JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Documents

Meeting Date
April 8, 2019

JUDICIAL COUNCIL OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

www.courts.ca.gov/tcfmac.htm
tcfmac@jud.ca.gov

TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

OPEN MEETING WITH CLOSED SESSION AGENDA

Open to the Public Unless Indicated as Closed (Cal. Rules of Court, rule 10.75(c)(1))

OPEN PORTION OF THIS MEETING IS BEING RECORDED

Date:	April 8, 2019
Time:	10:00 AM - 4:00 PM
Location:	Sacramento/Teleconference for Public Access
Public Call-in Number:	1-877-820-7831 Listen Only Code: 4502468

Meeting materials for open portions of the meeting will be posted on the advisory body web page on the California Courts website at least three business days before the meeting. Agenda items are numbered for identification purposes only and will not necessarily be considered in the indicated order.

I. OPEN MEETING (CAL. RULES OF COURT, RULE 10.75(C)(1))

Call to Order and Roll Call 10:00 AM

Approval of Minutes

Approve minutes of the March 8, 2019, Trial Court Facility Modification Advisory Committee meeting.

II. ACTION ITEMS (ITEMS 1–9)

Action Item 1 – (Action Required) – List A – Emergency Facility Modification Funding (Priority 1)

Summary: Ratify emergency facility modifications from List A.

Action Requested: Staff recommends 14 projects for a total of $261,755 to be paid from Facility Modification program funds previously encumbered for Priority 1.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 2 – (Action Required) – List B – Facility Modifications Less than $100K (Priority 2)

Summary: Ratify facility modifications less than $100K from List B.

Action Requested: Staff recommends 41 projects for a total of $268,982 to be paid from Facility Modification program funds previously encumbered for Priority 2 less than $100K.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 3 – (Action Required) – List C – Cost Increases Over $50K

Summary: Ratify facility modifications requiring cost increases over $50K from List C.

Action Requested: Staff recommends 6 projects for a total cost increase to the Facility Modification program budget of $1,742,993.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 4 – (Action Required) – List D – Facility Modifications Over $100K

Summary: Review recommended facility modifications over $100K from List D and P3 projects.

Action Requested: Staff recommends approving 2 projects for a total cost to the Facility Modification Program funds of $345,000.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 5 – (Action Required) – Court Building Seismic Renovation Studies Project Report(s)

Summary: Review and approve the Court Building Seismic Renovation Studies Project report(s) for release to public.

Action Requested: Review and approve release of report to public.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 6 – (Action Required) – Q3 Trial Court Facility Modification Report for Fiscal Year 2018-19

Summary: Draft of Quarter 3 report to the Judicial Council as an Information-Only items.

Action Requested: Review and approve draft for submission to the Judicial Council as an Information-Only item.

Presenters: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 7 – (Action Required) – Reallocation of Funds

Summary: Review and approve reallocation of $1,000,000 from FMs Less than $100K Allocation to Priority 1 FM Allocation, and $750,000 from Unplanned FMs over $100K Allocation to Priority 1 FM Allocation.

Action Requested: Approve reallocation of $1,000,000 from FMs Less than $100K Allocation to Priority 1 FM Allocation and reallocation of $750,000 from Unplanned FMs over $100K Allocation to Priority 1 FM Allocation.

Presenters: Mr. Jagan Singh, Principal Manager, Facilities Services

Action Item 8 – (Action Required) – FY 20-21 Budget Change Proposal (BCP) Initial Funding Requests (IFRs)

Summary: Review, prioritize and approve the two FY 20-21 BCP IFRs for submittal in May to the Judicial Branch Budget Committee.

Action Requested: Review, prioritize and approve the FY 2020-21 Budget Change Proposal Initial Funding Requests

Presenters: Ms. Mimi Morris, Principal Manager, Facilities Services

Action Item 9 – (Action Required) – DMF Funding Cost Increase

Summary: Review and approve total cost increase of $1,247,895 for two DMF-1 projects.

Action Requested: Review and approve cost increase of $1,247,895 for two DMF-1 projects from the Judicial Council FM budget share.

Presenters: Mr. Jagan Singh, Principal Manager, Facilities Services

III. Discussion Items (Items 1–3) (No Action Required)

Discussion Item 1 – Court Facilities Trust Fund (CFTF) Fund Status

Summary: Update on the status of the Court Facilities Trust Fund.

Presenter: Mr. Jason Haas, Senior Budget Analyst, Budget Services

Discussion Item 2 – List E – Approved Court-Funded Requests (CFRs)

Summary: Review and discuss CFR projects approved by the Facilities Services Deputy Director since the last meeting. 32 CFRs were approved during this period.

Presenter: Ms. Pella McCormick, Deputy Director, Facilities Services

Discussion Item 3 – List F – Funded Facility Modifications on Hold

Summary: Standard list of previously funded FMs on hold.

Presenter: Mr. Jagan Singh, Principal Manager, Facilities Services

IV. Information Only Items (Items 1–4) (No Action Required)

Information Item 1 – DMF-I Project List Update

Summary: Update on the DMF-I projects.

Information Item 2 – DMF-II Project List Update

Summary: Update on the DMF-II projects.

Information Item 3 – Architectural Revolving Fund Projects Update

Summary: ARF projects update.

Information Item 4 – Facility Modification Budget Reconciliation Report

Summary: FM Budget Reconciliation Projects Update.

V. ADJOURNMENT

Adjourn to Closed Session

VI. CLOSED SESSION (CAL. RULES OF COURT, RULE 10.75(d)) (ACTION ITEMS 1–1)

Call to Order

Approval of Minutes

Approve closed session minutes of the December 3, 2018, Trial Court Facility Modification Advisory Committee meeting.

Closed Action Item 1 – Security-Related – Facility Modifications Less than $100K (Closed List B)

Facility Modification Security Projects (Action Required)

Pursuant to California Rules of Court, Rule 10.75(d)(5) *Security plans or procedures or other matters that if discussed in public would compromise the safety of the public or of judicial branch officers or personnel or the security of judicial branch facilities or equipment, including electronic data.*

Summary: Review security-related facility modifications less than $100K from Closed List B.

Action Requested: Staff recommends 3 security-related projects for a total of $31,726 to be paid from Facility Modification Program Budget.

Presenters: Mr. Jagan Singh, Principal Manager, Facility Services
Mr. Ed Ellestad, Security Operations Supervisor, Facility Services

VII. CLOSED INFORMATION ONLY ITEMS (ITEMS 1–1) (NO ACTION REQUIRED)

Closed Information Item 1 – Director's Update

Summary: Update from the director.

Adjourn Closed Session

VIII. Non-Public Session Items (Items 1–1) (Not Subject to rule 10.75: on agenda at discretion of the chair) (No Action Required)

Non-Public Item 1 – Secondary operational expenses incurred during facility modification projects

Summary: Information regarding responsibilities for secondary operational expenses incurred during facility modification projects.

Presenter: Mr. Michael Giden, Principal Managing Attorney, Legal Services

Adjourn Non-Public Session

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MINUTES OF OPEN SESSION OF MEETING

March 08, 2019
12:00 PM - 1:30 PM
Judicial Council of California – Teleconference

Advisory Body Members Present:	Hon. Donald Cole Byrd, Chair Hon. William F. Highberger, Vice-Chair Hon. Jennifer K. Rockwell Hon. Vanessa W. Vallarta Hon. James Stoelker Mr. W. Samuel Hamrick Jr. Ms. Linda Romero Soles Mr. Darrel E. Parker Mr. Jarrod Orr
Advisory Body Members Absent:	Hon. Brad R. Hill Hon. Patricia M. Lucas
Staff Present:	The following Judicial Council staff were present: Mr. Mike Courtney, Director, Facilities Services Ms. Pella McCormick, Deputy Director, Facilities Services Mr. Jagan Singh, Principal Manager, Facilities Services Mr. Jim Peterson, Principal Manager, Facilities Services Ms. Maria Atayde-Scholz, Manager, Facilities Services Mr. Andre Navarro, Manager, Facilities Services Ms. Karen Baker, Manager, Facilities Services Ms. Nanci Connelly, Supervisor, Facilities Services Mr. Paul Fitzgerald, Supervisor, Facilities Services Ms. Donna Jorgensen, Supervisor, Facilities Services Mr. Glenn Mantoani, Supervisor, Facilities Services Mr. Randy Swan, Supervisor, Facilities Services Mr. Paul Terry, Supervisor, Facilities Services Mr. Patrick Treanor, Supervisor, Facilities Services Mr. Ed Ellestad, Supervisor, Facilities Services Mr. Charles Martel, Supervising Attorney, Legal Services Ms. Alice Sung, Supervisor, Facilities Services Ms. Kate Albertus, Facilities Analyst, Facilities Services Ms. Sadie Varela, Administrative Specialist, Facilities Services
Others Present:	Mr. Brian Taylor, Court Executive Officer, Superior Court of CA, County of Solano Ms. Birgitta Corsello, County of Solano Mr. Mark Hummel, County of Solano Ms. Megan Greve, County of Solano Mr. James Bezek, County of Solano Mr. James Kremko, County of Solano

OPEN SESSION OF MEETING

Call to Order, Opening Remarks, and Roll Call

The chair called the open session of the meeting to order at 12:00 PM, roll was taken, and opening remarks were made.

Approval of Minutes

The advisory committee voted to approve the open session minutes of its meeting held on January 28, 2019. *(Motion: Romero-Soles; Second: Highberger)*

PUBLIC WRITTEN COMMENTS

No public comments were received.

OPEN SESSION - ACTION ITEMS (ITEMS 1 – 6)

Action Item 1 – List A – Emergency Facility Modification Funding (Priority 1)

Summary: Ratify emergency facility modifications from List A.

Action: Reviewed and approved 35 projects for a total of $2,092,717 to be paid from Facility Modification program funds previously encumbered. (*Motion: Vallarta; Second: Highberger)*

Action Item 2 – List B – Facility Modifications Less than $100K (Priority 2)

Summary: Ratify facility modifications less than $100K from List B.

Action: Reviewed and approved 52 projects for a total of $605,873 to be paid from Facility Modification program funds previously encumbered. *(Motion: Romero-Soles; Second: Orr)*

Action Item 3 – List C – Cost Increases Over $50K

Summary: Ratify facility modifications requiring cost increases over $50K from List C.

Action: Reviewed and approved 5 projects for a total cost increase to the Facility Modifications Program budget of $430,229. *(Motion: Vallarta; Second: Highberger)*

Action Item 4 – List D – Facility Modifications Over $100K

Summary: Review recommended facility modifications over $100K from List D and P3 projects.

Action: Reviewed and approved 1 facility modification project for a total cost to the Facility Modification Program Budget of $101,469. *(Motion: Stoelker; Second: Orr)*

Action Item 5 – Facilities Funding Responsibilities between Judicial Council and Superior Courts

Summary: Facilities Funding Responsibility document will be submitted for public comment and Court feedback.

Action: Reviewed and approved the Facilities Funding Responsibilities report and authorized staff to submit the report for public comment and Court feedback. *(Motion: Vallarta; Second: Highberger)*

Action Item 6 – Solano Hall of Justice Flood Protection Project

Summary: Review Solano Hall of Justice Flood Protection Project.

Action: **This action item is deferred until the August 26, 2019 TCFMAC meeting to determine where the County is on the design issue.** *(Motion: Highberger; Second: Hamrick)*

OPEN SESSION - DISCUSSION ITEMS (ITEMS 1–2) (NO ACTION REQUIRED)

Discussion Item 1 – List E – Approved Court-Funded Requests (CFRs)

Summary: Review and discuss CFR projects approved by the Facilities Services Deputy Director since the last meeting. Five CFRs were approved during this period.

Discussion Item 2 – List F – Funded Facility Modifications on Hold

Summary: Standard list of previously funded FMs on hold.

OPEN SESSION – INFORMATION-ONLY ITEMS (ITEMS 1–3) (NO ACTION REQUIRED)

Information Item 1 – DMF-I Project List Update

Summary: Update on the DMF-I projects.

Information Item 2 – DMF-II Project List Update

Summary: Update on the DMF-II projects.

Information Item 3 – Facility Modification Budget Reconciliation Report

Summary: FM Budget Reconciliation Projects Update.

ADJOURNMENT TO CLOSED SESSION AND ADJOURNMENT

There being no further open session business, the open session of the meeting was adjourned at 1:19 PM, and the advisory committee moved to the closed session of the meeting. The closed session of the meeting—which was closed to the public for discussion of security-related items (per Cal. Rules of Court, Rule 10.75(d))—was adjourned at 1:30 PM.

Approved by the advisory body on _____

JUDICIAL COUNCIL
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TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 1 – (Action Required) - List A – Emergency Facility Modification Funding (Priority 1)

Summary:

Ratify emergency facility modifications for List A.

Total Project Count:	14
Total Potential FM Budget Share of Cost:	$261,755

Supporting Documentation:

- List A – Emergency Facility Modification Funding Report (Priority 1)

Action Requested:

Staff recommends 14 projects for a total of $261,755 to be paid from Facility Modification program funds previously encumbered (Priority 1).

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Priority 1 = Immediately or Potentially Critical.

Condition requires immediate action to return a facility to normal operations, or a condition that will become immediately critical if not corrected expeditiously. Such conditions necessitate the need to stop accelerated deterioration or damage, to correct a safety hazard that imminently threatens loss of life or serious injury to the public or court employees, or to remediate intermittent function and service interruptions as well as potential safety hazards. Such conditions may include, but are not limited to, the following: major flooding; substantial damage to roofs or other structural building components; or hazardous material exposure. Depending on scope and impact, a severe deterioration in life safety protection may also be considered a priority 1 condition requiring a facility modification.

Owing to their critical nature, priority 1 requests will be addressed immediately by JCC staff using internal procedures that ensure timely and effective responses to unplanned emergency or potentially critical conditions, including a method and a process for setting aside funds to address priority 1 conditions.

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
1	FM-0063480	Los Angeles	Airport Courthouse	19-AU1	1	Fire Protection / Fire Panel program is obsolete and must be re-written/re-programed for proper working operations, and replace damaged circuit board. Fire Panel program is not recognizing trouble calls to diagnose and identify problems which creates a fire, life, safety issue for the building and occupants. (Correction Noticed received by Fire Marshall received).	$ 20,500	$ 20,500	In Work	100
2	FM-0063526	San Bernardino	San Bernardino Justice Center	36-R1	1	Grounds and parking lot-Replace (3) custom sized fence panels in the secured parking area. Panels were damaged when high winds caused a tree branch to fall onto the fence panels. Emergency call to install temporary fencing for security reasons, then fabricate, install, and paint to match three new panels.	$ 14,391	$ 14,391	Complete	100
3	FM-0063534	Orange	Civil Complex Center ("CXC")	30-A3	1	Interior Finishes - Disinfect, clean and dry approximately 330 sq. ft. of carpet, remove and replace about 50 liner ft. of cove base and return room to normal state. A clogged jury room toilet in CX104, overflowed overnight and kept running until discovered in the morning causing flooding to the Jury Room, and adjacent areas.	$ 5,380	$ 5,380	In Work	100
4	FM-0063567	Los Angeles	Compton Courthouse	19-AG1	1	Roof - Replaced (12) ceiling tiles, erected (1) 6x6x11h containment, conducted environmental testing/reports, and all remediation work performed in a known ACM environment. Rain water leaked into the 12th floor Dept. Q and dripped into the jury box. Water affected (4) jury chairs and the floor.	$ 11,315	$ 7,483	Complete	66.13
5	FM-0063582	Merced	Main Merced Courthouse	24-A8	1	HVAC - Replace failed burner assembly on Hot Water Boiler - Only unit serving this building and is currently unreliable.	$ 48,887	$ 48,887	In Work	100
6	FM-0063585	Los Angeles	Norwalk Courthouse	19-AK1	1	Interior finishes - Replace (1) 1' x 1' ceiling tile fell. Erected (1) containment 6'x 6'x7', in the secure hallway. Work completed in known ACM environment. Ceiling tile fell due age (original to build, 1965).	$ 8,846	$ 7,522	In Work	85.03
7	FM-0063586	Los Angeles	Norwalk Courthouse	19-AK1	1	Electrical-Replace two (2) emergency back-up generator batteries. Cleanup of battery acid and fire extinguishing material included, along with recharge of fire extinguisher. Batteries exploded and leaked in generator room.	$ 3,725	$ 3,167	In Work	85.03
8	FM-0063594	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing - Cleared 175-ft of sewage main drain line to clear stoppage causing water to back up, replaced 10 Lf of 1-inch copper pipe, (1) 1-inch valve, (1) 1-inch 90, and (1) 1-inch coupling. Erected (3) containments in three affected areas, conducted environmental testing and clearances. All work performed in a known ACM environment. Clogged toilet in 6th floor lock up, 250-gallons of water traveled down to multiple areas (issue caused by inmate).	$ 59,877	$ 39,597	Complete	66.13
9	FM-0063601	Los Angeles	Metropolitan Courthouse	19-T1	1	Interior Finishes - Replaced 64 sq. ft. of carpet, (2) 1x1 ceiling tiles, erected (1) 7x5x14h containment, conducted environmental testing, and performed all work in a known ACM environment. A 1x1 ceiling tile has fallen to the floor from 14' high ceiling on the 1st floor, near the front entrance due to vibrations.	$ 8,387	$ 7,929	Complete	94.54
10	FM-0063602	Los Angeles	Metropolitan Courthouse	19-T1	1	Exterior Shell - Replaced (4) 1x1 ceiling tiles, (1) sq. ft. carpet, erected (1) 6x6x11h containment, conducted environmental testing and performed all work in a known ACM environment. 8th floor north side room 801 ceiling is leaking over employee's desk due to roof leak.	$ 10,349	$ 9,784	Complete	94.54
11	FM-0063605	Alameda	Fremont Hall of Justice	01-H1	1	Vandalism - In-custody caused flood by putting his shirt down the toilet and flushing - Remediation of courtroom 606 and DA's Office below on the 1st floor.	$ 21,075	$ 21,075	In Work	100

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
12	FM-0063606	Los Angeles	Chatsworth Courthouse	19-AY1	1	HVAC - Replace (1) BAS controller for the refrigerant leak detection and re-program the BAS. Controller shorted out preventing the chillers to operate properly not cooling the building.	$ 14,065	$ 11,786	In Work	83.8
13	FM-0063608	Los Angeles	Alhambra Courthouse	19-I1	1	Plumbing - Replace 2 LF of 3" cast iron pipes, one (1)3" ninety, and four (4) 3" hub couplings. Paper towels were stuffed into two (2) sinks and toilet with water running in 2nd floor women's public restroom, causing flooding. During remediation, a crack in the drain pipe was also discovered. Containments, remediation, and environmental oversight are included.	$ 44,986	$ 38,688	In Work	86.00
14	FM-0063619	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing/ Replaced (1) flush valve, (1) vacuum breaker, (1) flush meter, and (1) stud in 9th floor lock up pipe chase. Erected (1) 13x13x10h containment, and conducted environmental testing. Water leaked from cracked concealed flush valve at toilet. Area of impact, 9th floor lock up pipe chase down to Department 802 on 8th floor.	$ 38,661	$ 25,567	Complete	66.13
							$ 310,444	**$ 261,755**		

JUDICIAL COUNCIL
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ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 2 – List B – Facility Modifications Less than $100K (Priority 2)

Summary:

Ratify facility modifications less than $100K from List B.

Total Project Count:	41
Total Potential FM Budget Share of Cost:	$268,982

Supporting Documentation:

- List B – Facility Modifications Less than $100K (Priority 2)

Action Requested:

Staff recommended 41 projects for a total of $268,982 to be paid from Facility Modification Program funds previously encumbered for Priority 2.

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Priority 2—Necessary, but Not Yet Critical. Condition requires correction to preclude deterioration, potential loss of function or service, or associated damage or higher costs if correction is further deferred.

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
1	FM-0061979	Merced	Robert M. Falasco Justice Center	24-G1	2	Exterior Shell - Windows need to be tinted for security reasons.	$ 459	$ 459	Complete	100
2	FM-0062711	San Luis Obispo	Courthouse Annex	40-A1	2	COUNTY MANAGED - Electrical/Lighting - Replace failed light fixture lamps and ballasts at the stairwell. A man lift is required to reach third floor ceiling.	$ 6,964	$ 6,964	In Work	100
3	FM-0062782	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Fire Protection - Replace sixty (60) sprinklers, six (6) gauges, and one (1) escutcheon. These items failed the annual Fire Protection inspection under PM 2746877.	$ 15,151	$ 12,194	In Work	80.48
4	FM-0063056	Los Angeles	East Los Angeles Courthouse	19-V1	2	Elevators, Escalators, & Hoists - Replace (1) set of hoist motor seals for public elevator #3. Seals are leaking grease due to age & wear/tear. This is affecting elevator operation, currently out of service. Existing Elevator motor must be removed & re-installed to enact seal replacement.	$ 24,885	$ 19,341	In Work	77.72
5	FM-0063285	Los Angeles	El Monte Courthouse	19-O1	2	Interior Finishes - Replace missing stucco holes in multiple Janitorial closet walls and basement boiler mechanical room due to County repair work in the past and received building condition as is. State Fire Marshall correction notice noted penetrations needing to be corrected to comply with fire-resisted ratings. CFC section 703.1.	$ 13,799	$ 8,020	In Work	58.12
6	FM-0063300	Los Angeles	Alhambra Courthouse	19-I1	2	HVAC-Replace mini-split HVAC system in basement MCR room. Existing system in leaking at the evaporator coils and is inaccessible. Existing evaporator will have refrigerant evacuated and will be abandoned in place.	$ 20,180	$ 17,355	In Work	86
7	FM-0063460	San Diego	North County Regional Center - North	37-F2	2	Interior finishes-Replace one (1) pair of hollow metal doors and hinges on east emergency exit door, and re-use existing hardware. The door does not seal or secure properly after it was damaged by a person that was detained after trial who then attempted to run and exit the building. JCC obtaining case # for restitution for damages caused by detainee.	$ 4,158	$ 4,158	In Work	100
8	FM-0063499	Humboldt	Humboldt County Courthouse (Eureka)	12-A1	2	Interior Finishes - Test for ACM and Lead - due to multiple events, test areas for ACM and Lead in preparation for remediation of water leak damage. Test Sheetrock walls, ceiling tiles, carpet adhesive. 45 ACM samples and 15 Lead samples.	$ 6,049	$ 6,049	In Work	100

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
9	FM-0063541	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Elevators, Escalators, & Hoists - Replace non-functioning (1) Armor/GE 48 HP gearless hoist motor, brush holder assembly, install new brushes and clean the armature. Elevator 12 in not functioning and is used for the Sheriff's to transport inmates to different floors which is impacting other elevators.	$ 17,139	$ 11,790	In Work	68.79
10	FM-0063566	Los Angeles	Compton Courthouse	19-AG1	2	Fire Protection - Replace two (2) 2 1/2" water flow switches, nine (9) sprinkler heads, and one (1) grooved coupling. Switches failed and sprinkler heads and coupling are corroded. Replacement required to maintain compliance.	$ 1,200	$ 794	Complete	66.13
11	FM-0063569	Santa Clara	New Santa Clara Family Justice Center	43-B5	2	HVAC - Replace (1) failed A/C compressor at MDF room; Air conditioning unit not functioning; Court impacted by loss of critical cooling for IT operations.	$ 18,250	$ 18,250	In Work	100
12	FM-0063575	Riverside	Larson Justice Center	33-C1	2	Fire Protection - Remove and replace failed WON Door control box and motor circuit board of the 3rd floor public elevators fire curtain. Fire curtain is randomly deploying creating an unpredictable safety hazard for customers and court staff. The manufacturers technician has assessed and attempted to repair the unit, however parts are obsolete necessitating the replacement of the box and board.	$ 9,650	$ 9,399	In Work	97.39
13	FM-0063576	Monterey	Salinas Courthouse- North Wing	27-A1	2	Fire Protection - Repair deficiencies noted on 5-yr County fire department inspection - Replace (6) outdated gauges - Replace corroded drop-down piece above T-bar next to riser - Material: 2-0 of 1" pipe and 1" 90 - Replace (2) painted 200* QR Upright located at stair 2 going up to roof - Replace (1) missing concealed head, white trim - Replace (1) corroded drop in 307 - Material: 0-4 1" Nipple with adjustable nipple - Replace (2) concealed plates - (1) each in men's and women's restroom - Replace (1) corroded sprinkler head located in #252 - Material: Brass 155* QR Pendent - Replace (2) Caulked concealed plates in hallway outside #239 - Replace (3) concealed plates located in common restroom by 213 - (1) inside, (1) outside and (1) in women's restroom.	$ 10,847	$ 10,847	In Work	100
14	FM-0063579	Los Angeles	Pomona Courthouse North	19-W2	2	HVAC-Repair air conditioning coils for AHUs that are not currently providing sufficient cooling to the building. Service Provider to repair coils and change out primary and secondary filters to return units to proper function.	$ 9,565	$ 9,207	Complete	96.25

