

The Department recommends that the Project use low-impact development strategies such as permeable pavement, vegetated stormwater bio-swales and retention basins to treat, retain and infiltrate stormwater runoff on site. These stormwater facilities and strategies are designed to prevent project-generated stormwater runoff from

[1] B13 documents are available at this link:
https://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=23758

exceeding that of a 2-year storm event and to protect water quality and manage stormwater as close to its source as possible, thus mitigating potential flooding and pollution problems. Ideally, post-project stormwater run-off volume, rate and duration will match pre-project conditions and no hydromodification will occur as a result of the Project. The Department supports the use of low-impact development strategies because they minimize impacts to aquatic habitats by filtering out pollution, preventing increased peak flows and related erosion, and because they increase ground water recharge and therefore help maintain biologically important summer low flows in local waterways.

Decorative Metal Fence

The design of the decorative metal fence was not included in the Project plans; however, the Department recommends that the fence be designed without pointed or sharp ornaments on the top of the fence as they have been known to impale and injure wildlife trying to jump over the fence.

If you have any questions, please contact Amy Henderson, Senior Environmental Scientist (Specialist), at (530) 225-2779, or by e-mail at Amy.Henderson@wildlife.ca.gov.

Sincerely,

Curt Babcock
Habitat Conservation Program Manager

ec: Lily Toy
City of Redding
ltoy@cityofredding.org

State Clearinghouse
state.clearinghouse@opr.ca.gov

California Department of Fish and Wildlife
Kristin Hubbard, Amy Henderson
Kristin.Hubbard@wildlife.ca.gov, Amy.Henderson@wildlife.ca.gov