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
15	FM-0063583	Contra Costa	Bray Courts	07-A3	2	HVAC - Replace one 10hp VFD Drive to ACU05 that feeds the 1st Floor - Fan motor controls are by-passed and running at full speed and without replacement of the VFD it will negatively impact operational efficiency.	$ 5,323	$ 4,553	In Work	85.52
16	FM-0063584	San Bernardino	San Bernardino Justice Center	36-R1	2	Interior finishes - Replace one (1) door closer and one (1) pivot set for door in department S2. Door closer failed and isn't functioning.	$ 4,678	$ 4,678	In Work	100
17	FM-0063587	Los Angeles	Bellflower Courthouse	19-AL1	2	Vandalism - Exterior shell-Replace one (1) pair of 6'0" x 6' 5 1/2" doors, (3) hinges and (1) lock. Replace 5 Sq. Ft. of damaged chain link fencing. Emergency Generator doors and fence were damaged by vandals.	$ 6,598	$ 5,143	In Work	77.94
18	FM-0063589	Los Angeles	East Los Angeles Courthouse	19-V1	2	HVAC-Replace (1) 5 ton split HVAC condensing unit that serves IT equipment. Existing unit compressor failed and it is too hot equipment room and could cause I.T. systems to fail	$ 11,187	$ 8,695	In Work	77.72
19	FM-0063591	Los Angeles	Airport Courthouse	19-AU1	2	Interior Finishes - Replace (10) damaged/broken hinges & ball hinges of swing doors in courtrooms located on the 7th, 8th, & 9th floors to prevent injury to court personnel and visitors.	$ 9,775	$ 7,544	In Work	77.17
20	FM-0063592	Solano	Old Solano Courthouse	48-A3	2	Grounds and Parking Lot - Trim (9) nine Palm Trees at approximately 50' height requiring use of bucket truck; Safe off work area and direct traffic as needed; Clean up all debris and remove from site. Needed to mitigate falling debris safety hazard to public	$ 11,171	$ 11,171	In Work	100
21	FM-0063595	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Interior Finishes - Replace broken exterior window (27.5" x 58.5") to the 8th floor Room M8-101, remove pigeon feces/waste, and disinfect the 30'x40' area room due to pigeons entering through the broken window.	$ 9,806	$ 6,746	In Work	68.79
22	FM-0063596	Fresno	Reedley Court	10-F1	2	Plumbing - Install new 40-gallon natural gas domestic water heater to replace existing failed one - Existing water heater has failed and is beyond repair.	$ 1,447	$ 1,131	In Work	78.13
23	FM-0063597	San Diego	Trailer - Family Support	37-F7	2	Exterior shell - Replace 240 SF of deck siding panels and 30 LF of framing boards on outside deck. Panels and framing are damaged by woodrot due to exterior element exposure and cause a safety issue.	$ 9,461	$ 9,461	In Work	100
24	FM-0063600	Riverside	Riverside Juvenile Court	33-N1	2	Grounds and Parking Lot - Remediate 8ft x 13ft section (104sq. ft) of asphalt directly in front of the entrance to the courthouse in the fire lane. A large, deep pothole has developed creating a safety hazard to those entering from the parking lot and emergency vehicles.	$ 3,146	$ 1,553	In Work	49.34

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
25	FM-0063603	Los Angeles	Chatsworth Courthouse	19-AY1	2	HVAC - Replace (1) ignition module, time delay relay, and (2) pressure switches for boiler #1. Boiler is non operational and affecting comfort heating.	$ 4,805	$ 4,027	In Work	83.8
26	FM-0063604	Contra Costa	Walnut Creek Courthouse	07-C1	2	Vandalism - Exterior Shell - Replace 12 LF of patio fence (2 panels) that was damaged when someone ran into it and fled the scene (Report filed with Walnut Creek PD; Report #19-1667).	$ 3,351	$ 3,351	In Work	100
27	FM-0063607	Los Angeles	Stanley Mosk Courthouse	19-K1	2	Elevators, Escalators, & Hoists - Replace failed circuit board in Elevator #3 that is causing elevator lights to flash and stop functioning.	$ 14,105	$ 13,719	In Work	97.26
28	FM-0063609	San Bernardino	Fontana Courthouse	36-C1	2	Exterior shell-Replace two (2) locks on roll up door for walk up windows. Locks were no longer functional.	$ 2,895	$ 2,895	In Work	100
29	FM-0063610	San Diego	North County Regional Center - North	37-F2	2	HVAC-Replace two (2) belts and one (1) sheave for air handler in basement. Air handler was making a loud noise, and it was discovered the belts and sheave were worn.	$ 207	$ 207	Complete	100
30	FM-0063613	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	HVAC - Replace (1) blower mixer controller for Boiler #3. Blower mixer has failed during PM SWO 2831463, which could cause the boiler to overheat and warp the burner. create a bad fuel mixture that could damage the burner, and make deposits build up.	$ 2,622	$ 1,928	In Work	73.51
31	FM-0063617	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	HVAC - Replace (1) flow switch on Chiller #1. Failed flow switch is causing chiller to lockout and not start.	$ 3,051	$ 2,243	In Work	73.51
32	FM-0063618	Contra Costa	Family Law Center	07-A14	2	Exterior Shell - Remove two (2) 3'X10' glass doors from building and replace failed internal hardware on entrance door and replace failed frame hardware on the exit door. Failure to repair doors creates a disruption to the courts by limiting the access in and out of the building.	$ 2,669	$ 2,669	In Work	100
33	FM-0063622	Merced	Main Merced Courthouse	24-A8	2	HVAC - Replace two fan motors that have gone out on circuit number one PKU01. Check and repair controls. The two motors and unit is not working correctly.	$ 4,902	$ 4,902	In Work	100
34	FM-0063626	Fresno	Fresno County Courthouse	10-A1	2	Vandalism - Replace broken glass in Jury Assembly Room entrance door and replace with one 46" x 102" 1/4 Gray tempered panel installed into existing frame with impact film applied to glass - Glass was broken due to vandalism.	$ 2,191	$ 2,102	In Work	95.91

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % of COST
35	FM-0063629	Los Angeles	Airport Courthouse	19-AU1	2	HVAC - Isolate hot water valves, drain hot water, clean flanges, replace new gaskets and bolt kits, and re-insulate 7" hot water supply line to the boiler due to water leaking on the ground which could cause a larger leak creating further damage to the HVAC.	$ 5,428	$ 4,189	In Work	77.17
36	FM-0063630	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	Interior Finish - Replace (1) electrified Brinks Cell Lock for the entrance door to the Attorney's Interview Room. The lock to the Attorney's Interview room in the holding area has failed due to a broken key stuck inside the cylinder.	$ 2,605	$ 2,605	In Work	100
37	FM-0063631	San Mateo	Northern Branch Courthouse	41-C1	2	Fire Protection – Correct failed door release/drop device (1); replace missing electrical conduit and control wiring – Local Fire Marshall requirements for certification of existing fire curtains (3) at recently re-occupied area of facility.	$ 4,896	$ 4,075	In Work	83.21
38	FM-0063634	Los Angeles	Glendale Courthouse	19-H1	2	Interior Finishes - Replace damaged (1) 3'x7' hollow metal fire rated door (90 minute rated), (3) new ball bearing hinges, (1) new Schlage cylindrical lock and (1) new Norton surface mounted closer (non-hold open). Door was noted as a deficiency on State Fire Marshall (SFM) inspection report (located in N&D).	$ 2,486	$ 2,251	In Work	90.54
39	FM-0063635	Los Angeles	Norwalk Courthouse	19-AK1	2	Vandalism-Replace three (3) 1/4 in grey glass in aluminum storefront glass - two (2) doors and one (1) fixed glass - 70 SF total. Gang-related graffiti etched into glass.	$ 4,495	$ 3,823	In Work	85.03
40	FM-0063636	Los Angeles	Bellflower Courthouse	19-AL1	2	HVAC-Rebuild chilled water pump #3, replace (1) impeller and (2) couplings. Pump is leaking water on deck causing pump #1 to overheat.	$ 5,678	$ 4,426	In Work	77.94
41	FM-0063640	Santa Clara	Hall of Justice (East)	43-A1	2	HVAC - Correct failed chiller; recover refrigerant; replace (2) failed EXV chiller valves at modular compressor 2; install (1) filter/dryer; pull vacuum; recharge refrigerant; confirm operation - Chiller compressor circuit failed, causing loss of cooling capacity for facility, due to age of components.	$ 14,068	$ 14,068	In Work	100
							$ 311,342	**$ 268,982**		

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 3 – (Action Required) - List C – Cost Increases Over $50K

Summary:
Ratify facility modifications requiring cost increases over $50K from List C.

Total Project Count:	6
Total Potential FM Budget Share of Cost:	$1,742,993

Supporting Documentation:

- List C – Cost Increases Over $50K Report

Action Requested:
Staff recommends 6 projects for a total cost increase to the Facility Modification Program budget of $1,742,993.

	LOCATION	FACILITY NAME	BUILDING ID	FM NUMBER	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF TCFMAC FUNDED COST	CURRENT COST ESITMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF CURRENT COST ESTIMATE	NOTES	TOTAL COST INCREASE	FACILITY MODIFICATION PROGRAM COST INCREASE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % OF COST
1	Imperial	Imperial County Courthouse	13-A1	FM-0049657	2	HVAC - Replace eight (8) air handling units, thermostats, and control valves. Replace thirty (30) fan coil units, thermostats, and control valves. Integrate BAS. Majority of mechanical equipment is old, has leakage and wiring issues, and is not controlled properly. Due to poor control system and inefficient equipment, the costs associated with their operation and maintenance are high when the costs are compared to other courthouse properties.	$ 1,564,200	$ 1,564,200	$ 2,914,200	$ 2,914,200	Additional cost is due to Code change, additional scope in plan review. Increase also includes abatement work and current market escalation in construction costs.	$ 1,350,000	$ 1,350,000	In Work	100
2	Los Angeles	Alhambra Courthouse	19-I1	FM-0062201	2	HVAC - Replace chiller compressor. During a recent service call to the above listed facility to determine why the Carrier, model: 23XL screw chiller #1, when operating, was running louder than usual, vibration analysis was performed on the compressor and Full replacement is recommended.	$ 260,711	$ 224,211	$ 312,673	$ 268,899	Additional cost added because of County inspections and field requirements.	$ 51,962	$ 44,687	In Work	86.0
3	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	FM-0060573	3	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 17928 Fixtures).	$ 976,386	$ 671,656	$ 1,049,097	$ 721,674	Original scope was for a simple lamp replacement project. Once work started, some of the fixtures needed replacement because of incompatibilities requiring actual re-wiring work that adds additional labor costs. Additionally, the California Conservation Corps (CCC) had more costs for travel than originally thought. The original payback on the project was 1.87 years and the revised payback is 2.93 years.	$ 72,712	$ 50,018	In Work	68.79

	LOCATION	FACILITY NAME	BUILDING ID	FM NUMBER	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF TCFMAC FUNDED COST	CURRENT COST ESITMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF CURRENT COST ESTIMATE	NOTES	TOTAL COST INCREASE	FACILITY MODIFICATION PROGRAM COST INCREASE	JOB STATUS	FACILITY MODIFICATION PROGRAM BUDGET % OF COST
4	Los Angeles	Pomona Courthouse South	19-W1	FM-0060529	3	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit.	$ 166,041	$ 151,330	$ 250,871	$ 228,644	Original scope was for a simple lamp replacement project. Once work started, some of the fixtures needed replacement because of incompatibilities requiring actual re-wiring work that adds additional labor costs. Additionally, the CCC had more costs for travel than originally thought. The original payback on the project was 1.91 years and the revised payback is 3.17 years.	$ 84,829	$ 77,314	In Work	91.14
5	Los Angeles	Airport Courthouse	19-AU1	FM-0060525	3	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit.	$ 262,195	$ 202,336	$ 376,273	$ 290,370	Original scope was for a simple lamp replacement project. Once work started, some of the fixtures needed replacement because of incompatibilities requiring actual re-wiring work that adds additional labor costs. Additionally, the CCC had more costs for travel than originally thought. The original payback on the project was 2.16 years and the revised payback is 4.02 years.	$ 114,078	$ 88,034	In Work	77.17
6	Santa Clara	Downtown Superior Court	43-B1	FM-0060527	3	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit.	$ 140,847	$ 140,847	$ 273,786	$ 273,786	Original scope was for a simple lamp replacement project. Once work started, some of the fixtures needed replacement because of incompatibilities requiring actual re-wiring work that adds additional labor costs. Additionally, the CCC had more costs for travel than originally thought. The original payback on the project was 2.7 years and the revised payback is 5.24 years.	$ 132,939	$ 132,939	In Work	100
							$ 1,806,180	**$ 1,390,380**	**$ 2,262,700**	**$ 1,783,373**		**$ 1,806,521**	**$ 1,742,993**		

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 4 – (Action Required) - List D – Facility Modifications Over $100K

Summary:

Review recommended facility modifications over $100K from List D and P3 projects.

Total Project Count:	2
Total Potential FM Budget Share of Cost:	$345,000

Supporting Documentation:

- List D – Facility Modifications Over $100K Report

Action Requested:

Staff recommends approving 2 project for a total cost to the Facility Modification Program budget of $345,000.

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Priority 2—Necessary, but Not Yet Critical. Condition requires correction to preclude deterioration, potential loss of function or service, or associated damage or higher costs if correction is further deferred.
Priority 3—Needed. Condition to be addressed will reduce long-term maintenance or repair costs or will improve the functionality, usability, and accessibility of a court. The condition is not hindering the most basic functions of a facility, but its correction will support improved court operations.

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	CUMULATIVE TOTAL OF FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	TOTAL SCORE RANK	FACILITY MODIFICATION PROGRAM % OF COST
1	FM-0063627	Riverside	Hall of Justice	33-A3	2	Elevator Controls - Update elevator controls to fix the existing failed system. Current elevators are running on a backup system that is old and can crash at any time.	$ 165,000	$ 165,000	$ 165,000	50	100.00
2	FM-0062086	Madera	Main Courthouse	20-F1	2	Exterior - Remediation work to mitigate water intrusion at lower level of main electrical room, tunnel of the sally port, and lower level of parking garage. Scope of work to include, but not limited to installation of french drain at sally port, hardscape in landscape areas to minimize percolation infiltration at surface level, and install sumps if necessary at exterior per recommendation of geotechnical engineering investigation dated February 14, 2019.	$ 180,000	$ 180,000	$ 345,000	64	100.00
3	FM-0056863	Santa Cruz	Main Courthouse	44-A1	3	HVAC -Install Perimeter HVAC to include; AHU Unit, roof curb, concrete repairs, ductwork, VAV boxes diffuser and return grilles, new front end local PC, paint duct work, tie in local controllers to BAS, install VFDs. Install chilled water piping, and new reheating hot water piping to reheat VAV boxes. Includes, testing, design, drawings, and permits and booster pump if needed.-No direct HVAC in space, bleed over conditioning inadequate.	$ 160,700	$ 159,270	$ 504,270	47	99.11
4	FM-0056761	Ventura	Hall of Justice	56-A1	3	Interior Finishes - Reupholster Audience Seating as needed in 28 Courtrooms - Reupholstery of approx. 1,205 audience seats from a total of 1,626 in this building. Damage includes torn fabric, exposed framework, etc.	$ 191,970	$ 191,970	$ 696,240	50	100.00
5	FM-0052844	Ventura	Juvenile Courthouse	56-F1	3	Interior Finishes - COUNTY MANAGED -Replace All Interior Door Hardware Failing on 5 sets of Bldg Main Doors with Von Duprin Access and Controls- Low Quality/Failing - County Managed.	$ 70,937	$ 70,937	$ 767,177	70	100.00
6	FM-0035186	Orange	North Justice Center	30-C1	3	HVAC - Refrigerant Monitoring System - Install new refrigerant monitoring systems at two (2) chiller mechanical room locations to comply with current code. In the event of a refrigerant release, which displaces oxygen and could lead to suffocation, the system will alert personnel with strobe lights and sirens. Monitoring system will be tied into automation system. Assessment completed by service provider, January 2016.	$ 55,000	$ 49,671	$ 816,847	70	90.31
7	FM-0059239	Los Angeles	Metropolitan Courthouse	19-T1	3	HVAC - Install a CO system that will allow the exhaust fans and supply fans to operate only when required. This will reduce equipment operation time. The parking exhaust fan and supply fan system is continuously operating 24/7 causing unnecessary wear and tear on the equipment.	$ 168,906	$ 159,684	$ 976,531	70	94.54
8	FM-0060302	Los Angeles	Pasadena Courthouse	19-J1	3	Plumbing - Replace two hundred sixty (260) angle stops, one hundred fifty (150) toilet screwdriver stops, one hundred (100) urinal screwdriver stops, five (5) 3" gate valves, one (1) 4" gate valve, and one (1) 3" ball valve. Existing stops are corroded and do not properly shut off water.	$ 88,264	$ 61,211	$ 1,037,743	70	69.35
9	FM-0059349	Los Angeles	Airport Courthouse	19-AU1	3	Interior Finish - Remove and Replace 2,000 Square Feet of Epoxy Flooring in the holding area in the basement. The floor epoxy has failed and broken pieces can be used as a weapon. In addition, it has caused a health and safety issue.	$ 145,444	$ 112,239	$ 1,149,981	75	77.17

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	CUMULATIVE TOTAL OF FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	TOTAL SCORE RANK	FACILITY MODIFICATION PROGRAM % OF COST
10	FM-0058706	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	3	Electrical - Replace (775) 3' & 4' fluorescent tubes with T8 16w LED tubes and (102) ballasts with new electronic ballasts; install new Astronomical time clock control. Multiple existing fluorescent lights are burned out creating a safety / security hazard for the court.	$ 73,986	$ 50,895	$ 1,200,877	75	68.79
11	FM-0057578	Alameda	Fremont Hall of Justice	01-H1	3	Grounds and parking lot - Seal cracks, slurry seal -16,000 sq. ft. and re-stripe parking slots.	$ 19,908	$ 19,908	$ 1,220,784	77	100.00
12	FM-0060108	Los Angeles	Santa Monica Courthouse	19-AP1	3	Electrical - All existing restroom outlets are not GFCI Protected and do not comply with the code. The issue is posing a safety hazard on all customer and court personnel using the restroom. Removed all existing outlet inside the restroom and replace the same with Sixty (60) GFCI protected outlet.	$ 8,388	$ 6,584	$ 1,227,368	80	78.49
13	FM-0056760	San Diego	Juvenile Court	37-E1	3	Grounds and Parking Lot - Court employee parking lot is deteriorated and severely cracked. Several areas present safety/trip/liability hazards. Due to deterioration it is recommended to cold mill approximately 1,100 SF down to the sub grade (4" depth) in (2) areas to correct pavement failure. The remaining 14,400 SF will be cold milled down to 1 1/2" to provide a level base for the new surface course of asphalt; apply prime coat, waterproofing and tack coat to 14,400 SF. Finish pave 15,550 SF.	$ 70,850	$ 70,850	$ 1,298,218	85	100.00
14	FM-0059901	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	3	Electrical -Install forty-four (44) timers throughout all floors for lighting. Lights are currently on 24 hours a day every day. Turning the approximately 3,000 light fixtures off 5 hours each night and on weekends would save about $9,000 per month.	$ 99,915	$ 68,732	$ 1,366,950	85	68.79
15	FM-0057407	Los Angeles	Metropolitan Courthouse	19-T1	3	HVAC - Clean approximately 100 linear feet of ductwork to keep debris from flying out of vents. When adjusting thermostat, debris fell out of vent onto the Administrator's desk three day in a row.	$ 3,755	$ 3,755	$ 1,370,705	86	100.00
16	FM-0055147	Los Angeles	Parking Structure Lot 94 Airport Courthouse	19-AU2	3	Exterior Shell - Restore stairways (15,00 sq. ft. of surface area). Stairways are badly rusted and need to be restored, rust starting to eat through metal frame causing damage to the metals integrity.	$ 137,756	$ 106,307	$ 1,477,011	90	77.17
17	FM-0057042	San Mateo	Hall of Justice	41-A1	3	COUNTY MANAGED - Plumbing - **Water Conservation Project** - Replace all domestic water fixtures w/new water saving fixtures; Install sub meters (2) at Water Cooling Towers.	$ 156,228	$ 82,332	$ 1,559,344	90	52.70
18	FM-0057139	Los Angeles	Compton Courthouse	19-AG1	3	Interior Finishes - Grind and sand existing painted walls, benches, and ceiling of (54) cells, approximately 42,000 SF, repaint cell walls, benches, doors, ceiling and security screens. Holding cell paint has becomes heavily damaged from in custodies and is beginning to peel presenting a health and safety issue.	$ 180,000	$ 180,000	$ 1,739,344	92	100.00
19	FM-0053551	Solano	Solano Justice Building	48-B1	3	Interior Finishes - EARTHQUAKE - Remediate all cracks and aesthetic damage created by earthquake throughout building in secured hallways, courtrooms 101-104, and jury courtyard scaffolding is required. Epoxy injection at concrete wall, 35 lin ft. and approx. 650 sq. ft of drywall and stucco repairs.	$ 19,476	$ 19,476	$ 1,758,819	94	100.00

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	CUMULATIVE TOTAL OF FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	TOTAL SCORE RANK	FACILITY MODIFICATION PROGRAM % OF COST
20	FM-0053393	Los Angeles	S. Bay Municipal Traffic Court Trailer	19-C4	3	Roof - Overlay existing roof with new PVC roof system approximately 4,000 sq. ft. Due to roof system currently being in poor to fair condition, remaining service life is less than 5 years. Overlay of existing roof system will bring the building to good condition.	$ 79,407	$ 67,607	$ 1,826,426	95	85.14
21	FM-0058793	Los Angeles	Santa Monica Court Annex	19-AP3	3	Interior Finishes - Courtroom doors are worn and showing signs of deterioration. Restore 3 sets of courtroom doors finishes.	$ 3,015	$ 3,015	$ 1,829,441	95	100.00
22	FM-0057708	Orange	Central Justice Center	30-A1	3	Elevators, Escalators, & Hoists - Furnish and install 11 new LCD monitors with keyboards, mouse, USB internet, Emulator Esprit 300TCE with power adaptor, new cables PA/RS with MRS adaptors and furnish new electrical wiring diagrams for each elevator showing changes. Monitors to replace old and obsolete CRT monitors and other components that make them function with the elevator controllers.	$ 41,991	$ 38,283	$ 1,867,724	99	91.17
23	FM-0053444	Contra Costa	Bray Courts	07-A3	3	Interior Finishes - Earthquake Restoration of cracks and aesthetic damages to approx. 7100 sq. ft of the interior building.	$ 45,359	$ 38,791	$ 1,906,515	100	85.52
24	FM-0057706	Los Angeles	Airport Courthouse	19-AU1	3	Fire Protection - install 41 magnetic door holders, 7 Power supplies and relays, programming into the Fire Panel, suggested per LACFD Fire Marshal inspection on 10/15/15.	$ 81,474	$ 62,874	$ 1,969,389	100	77.17
25	FM-0060276	San Diego	East County Regional Center	37-I1	3	Interior Finishes - Install 95.94 sq. yds. of carpet tile and 120 LF of 4in cove base in the ground room old IT Room. Court requested to replace the old worn stained carpet squares on the raised floor tiles.	$ 7,820	$ 7,820	$ 1,977,209	100	100.00
26	FM-0053443	Contra Costa	Wakefield Taylor Courthouse	07-A2	3	Interior Finishes - Patch and paint damaged 11,094 sq. ft of wall and baseboard surfaces; caulk/epoxy 200 lin. Ft. of granite - Earthquake Restoration.	$ 195,880	$ 195,880	$ 2,173,090	101	100.00
27	FM-0056759	Los Angeles	Airport Courthouse	19-AU1	3	Elevators, Escalators, & Hoists - Remove and replace laminate on doors of Elevator #1 on floors 1, 6, 7, and 8, Elevator #2 on floors 1, 5, 8 and 9, Elevator #3 on floors 3, 6, 7, 8 and 9 and Elevator #4 on floors 1, 2, 5, and 8. Elevators 1-4 have several doorways on different floors delaminating. This is a safety hazard as its possible for clothing to be caught in the door causing bodily harm or the door skins falling off and striking passengers outside the elevators.	$ 209,737	$ 161,854	$ 2,334,944	103	77.17
28	FM-0046835	Los Angeles	Glendale Courthouse	19-H1	3	Grounds and Parking Lot - Remove 60,000 Ft X 2" Depth of asphalt (Cold-mil). Power clean remaining asphalt Apply 2" X 60,000 Ft. of new asphalt includes rolling/compacting to a smooth finish. Restripe marked parking stalls, includes handicap stalls, signs, directional stencils. Relocate wheel stops. All work activities to be performed within Federal, State regulatory guidelines. Work to be completed during afterhours and weekends not to impact court operations. Parking lot grounds are damaged.	$ 368,563	$ 333,697	$ 2,668,640	110	90.54

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF PRELIMINARY ESTIMATE	CUMULATIVE TOTAL OF FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	TOTAL SCORE RANK	FACILITY MODIFICATION PROGRAM % OF COST
29	FM-0060048	San Diego	East County Regional Center	37-I1	3	Interior Finishes - Replace damaged window tinting on the 4th, 3rd, 2nd & 1st Floors. 1st Floor 4 window panes - install 117 sq. ft.; 2nd Floor 16 window panes - install 560 sq. ft.; 3rd Floor 18 window panes install 564 sq. ft.; 4th Floor 12 window panes - install 398 sq. ft.; Security Entry - 8 window panes - install 173 sq. ft; Exit Doors - 8 window panes - install 55 sq. ft. A darker tint to be installed in front of Sheriff Screening area. Window tinting has been damaged/vandalized by the public.	$ 11,629	$ 7,874	$ 2,676,514	110	67.71
30	FM-0054723	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	3	Electrical - Install Automatic A-B Transfer Switch from Generator #1 to back-up Generator #2 for emergency power backup so that when Generator #1 fails, Generator #2 will automatically start.	$ 58,468	$ 40,220	$ 2,716,735	120	68.79
31	FM-0057115	Mendocino	County Courthouse	23-A1	3	Roof - Cut in five (5) 18" x 18" fire rated ceiling hatches to obtain visibility to roof drains from within the building in ACM Environment.	$ 16,528	$ 11,064	$ 2,727,798	120	66.94
32	FM-0057469	Los Angeles	Santa Monica Courthouse	19-AP1	3	Grounds - Landscaping / Current shrubs and turf in the front and rear of the courthouse consume more water to maintain and do not help the current drought problem of the state. Remove all existing shrubs and turf. Provide new draught resistant plants to replace the old plants at the back of the building and provide wood chips covers on the south planters area.	$ 5,605	$ 4,400	$ 2,732,198	120	78.49
33	FM-0053022	Riverside	Larson Justice Center	33-C1	3	Grounds and Parking Lot - East Parking Lot - Create and install 80 parking stalls out of perimeter landscape around the current lot. The recent closure of the County lot behind the courthouse, closure of the Court Annex/County building next door and its parking lot, and the building of a County Law building next door have created a serious parking issue in the immediate area of the Larson Justice Center resulting in a 200+ parking stall loss. Customers are currently parking on the landscape.	$ 470,000	$ 379,807	$ 3,112,005	145	80.81

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 5 – Court Building Seismic Renovation Studies Project Report(s)

Summary:
Review and approve the Court Building Seismic Renovation Studies Project Report(s) for release to the public.

Supporting Documentation:

- Seismic Key Findings
- Detailed Methodology Report

Action Requested:
Review and approve report(s) for release to the public.

Overview and Key Findings Report

CALIFORNIA SUPERIOR COURT BUILDINGS

SEISMIC RENOVATION FEASIBILITY STUDIES PROJECT

PREPARED BY ARUP

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JUDICIAL COUNCIL OF CALIFORNIA
ADMINISTRATIVE DIVISION
FACILITIES SERVICES

Contents

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I. INTRODUCTION

In January 2018, the Judicial Council of California Facilities Services engaged Arup, CO Architects, and MGAC (herein referred to as the consultant team) to perform a seismic renovation feasibility study for 26 court buildings in California. The study involved developing a conceptual seismic retrofit scheme for each building, determining the collateral impacts and associated construction costs of the retrofit schemes, and performing cost-benefit analyses to determine the most appropriate renovation strategy for each building.

This report summarizes the project approach and scope, key findings (see Section II), and important risks and assumptions (see Section III) from the feasibility study. Bolded terms throughout this report are explained in more detail in the glossary in Appendix A.

A. Background and Context

The Trial Court Facilities Act of 2002 (Sen. Bill 1732; Stats. 2002, ch. 1082) initiated the transfer of responsibility for funding, operation, and ownership of court buildings from the counties to the Judicial Council and State of California. The act required most existing facilities to be seismically evaluated and assigned a risk level, with VII being the worst and I being the best. Facilities evaluated as Risk Level V or worse were ineligible for transfer to the state because they were deemed to have unacceptable seismic safety ratings. In total, 225 court buildings (comprising 300 **building segments**) were evaluated; 72 segments were rated Risk Level IV, while 228 were rated Risk Level V.

In 2015, the Judicial Council engaged Rutherford + Chekene (R+C) to develop a more refined **seismic risk rating** (SRR) for the 139 Risk Level V building segments that remained in the council's portfolio since the initial 2002 study. Using the Federal Emergency Management Agency's (FEMA) Hazus Advanced Engineering Building Module, R+C assigned an SRR to each building segment based on the relative **collapse probability** obtained from the initial 2002 seismic assessment of the structure (R+C 2017).

Informed by the SRRs, the Judicial Council Trial Court Facility Modification Advisory Committee authorized the California Superior Court Buildings Seismic Renovation Feasibility Studies project on August 28, 2017. The committee directed Facility Services staff to study 27 buildings that meet specific criteria. For a court building to be a candidate for the renovation feasibility study, it needed to meet all the following criteria:

- It has a Very High or High SRR.
- It is not being replaced by an active new courthouse construction project.
- It is not subject to a memorandum of understanding restricting transfer because of historic building designation.
- It is owned by the Judicial Council or has a transfer of title pending, or the court occupies more than 80 percent of a county owned building.

- The investment would extend its useful life for long-term service to the public.

Facilities Services engaged the consultant team in January 2018 to perform the study, which was completed in December 2018. One court building was removed during the study due to a lack of structural and architectural drawings. The 26 court buildings studied have a total area of approximately five million gross square feet and comprise 43 building segments. Figure 1 shows the location and area of each court building included in the study.

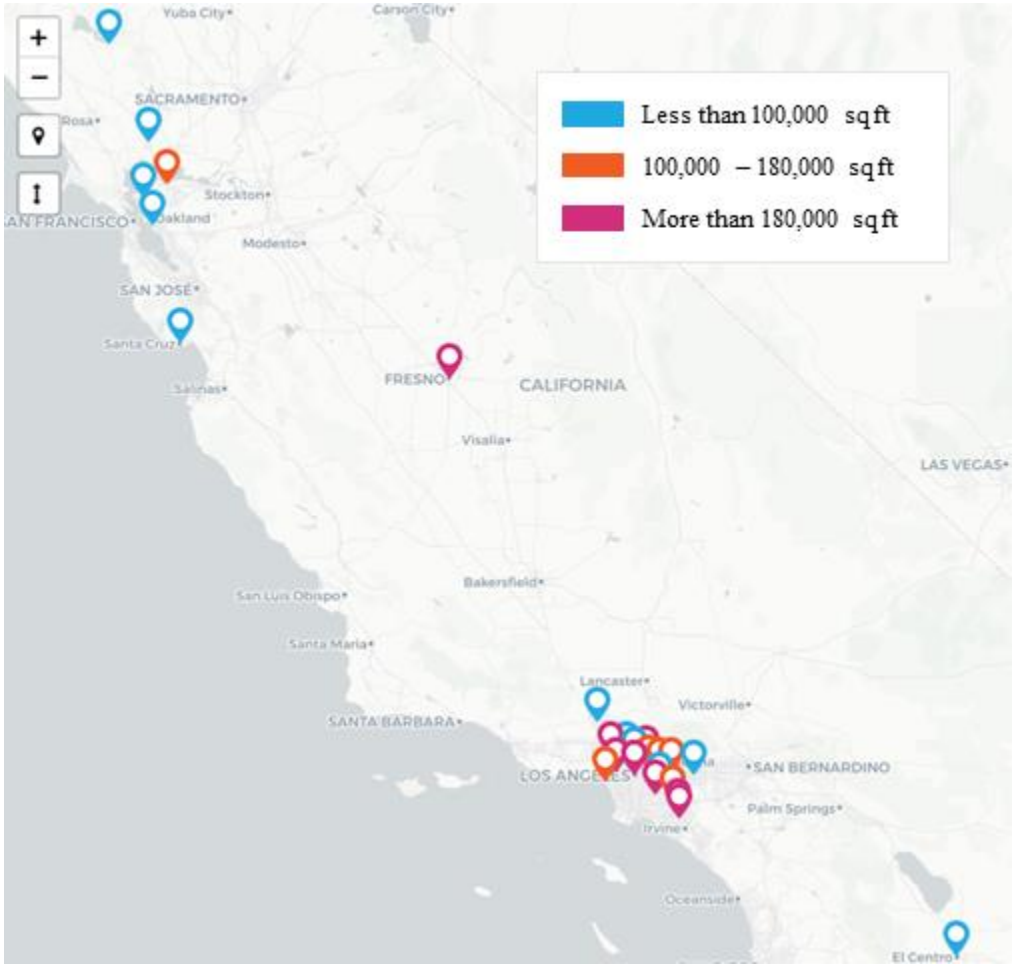

Figure 1. Location and Size of the 26 Court Buildings Assessed in This Study

B. Summary of Project Approach

As part of the seismic renovation feasibility study, the consultant team reviewed structural and architectural drawings and previous seismic assessment reports to understand the critical seismic deficiencies and general layout of the court building. The team then conducted a site inspection and interviewed court staff to verify critical seismic deficiencies and document overall facility conditions before performing a supplemental seismic assessment to confirm previously identified deficiencies and identify new ones.

The consultant team then designed a conceptual retrofit scheme for each court building to address the critical seismic deficiencies identified from the supplemental seismic evaluation. The primary objective of the retrofit scheme is to reduce the seismic risk level of the court building from Risk Level V to IV, typically by strengthening existing **structural components,** adding new ones, or a combination of both.

The team then determined the **collateral impacts** of the retrofit scheme and identified code-required upgrades to accessibility and fire and life safety systems. Collateral impacts refer to repair work to **nonstructural components** (e.g., walls, ceilings, lighting, carpeting) made necessary by the retrofit. This scope of work is referred to as the **baseline retrofit option (Option 1)** because it represents the minimum required effort to achieve Risk Level IV seismic performance.

Because a seismic retrofit can be highly invasive, it provides an opportunity to make additional building repairs and upgrades for relatively little incremental cost. The Judicial Council Facilities Services staff asked the consultant team to include approved, unfunded facility modifications in addition to the minimum scope of work required in the baseline retrofit. Approved, unfunded facility modifications, referred to as **priority upgrades**, include building maintenance and systems upgrades that have been approved by the Judicial Council or Superior Court but do not have specific funding sources identified yet. Consequently, these facility modifications would be attractive candidates for inclusion in a seismic renovation. This option is referred to as the **priority upgrades retrofit option (Option 2)**.

Furthermore, because a seismic retrofit can be extremely costly, the consultant team also included a full renovation option and two replacement options for the purposes of benchmarking. While these three options did not involve any design work, they were included in the study as a reference point to identify situations where it may be more cost effective to either fully renovate or replace a court building. The **full renovation option (Option 3)** involves the same seismic retrofit as the baseline retrofit, plus full demolition and replacement of the building interior down to the structural skeleton and removal and replacement of the exterior wall and roof cladding. The first replacement option, referred to as the **replace to 2016 CBC option (Option 4)**, involves replacing the existing court building with a new facility that satisfies the requirements of the 2016 **California Building Code** (CBC; CBSC 2016a). The second replacement option, referred to as the **replace to beyond code option (Option 5)**, involves replacing the existing court building with a new facility that goes beyond the minimum requirements of the 2016 CBC to achieve more resilient seismic performance (e.g., reduced damage, repair costs, and downtime).

A total of five retrofit and replacement options were considered for each court building. The consultant team developed construction cost estimates and durations for each option and compared these costs to the benefits of retrofitting or replacing the court building. The primary benefit of retrofitting or replacing the court building is reduced seismic risk relative to the existing court building, including reduced collapse probability, fatalities, repair costs, and downtime. Additional benefits stemming from retrofitting or replacing the court building

(e.g., improved energy efficiency, accessibility, fire and life safety, security, employee productivity) were not quantified, though the costs of these upgrades were included in the cost-benefit analysis. The design team developed a risk model for each retrofit and replacement option to predict the reduction in seismic risk.

The consultant team then performed cost-benefit analyses to compare the financial effectiveness of the five retrofit and replacement options for each court building. The benefit-cost ratio measures the benefits of an option relative to its cost and was the primary consideration in the Judicial Council Facilities Services staff's decision of which retrofit or replacement option to select.

The conceptual retrofit schemes were reviewed by R+C, the structural peer reviewer retained by the Judicial Council for this study, to confirm the validity and appropriateness of the proposed interventions. R+C also reviewed results from the seismic risk assessments and cost-benefit analyses.

Table 1 summarizes the selected retrofit or replacement option for each court building. Table 2 summarizes the costs and benefits included and excluded from the cost-benefit analysis.

Table 1. Summary of Selected Option for Each Court Building

ID	Name	Address	Selected option
01-F1	George E. McDonald Hall of Justice	2233 Shoreline Dr., Alameda	Priority upgrades
07-A2	Wakefield Taylor Courthouse	725 Court St., Martinez	Priority upgrades
07-F1	George D. Carroll Courthouse	100 37th St., Richmond	Replace to 2016 CBC
10-A1	Fresno County Courthouse	1100 Van Ness Ave., Fresno	Baseline
13-A1	Imperial County Courthouse	939 W. Main St., El Centro	Replace to 2016 CBC
17-B1	Clearlake Branch Courthouse	7000A S. Center Dr., Clearlake	Replace to 2016 CBC
19-AD1	Santa Clarita Courthouse	23747 W. Valencia Blvd., Santa Clarita	Baseline
19-AK1	Norwalk Courthouse	12720 Norwalk Blvd., Norwalk	Baseline
19-AO1	Whittier Courthouse	7339 Painter Ave., Whittier	Priority upgrades
19-AP1	Santa Monica Courthouse	1725 Main St., Santa Monica	Baseline
19-AQ1	Beverly Hills Courthouse	9355 Burton Way, Beverly Hills	Replace to beyond code
19-AX2	Van Nuys Courthouse West	14400 Erwin St. Mall, Van Nuys	Priority upgrades
19-G1	Burbank Courthouse	300 E. Olive Ave., Burbank	Replace to 2016 CBC
19-H1	Glendale Courthouse	600 E. Broadway, Glendale	Priority upgrades

ID	Name	Address	Selected option
19-I1	Alhambra Courthouse	150 W. Commonwealth Ave., Alhambra	Baseline
19-J1 J2	Pasadena Courthouse	300 E. Walnut St., Pasadena	Replace to beyond code
19-K1	Stanley Mosk Courthouse	110 N. Grand Ave., Los Angeles	Baseline
19-L1	Clara Shortridge Foltz Criminal Justice Center	210 W. Temple St., Los Angeles	Priority upgrades
19-O1	El Monte Courthouse	11234 E. Valley Blvd., El Monte	Replace to 2016 CBC
19-W2	Pomona Courthouse North	350 W. Mission Blvd., Pomona	Replace to 2016 CBC
19-X1	West Covina Courthouse	1427 W. Covina Pkwy., West Covina	Baseline
28-B1	Napa Courthouse	825 Brown St., Napa	Replace to 2016 CBC
30-A1	Central Justice Center	700 Civic Center Dr. West, Santa Ana	Priority upgrades
30-B1	Lamoreaux Justice Center	341 The City Dr. S, Orange	Priority upgrades
30-C1 C2	North Justice Center	1275 N. Berkeley Ave., Fullerton	Baseline
44-A1	Santa Cruz Courthouse	701 Ocean St., Santa Cruz	Replace to 2016 CBC

Table 2. Summary of Costs and Benefits Included in cost-benefit analysis

Item	Included in cost-benefit analysis					Notes
	Retrofit or replacement option					
	1	2	3	4	5	
Costs						
Hard construction costs	Yes	Yes	Yes	Yes	Yes	Includes costs of site preparation, design contingencies, and labor and material required for repair or construction of substructure, shell, interiors, and building services (as applicable). For Options 1 and 2, the costs of upgrades to accessibility and fire and life safety systems were explicitly calculated. For Options 3-5, compliance with current accessibility and fire and life safety requirements is assumed as part of the construction work.
Temporary relocation costs	Yes	Yes	Yes	N/A	N/A	For Options 1-3 (unphased), includes fit out and rental costs required to relocate court staff and functions to temporary space for the duration of the retrofit. For Options 4-5, temporary relocation costs are not

Item	Included in cost-benefit analysis					Notes
	Retrofit or replacement option					
	1	2	3	4	5	
						applicable because it is assumed court staff and functions can remain in the existing court building while the new one is constructed in a nearby location.
Construction phasing costs	Yes	Yes	No	N/A	N/A	For Options 1 and 2 (phased), includes costs for phasing the construction work by zones or floors to keep the court building open during the retrofit. For Option 3, construction phasing costs were not included because phasing was assumed to be impractical due to disruptiveness of the construction work.
Demolition costs	N/A	N/A	N/A	No	No	For Options 4 and 5, does not include costs of demolishing current existing building. For Options 1-3, demolition costs are not applicable.
Land costs	N/A	N/A	N/A	No	No	For Options 4 and 5, does not include costs of acquiring land for new court building. For Options 1-3, demolition costs are not applicable.
Escalation costs	No	No	No	No	No	Does not include escalation in construction costs from the time of this study to the actual start of a retrofit or replacement project.
Design and engineering consultant fees	No	No	No	No	No	Does not include consultant fees for further engineering analyses or detailed design services prior to retrofit or replacement of a court building.
Construction and owner contingencies	No	No	No	No	No	
Loose furniture, fixtures, and equipment	No	No	No	No	No	
Benefits						
Avoided injuries in future earthquakes	No	No	No	No	No	Does not include the benefit of avoided injuries due to incomplete data on the financial cost of injuries.
Avoided fatalities in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes the benefit of avoided fatalities. Fatalities were calculated using peak instantaneous building populations, which were derived from magnetometer counts for each court building. The value of a statistical life (i.e., cost of a fatality) was selected to be $9 million for this study. Refer to detailed methodology report (Arup 2019) for further discussion.

Item	Included in cost-benefit analysis					Notes
	Retrofit or replacement option					
	1	2	3	4	5	
Avoided repair costs in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes costs to repair damage to major structural and nonstructural components. Does not include losses from damage to building contents (e.g., furniture, computers).
Avoided downtime in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes cost to fit out and rent temporary space for the duration of repair work after an earthquake. Does not include indirect costs from protracted downtime (e.g., increased backlog of court cases, employee attrition)
Improved energy efficiency	No	No	No	No	No	Does not include the benefit of improved energy efficiency from replacing existing mechanical and electrical equipment.
Improved accessibility	No	No	No	No	No	
Improved fire and life safety	No	No	No	No	No	
Improved functionality	No	No	No	No	No	Does not include the benefit of improved functionality from construction work, including possible improvements to daylighting, security, and building layout.
Asset-life extension						
Minimum asset-life extension (years)	15	25	40	50	50	Asset-life extension refers to the assumed life time of a building before further necessary building-wide renovation or replacement is required. It is the length of time over which the benefits (above) are assumed to accrue. It is not a prediction of the length of actual court occupancy in a particular building. Refer to detailed methodology report (Arup 2019) for further discussion.

II. SUMMARY OF KEY FINDINGS

The following sections summarize key findings from the seismic renovation feasibility study performed by the consultant team.

A. Common Seismic Deficiencies

The 26 court buildings included in this study were evaluated previously as some of the most seismically vulnerable buildings in the Judicial Council's portfolio. Most were built before modern seismic design codes were in place and have one or more significant seismic deficiencies that could jeopardize their structural integrity and occupant safety in an earthquake. Figure 2 lists common seismic deficiencies for the 26 buildings, including the percentage of buildings having each deficiency. Table 3 describes each seismic deficiency and the risk it poses to the safety of building occupants.

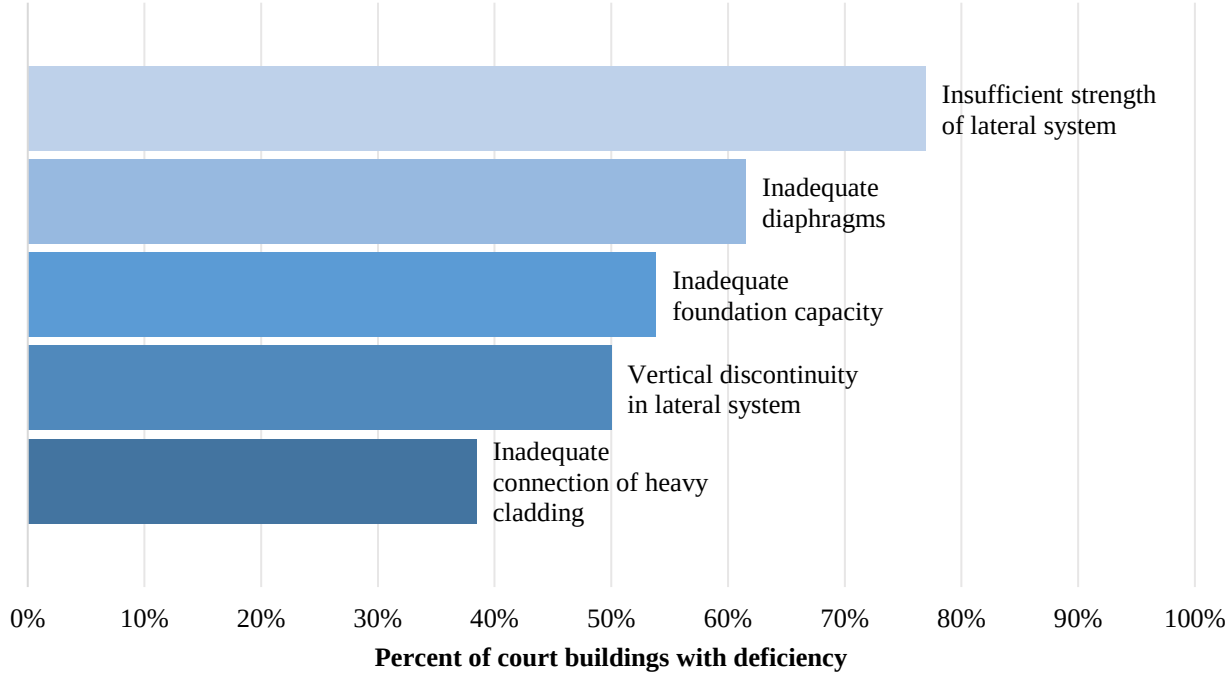

Figure 2. Common Seismic Deficiencies For the 26 Court Buildings in This Study

Table 3. Description of Common Seismic Deficiencies

Deficiency	Description	Risk
Insufficient strength of lateral system	The lateral system refers to the structural elements that provide resistance against earthquakes. This is as opposed to the gravity system, which supports vertical loads only. Some structural elements serve both purposes. Insufficient strength implies that the system is too weak to withstand earthquake forces.	The structure could suffer excessive damage, potentially very suddenly. This could pose a significant risk to the safety of building occupants.
Inadequate diaphragms	Diaphragm refers to a floor slab or roof. The material may be timber planks or sheathing, reinforced concrete, or some form of metal sheathing. Inadequate diaphragms have insufficient strength or stiffness to transfer loads to other parts of the structure.	Damage to the diaphragm itself could occur. Excessive local damage could also cause damage to connecting walls.
Inadequate foundation capacity	The foundation has insufficient strength or stiffness to prevent either structural failure or excessive deformation of the soil underneath.	Collapse from excessive movement in a foundation is rare. It is more common that foundation failure leads to excessive settlement and damage to a building.
Vertical discontinuity in lateral system	The lateral system, such as a wall or braced frame, does not continue uninterrupted from the roof to the foundation.	Excessive damage could occur below the interrupted element, where load cannot be transferred to the foundation. This could pose a significant risk to the safety of building occupants.
Inadequate connection of heavy cladding	Heavy cladding typically refers to stone or concrete facade panels. They are connected to the main structure with clips or similar connections. Older styles of construction did not consider the requirement to restrain the panels from lateral acceleration.	While unlikely to lead to building collapse, falling cladding could pose a significant risk to the safety of building occupants.

B. Common Retrofit Measures

A custom conceptual seismic retrofit scheme was developed for each court building. However, similar **building types** typically had similar retrofit measures. Figure 3 lists common retrofit measures across the 26 buildings studied, including the percentage with each retrofit measure. Table 4 describes the typical scope of structural work for each retrofit measure but does not include the architectural impacts of such work (e.g., removal of wall finishes, ceilings, floor coverings), which can be significant.

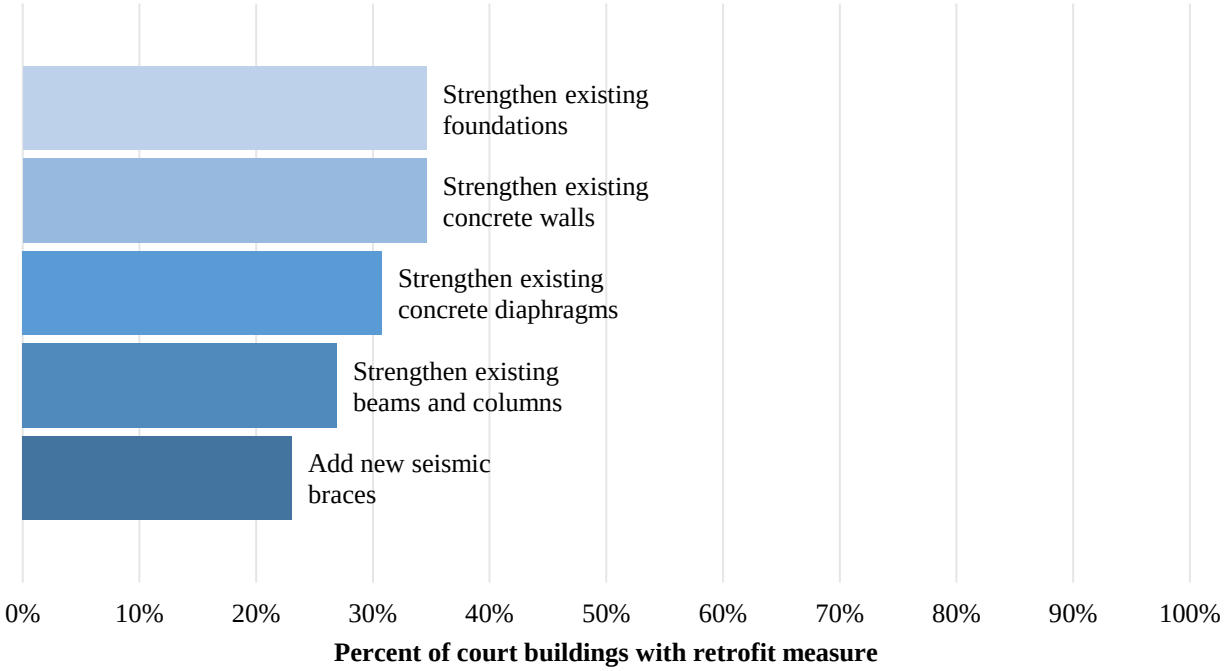

Figure 3. Common Retrofit Measures For the 26 Court Buildings in This Study

Table 4. Description of Typical Retrofit Measures

Retrofit Measure	Description
Strengthen existing foundations	Increase the size of existing concrete footings beneath structural walls, braces, or columns (in select locations) through the addition of concrete and steel reinforcement.
Strengthen existing concrete walls	Increase the thickness or length of existing concrete walls (in select locations) through the addition of concrete and steel reinforcement, or wrap existing concrete walls (in select locations) with a fiber-reinforced polymer.
Strengthen existing concrete diaphragms	Install a layer of fiber-reinforced polymer on top of concrete diaphragms, or add concrete edge beams to strengthen the connection between diaphragms and structural walls.
Strengthen existing beams and columns	Reinforce existing beams and columns below discontinuous structural walls through the addition of steel reinforcement and concrete (for concrete wall buildings) or steel plates (for steel moment frame buildings).
Add new seismic braces	Install new seismic braces within existing steel frames (in select locations), and strengthen existing beams, columns, and connections around the frames.

C. Cost of Phased Construction versus Temporary Relocation

Because of the disruptive nature of seismic retrofits, the consultant team considered two construction scenarios. The first assumes the court building remains occupied during the

seismic retrofit. Consequently, the retrofit work is performed in multiple phases, either by floors or zones of the building, to minimize disruption to court operations. This scenario is referred to as **phased construction**. It results in longer construction times but does not require court staff and functions to relocate to temporary facilities. The consultant team estimated the cost premium for phased construction for each court building based on the scope and extent of the proposed retrofit scheme. The premium includes scheduling costs to cover the extended construction duration due to phasing and escalation costs to cover increases in the price of labor and materials due to the extended construction duration. However, it does not include the impact of phased construction on the capacity or efficiency of court operations, employee productivity, and other similar factors. On average, the cost premium across the 26 court buildings is $90 per square foot for phased construction, which is in addition to hard construction costs for the retrofit. Note that in the cost-benefit analysis of each court building, the actual cost premium (as determined by the consultant team) was used, not the average.

The second construction scenario assumes the court building is completely vacated during the seismic retrofit. This scenario is referred to as **unphased construction** because the entire facility is shut during the retrofit. This results in shorter construction times but requires court staff and functions to relocate to temporary facilities for the duration of the retrofit. Based on typical commercial office space rental rates and fit out costs for court occupancies, the consultant team estimated the cost premium for unphased construction for each court building (see Equation 1 for more detail). The premium for unphased construction includes only rental and fit out costs, and excludes additional relocation costs that may be incurred (e.g., moving costs, parking costs, shortages of available rental space). On average, the cost premium across the 26 court buildings is $220 per square foot for temporary relocation, which is in addition to hard construction costs for the retrofit.

$$C_{relocate} = 0.75 \times GFA_{JCC} \times \left(C_{fitout} + C_{rental} \times T_{retrofit}\right) \quad \text{Equation 1}$$

Where:

$C_{relocate}$ = cost of temporary relocation

GFA_{JCC} = gross floor area occupied by the Judicial Council in current existing facility

$0.75 \times GFA_{JCC}$ = gross floor area rented by the Judicial Council in a temporary facility (75% reduction factor developed in consultation with Facilities Services staff)

C_{fitout} = cost to fit out temporary space

= $250 per square foot

C_{rental} = cost to rent temporary space

= $50 per square foot per year for San Francisco Bay Area and Los Angeles and Orange counties ($30 per square foot per year for other locations)

$T_{retrofit}$ = construction duration of retrofit (determined by consultant team)

The significant difference in average cost premium for the two scenarios ($90 per square foot for phased construction versus $220 for unphased construction) results in phased construction typically being the more financially attractive scenario across the portfolio of 26 court buildings in this study. However, when a retrofit of a court building is undertaken in the future, the costs of both scenarios should be re-evaluated as market conditions are likely to have changed. In addition, individual court buildings may be subject to constraints that were not considered in this study that could bias one scenario over another (e.g., a lack of suitable rental space nearby). Furthermore, it may be possible to relocate court staff and operations temporarily to a nearby court building, thus avoiding some or all temporary space costs.

D. Reduction in Anticipated Seismic Losses

The primary consequence of retrofitting or replacing a court building is an overall reduction in the collapse risk relative to the current existing facility. In addition, the retrofitted or replaced building is also expected to experience reduced repair costs and downtime in future earthquakes. The consultant team developed probabilistic risk models for each of the 26 existing court buildings and its five retrofit and replacement options. The risk models predict damage and related consequences (in terms of fatalities, repair costs, and downtime) for each retrofit/replacement option and court building under various earthquake intensity levels, ranging from small, frequent earthquakes to large, rare ones.

The predicted losses at each earthquake intensity can be converted into annualized losses for each court building and retrofit/replacement option. Annualized losses represent the anticipated seismic losses in any given year, and typically would not be incurred every year (i.e., in most years, there are no earthquakes and therefore no losses; however, if a significant earthquake occurs, the losses that year will greatly exceed the annualized losses). Over a long period of time, the actual losses incurred would approach the anticipated annualized losses. Though abstract in nature, annualized losses are useful because they capture in a single metric the magnitude of losses across a range of seismic intensities, thus enabling the risk reduction potential of each retrofit and replacement option to be compared more readily.

Table 5 presents annualized losses, in terms of fatalities, repair costs, and downtime, for each of the 26 court buildings and the selected retrofit or replacement option.

Table 5. Annualized Losses for the Portfolio of 26 Court Buildings

ID	Name	Selected option*	Annualized loss ($thousands)					
			Existing court building			Selected option		
			F†	RC‡	DT**	F†	RC‡	DT**
01-F1	George E. McDonald Hall of Justice	2	2,276	141	112	115	29	73
07-A2	Wakefield Taylor Courthouse	2	3,353	624	430	1,422	184	409
07-F1	George D. Carroll Courthouse	4	9,910	406	383	NS††	86	304
10-A1	Fresno County Courthouse	1	11,405	204	325	4,697	100	281
13-A1	Imperial County Courthouse	4	19,637	1,193	513	NS††	71	238
17-B1	Clearlake Branch Courthouse	4	1,221	29	42	NS††	4	15
19-AD1	Santa Clarita Courthouse	1	2,629	73	161	313	34	137
19-AK1	Norwalk Courthouse	1	8,261	377	767	3,402	194	750
19-AO1	Whittier Courthouse	2	2,495	180	329	280	49	257
19-AP1	Santa Monica Courthouse	1	2,879	134	231	833	37	142
19-AQ1	Beverly Hills Courthouse	5	1,113	162	545	NS††	23	140
19-AX2	Van Nuys Courthouse West	2	9,338	442	880	3,845	202	838
19-G1	Burbank Courthouse	4	2,235	168	217	NS††	30	167
19-H1	Glendale Courthouse	2	3,920	106	224	374	49	159
19-I1	Alhambra Courthouse	1	1,021	136	361	295	77	337
19-J1 J2	Pasadena Courthouse	5	4,755	380	534	NS††	115	454
19-K1	Stanley Mosk Courthouse	1	25,376	676	1,396	NS††	8	32
19-L1	Clara Shortridge Foltz Criminal Justice Center	2	8,104	797	1,853	2,338	342	1,374
19-O1	El Monte Courthouse	4	5,571	289	440	NS††	76	281
19-W2	Pomona Courthouse North	4	5,029	157	203	NS††	35	116
19-X1	West Covina Courthouse	1	5,219	144	374	NS††	31	223
28-B1	Napa Courthouse	4	3,179	194	152	NS††	64	91
30-A1	Central Justice Center	2	17,915	694	1,935	6,780	368	1,505
30-B1	Lamoreaux Justice Center	2	8,483	409	658	3,493	213	571
30-C1 C2	North Justice Center	1	6,508	329	619	775	122	607
44-A1	Santa Cruz Courthouse	4	5,866	120	188	NS††	31	106

* Option 1: Baseline Retrofit
Option 2: Priority Upgrades Retrofit
Option 3: Full Renovation

Option 4: Replace to 2016 CBC
Option 5: Replace to Beyond Code

† F: annualized loss from fatalities ($thousands), which are based on peak building populations and 90th percentile estimates of fatalities from the seismic risk assessment and, thus, likely represent an upper bound on annual losses from fatalities. Refer to the detailed methodology report (Arup 2019) for findings from a sensitivity study on building populations.

‡ RC: annualized loss from repair costs ($thousands)

** DT: annualized loss from downtime ($thousands). For buildings where the selected option is 1, 2, or 3, the primary intent of the retrofit is to reduce the risk of collapse and fatalities. While some reduction in downtime may be expected, the conceptual retrofit scheme does not include specific measures to reduce downtime. Therefore, downtime losses typically do not decrease significantly because of the retrofit.

†† NS: not significant. New replacement buildings (or, in the case of Stanley Mosk, base-isolated retrofits) are expected to have significantly improved seismic safety relative to current existing court buildings; therefore, in this study, fatalities were not modelled.

E. Comparison of Selected Options

Table 6 compares benefit-cost ratios (BCRs) of the selected retrofit or replacement options across the portfolio of 26 court buildings included in this study. The BCR measures the benefits of an option relative to its cost and was the primary consideration in the Judicial Council Facilities Services staff's decision of which retrofit or replacement option to select. If the BCR exceeds one, then the benefits of the option exceed its costs, indicating it is effective from a purely financial perspective.

Court buildings in Table 6 are sorted from highest BCR to lowest. Court buildings with the largest BCRs represent the best retrofit or replacement investments, but additional factors (e.g., total construction cost, **asset-life extension**, importance of the existing court building to continuing Superior Court operations) need to be considered in developing judicial branch-wide renovation strategies or priorities. The total estimated construction cost associated with retrofitting or replacing all 26 court buildings is $2.3 billion.

Table 6. Comparison of Construction Costs and Benefit-Cost Ratios for 26 Court Buildings

ID	Name	Court Departments	Selected Option*	Total Construction Cost (millions)	Benefit-Cost Ratio	Asset-Life Extension (years)
13-A1	Imperial County Courthouse	7	4	$48.9	6.78	50
17-B1	Clearlake Branch Courthouse	1	4	$8.0	2.50	50
19-O1	El Monte Courthouse	6	4	$41.0	2.28	50
19-X1	West Covina Courthouse	11	1	$23.6	2.26	15
07-F1	George D. Carroll Courthouse	8	4	$82.2	1.98	50
44-A1	Main Courthouse (Santa Cruz)	7	4	$49.8	1.91	50

ID	Name	Court Departments	Selected Option*	Total Construction Cost (millions)	Benefit-Cost Ratio	Asset-Life Extension (years)
19-AD1	Santa Clarita Courthouse	3	1	$12.9	1.79	15
19-W2	Pomona Courthouse North	7	4	$47.9	1.73	50
28-B1	Historical Courthouse (Napa)	4	4	$32.6	1.63	50
01-F1	George E. McDonald Hall of Justice	3	2	$18.4	1.61	25
19-AK1	Norwalk Courthouse	20	1	$45.9	1.07	15
19-H1	Glendale Courthouse	8	2	$44.0	1.07	25
30-A1	Central Justice Center	65	2	$196.5	0.77	25
30-C1 C2	North Justice Center	18	1	$75.4	0.77	15
19-G1	Burbank Courthouse	7	4	$50.4	0.76	50
10-A1	Fresno County Courthouse (Downtown)	28	1	$103.0	0.65	15
30-B1	Lamoreaux Justice Center	29	2	$106.7	0.63	25
19-K1	Stanley Mosk Courthouse	100	1	$461.3	0.58	15
19-AO1	Whittier Courthouse	7	2	$54.3	0.57	25
19-J1 J2	Pasadena Courthouse	19	5	$157.4	0.52	50
07-A2	Wakefield Taylor Courthouse	12	2	$64.6	0.47	25
19-AQ1	Beverly Hills Courthouse	6	4	$45.1	0.47	50
19-AX2	Van Nuys Courthouse West	23	2	$160.4	0.46	25
19-AP1	Santa Monica Courthouse	17	1	$50.5	0.43	15
19-L1	Clara Shortridge Foltz Criminal Justice Center	60	2	$300.2	0.27	25
19-I1	Alhambra Courthouse	9	1	$42.3	0.19	15

* Option 1: Baseline Retrofit
Option 2: Priority Upgrades Retrofit
Option 3: Full Renovation
Option 4: Replace to 2016 CBC
Option 5: Replace to Beyond Code

As described in the footnotes to Table 6, annual losses from fatalities are based on peak building populations and 90th percentile estimates of fatalities from the seismic risk assessment, likely resulting in an upper bound on annual losses from fatalities. In contrast, annual losses from repair costs and downtime are based on mean estimates of repair costs and downtime, respectively, which effectively translates into a higher weighting for losses stemming from fatalities. This higher weighting is consistent with the primary focus of the study: improving the seismic safety of the current existing court building. However, it inflates the BCRs relative to if an equivalent continuous occupancy (ECO) population were assumed for each court building. An ECO population accounts for the fact that the peak population persists for only a short period of time in a building over a typical year, so there is only a small probability that an earthquake would occur when the building is fully occupied. As a result, because the BCRs emphasize fatalities, they should not be considered absolute.

The detailed methodology report (Arup 2019) presents findings from a sensitivity study of the BCRs to the assumed building population to investigate whether the higher weighting given to fatalities might also change the relative rankings of the BCRs for each of the five retrofit or replacement options considered for each court building. In summary, changing the building population from peak to ECO, which typically reduces the number of fatalities reported by a factor of 4, does not change the relative order of the retrofit and replacement options. While the BCRs were not the only factor in the decision-making process, the sensitivity study demonstrates that changes to the assumed building population does not impact the selected option for each court building.

Figure 4 shows the number of court buildings per selected option. Approximately 60 percent of court buildings were selected for retrofit (Options 1, 2, or 3), while 40 percent were selected for replacement (Options 4 or 5). Figure 5 show the total gross floor area per selected option. Approximately 80 percent of gross floor area was selected for retrofit, while 20 percent was selected for replacement. Together, these figures illustrate the overall trend of replacing smaller court buildings while retrofitting larger ones.

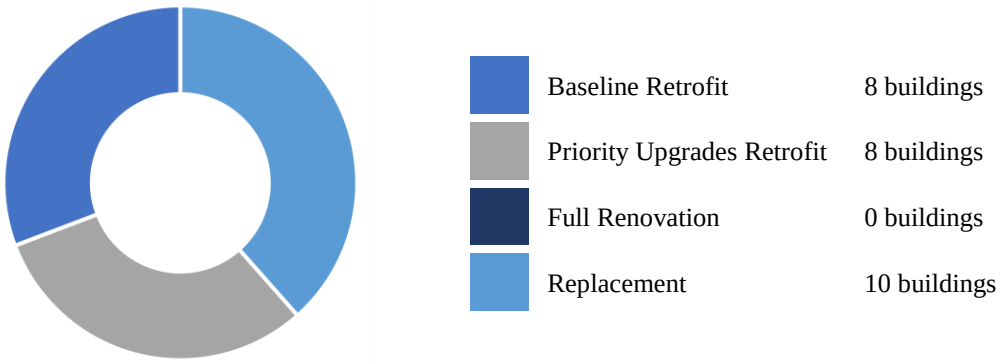

Figure 4. Number of Court Buildings Per Selected Option

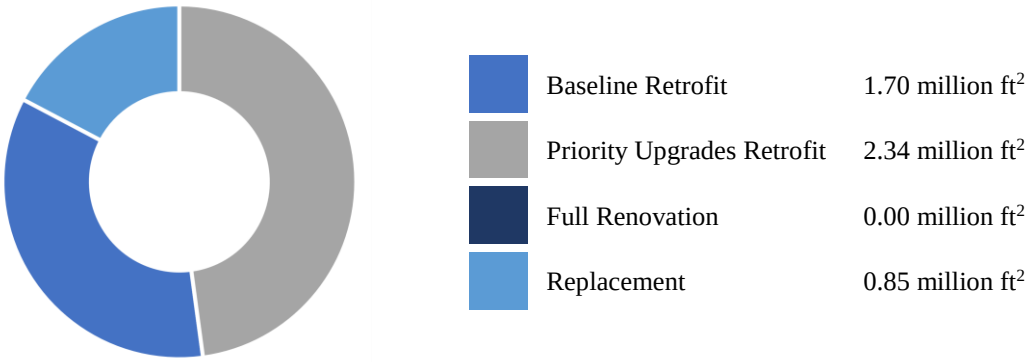

Figure 5. Total Area Per Selected Option

III. SUMMARY OF PROJECT RISKS AND ASSUMPTIONS

Table 7 summarizes important project risks and assumptions for the feasibility study, and describes the potential impact each item could have on the conceptual retrofit schemes, its collateral impacts, and its construction costs and duration. These items need to be considered in later phases of the project when more detailed designs of the seismic retrofit schemes or replacement facilities are completed.

Table 7. Summary of Important Project Risks and Assumptions

Category	Description	Impact
Analysis scope	The conceptual retrofit schemes developed for this study are based on limited information and seismic analysis. For example, no materials testing, geotechnical studies, or intrusive testing have been performed. Analytical models of the court buildings were not developed. Furthermore, design optimization has not been carried out (i.e., minimizing collateral impacts and construction costs). While this is appropriate for budgetary checking, more thorough engineering studies would need to be performed prior to construction.	More thorough studies could impact construction costs and collateral impacts.
Asbestos abatement	For many court buildings, the Judicial Council database indicates the presence of asbestos. While the cost estimates for retrofit developed for this study include abatement, further study is required to understand the full extent and impact of asbestos contamination.	Depending on the extent of asbestos, its presence could impact construction costs.
Cost estimates for replacement court buildings	Replacement court buildings are assumed to be constructed on land near existing facilities. As a result, cost estimates for replacement buildings do not include rental costs for temporary space because the court can occupy the existing facility until the new one is finished. Land costs are also not included.	If suitable land is not available, an existing facility may need to be demolished before a new one can be built, which would impact construction costs and duration.
Facade connections	For some court buildings, the conceptual retrofit scheme assumes existing facade connections are deficient. Consequently, the facade is removed and replaced with a lightweight design. However, further investigation of the connections is required as part of detailed retrofit design.	If the facade connections are adequate, it could reduce construction costs and collateral impacts.
Liquefaction	Some court buildings have high liquefaction risk. The conceptual retrofit scheme does not mitigate this risk. To determine the extent of foundation retrofit required, a site-specific geotechnical investigation is required.	If foundation strengthening is required, it could impact construction costs and collateral impacts.
Historical elements	While none of the 26 court buildings is on the state or federal historical register, some are local points of historic interest, which could limit the range of possible interventions. Therefore, to the extent practical, the conceptual retrofit scheme avoids modifying of the following items: exterior appearance of the building, interior public spaces (e.g., lobbies), and courtrooms.	If a court building is placed on the state or federal historical register, it could impact construction costs and collateral impacts.

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APPENDIX A. ABBREVIATIONS AND GLOSSARY

A. Abbreviations

ASCE	American Society of Civil Engineers
BCR	benefit-cost ratio
CBC	California Building Code
CBSC	California Building Standards Commission
FEMA	Federal Emergency Management Agency
R+C	Rutherford + Chekene
SRR	seismic risk rating

B. Glossary

Asset-life extension – For a given retrofit or replacement option, the assumed life time of a building before further necessary building-wide renovation or replacement renovation is required. This is used to calculate total benefit. Asset-life extension is not a prediction of the length of actual court occupancy in a particular building.

Baseline retrofit option (Option 1) – A retrofit option that represents the minimum level of effort and expenditure to mitigate the seismic risk at a court building, including seismic upgrades to structural and nonstructural components (e.g., stairs, elevators, ceilings, lights, partitions) to achieve Risk Level IV performance, nonstructural repairs made necessary by the retrofit, and triggered upgrades to accessibility and fire and life safety systems.

Building segment – A portion of a building that may respond independently of other sections in an earthquake. Building segments can have very different properties (e.g., construction material and number of floors) and be built at different times, but from an operational perspective, they typically function together as a single facility.

Building type – A classification that groups buildings with common seismic-force-resisting systems and performance characteristics in past earthquakes. The building types relevant to the 26 court buildings in this study include those listed in the table below (ASCE 2003):

Type	Description
C1	Concrete moment frames
C2	Concrete shear walls with stiff diaphragms
C2A	Concrete shear walls with flexible diaphragms
PC1A	Precast/tilt-up concrete shear walls with stiff diaphragms
RM1	Reinforced masonry bearing walls with flexible diaphragms
RM2	Reinforced masonry bearing walls with stiff diaphragms
S1	Steel moment frames with stiff diaphragms
S2	Steel braced frames with stiff diaphragms

Type	Description
S4	Steel frames with concrete shear walls
URM	Unreinforced masonry bearing walls with flexible diaphragms

California Building Code (CBC) – The set of regulations in California that governs how new buildings are designed and constructed.

Collapse probability – The likelihood that a building will either partially or totally collapse in an earthquake. FEMA P-154 (2015) defines *collapse* as when the gravity load carrying system in part or all of the building loses the ability to carry the weight.

Collateral impacts – Repair work to nonstructural components (e.g., walls, ceilings, lighting, carpeting) made necessary by the seismic retrofit.

Full renovation option (Option 3) – A retrofit option that includes the same seismic upgrades to structural components as the baseline retrofit option, plus full demolition and replacement of the interior down to the structural skeleton and removal of the exterior wall and roof cladding. Note that the budget for the nonstructural components is based unit costs per square foot, and no design was performed as part of this study.

Nonstructural components – Architectural, mechanical, and electrical components of a building permanently installed in or integral to a building system.

Phased construction – A scenario in which the court building would be kept open and operational during the retrofit, requiring the work would need to be done in multiple phases either by floors or zones of the buildings.

Priority upgrades – A list of approved, unfunded facility modifications at a court building. Priority upgrades do not include all possible maintenance needs at a court building.

Priority upgrades retrofit option (Option 2) – A retrofit option that includes the same upgrades as the baseline retrofit option, plus any priority upgrades. This retrofit option was included in the study because seismic retrofits often provide an opportunity to upgrade outdated or deficient building systems (which would normally be highly disruptive) at relatively little additional cost

Replace to 2016 CBC option (Option 4) – A replacement option that involves replacing an existing court building with a new facility that satisfies Risk Category III requirements of the 2016 California Building Code (CBC). Risk Category III refers to "buildings and structures that could pose a substantial risk to human life in case of damage or failure," including those with a potential to cause "a substantial economic impact and/or mass disruption of day-to-day civilian life" (ASCE 2013). California Superior Court buildings are classified as Risk Category III because of the consistent large density of occupants in these public buildings.

Replace to beyond code option (Option 5) – A replacement option that involves replacing an existing court building with a new facility that goes beyond the minimum requirements of the 2016 CBC to achieve more resilient seismic performance (e.g., reduced damage, repair costs, and downtime).

Seismic risk rating (SRR) – A ranking based on the relative probability of collapse in a seismic event as estimated by a Hazus model of the building, which considers the structural capacity of the building, site-specific seismic hazard, and structural characteristics that influence the capacity or response to earthquakes. Court buildings with SRRs exceeding 10 are classified as Very High Risk, while those with SRRs between 2 and 10 are classified as High Risk.

Structural components – Components of a building that provide gravity- or lateral-load resistance as part of a continuous load path to the foundation, including beams, columns, slabs, braces, walls, wall piers, coupling beams, and connections.

Unphased construction – A scenario in which the court building is closed and vacated during construction, requiring court staff and functions to be relocated to a temporary facility.

Detailed Methodology Report

CALIFORNIA SUPERIOR COURT BUILDINGS

SEISMIC RENOVATION FEASIBILITY STUDIES PROJECT

PREPARED BY ARUP

JANUARY 22, 2019

JUDICIAL COUNCIL OF CALIFORNIA
ADMINISTRATIVE DIVISION
FACILITIES SERVICES

Contents

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I. INTRODUCTION

In January 2018, the Judicial Council of California Facilities Services engaged Arup, CO Architects, and MGAC (herein referred to as the consultant team) to perform a seismic renovation feasibility study for 26 court buildings in California. The study involved developing a conceptual seismic retrofit scheme for each building, determining the collateral impacts and associated construction costs of the retrofit schemes, and performing cost-benefit analyses to determine the most appropriate renovation strategy for each building.

This report provides additional detail about the methodology used by the consultant team as part of the seismic renovation feasibility study. Bolded terms throughout this report are explained in more detail in the glossary in Appendix A.

A. Background and Context

The Trial Court Facilities Act of 2002 (Sen. Bill 1732; Stats. 2002, ch. 1082) initiated the transfer of responsibility for funding, operation, and ownership of court buildings from the counties to the Judicial Council and State of California. The act required most existing California court buildings to be seismically evaluated and assigned a risk level, with VII being the worst and I being the best. Facilities evaluated as Risk Level V or worse were ineligible for transfer to the state because they were deemed to have unacceptable seismic safety ratings. In total, 225 court buildings (comprising 300 **building segments**) were evaluated; 72 segments were rated Risk Level IV, while 228 were rated Risk Level V.

In 2015, the Judicial Council engaged Rutherford + Chekene (R+C) to develop a more refined **seismic risk rating** (SRR) for the 139 Risk Level V building segments that remained in the council's portfolio since the initial 2002 study. Using the Federal Emergency Management Agency's (FEMA) Hazus Advanced Engineering Building Module, R+C assigned an SRR to each building segment based on the relative **collapse probability** obtained from the 2003 seismic assessment of the structure (R+C 2017).

Informed by the SRRs, the Judicial Council Trial Court Facility Modification Advisory Committee authorized the California Superior Court Buildings Seismic Renovation Feasibility Studies project on August 28, 2017. The committee directed Facility Services staff to study 27 buildings that meet specific criteria. For a court building to be a candidate for the renovation feasibility study, it needed to meet all the following criteria:

- It has a Very High or High SRR.
- It is not being replaced by an active new courthouse construction project.
- It is not subject to a memorandum of understanding restricting transfer because of historic building designation.
- It is owned by the Judicial Council or has a transfer of title pending, or the court occupies more than 80 percent of a county owned building.

- The investment would extend its useful life for long-term service to the public.

Facilities Services engaged the consultant team in January 2018 to perform the study, which was completed in December 2018. One court building was removed during the study due to a lack of structural and architectural drawings. The 26 court buildings studied have a total area of approximately five million gross square feet and comprise 43 building segments. Figure 1 shows the location and area of each court building included in the study.

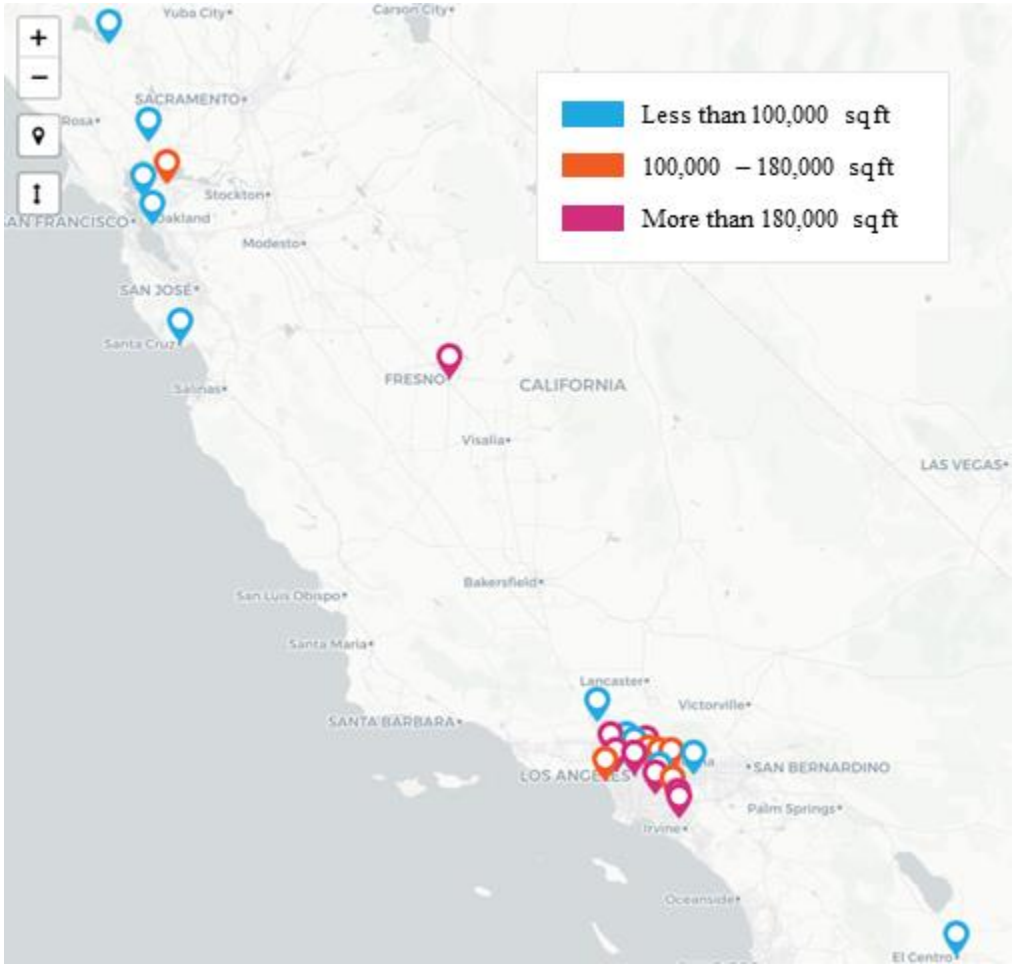

Figure 1. Location and Size of the 26 Court Buildings Assessed in This Study

B. Summary of Project Approach

As part of the seismic renovation feasibility study, the consultant team reviewed structural and architectural drawings and previous seismic assessment reports to understand the critical seismic deficiencies and general layout of each court building. The team then conducted a site inspection and interviewed court staff to verify critical seismic deficiencies and document overall facility conditions before performing a supplemental seismic assessment to confirm previously identified deficiencies and identify new ones.

The consultant team then designed a conceptual retrofit scheme for each court building to address the critical seismic deficiencies identified from the supplemental seismic evaluation. The primary objective of the retrofit scheme is to reduce the seismic risk level of the court building from Risk Level V to IV, typically by strengthening existing **structural components,** adding new ones, or a combination of both.

The team then determined the **collateral impacts** of the retrofit scheme and identified code-required upgrades to accessibility and fire and life safety systems. Collateral impacts refer to repair work to **nonstructural components** (e.g., walls, ceilings, lighting, carpeting) made necessary by the retrofit. This scope of work is referred to as the **baseline retrofit option (Option 1)** because it represents the minimum required effort to achieve Risk Level IV seismic performance.

Because a seismic retrofit can be highly invasive, it provides an opportunity to make additional building repairs and upgrades for relatively little incremental cost. The Judicial Council Facilities Services staff asked the consultant team to include approved, unfunded facility modifications in addition to the minimum scope of work required in the baseline retrofit. Approved, unfunded facility modifications, referred to as **priority upgrades**, include building maintenance and systems upgrades that have been approved by the Judicial Council or Superior Court but do not have specific funding sources identified yet. Consequently, these facility modifications would be attractive candidates for inclusion in a seismic renovation. This option is referred to as the **priority upgrades retrofit option (Option 2)**.

Furthermore, because a seismic retrofit can be extremely costly, the consultant team also included a full renovation option and two replacement options for the purposes of benchmarking. While these three options did not involve any design work, they were included in the study as a reference point to identify situations where it may be more cost effective to either fully renovate or replace a court building. The **full renovation option (Option 3)** involves the same seismic retrofit as the baseline retrofit, plus full demolition and replacement of the building interior down to the structural skeleton and removal and replacement of the exterior wall and roof cladding. The first replacement option, referred to as the **replace to 2016 CBC option (Option 4)**, involves replacing the existing court building with a new facility that satisfies the requirements of the 2016 **California Building Code** (CBC; CBSC 2016a). The second replacement option, referred to as the **replace to beyond code option (Option 5)**, involves replacing the existing court building with a new facility that goes beyond the minimum requirements of the 2016 CBC to achieve more resilient seismic performance (e.g., reduced damage, repair costs, and downtime).

A total of five retrofit and replacement options were considered for each court building. The consultant team developed construction cost estimates and durations for each option and compared these costs to the benefits of retrofitting or replacing the court building. The primary benefit of retrofitting or replacing the court building is reduced seismic risk relative to the existing court building, including reduced collapse probability, fatalities, repair costs, and downtime. Additional benefits stemming from retrofitting or replacing the court building

(e.g., improved energy efficiency, accessibility, fire and life safety, security, employee productivity) were not quantified, though the costs of these upgrades were included in the cost-benefit analysis. The design team developed a risk model for each retrofit and replacement option to predict the reduction in seismic risk. Refer to Section IV for additional discussion of the seismic risk assessment methodology.

The consultant team then performed cost-benefit analyses to compare the financial effectiveness of the five retrofit and replacement options for each court building. The benefit-cost ratio measures the benefits of an option relative to its cost and was the primary consideration in the Judicial Council Facilities Services staff's decision of which retrofit or replacement option to select. Refer to Section V for additional discussion of the cost-benefit methodology.

The conceptual retrofit schemes were reviewed by R+C, the structural peer reviewer retained by the Judicial Council for this study, to confirm the validity and appropriateness of the proposed interventions. R+C also reviewed results from the seismic risk assessments and cost-benefit analyses.

C. Report Organization

Section II documents minimum code requirements for seismic retrofits of court buildings in California. Section III describes the approach for evaluating and designing the seismic retrofits in this study. Section IV explains the seismic risk assessment methodology for predicting casualties, repair costs, and downtime for existing court buildings and the retrofit and replacement schemes across a range of earthquake intensities. Section V details the cost-benefit analysis methodology for evaluating the financial effectiveness of retrofitting or replacing each of the 26 court buildings in this study.

Appendix A provides a list of abbreviations and glossary of terminology used throughout this report. Appendix B provides a letter from R+C stating their professional opinion about overall appropriateness or validity of the methodology used for the seismic renovation feasibility study.

II. MINIMUM CODE REQUIREMENTS FOR RETROFITS

This section summarizes the minimum code requirements for seismic retrofits of California court buildings. These requirements form the basis for the scopes of work for the three retrofit options included in the feasibility study: baseline retrofit, priority upgrades retrofit, and full renovation. Per Table 317.5 of the 2016 **California Existing Building Code** (CEBC), all three retrofit options must achieve the following two-tiered seismic performance objective (CBSC 2016c):

1. Level 1: In the 20 percent in 50-year seismic event (i.e., the 225-year earthquake), **life safety performance** for both structural and nonstructural components
2. Level 2: In the 5 percent in 50-year seismic event (i.e., the 975-year earthquake), **collapse prevention performance** for the structure, while the performance of nonstructural components is not considered

As documented in the sections that follow, this two-tiered seismic performance objective is equivalent to (and therefore achieves) Risk Level IV performance, which is the minimum performance level required by the Judicial Council for the seismic retrofit of court buildings. This two-tiered objective is also equivalent to the basic performance objective for existing buildings (BPOE) for Risk Category II structures, as outlined in ASCE 41-13 (2014). While court buildings are classified as Risk Category III structures in the 2016 California Building Code (CBC), which governs how new buildings are designed and constructed, the two-tiered performance objective specified in Table 317.5 of the 2016 CEBC translates to a Risk Category II classification per ASCE 41-13. Note that the risk categories in ASCE 41-13 and the 2016 CBC, which provide the basis for applying earthquake provisions based on a building's use or occupancy, are distinct from Judicial Council risk levels, which measure the damageability of a court building in an earthquake.

Per additional requirements in the 2016 CEBC, the seismic retrofit of a court building will trigger required upgrades to both accessibility and fire and life safety systems (CBSC 2016c).

Section II.A lists the sources of information reviewed to determine minimum retrofit requirements for court buildings. Section II.B discusses the **authorities having jurisdiction** over different aspects of the seismic retrofit process. Section II.C discusses minimum seismic retrofit requirements for Judicial Council court buildings. Section II.D discusses minimum accessibility upgrades triggered by the seismic retrofit, while Section II.E discusses minimum fire and life safety upgrades. Section II.F describes the three retrofit options (and two replacement options) considered as part of this study. Section II.G provides relevant excerpts from the 2016 CEBC that are referenced in the following sections.

A. Sources of Information

To determine the minimum retrofit requirements for court buildings in California, the consultant team reviewed various written documents that serve as the regulatory framework governing the seismic retrofit of court buildings in California. These include the following documents:

- 2016 California Existing Building Code (CBSC 2016a)
- Trial Court Facilities Act of 2002 (Sen. Bill 1732; Stats. 2002, ch. 1082)
- Leasing memos from the Judicial Council (2008) and the California Department of General Services (DGS; 2009)
- American Society of Civil Engineers (ASCE) Standard 41-13, *Seismic Evaluation and Retrofit of Existing Buildings* (ASCE 2014)

The consultant team also had numerous conversations with Judicial Council Facilities Services staff and engineers at R+C, the peer reviewer for the feasibility study, to discuss retrofit requirements.

B. Authorities Having Jurisdiction

Section 70391(b) of Trial Court Facilities Act of 2002 gives the Judicial Council "the full range of policymaking authority over trial court facilities, including, but not limited to, planning, construction, acquisition, and operation, to the extent not expressly otherwise limited by law" (Sen. Bill 1732; Stats. 2002, ch. 1082). Based on this language and conversations with the Judicial Council, including the project kick-off meeting on January 26, 2018, Table 1 summarizes the **authorities have jurisdiction** over different aspects of the seismic retrofit of court buildings in California, including structure, accessibility, and fire and life safety.

Table 1. Authorities Having Jurisdiction Over the Seismic Retrofit of Court Buildings

Retrofit Aspect	Authority Having Jurisdiction	Source	Notes
Structure	Judicial Council	Section 1.2.1.2 of the 2016 CEBC	The Judicial Council hires a structural peer reviewer to verify compliance with California Building Standards Code, which includes the 2016 CEBC.
Accessibility	Division of the State Architect	Section 1.9 of the 2016 CEBC	
Fire and life safety	State Fire Marshal	Section 1.11 of the 2016 CEBC	

C. Seismic Retrofit Requirements

Seismic retrofits of court buildings in California are subject to the requirements of both the 2016 CEBC and the Judicial Council. These requirements are reviewed in the following sections, culminating with a determination of the minimum seismic retrofit requirements used in this study. Figure 2 provides a flowchart summarizing the retrofit requirements discussed below.

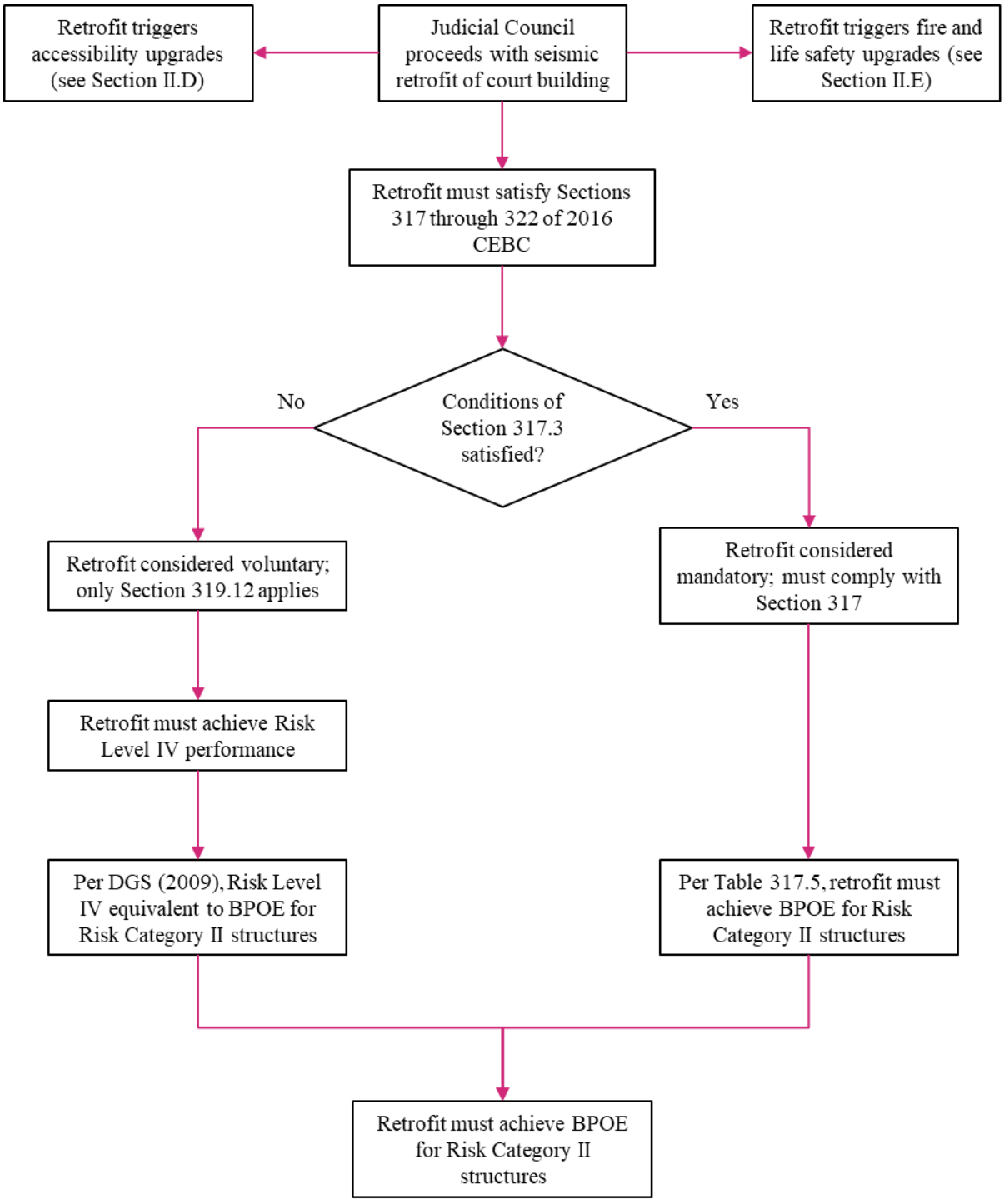

Figure 2. Summary of Retrofit Requirements of Court Buildings in California

1. Minimum Seismic Retrofit Requirements per 2016 CEBC

Sections 317 through 322 of the 2016 CEBC prescribe "minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by… the Judicial Council" (CBSC 2016c, Section 301.1). Section 317.3

specifies conditions under which any retrofit, repair, or modification of a building must adhere to the minimum requirements of the 2016 CEBC. Refer to Section II.G.1 for the code language. If none of the conditions of Section 317.3 are satisfied, then the retrofit is considered voluntary and only the provisions of Section 319.12 of the CEBC apply. In overview, these provisions require that a voluntary seismic retrofit not reduce the capacity of or increase the loading on existing structural elements, or create a "dangerous condition." However, Section 319.12 stops short of prescribing minimum performance objectives for voluntary seismic retrofits (CBSC 2016c). Refer to Section II.G.3 for specific code language.

If any of the conditions in Section 317.3 are met, the retrofit must satisfy the provisions of Section 317 of the 2016 CEBC, herein referred to as a mandatory retrofit. Of the several conditions listed, the most likely to be triggered is that of the total construction costs exceeding 25 percent of the cost of replacing the building. Based on previous experience, the consultant team anticipated that a typical seismic retrofit of a court building would exceed this threshold; therefore, the retrofit options considered in this study were required to meet the minimum requirements of the CEBC as specified in Section 317. After designing each retrofit and estimating its cost, the consultant team verified that the 25 percent cost threshold is triggered for all court buildings.

Table 317.5 of the 2016 CEBC prescribes minimum seismic performance objectives for a retrofit that meets any of the conditions of Section 317.3. Refer to Section II.G.2 for specific code language for Table 317.5. For the seismic retrofit of a Judicial Council court building, the first row of Table 317.5 governs, and the retrofit must achieve the following two-tiered performance objective:

1. Level 1: In the 20 percent in 50-year seismic event (i.e., the 225-year earthquake), life safety performance for both the structure and nonstructural components.
2. Level 2: In the 5 percent in 50-year seismic event (i.e., the 975-year earthquake), collapse prevention performance for the structure, while the performance of nonstructural components is not considered.

This performance objective is equivalent to the BPOE for Risk Category II structures specified in ASCE 41-13. While court buildings are classified as Risk Category III structures in the 2016 CBC, which governs how new buildings are designed and constructed, the two-tiered performance objective specified in Table 317.5 of the 2016 CEBC translates to a Risk Category II classification per ASCE 41-13.

2. Minimum Seismic Retrofit Requirements per the Judicial Council

Regardless of whether the seismic retrofit is deemed voluntary or mandatory per the 2016 CEBC, the minimum performance requirements specified by the Judicial Council will govern the retrofit. Per previous conversations with the Judicial Council Facilities Services staff, the seismic retrofit of court buildings must, at a minimum, achieve Risk

Level IV performance. Language in Trial Court Facilities Act of 2002 reinforces this understanding, as a building evaluated as Risk Level V or worse is classified as having an "unacceptable seismic safety rating."

Consequently, the following two situations are possible:

1. If the retrofit is deemed voluntary per the 2016 CEBC, achieving Risk Level IV performance is the sole requirement.
2. If the retrofit is deemed mandatory per the 2016 CEBC, the retrofit is required to achieve the more stringent of Risk Level IV performance or the two-tiered performance objective in Table 317.5 of the 2016 CEBC, though, as will be demonstrated in the following paragraphs, these two performance requirements are equivalent.

Since the designation of the risk levels used by the Judicial Council is not recognized in any of the governing building code standards (including the CEBC, which references ASCE 41), it is essential to establish the definition for Risk Level IV so it can be related to the regulatory requirements of current code (see Section II.C.1).

Towards this end, the consultant team reviewed two documents that explicitly define Risk Level IV performance: one written by the California Department of General Services (DGS; 2009) and one written by the Judicial Council (2008). DGS (2009) outlines requirements for conducting independent seismic reviews of buildings the DGS might lease. It states that the DGS will not approve for occupancy a newly leased building if it is evaluated as Risk Level V or higher. The document contains a table that defines "Earthquake Damageability Levels for Existing Buildings," which the consultant team interpreted as being equivalent to the risk levels used by the Judicial Council. Table 2 reproduces the original table from DGS (2009). The table defines Damageability Level IV, which is equivalent to Risk Level IV, as "a building evaluated as meeting or exceeding the requirements of Chapter 34 of CBC [now the CEBC] for Occupancy Category I-III performance criteria [now referred to as Risk Categories]."

As described in preceding sections, the minimum code requirements for a seismic retrofit of a court building depend on whether it is considered voluntary or mandatory. However, using the definition provided for Risk Level III in Table 2 and previous versions of the CBC, it is possible to back-calculate that Risk Level IV performance is equivalent to the two-tiered seismic performance objective in Table 317.5 of the 2016 CEBC. More specifically, from Table 2, Risk Level III involves replacing the BSE-R (i.e., the 225-year earthquake, which in ASCE 41-13 is the **BSE-1E**) with the BSE-1 (475-year earthquake, which in ASCE 41-13 is the **BSE-1N**), and the BSE-C (975-year earthquake, which in ASCE 41-13 is the **BSE-2E**) with the BSE-2 (2,475-year earthquake, which in ASCE 41-13 is the **BSE-2N**), implying that Risk Level IV performance involves using the same seismic hazard levels as specified in Table 317.5 of the 2016 CEBC (i.e., BSE-R and BSE-C).

Table 2. Earthquake Damageability Levels (Risk Levels) for Existing Buildings (DGS 2009)

Rating Level [1,5]	Definitions based upon California Building Code (CBC) requirements for existing buildings [2]	Implied Risk to Life [3]	Implied Seismic Damageability [4]
I	A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category IV performance criteria for a new building.	Negligible	0% to 10%
II	A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category IV performance criteria with BSE-R and BSE-C categories replacing those given in Chapter 34.	Insignificant	0% to 10%
III	A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria with BSE-1 and BSE-2 categories replacing BSE-R and BSE-C as given in Chapter 34 ; alternatively a building meeting CBC requirements for a new building.	Slight	5% to 20%
IV	A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria.	Small	10% to 30%
V	A building evaluated as meeting or exceeding the requirements of CBC Chapter 34 for Occupancy Category I-III performance criteria only if the BSE-R and BSE-C values are reduced to 2/3 of those specified for the site.	Serious	20% to 50%
VI	A building evaluated as not meeting the minimum requirements for Level V designation and not requiring a Level VII designation.	Severe	40% to 100%
VII	A building evaluated as posing an immediate life-safety hazard to its occupants under gravity loads. The building should be evacuated and posted as dangerous until remedial actions are taken to assure the building can support CBC prescribed dead and live loads.	Dangerous	100%

Notes:
1. Earthquake damageability levels are indicated by Roman numerals I through VII. Assignments are to be made following a professional assessment of the building's expected seismic performance as measured by the referenced technical standard and earthquake ground motions. Equivalent Arabic numerals, fractional values, or plus or minus values are not to be used and are undefined. These assignments were prepared by a task force of state agency technical personnel, including CSU, UC, DGS, DSA, and AOC. The ratings apply to structural and non-structural elements of the building as contained in Chapter 34 , CBC requirements.
2. Chapter 34 of the California Building Code, current edition, regulates existing buildings. It uses and references the American Society of Civil Engineers Standard *Seismic Rehabilitation of Existing Buildings, ASCE-41.* All earthquake ground motion criteria are specific to the site of the evaluated building. The CBC definitions for earthquake ground motions to be assessed are paraphrased below:
   - BSE-2, the 2,475-year return period earthquake ground motion, or the lesser of the Maximum Capable Earthquake for the site under certain limiting conditions.
   - BSE-C the 1,000-year return period earthquake ground motion.
   - BSE-1, two-thirds of BSE-2 value, nominally, the 475-year return period earthquake ground motion.
   - BSE-R the 225-year return period earthquake ground motion.
3. *Implied Risk To Life* is a subjective measure of the threat of a life threatening injury or death that is expected for an average building in compliance with the indicated technical requirements. The terms *negligible* through *dangerous* are not specifically defined, but are linguistic indications of the relative degree of hazard posed to an individual occupant.
4. *Implied Damageability* is the level of damage expected to the average building in compliance with the indicated technical requirements when a BSE-2 level earthquake occurs. Damage is measured as the ratio of the cost to repai the structure divided by the current cost to reconstruct the structure from scratch. Such assessments are to be completed to the requirements of ASTM E-2026, where the damage ratio is the SEL evaluated at Level 1 or higher ir order to be considered appropriate.
5. In those cases where the engineer making the assessment using the requirements for a given rating level concludes that the expected seismic performance is consistent with a one-level higher or lower level rating, this alternative rating level may be assigned if and only if an independent technical peer reviewer concurs in the evaluation. The peer review must be completed consistent with the requirements of Section 3420, 2007 CBC.

Risk Level III is also described as meeting the CBC requirements for new buildings. This is generally understood to mean life safety performance in the BSE-1 and collapse prevention performance in the BSE-2. Consequently, Risk Level IV is equivalent to the two-tiered seismic performance objective in Table 317.5 of the 2016 CEBC.

The Judicial Council's (2008) *Court Facilities Planning: Seismic Safety Policy for Leased Buildings* report specifies that the Judicial Council will not approve leasing or

renewal of a lease in a building if it is evaluated as Risk Level V or higher. The document defines Risk Level IV in a similar fashion as DGS (2009).

Based on DGS (2009) and the Judicial Council (2008), the consultant team determined that for a retrofit to achieve Risk Level IV performance, it must satisfy the requirements for mandatory seismic retrofits in the 2016 CEBC. Consequently, use of Section 319.12 is prohibited in a retrofit of a court building because its provisions do not ensure that the two-tiered performance objective in Table 317.5 of the 2016 CEBC is achieved.

D. Triggered Upgrades to Accessibility

Chapter 11B of the 2016 CBC specifies minimum accessibility requirements for public buildings. In accordance with the Division of the State Architect's 2016 California Access Compliance Advisory Reference Manual commentary on Section 202.3 of Chapter 11B of the 2016 CBC, an accessible primary entrance, toilet and bathing facilities, drinking fountains, signs, public telephones, and path of travel connecting these elements shall be provided in existing buildings. If these items are not already in compliance, a seismic retrofit would trigger accessibility upgrades to the primary entrance, the facilities that serve it (e.g., toilets, drinking fountains, signs, public telephones), and the path of travel between them.

In addition, when alterations or additions are made to existing buildings, an accessible path of travel to the specific area (or areas) of alteration or addition shall be provided. The accessible path of travel shall include:

- Toilet and bathing facilities serving the area
- Drinking fountains serving the area
- Public telephones serving the area
- Signs

Consequently, any area impacted by the conceptual retrofit scheme (e.g., strengthening of a concrete wall in an administrative space) would require accessibility upgrades to the facilities serving the impacted area (e.g., toilets, drinking fountains, signs, public telephones) and the path of travel from the primary entrance.

The 2016 CBC also requires accessibility upgrades whenever the primary use or function of a building is altered; however, such changes in use or function are not anticipated.

The extent of compliance with these accessibility requirements shall be provided by equivalent facilitation or to the greatest extent possible without creating an unreasonable hardship. Should the enforcing agency, the Division of the State Architect, determine the cost of full applicable compliance is an unreasonable hardship, then the cost compliance shall be limited to 20 percent of the adjusted construction cost of alterations, structural repairs, or additions (CBC Section 202.4, Exception 8; CBSC 2016a). The consultant team anticipates the Judicial Council would be unable to obtain a hardship exemption.

E. Triggered Upgrades to Fire and Life Safety

The 2016 California Fire Code (CFC) specifies "minimum requirements… to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings" (CFC Section 1.1.2; CBSC 2016b). In accordance with 2016 CFC, minimum means of egress in compliance with requirements of the building code at the time of construction and provisions as detailed in 2016 CFC 1104.1 shall be provided.

Based on observations of the existing court buildings, the following recommendations are necessary to bring existing conditions into compliance:

- Provide emergency responder radio coverage (subject to determination by fire code official)
- Provide standpipes in buildings with occupied floors located more than 50 feet above the lowest level of fire department access or more than 50 feet below the highest level of fire department access (CFC Section 1103.6)
- Provide fire alarm system (CFC Section 1103.7), with both automatic and manual fire alarm systems in Group I-3 occupancy (CFC Section 1103.7.4)

Ultimately, fire and life safety upgrades are at the discretion of the State Fire Marshal. For the purposes of this study, the consultant team assumed that all required upgrades specified in the 2016 CFC would be triggered by a seismic retrofit. However, if the existing court building does not currently have a fire sprinkler system, the seismic retrofit design does not include installing one, though the State Fire Marshal may require it. In aggregate, these assumptions are reasonably conservative and would likely result in upper-bound estimates of fire and life safety construction costs.

F. Retrofit and Replacement Options to Evaluate

Based on the minimum retrofit requirements summarized in previous sections, the consultant team, with input from Facilities Services, established several retrofit and replacement options to be considered for each court building. The five options — three retrofit options and two replacement options — are summarized in the text below and in Table 3.

For court buildings with multiple segments, a conceptual retrofit scheme was developed for each building segment. For a small number of court buildings, not all segments are rated Risk Level V, meaning they are not required to be retrofitted to achieve a level of seismic performance consistent with the Trial Court Facilities Act of 2002. However, because the building segments typically function together as a single facility (which often has only one public entrance), the decision was made to develop retrofit schemes, collateral impacts, and construction costs for all building segments.

1. **Baseline retrofit**: includes seismic upgrades to structural and nonstructural components (e.g., stairs, elevators, ceilings, lights, partitions) to achieve Risk Level

IV performance (i.e., ASCE 41-13 BPOE for Risk Category II structures), nonstructural repairs made necessary by the retrofit, and triggered upgrades to accessibility and fire and life safety systems. This option represents the minimum level of effort and expenditure to mitigate the seismic risk at each court building.

2. **Priority upgrades retrofit**: includes the same upgrades as Option 1, plus any priority upgrades, which refer to approved but unfunded facility modifications. This option was included in the study because seismic retrofits often provide an opportunity to upgrade outdated or deficient building systems (which would be highly disruptive) at relatively little additional cost.

3. **Full renovation**: includes the same seismic upgrades to structural components as Option 1, plus full demolition and replacement of the building interior down to the structural skeleton, including removal of the exterior wall and roof cladding. Consequently, the necessary nonstructural seismic upgrades, nonstructural repairs, triggered upgrades to accessibility and fire and life safety systems, and priority upgrades are not specifically considered in this option, since a new building interior will incorporate these features. This option was included because some retrofits are highly invasive, so that a complete interior and exterior renovation would provide direct access for improvement of structural frame connections, and hence might not entail much additional cost compared to retrofit Option 1 or 2. Design of the fully renovated interior and exterior is beyond the scope of this study.

4. **Replace to 2016 CBC**: involves replacing the existing court building with a new facility that satisfies the requirements of the 2016 CBC, sized in accordance with the Judicial Council California Trial Court Facilities Standards (2011). The size of a replacement building was determined by using the number of court departments at the existing court building and the median gross area per court department for California Superior Court buildings of similar scope constructed in the recent decade. In addition, a replacement court building would contain only Superior Court functions, resulting in a replacement building size that is in general alignment with the Judicial Council Standards for new court buildings, but may be substantially smaller or larger than the existing building. This replacement option was included for the purposes of benchmarking because some retrofit schemes are so disruptive and costly that it might be more cost effective to replace the court building with a new facility. The construction costs for replacement buildings are derived from the Judicial Council cost-model database of construction costs for California Superior Court buildings of similar scope and location constructed in the recent decade. Design of the new court facility is beyond the scope of this study.

5. **Replace to beyond code**: involves replacing the existing court building with a new facility that achieves a seismic performance level exceeding the minimum requirements of the 2016 CBC, sized in accordance with the Judicial Council California Trial Court Facilities Standards (2011). This facility is expected to be more

resilient — experience less damage and downtime in future earthquakes — than a code-compliant building. The Resilience-based Earthquake Design Initiative (REDi) framework outlines criteria for resuming building operations quickly after an earthquake (Arup 2013). While a building designed in accordance with REDi criteria has a similar level of seismic safety (i.e., collapse probability) as one designed to the 2016 CBC, a REDi building is explicitly designed to recover functionality within a specified timeframe after a large earthquake (e.g., 30 days for REDi Gold performance). For example, REDi requires equipment anchorage to remain essentially elastic and drift-sensitive components like partitions to accommodate relative displacements with aesthetic damage in the **design basis earthquake**. Code-compliant buildings, on the other hand, are not designed to minimize the type of earthquake-induced damage that can result in significant repair costs and downtime. This option was included because it is often only marginally more expensive (less than 5 percent premium) to construct a more resilient building. The cost premium for this option was assumed to be 5 percent of the cost of Option 4.

Table 3. Retrofit and Replacement Options

Option	Upgrade Options			
	Seismic	Accessibility	Fire and Life Safety	Building Systems
Baseline Retrofit (Option 1)	Minimum*	Primary†	Minimum**	Not considered (unless impacted by retrofit work)
Priority Upgrades Retrofit (Option 2)	Minimum*	Primary†	Minimum**	Priority only††
Full Renovation (Option 3)	Minimum*	Full‡	Full‡	Full‡
Replace to 2016 CBC (Option 4)	New facility			
Replace to Beyond Code (Option 5)	New facility			

* Retrofit achieves Risk Level IV performance, which is equivalent to BPOE for Risk Category II structures as defined in ASCE 41-13. Minimum seismic upgrades apply to all segments of the court building.

† Primary accessibility upgrades address path-of-travel upgrades from the primary entrance to areas impacted by the seismic retrofit, including upgrades to the facilities servicing the impacted areas (e.g., toilets, signage).

‡ Assumes complete building renovation (i.e., full accessibility, fire and life safety, and building systems upgrades). Design of such upgrades is beyond the scope of this study; however, costs are estimated for inclusion in cost-benefit analysis.

** Minimum fire and life safety upgrades include those detailed in Section II.E.

†† Priority building system upgrades (if any) are identified from a list of approved but unfunded facility modification projects submitted to the consultant team by the individual courts. A full facility condition assessment is beyond the scope of this study.

G. Referenced Code Language and Tables

1. CEBC Section 317.3

317.3 Applicability.

317.3.1 Existing state-owned buildings. [BSC] *For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:*

1. *Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit.*
2. *There are changes in risk category.*
3. *The modification to the structural components increases the seismic forces in or strength requirements of any structural component of the existing structure by more than 10 percent cumulative since the original construction, unless the component has the capacity to resist the increased forces determined in accordance with Section 319. If the building's seismic base shear capacity has been increased since the original construction, the percent change in base shear may be calculated relative to the increased value.*
4. *Structural elements need repair where the damage has reduced the lateral-load-resisting capacity of the structural system by more than 10 percent.*
5. *Changes in live or dead load increase story shear by more than 10 percent.*

2. CEBC Table 317.5

TABLE 317.5
SEISMIC PERFORMANCE REQUIREMENTS BY BUILDING REGULATORY AUTHORITY AND RISK CATEGORY.

		PERFORMANCE CRITERIA	
Building Regulatory Authority	***Risk Category***	***Level 1***	***Level 2***
State-Owned [BSC]	*I, II, III*	*BSE-R, S-3, N-C*	*BSE-C, S-5, N-D*
State-Owned [BSC]	*IV*	*BSE-R, S-2, N-B*	*BSE-C, S-4, N-D*
Division of the State Architect - [DSA-SS]	*I*	*BSE-1N, S-3, N-B*	*BSE-2N, S-5, N-D*
Division of the State Architect - [DSA-SS]	*II, III*	*BSE-1N, S-2, N-B*	*BSE-2N, S-4, N-D*
Division of the State Architect - [DSA-SS]	*IV*	*BSE-1N, S-2, N-A*	*BSE-2N, S-4, N-D*
Division of the State Architect - [DSA-SS/CC]	*I, II*	*BSE-1E, S-3, N-C*	*BSE-2N, S-5, N-D*
Division of the State Architect - [DSA-SS/CC]	*III*	*BSE-1E, S-3, N-B*	*BSE-2N, S-5, N-D*
Division of the State Architect - [DSA-SS/CC]	*IV*	*BSE-1E, S-2, N-B*	*BSE-2N, S-4, N-D*

1. *ASCE 41 provides acceptance criteria (e.g. m, rotation) for Immediate Occupancy (S1), Life Safety (S3), and Collapse Prevention (S5), and specifies in Section 2.3.1.2.1 and 2.3.1.4.1 the method to interpolate values for S-2 and S-4, respectively.*
   For nonstructural components, N-A corresponds to the Operational level, N-B to the Position Retention, and N-C to the Life Safety level, and N-D to the Not Considered.
2. *Buildings evaluated and retrofitted to meet the requirements for a new building, Chapter 16 of the California Building Code, in accordance with the exception in Section 319.1, are deemed to meet the seismic performance requirements of this section.*

3. CEBC Section 319.12

319.12 Voluntary modifications to the lateral-force resisting system. *Where modifications of existing structural components and additions of new structural components are initiated for the purpose of improving the lateral-force resisting strength or stiffness of an existing structure and they are not required by other sections of this code, then they are permitted to be designed to meet an approved seismic performance criteria provided that an engineering analysis is submitted that follows:*

1. *The capacity of existing structural components required to resist forces is not reduced, unless it can be demonstrated that reduced capacity meets the requirements of Section 319.8.*
2. *The lateral loading to or strength requirement of existing structural components is not increased beyond their capacity.*
3. *New structural components are detailed and connected to the existing structural components as required by the California Building Code.*
4. *New or relocated nonstructural components are detailed and connected to existing or new structural components as required by the California Building Code.*
5. *A dangerous condition is not created.*

Use of ASCE 41 Tier 1 and Tier 2 deficiency only retrofit procedures are pre-approved for use where Section 317.3 does not require an assessment.

319.12.1 State-owned buildings. [BSC] *Voluntary modifications to lateral force-resisting systems conducted in accordance with Appendix A of this code and the referenced standards of the California Building Code shall be permitted.*

319.12.1.1 Design documents. [BSC] *When Section 319.12 is the basis for structural modifications, the approved design documents must clearly state the scope of the seismic modifications and the accepted criteria for the design. The approved design documents must clearly have the phrase "The seismic requirements of the California Existing Building Code have not been checked to determine if these structural modifications meet the full seismic evaluation and strengthening requirements of Sections 317-322: the modifications proposed are to a different seismic performance standard than would be required in Section 319 if they were not voluntary as allowed in Section 319.12."*

319.12.2 Public schools and community colleges. [DSA-SS, DSA-SS/CC] *When Section 319.12 is the basis for structural modifications, the approved design documents must clearly indicate the scope of modifications and the acceptance criteria for the design.*

III. BASIS OF SEISMIC RETROFIT DESIGN

This section describes the basis of design for the conceptual seismic retrofit schemes developed by the consultant team for the 26 court buildings in this study. The primary intent of the retrofit schemes is to reduce the seismic risk level of the building from Risk Level V to IV. The retrofit schemes are intended for feasibility evaluation and preliminary cost-estimation purposes only.

Section III.A describes the information used to seismically evaluate the existing court buildings and design retrofit schemes. Section III.B summarizes the seismic evaluation methodology, which follows the ASCE 41-13 Tier 1 evaluation procedures with some additional load path calculations. Section III.C describes the methodology for designing the seismic retrofits, which follows Section 1.5 of ASCE 41-13. Section III.D discusses the limitations of the seismic evaluations and retrofit schemes.

A. Available Existing Information

The consultant team considered many sources of information in evaluating the existing court buildings and designing conceptual retrofit schemes. The Judicial Council provided the following documents to the consultant team:

- Original architectural, structural, or as-built drawings for each court building
- Drawings of previous modifications, alterations, or retrofits for each court building
- Seismic assessment reports from 2003 for each court building (based on ASCE 31-03 Tier 1 or 2 procedures)
- Facility conditions report for each court building
- A database containing information about the portfolio of court buildings, including ownership, gross area, area occupied by courts, number of floors, age, **building type**, seismic risk rating (SRR), number of courtrooms, and presence of asbestos

The quality and availability of information available varies from one court building to the next. For locations with missing or illegible drawings, or incomplete seismic assessment reports, the consultant team made appropriate assumptions about structural details, material strengths, location of structural components, and other missing information. In addition to the documents listed above, the consultant team also compiled a large amount of information from additional sources, including notes from interviews with court staff, photos from site inspections, and responses to online questionnaires sent to court staff.

B. Seismic Evaluation Methodology

Following the Trial Court Facilities Act of 2002, most of the 26 court buildings included in this study were evaluated per ASCE 31-03 (a predecessor to ASCE 41-13) and assigned a risk level. The reports from these seismic evaluations (executed c. 2003) were made available to the consultant team. While the reports catalog specific seismic deficiencies for each court

building, changes have been made to both the evaluation procedures in ASCE 41-13 and the seismic hazard in California. Considering these changes, the consultant team, in discussion with Judicial Council Facilities Services staff, decided to conduct a **supplemental ASCE 41-13 Tier 1 seismic assessment** of each court building using the most recent seismic hazard information for California, published in 2014 by USGS (Petersen et al. 2014).

The standard ASCE 41-13 Tier 1 Screening Procedure "consists of several sets of checklists that allow a rapid evaluation of the structural, nonstructural, and foundation and geologic hazard elements of the building and site conditions" (Section C3.3.2; ASCE 2014). For the purposes of this study, the consultant team replicated the full ASCE 41-13 Tier 1 checklist and performed relevant calculations pertinent to the changes in the evaluation code (ASCE 41-13 versus ASCE 31-03 [2003]). This included the evaluation of the adequacy of the load path of the entire seismic-force-resisting system through simplified demand-capacity calculations. The load path includes all the horizontal and vertical components participating in the structural response of the building (e.g., floor diaphragms, foundations, vertical components such as walls, frames, and braces) and the connections between each element. These calculations are required to size primary structural components within the retrofit scheme and verify overall feasibility.

A standard ASCE 41-13 Tier 1 seismic evaluation only requires identifying deficient components from standard checklists. It does not require checking the adequacy of supporting elements in the load path once the deficient components have been retrofitted, or checking the performance of the entire seismic-force-resisting system. Both checks were included in the supplemental seismic evaluations performed by the consultant team.

To inform these supplemental evaluations, the consultant team reviewed existing structural drawings and previous ASCE 31-03 Tier 1 and Tier 2 seismic assessments, and conducted site inspections to verify general conformance of existing conditions relative to the provided documents. Site inspections did not include any destructive testing to verify material properties or involve removing finishes or precast exterior cladding to confirm structural properties or specific deficiencies. In addition, no geotechnical investigations were performed to verify soil properties or liquefaction risk. Nor were any system-level analytical models of the structure developed as part of the seismic evaluation process.

C. Conceptual Retrofit Design Methodology

Based on the deficiencies identified by the supplemental seismic evaluation, the consultant team developed a conceptual retrofit scheme for each court building using a simplified version of the process outlined in Section 1.5 of ASCE 41-13. This methodology consists of the following steps:

1. Select a seismic performance objective for the retrofit. For court buildings in California, the seismic retrofit is required to achieve ASCE 41-13 BPOE for Risk Category II buildings. Refer to Section II for additional discussion.

2. Quantify the level of seismicity. Refer to Table 4 for additional information.
3. Obtain as-built information and conduct a site visit using the data collection requirements of ASCE 41-13 Section 6.2 (via Section 319.2 of the 2016 CEBC) as a guide.
4. Evaluate the adequacy of the load path of the existing seismic force-resisting system through simplified demand-capacity calculations. Seismic demands and components capacities are quantified based on ASCE 41-13. Refer to Section III.B and Table 4 for additional information.
5. Conceive retrofit measures to address the deficiencies identified in the ASCE 31-03 seismic evaluation reports from 2003 and the demand-capacity calculations in Step 4 above. Retrofit measures may involve one or more of the following strategies as permitted by ASCE 41-13:
    a. Local modification of structural components, including:
        i. Local strengthening of individual components (e.g., cover plating steel beams or columns, adding wood structural panel sheathing to an existing timber diaphragm)
        ii. Local improvement of the deformation capacity or ductility of individual components (e.g., adding a confinement steel jacket or fiber reinforced polymer wrap around a reinforced concrete column to improve its ability to deform without spalling or degrading reinforcement splices, reducing the cross-section of selected structural components to increase their flexibility and response displacement capacity)
    b. Removal or reduction of existing irregularities, including:
        i. Removal of soft or weak stories by adding braced frames or shear walls within the story
        ii. Removal of torsional irregularities by adding moment frames, braced frames, or shear walls or by partially demolishing structural elements, removing setback towers or side wings, or adding a seismic joint to balance the distribution of mass and stiffness within a story
    c. Global structural stiffening, including the addition of new braced frames or shear walls, or shotcreting over existing concrete walls
    d. Global structural strengthening, including the addition of moment frames, braced frames, or shear walls, though the last two measures may increase the demands due to increased stiffness

e. Mass reduction, including the demolition of upper stories (e.g., penthouses), replacement of heavy cladding or interior partitions, or removal of heavy storage or equipment loads

f. Seismic isolation, including the addition of elastomeric bearings or friction pendulum isolators; retrofits that involve seismic isolation must include a peer review per Section 317.8 of the 2016 CEBC

g. Supplemental energy dissipation, including the addition of fluid viscous dampers or friction-based hysteretic devices; retrofits the involve supplemental energy dissipation must include peer review per Section 317.8 of the 2016 CEBC

While some of the strategies listed above may not be feasible or appropriate for historic structures, none of the 26 court buildings in this study are listed on the state or federal historic registers. Some, however, are classified as local points of historic interest, which may limit the retrofit interventions possible. In these instances, provisions were made to preserve historic elements in place

Table 4. Additional Information About the Seismic Retrofit Design Methodology

Item	Description
Seismic performance objective for retrofits	Retrofits of court buildings in California are required to achieve ASCE 41-13 BPOE for Risk Category II structures. This performance objective comprises two tiers: 1. Level 1: In the 20 percent in 50-year seismic event (i.e., the 225-year earthquake), life safety performance for both the structure and nonstructural components. 2. Level 2: In the 5 percent in 50-year seismic event (i.e., the 975-year earthquake), collapse prevention performance for the structure, while the performance of nonstructural components is not considered. Refer to Section II for additional discussion.
Basis of seismic hazard	While ASCE 41-13 requires the use of seismic design maps developed by USGS in 2008, updated design maps developed by USGS in 2014 (Petersen et al. 2014) provided the basis of seismic hazard for this study.
Soil type	The soil type at each site was classified using Table 20.3-1 of ASCE 7-10, with values of the time-averaged shear-wave velocity in the upper 30 meters (V_{S30}) obtained from USGS (Yong et al. 2016).
Material strength	Nominal values for material strength were taken from existing structural drawings or ASCE 41-13, unless better information was available.
Knowledge factor (κ)	The level of knowledge is classified as "Usual" per Table 6-1 of ASCE 41-13 and the knowledge factor (κ) is set to 1.0. This assumes that "Usual testing" per ASCE 41-13 will be undertaken in the future as part of a more detailed structural evaluation if the court building is retrofitted.

Item	Description
Scope of seismic evaluation	The consultant team performed an enhanced Tier 1 seismic evaluation of the court building. The standard Tier 1 Screening Procedure "consists of several sets of checklists that allow a rapid evaluation of the structural, nonstructural, and foundation and geologic hazard elements of the building and site conditions" (ASCE 2014, Section C3.3.2). For the purposes of this study, the consultant team replicated the full checklist and performed relevant calculations pertinent to the changes in the evaluation code (ASCE 41-13 versus ASCE 31-03 [2003]). This included the evaluation of the adequacy of the load path of the entire seismic force-resisting system through simplified demand-capacity calculations. Refer to Section III.B for additional discussion.
Nonstructural items	Using Table 13-1 of ASCE 41-13 as a guide, nonstructural items that pose a life safety hazard (e.g., heavy items that are not braced, precast hanging elements not adequately anchored) were identified and retrofit measures recommended in accordance with FEMA E-74 (2012a). Where not feasible (e.g., historic facades), alternative mitigation strategies were developed.

D. Limitations

The retrofit schemes developed for this study are intended for feasibility evaluation and preliminary cost-estimation purposes only — the schemes are not detailed retrofit designs and should not serve as construction documents. An architect and Structural Engineer of Record must be engaged by the Judicial Council in the future for design development of constructible retrofit solutions. In addition to the deficiencies identified in the ASCE 31-03 seismic evaluation reports from 2003 and the supplemental seismic evaluations performed as part of this study, the Structural Engineer of Record will need to consider any additional deficiencies that may be identified when the structures are assessed per ASCE 41-13 (or the enforceable standard at that time).

As discussed previously, the retrofit scheme is based on limited information and seismic analysis and, therefore, is subject to the following limitations:

- No materials testing, geotechnical studies, or intrusive testing were performed.
- An analytical model of the building was not developed.
- Design optimization was not carried out (i.e., minimizing collateral impacts and construction costs).

To address these limitations, the consultant team made conservative assumptions about the overall condition of the facility (e.g., material strengths, connection details) to understand and test the feasibility of retrofitting the court building. This likely results in a conservative retrofit scheme and an upper bound on collateral impacts and construction costs (i.e., some retrofit measures may not be required or can be scaled back after further investigation, or alternative retrofit schemes might be possible). While this is appropriate for feasibility studies and budgetary checking, a more thorough engineering study would need to be performed prior to construction.

While the need to strengthen existing foundations or add new ones for new structural elements such as shear walls and braced frames is relatively common in seismic retrofits, rehabilitation of deficiencies in the existing foundation is less common. There are two basic reasons for this:

- Foundation work in existing buildings is expensive.
- There has been relatively little loss of life and property damage resulting from foundation failure in buildings in previous earthquakes (FEMA 2006).

That said, it is important to perform a careful foundation analysis, especially to estimate the extent of soil movement and study the demands that this movement would impose on the superstructure. Large soil movements from rigid body rotation of a shear wall, for example, may have minimal consequences if the entire structure rotates, but may have significant consequences to attached adjacent elements that are not rotating in phase or at all. Estimating soil movements requires a careful geotechnical investigation, which may involve collection and testing of soil samples. Such geotechnical investigations were not performed in this study. In the absence of such investigations, the consultant team used the bearing capacity of soils listed in the original drawings and compared them against the demand imposed by the foundations in the design earthquake. Where the bearing capacity is exceeded, the consultant team suggested a strategy for and extent of foundation retrofit to obtain a cost estimate for the work. When the actual retrofit design is developed in the future, a geotechnical investigation should be performed to assess the need for and extent of foundation retrofit based on soil deformations rather than soil strength.

IV. PROBABILISTIC SEISMIC RISK ASSESSMENT

This section describes the seismic risk assessment performed by the consultant team to predict the seismic performance of each court building across a range of earthquake intensities. Probabilistic seismic risk models were developed for each court building and its five retrofit and replacement options (refer to Section II.F for more information). The risk models predict damage and related consequences (e.g., collapse probability, casualties, repair costs, downtime) for each court building and retrofit/replacement option under various earthquake intensity levels. The seismic risk assessment relies on thousands of computer simulations (Monte Carlo analysis) and various earthquake intensities to predict seismic performance. This is known as a fully probabilistic seismic risk assessment (PSRA).

The PSRA integrates the following information to predict casualties, repair costs, and downtime:

- Quantification of the seismic hazard at six intensities, ranging from frequent to very rare: 45-, 100-, 225-, 475-, 975-, 2,475-year return periods (Section IV.B)
- Anticipated building movements (i.e., engineering demand parameters) from simplified structural analysis at each seismic intensity (Section IV.C)
- Collapse fragilities derived from previous seismic analyses by R+C (Section IV.D)
- Exposure data, including number of people within the building, quantity and type of building components, contents, and value of each building (Section IV.E)
- Vulnerability data, expressed as fragility functions, that relate the anticipated building movements to damage in structural and nonstructural components and contents (Section IV.F)
- Consequence data that relates the anticipated damage in each building to repair costs, repair time, downtime, casualties, and contents losses (Section IV.G)

Section IV.A summarizes the general PSRA methodology, while Sections IV.B through IV.G describe the major inputs to the PSRA listed above. Section IV.H summarizes the primary outputs from the PSRA and provides a sample of the output.

A. Methodology

The probabilistic seismic risk assessment (PSRA) is based on the standard loss methodology outlined in **FEMA P-58** (2012b). FEMA P-58 represents the state-of-the-art in site-specific seismic risk assessment, drawing from over 10 years of research by FEMA. The FEMA P-58 methodology relates anticipated building movements (e.g., peak floor accelerations, drifts, and residual drifts) to damage of individual components (e.g., concrete walls, architectural glazing, water piping) and the associated consequences of this damage in terms of repair cost, repair time, and casualty rate.

The PSRA also leverages the REDi downtime assessment methodology (Arup 2013) as an overlay to the standard FEMA P-58 loss methodology. The REDi methodology converts repair times from FEMA P-58 into estimates of downtime through consideration of labor allocation, delays to initiation of repairs (i.e., impeding factors), and intermediate recovery states (i.e., re-occupancy and functional recovery) along the path to full recovery. The downtime estimates produced by REDi are expected to more realistically predict the duration of time a court building could be unusable following different earthquake intensities.

The consultant team developed probabilistic seismic risk models for each of the following scenarios:

- Current existing court building
- Baseline retrofit option (Option 1)
- Full renovation option (Option 3)

Risk models were not explicitly developed for the priority upgrades option (Option 2), the replace to 2016 CBC option (Option 4), or the replace to beyond code option (Option 5). For the priority upgrades option (Option 2), results from the risk model for the baseline retrofit option (Option 1) were leveraged due to similarities in expected seismic performance (i.e., the only difference between these two options is typically a small number of building system upgrades, which are not expected to impact seismic performance significantly). Refer to Sections IV.C and IV.E for additional discussion about the risk models for each retrofit option.

For the two replacement options (Options 4 and 5), risk models were not developed due to insufficient information about the design and configuration of these new facilities. Instead, for the replace to 2016 CBC option (Option 4), repair costs and downtime from the risk model for the full renovation option (Option 3) were scaled by a factor of 0.75. The consultant team selected this factor based on previous project experience and the fact that seismic retrofits typically are designed to approximately 75 percent of the seismic hazard of new code buildings, meaning that new buildings are stronger and would be expected to perform better than retrofitted buildings. While increased strength may not always translate into reduced repair costs and downtime, in the absence of information about the designs of the replacement court buildings, this approximation was judged to be appropriate for the purposes of this study.

For the replace to beyond code option (Option 5), repair costs and downtime from the risk model for the full renovation option (Option 3) were scaled by a factor of 0.25 because beyond-code buildings (e.g., those that achieve REDi Gold performance) are specifically designed to minimize damage, repair costs, and downtime. Typically, this is achieved through improved detailing of nonstructural elements or by seismically isolating the building, resulting in substantial reductions in repair costs and downtime, often for a small increase in initial construction costs.

For both Options 4 and 5, casualties were not modeled because the two replacement facilities are expected to have significantly improved seismic safety relative to the existing court building.

The risk models are used to predict the seismic performance of both the existing court building and the five retrofit and replacement options in terms of collapse probability, casualties, repair costs, and downtime. There is significant uncertainty in predicting these metrics. The PSRA addresses this uncertainty through Monte Carlo analysis, a process in which hundreds to thousands of simulations are performed to determine the range of possible outcomes. For each of the six earthquake intensities evaluated, one thousand Monte Carlo simulations were performed per building. Each realization corresponds to a specific earthquake scenario, from which the building movement is estimated and the associated risks are determined. Each individual simulation randomly draws slightly different values of each input variable from a probabilistic distribution that captures uncertainty in each input. Figure 3 and Figure 4 show how casualties, repair costs, and downtime are calculated for an individual realization.

B. Seismic Hazard Analyses

Seismic hazard is an important input to the PSRA, as the prediction of casualties, repair costs, downtime, and other outputs are sensitive to the anticipated intensity of earthquake shaking. The consultant team performed a simplified seismic hazard analysis for each court building. Because this study uses simplified structural analysis techniques (see Section IV.C), the primary output from each analysis is an estimate of the spectral acceleration at the fundamental period of the court building (for both existing and retrofitted configurations) for each of the six earthquake intensities considered in this study.

The seismic hazard analyses draw from the probabilistic seismic hazard assessment performed by the United States Geological Survey (USGS) as part of the 2014 update to the National Seismic Hazard Maps (Petersen et al. 2014). The consultant team obtained the seismic hazard at each of the six intensities in this study using the Java-based platform developed by USGS as part of the National Seismic Hazard Mapping Project (USGS, n.d.). There are some limitations in the characterization of the seismic hazard from published sources like USGS. Namely, it typically does not account for site-specific impacts, including important local effects (e.g., basin amplification) and nonlinear soil response, including liquefaction. Consequently, site-specific seismic hazard analyses would need to be performed as part of a detailed retrofit or replacement design for a court building.

The following sections provide additional explanation of how the seismic hazard (i.e., spectral acceleration) was determined for each court building.

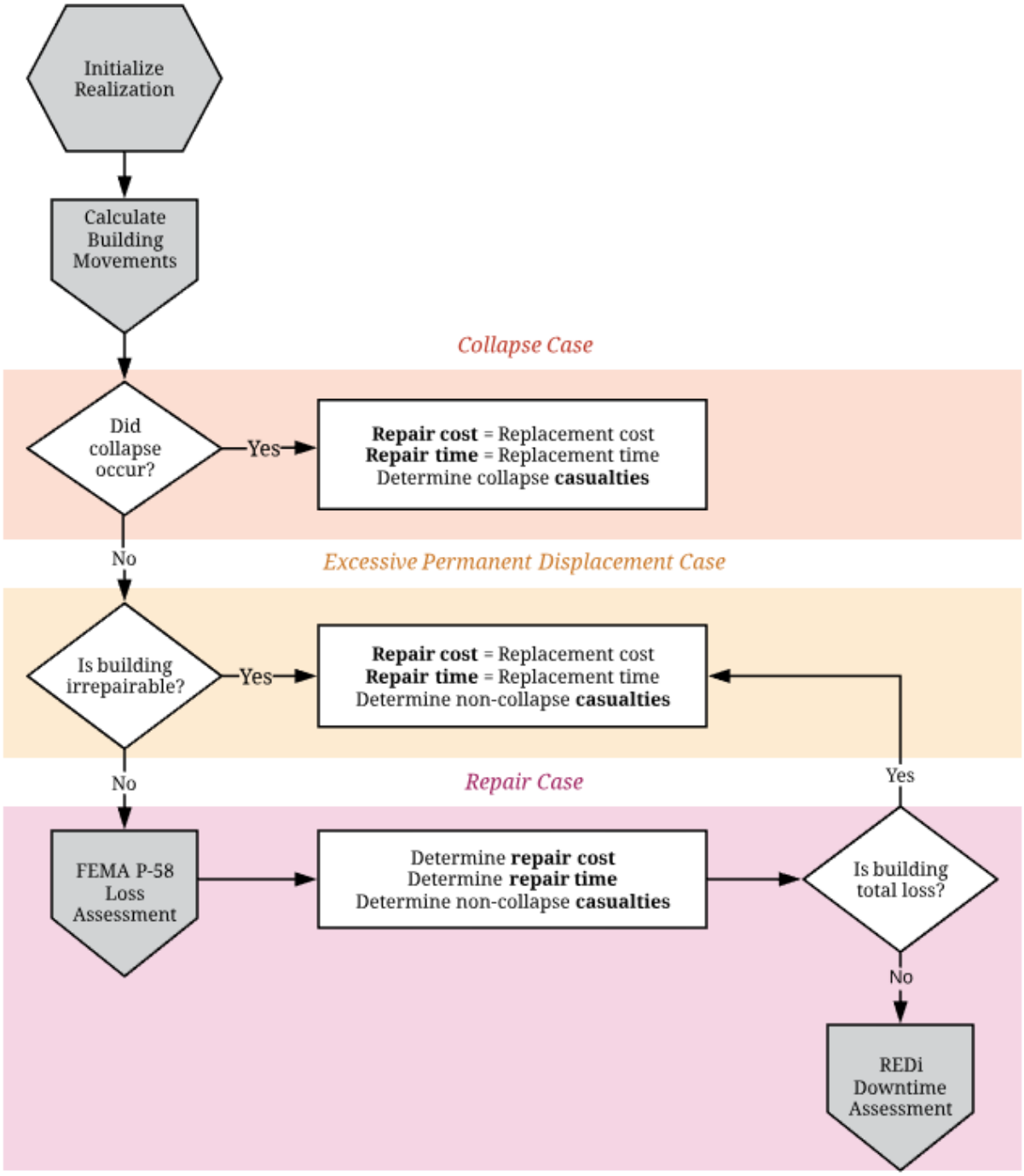

Figure 3. Overview of the PSRA Methodology Used in This Study

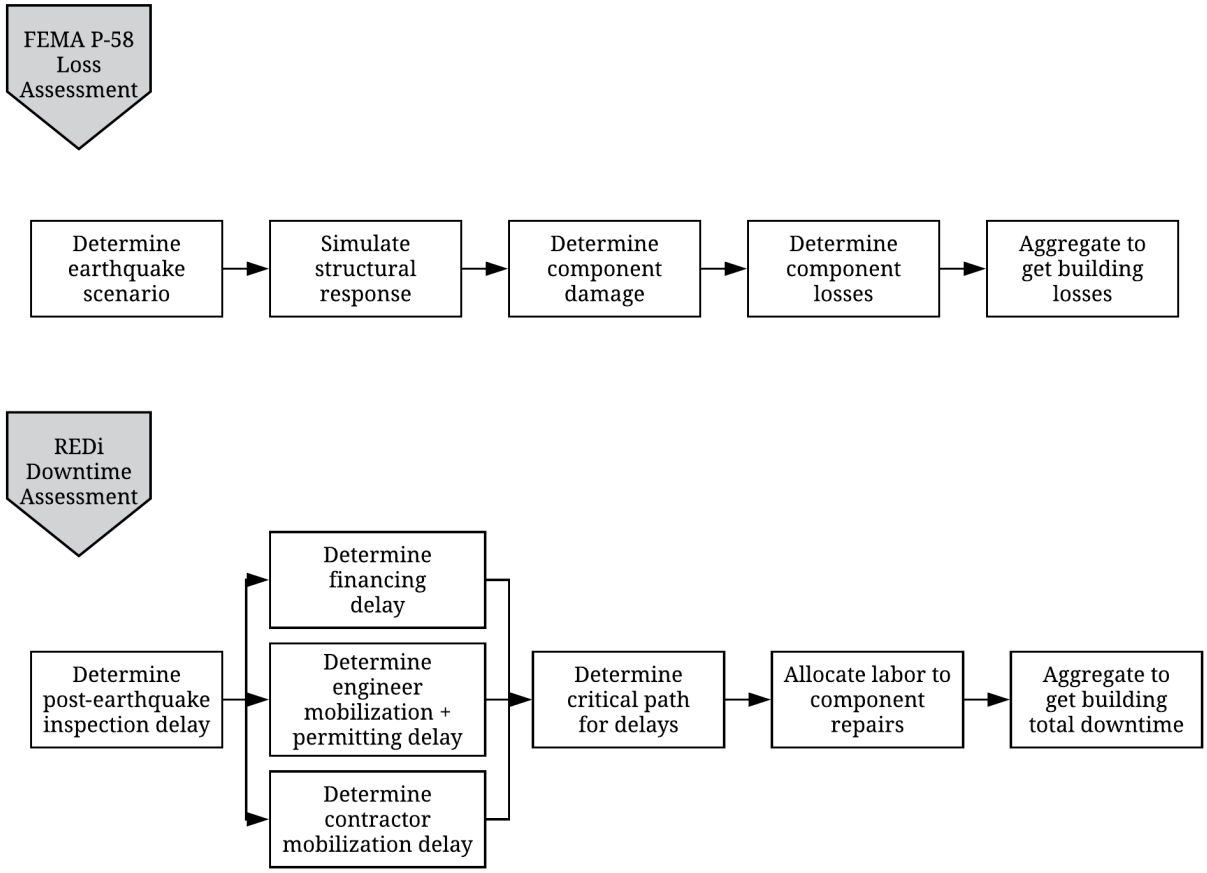

Figure 4. Overview of FEMA-P58 Loss Methodology (Top) and REDi Downtime Methodology (Bottom)

1. Soil Site Class

The soil conditions at a site can significantly influence the strength of earthquake ground shaking. Soil conditions can vary substantially from site to site, even for those close to each other. As such, the identification and characterization of the site soil conditions for each court building is an important input to the seismic hazard analysis.

In common seismic hazard assessment practice, the average shear wave velocity in the top 30 meters of soil ($V_{s,30}$) is used as a proxy to characterize how the site will respond in an earthquake. The sites considered in this study range from as soft as 600 ft/s (Site Class E) to as stiff as 5,000 ft/s (Site Class B) (ASCE 2014). Where possible, site class data was obtained from geotechnical reports referenced in the 2003 ASCE 31-03 Tier 1 or 2 seismic evaluation reports provided by the Judicial Council. However, there was a significant subset of court buildings for which such documentation was not available. In those cases, the soil site class was determined by averaging $V_{s,30}$ data from USGS. If $V_{s,30}$ data was not available, Site Class D was assumed.

Figure 5 shows a map of soil site class values for the 26 court buildings in this study. Stanley Mosk Courthouse (19-K1) is Site Class B but is obscured on the map due to the

high density of court buildings in Los Angeles County. All but six court buildings are Site Class D.

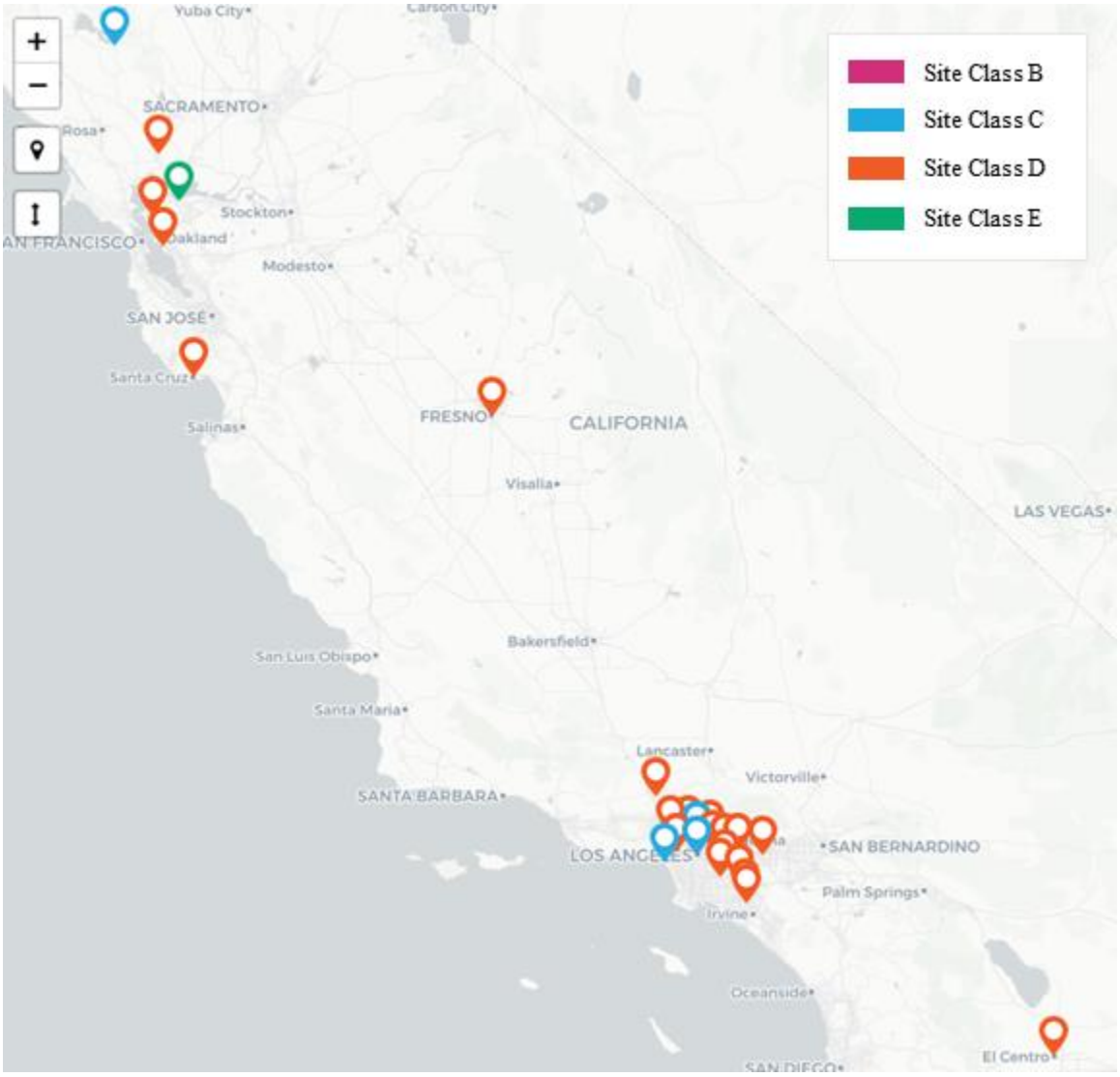

Figure 5. Map Showing Soil Site Class Values for 26 Court Buildings
Note: Stanley Mosk Courthouse (19-K1) is Site Class B but is obscured on the map due to the high density of court buildings in Los Angeles County.

2. Earthquake Intensity Levels

Table 5 presents the six earthquake intensity levels included in this study, spanning the range of frequent to very rare events. Six intensities were selected to ensure that the PSRA captured the full spectrum of damage to a court building, from minor or no damage at the 45-year earthquake intensity level to severe damage or even collapse at the 2,475-year level.

3. Uniform Hazard Spectra

For each earthquake intensity level and court building site, the consultant team determined the uniform hazard spectrum (UHS) using the 2014 update to the USGS National Seismic Hazard Maps (Petersen et al. 2014) and the assumed soil site class values. The UHS plots the spectral acceleration at a site as a function of fundamental building period for each earthquake intensity. Figure 6 shows the UHS for the Santa Monica Courthouse (19-AP1) as an example.

Table 5. Six Earthquake Intensities Levels Considered in the PSRA

Average return period (years)	Average annual rate (per year)	Probability in 30 years	Probability in 50 years
45	0.02222	49%	67%
100	0.01000	26%	39%
225	0.00444	12%	20%
475	0.00211	6%	10%
975	0.00103	3%	5%
2475	0.00040	1%	2%

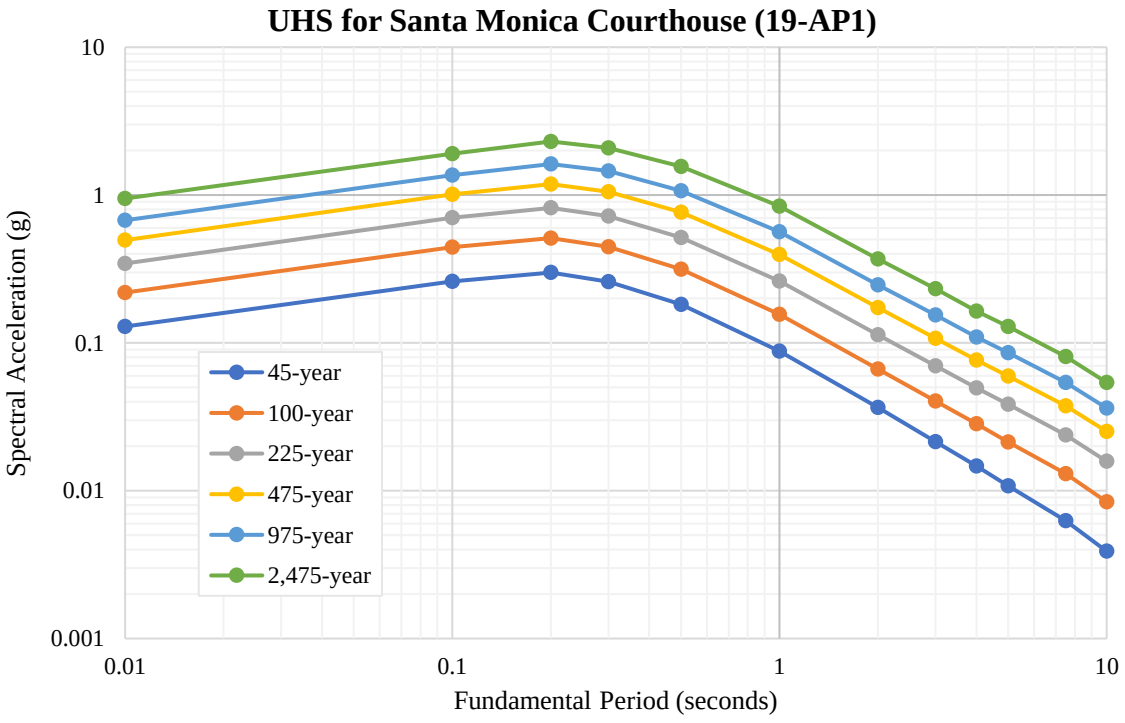

Figure 6. Uniform Hazard Spectra (UHS) for the Santa Monica Courthouse

4. Spectral Acceleration

Using the UHS for each site and the fundamental period of the existing court building or retrofit option, the consultant team determined the spectral acceleration at each earthquake intensity. This is a primary input to the simplified structural analysis of each court building, which is described in Section IV.C.

Per Section IV.A, three risk models were developed for each court building: the current existing court building, the baseline retrofit option, and the full renovation option. Consequently, the fundamental period needs to be determined for each model. The consultant team used Equation 12.8-7 of ASCE 7-10 (2013) to calculate the approximate fundamental period for the two retrofit models (see Equation 1 below). The two coefficients in Equation 1, C_t and x, were determined from the structure type of the retrofitted court building. For example, for concrete shear wall structures, $C_t = 0.02$ and $x = 0.75$ per Table 12.8-2 in ASCE 7-10. The period estimate from this equation represents a lower bound on the fundamental period for the retrofit. Lower bound period estimates are used in design because they tend to produce conservative estimates of the seismic demand (i.e., shorter periods have higher spectral accelerations, as illustrated in Figure 6).

$$T_a = C_t h_n^x \qquad \text{Equation 1}$$

Where:

T_a = approximate fundamental period

h_n = structural height

C_t, x = coefficients based on structure type; refer to Table 12.8-2 in ASCE 7-10 (2013) for coefficient values

For existing court buildings, the consultant team attempted to determine more realistic estimates of fundamental period. While detailed structural analyses were not performed in this study (which would have produced the most accurate estimates of period), the consultant team leveraged the provision in ASCE 7-10 that limits the fundamental period to T_a (from Equation 1) multiplied by C_u, the coefficient for upper limit on calculated period. A value of 1.5 was assumed for C_u in this study. In the experience of the consultant team, the limit on the fundamental period (i.e., $T_a \times C_u$) would likely be exceeded if a more detailed structural model were developed, meaning the cap is an appropriate estimate of the fundamental period of the existing court building for this study. The consultant team judged the longer period of the existing facility to be appropriate given the fact that a seismic retrofit typically stiffens a structure. Also, older buildings tend to be less stiff than modern code-compliant ones.

5. Liquefaction

Liquefaction is a phenomenon in which earthquake ground shaking produces excess pore pressure and causes a subsequent loss of soil strength, resulting in significant lateral

displacement or uneven vertical settlement of a building. This behavior is a concern for structures with shallow foundations in loose, saturated soils, such as clays or sands below the water table.

Though not explicitly considered in the PSRA, the consultant team estimated the liquefaction susceptibility for each court building using data from previous liquefaction studies by the USGS and California Geological Survey (USGS 2000, USGS 2006, Jones et al. 2008). Figure 7 shows the liquefaction susceptibility values for the 26 court buildings in this study. These values are provided for information purposes only — a site-specific geotechnical evaluation would be required to verify liquefaction susceptibility at each court building as part of a detailed retrofit or replacement design.

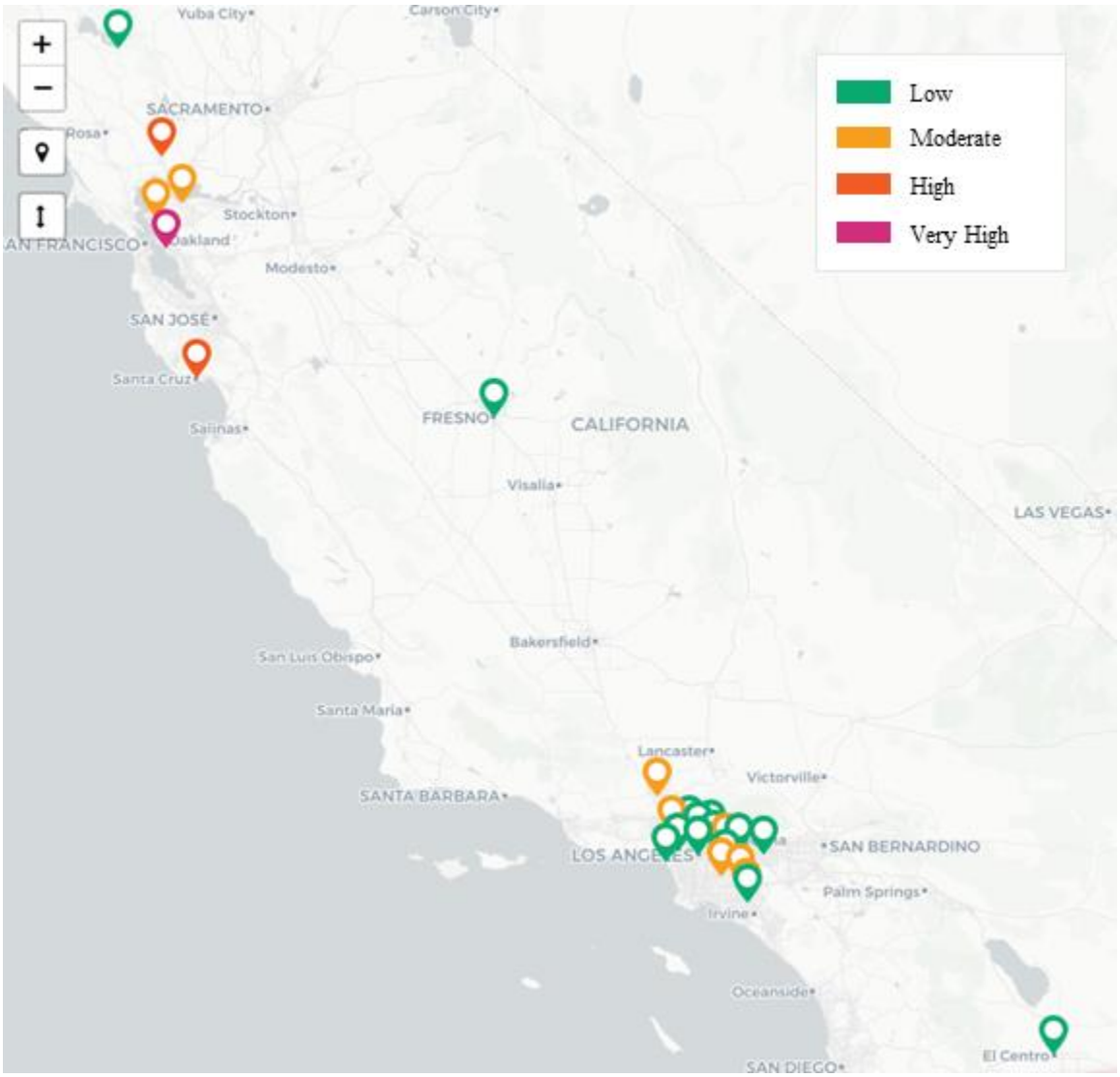

Figure 7. Map Showing Liquefaction Susceptibility Values for 26 Court Buildings

C. Simplified Structural Analysis

Using outputs from the seismic hazard analysis, the consultant team performed simplified structural analyses of each court building and retrofit scheme to estimate important engineering demand parameters (EDPs) for the PSRA. EDPs capture the building movements (e.g., interstory drift ratio, floor acceleration) caused by an earthquake. Table 6 lists the EDPs and calculation methods used in this study.

Table 6. Engineering Demand Parameters (EDPs) Calculated from the Simplified Structural Analysis

EDP	Calculation Method	Additional Discussion
Peak interstory drift ratio	Miranda (1999) and FEMA P-58 Simplified Analysis Procedure (2012b)	Section IV.C.1
Peak floor acceleration	FEMA P-58 Simplified Analysis Procedure (2012b)	Section IV.C.2
Residual interstory drift ratio	FEMA P-58 Simplified Analysis Procedure (2012b)	Section IV.C.3

The methodology was largely adopted from the FEMA P-58 Simplified Analysis Procedure (2012b), which enables the estimation of important EDPs using relatively limited building information and seismic hazard characterized by spectral acceleration. While some of the limitations of the simplified procedure were exceeded for some court buildings (i.e., those with more than 15 stories or irregular plans or elevations), detailed structural analyses were not possible given the high-level nature of the supplemental ASCE 41-13 Tier 1 evaluations and the conceptual nature of the retrofit schemes. Consequently, the consultant team judged the FEMA P-58 simplified procedure to be appropriate for this study, capturing the expected seismic response of the court buildings at a high level.

Inputs to the simplified structural analysis are based largely on non-detailed evaluations, including rapid visual screening and simple calculations based on available structural drawings or knowledge of historical building codes in California. Consequently, the simplified analysis is unable to capture building-specific deficiencies such as setbacks and vertical offsets and is not a substitute for detailed structural analysis.

The EDPs from the simplified structural analyses are assumed to be the best estimate (i.e., median) values. In computing these quantities, variability is applied to account for significant uncertainty in the analyses, including the completeness of the analytical models and as-built construction documents. This variability, referred to as the modeling dispersion, is described in more detail in Chapter 5 of FEMA P-58 (2012b). Per recommendations in FEMA P-58, the consultant team used a modeling dispersion value of 0.5 (the maximum value possible) for all court buildings to account for the simplified nature of the analysis (including the fact that some of the limitations of the simplified procedure that were exceeded) and the lack of consistency in drawing quality. In future studies, the modeling dispersion can be reduced by increasing the sophistication of the structural analysis.

The following sections describe how each of the EDPs in Table 6 is calculated.

1. Peak Interstory Drift Ratio

The FEMA P-58 Simplified Analysis Procedure (2012b) outlines a methodology for estimating peak interstory drift ratios (IDRs). However, the methodology requires development of a 3-D linear elastic building model to estimate elastic deformations, which is beyond the scope of this study. Consequently, the consultant team used an alternate method described by Miranda (1999) to estimate elastic deformations. In overview, Miranda proposes an equivalent continuum model to estimate elastic deformations of multi-story buildings using simplified inputs, including fundamental period, structural behavior type (i.e., shear, flexural, or combined), lateral load distribution shape, floor heights and weights, yield strength, and yield drift ratio. Table 7 summarizes how each of these inputs is calculated.

Table 7. Summary of Inputs Required for Equivalent Continuum Model Proposed by Miranda (1999)

Input	Calculation Method
Fundamental period	Calculated using the procedure described in Section IV.B.4
Structural behavior type	Assigned based on existing building drawings and the following mapping: • Wall buildings: shear behavior • Frame buildings: flexural behavior • Other buildings (including braced frame): combined behavior
Lateral load distribution shape	Triangular
Floor heights and weights	Obtained or calculated from existing building drawings
Yield strength	Calculated from existing building drawings or conceptual retrofit scheme
Yield drift ratio	Based on previous project experience and simplified elastic models using structural analysis software (e.g., Oasys GSA)

Assumptions implicit in the application of Miranda (1999) include uniform mass and stiffness distribution over the height of the building and lateral displacements approximated by the first mode contribution. These assumptions were found to be reasonable for the objectives of this study, but further detailed analysis would be necessary to increase the confidence level in the EDPs for each building.

Elastic deformations from the equivalent continuum models are then adjusted using various correction factors to obtain peak IDRs using the FEMA P-58 Simplified Analysis Procedure. Refer to FEMA P-58 for more information (2012b).

2. Peak Floor Acceleration

The consultant team used the FEMA P-58 Simplified Analysis Procedure without modification to calculate peak floor accelerations. Primary inputs to this calculation include the peak ground acceleration, fundamental period of the structure, yield strength, and spectral acceleration at the fundamental mode. Calculation of the fundamental period

and yield strength are described in Table 7, while the peak ground acceleration and spectral acceleration at the fundamental period are outputs of the seismic hazard analysis (refer to Section IV.B). The peak ground acceleration is then adjusted using various correction factors to obtain peak floor accelerations throughout the structure.

3. Residual Interstory Drift Ratio

Using peak IDRs and the yield drift ratio, the FEMA P-58 Simplified Analysis Procedure proposes a simple equation to estimate the residual IDRs, as shown in Equation 2.

$$\Delta_r = \begin{cases} 0, & \Delta \leq \Delta_y \\ 0.3(\Delta - \Delta_y), & \Delta_y < \Delta < 4\Delta_y \\ \Delta - 3\Delta_y, & \Delta \geq 4\Delta_y \end{cases} \quad \text{Equation 2}$$

Where:

Δ = Peak interstory drift ratio

Δ_r = Residual interstory drift ratio

Δ_y = Yield drift ratio

The yield drift ratio is based on previous project experience and simplified elastic models using structural analysis software (e.g., Oasys GSA).

D. Collapse Fragilities

The probability of collapse is an important input to the PSRA because of the large number of casualties and significant financial losses that collapse can generate. The consultant team developed collapse fragilities for each court building and retrofit scheme. A collapse fragility relates the probability of collapse to the intensity of earthquake ground shaking, typically characterized by the spectral acceleration at the fundamental building period. Figure 8 shows sample collapse fragilities for the Clara Shortridge Foltz Criminal Justice Center (19-L1), for both the current existing court building and the conceptual retrofit scheme. Because the seismic upgrades to the structure are the same across retrofit options 1, 2, and 3, the collapse fragility is equivalent for each option.

To determine collapse fragilities for existing court buildings, the consultant team leveraged the seismic risk ratings (SRRs) developed by R+C from their 2017 study of Risk Level V court buildings for the Judicial Council (R+C 2017). The SRRs, which were computed using the Hazus Advanced Engineering Building Module (FEMA 2013b), measure the relative probability of collapse in the BSE-2E as defined in ASCE 41-13 (2014). Equation 3 provides the formula for computing the SRR (from R+C 2017).

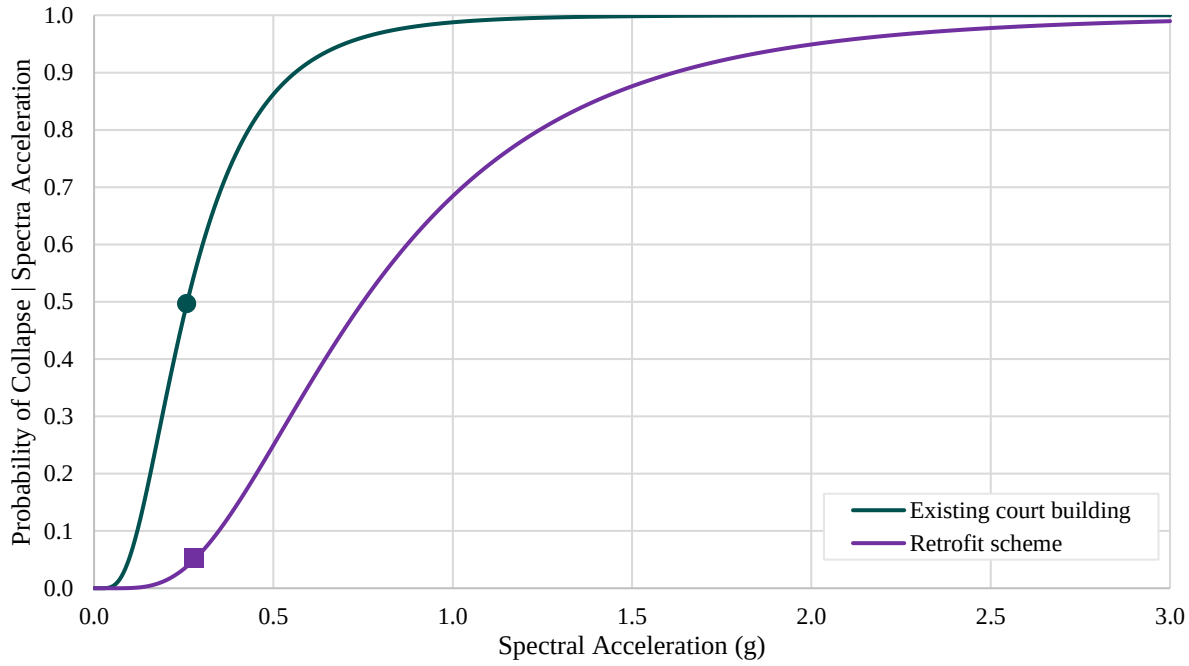

Figure 8. Collapse Fragilities for the Clara Shortridge Foltz Criminal Justice Center (19-L1)

$$SRR = P(COL|STR_5) \times P(STR_5)$$ Equation 3

Where:

$P(COL|STR_5)$ = Collapse factor of the Hazus Advanced Engineering Building Module

$P(STR_5)$ = Probability of complete structural damage, based on Hazus Advanced Engineering Building Module methods and parameters

Per Equation 3, the SRR indicates the portion of the total building area that has collapsed; however, this definition of collapse differs from those implicit to ASCE 41-13 and ASCE 7-10, which define collapse more broadly to include complete collapse, partial collapse, and near collapse scenarios. Therefore, the consultant team established a method for modifying the SRRs to be consistent with the code definition of collapse, as detailed below.

The consultant team used $P(STR_5)$, the probability of complete structural damage, as the probability of collapse for a court building because its definition (refer to FEMA 2013a for definitions for common building types) was judged to more closely align with the definition of collapse implied in modern building codes. The consultant team established a minimum threshold of 20 percent for $P(STR_5)$, as lower values were judged to not accurately represent the collapse risk because the court buildings all have significant seismic vulnerabilities. This single point, illustrated in Figure 8 as a green circle, was used to anchor the collapse fragility curve for an existing court building. The fragility curve has lognormal distribution and dispersion of 0.6 per the standard collapse fragility curve in ASCE 7-10 (2013).

To determine collapse fragilities for the conceptual retrofit schemes, the consultant team used implicit performance objectives in ASCE 7-10 to estimate the probability of collapse of a retrofitted building in the BSE-2E. ASCE 7-10 targets a collapse probability of approximately 10 percent in the BSE-2N for new buildings. Using this target as a guide, the consultant team assumed a 5 percent collapse probability for retrofitted buildings in the BSE-2E. This value reflects conservatisms in the retrofit process that would likely reduce the collapse probability to less than 10 percent. This single point, illustrated in Figure 8 with a purple square, was used to anchor the collapse fragility curve for retrofitted buildings. The fragility curve has lognormal distribution and dispersion of 0.6 per the standard collapse fragility curve in ASCE 7-10 (2013).

Collapse fragilities for replacement court buildings were not developed due to significant improvements in the seismic safety of new, code-compliant buildings relative to existing court buildings, which are typically over 30 years old and have significant seismic vulnerabilities. Consequently, the collapse probability of a replacement court building is taken as less than 1 percent across the range of earthquake intensities considered in this study. While new buildings are designed to have approximately 10 percent probability of collapse in the BSE-2N, new court buildings are expected to perform much better than this because they must satisfy the more stringent requirements of Risk Category III structures.

Collapse fragilities are the primary input in computing fatalities in the PSRA. However, there is significant variability in the range of outcomes within the complete structural damage state. For example, for concrete shear wall buildings (i.e., C2 buildings), complete structural damage is defined as follows: “Structure has collapsed or is in imminent danger of collapse due to failure of most of the shear walls and failure of some critical beams or columns. Approximately 13 percent (low-rise), 10 percent (mid-rise) or 5 percent (high-rise) of the total area of C2 buildings with complete damage is expected to be collapsed” (FEMA 2013a). To account for this variability, a factor of 0.15 was applied across all buildings when computing fatalities in realizations where collapse had occurred (see Figure 3). Refer to Section IV.G.3 for additional discussion of the fatality rate.

E. Exposure Data

Exposure data refers to the inventory of assets in a building, including structural components, nonstructural components, building contents, and building populations. These assets can be damaged, destroyed, or, in the case of people, injured or killed by an earthquake. The PSRA requires a comprehensive inventory of significant assets in a building to ensure that predicted casualties, repair costs, and downtime are representative of the assets at risk.

The consultant team developed inventories of structural and nonstructural components for each court building from existing building drawings, on-site evaluations, and normative quantities from FEMA P-58 (2012b). The process for developing these inventories is detailed in Section IV.E.1. Building populations and replacement costs were provided by the Judicial Council and are described in Sections IV.E.2 and IV.E.3, respectively.

1. Inventory of Structural and Nonstructural Components

The consultant team developed inventories of structural components for each existing court building using information from existing building drawings, including (but not limited to) floor areas, plan dimensions, structural system configuration, number of columns or braces, and length of structural wall. For buildings with incomplete drawings, on-site evaluations and estimated floor areas guided the estimation of structural component quantities. The consultant team used drawings and descriptions of the conceptual retrofit schemes to determine changes in quantities of structural components for the baseline retrofit and full renovation risk models.

The consultant team developed inventories of nonstructural components using existing building drawings and normative quantities from FEMA P-58. Normative quantities are estimates of the quantities of nonstructural components and contents likely to be present in a building of a specific occupancy on a gross square foot basis (FEMA 2012b). FEMA developed normative quantities for different occupancies (e.g., commercial office, healthcare, residential, retail) based on surveys of various construction types, occupancy types, and floor areas. For this study, the commercial office occupancy was judged to be most similar to a typical court building; therefore, normative quantities for commercial office were used to estimate quantities of most nonstructural components. Table 8 documents the quantities of nonstructural components included in each of the three seismic risk models developed for each court building.

Table 8. Quantities of Nonstructural Components Included in Each Seismic Risk Model (Normative quantities for commercial office are assumed.)

Component	Existing Court Building	Baseline and Priority Upgrades Options (Options 1 and 2)	Full Renovation Option (Option 3)
Cladding	Use satellite imagery, drawings, photos, field notes	Use retrofit drawings to determine percentage replaced	Replace 100 percent
Roof tiles	Not included		
Interior partitions	Use 90th percentile normative quantities		
Ceramic wall tiles	Not included		
High end marble or wood panel	Not included		
Ceramic tile floors	Not included		
Vinyl/carpet floor finishes	Use floor areas		
Raised access floors	Not included		
Ceilings	Use 50th percentile normative quantities		
Stairs	Determine from drawings		
Elevators	Determine from drawings		

Component	Existing Court Building	Baseline and Priority Upgrades Options (Options 1 and 2)	Full Renovation Option (Option 3)
Plumbing (pipes and bracing)	Use 50th percentile normative quantities		
Mechanical/HVAC equipment	Use 50th percentile normative quantities		
HVAC ducting	Use 50th percentile normative quantities		
Electrical equipment	Use 50th percentile normative quantities		
Pendant lighting	Use 50th percentile normative quantities (half to pendant lighting)		
Recessed lighting	Use 50th percentile normative quantities (half to recessed lighting)		
Fire sprinkler piping	Determine presence of sprinklers from survey; if fully sprinkled, use 50th percentile normative quantities, otherwise do not include		Use 50th percentile normative quantities
Fire sprinkler drops	Determine presence of sprinklers from survey; if fully sprinkled, use 50th percentile normative quantities, otherwise do not include		Use 50th percentile normative quantities

2. Population Data

To calculate casualty rates from building damage and collapse, population models are required to estimate the number of people in each court building. Peak populations can be used for FEMA P-58 risk assessments, resulting in conservative estimates of casualties. However, peak populations persist within buildings for only short periods of time, with building populations varying drastically due to hourly, daily, and monthly fluctuations. To account for the movement of populations within each building over time, an equivalent continuous occupancy can be calculated to obtain an averaged building population at any given time.

For this study, peak populations are used in the PSRA to obtain an upper bound on the number of casualties at each court building and earthquake intensity level (refer to Section V.E for findings from a sensitivity study in which building populations were changed from peak to ECO). The Judicial Council provided population data for each court building in the form of average total number of daily visitors and staff (excluding judges) from magnetometer data. This includes all visitors, whether they stay for an hour or the entire day, and thus may overestimate the peak population. However, for very busy days (such as Mondays), the peak instantaneous population is higher than other days, and thus may be close to the average total population. In the absence of better data, the average total number of daily visitors and staff is considered to be equivalent to the peak instantaneous population of the building.

3. Building Replacement Values

Replacement values for court buildings are derived from a cost-model database of construction costs for California Superior Court buildings of similar scope and location that were constructed in the past 10 years. This cost-model database was provided by the Judicial Council. Replacement values are in 2018 dollars and exclude costs for demolition, escalation, design and engineering consultant fees, loose furniture, fixtures, and equipment, and construction and owner contingencies. The replacement value of the court building represents the direct financial loss if the structure collapses or is damaged beyond repair, which is assumed to occur if repair costs exceed 40 percent of the replacement value.

F. Vulnerability Data

The likelihood of damage for various components is modeled using fragility functions. A fragility function relates the probability of being in a particular damage state (e.g., aesthetic or life-safety critical) to an engineering demand parameter (EDP) such as interstory drift ratio (IDR) or peak floor acceleration. Certain building components are sensitive to IDR (e.g., interior gypsum partition walls, steel moment frames), while others are sensitive to peak floor acceleration (e.g., suspended ceilings, motor control centers). A sample fragility curve for partial-height gypsum partition walls is shown in Figure 9 as a function of IDR. As illustrated by the colored regions, at increasing levels of drift, the likelihood of being in a more severe damage state increases.

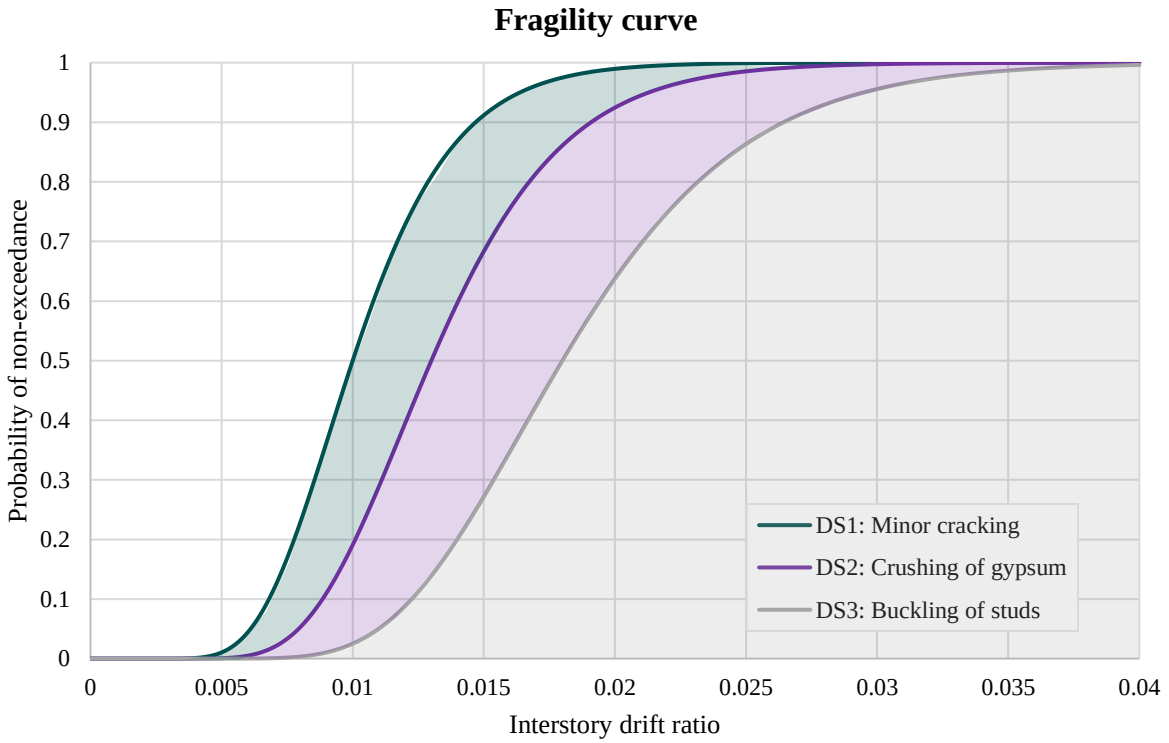

Figure 9. Sample Fragility Function for Partial-Height Gypsum Partition Walls (FEMA 2012b)

FEMA P-58 provides a large library of fragility functions for both structural and nonstructural components. These fragility functions were developed by various researchers, often by compiling data from dynamic or quasi-static testing, or from observations during past earthquakes. In some cases, fragility functions are based on expert opinion.

Table 9 lists the fragility functions chosen for the nonstructural components in each of the three seismic risk models. Refer to Table 8 for the corresponding quantities of nonstructural components in each risk model. In general, nonstructural components in existing court buildings were modeled with fragility functions lacking seismic detailing due to the old ages of the court buildings (all are at least 30 years old). For the baseline retrofit risk models, a limited number of structural and nonstructural components (e.g., cladding, ceilings, stairs, elevators) were replaced per the retrofit drawings, with the fragility functions for these components reflecting new construction with proper seismic detailing. For the full renovation risk model, all nonstructural components were modeled with fragility functions having proper seismic detailing because the building interior is demolished and replaced.

Table 9. Fragility Functions for Nonstructural Components Included in Each Seismic Risk Model

Component	Existing Court Building	Baseline and Priority Upgrades Options (Options 1 and 2)	Full Renovation Option (Option 3)
Cladding	Determine fragility from drawings and satellite imagery	For replacement cladding, use fragility for modern curtain wall, for existing cladding, determine fragility from drawings and satellite imagery	Use fragility for modern curtain wall
Roof tiles	Not included		
Interior partitions	Use fragility for full height partitions (fixed above and below)		
Ceramic wall tiles	Not included		
High end marble or wood panel	Not included		
Ceramic tile floors	Not included		
Vinyl/carpet floor finishes	Use fragility for weakest pipe (per FEMA P-58)		
Raised access floors	Not included		
Ceilings	Use fragility for SDC A/B/C (vertical support only)	Use 25% SDC A/B/C (vertical support only) and 75% SDC D/E (vertical and lateral support)	Use fragility for SDC D/E (vertical and lateral support)
Stairs	Use fragility without seismic joint	If stairs replaced, use fragility with seismic joint, otherwise use fragility without seismic joint	Use fragility with seismic joint

Component	Existing Court Building	Baseline and Priority Upgrades Options (Options 1 and 2)	Full Renovation Option (Option 3)
Elevators	If elevator not modernized, use fragility for pre-1976 installation, otherwise use fragility for post-1976 installation	Use fragility for post-1976 installation	
Plumbing (pipes and bracing)	Use fragility for SDC A/B/C		Use fragility for SDC D/E/F
Mechanical/HVAC equipment	Use fragility for hard anchored or vibration isolated equipment		
HVAC ducting	Use fragility for SDC A/B/C		Use fragility for SDC D/E/F
Electrical equipment	Use fragility for hard anchored or vibration isolated equipment		
Pendant lighting	Use fragility for non-seismic installation		Use fragility for seismically rated installation
Recessed lighting	Use fragility for lighting with independent support wires		
Fire sprinkler piping	If fully sprinkled, use fragility with no bracing	If fully sprinkled, use fragility with designed bracing	Use fragility with designed bracing
Fire sprinkler drops	If fully sprinkled, use fragility for dropping into unbraced lay-in tile	If fully sprinkled, use fragility for dropping into braced lay-in tile	Use fragility for dropping into braced lay-in tile

G. Consequence Data

Consequences associated with component damage or building failure include casualties, repair costs, and downtime. Baseline values for repair costs, repair times, and casualty rates for each damage state for each building component were obtained from the FEMA P-58 database (FEMA 2012b).

1. Repair Costs

FEMA P-58 provides repair procedures and associated repair costs for each damage state of each structural and nonstructural component. FEMA P-58 repair costs are calculated in 2011 dollars, based on Northern California labor rates. To account for inflation and escalation between 2011 and 2018, the consultant team used factors of 1.11 and 1.25, respectively, resulting in a time factor of 1.39 to convert repair costs to 2018 dollars. Labor rates were assumed to be similar between Northern and Southern California. Contents losses (e.g., furniture, computers) were not considered.

For earthquake simulations that result in a total loss, the repair costs are equivalent to the total building replacement value plus demolition costs, which are assumed to be 5 percent

of the total replacement value. Construction of the replacement facility is assumed to take 4 years. A building is considered a total loss and subsequently demolished and replaced if any of the following conditions apply:

- The building has collapsed, either locally or globally.
- The building has significant permanent displacement (i.e., residual drift) after an earthquake. Heavy structures such as concrete are especially vulnerable to demolition due to permanent displacement, whereas lighter structures might be more economical to be put back in plumb. A default demolition fragility curve was developed based on Ramirez and Miranda (2012).
- It is uneconomical to repair. This occurs if the aggregate repair cost exceeds 40 percent of the total building replacement value, as recommended by FEMA P-58.

2. Downtime

Downtime is calculated using the REDi downtime methodology (Arup 2013) with unpublished enhancements used for this study. The REDi methodology uses FEMA P-58 repair times to calculate downtime. Downtime refers to the time required to restore building functionality after an earthquake. Unlike FEMA P-58 repair times, downtime includes potential delays to the initiation of repairs, resulting in a more realistic estimation of duration of loss of functionality.

The first step in calculating downtime involves determining whether the extent and severity of damage to specific components warrants closure of the building (i.e., a yellow or red tag due to a life-safety risk) or renders it unusable (e.g., damage to equipment hinders functionality of lighting or ventilation). This mapping is accomplished through use of repair classes, which determine if a damaged component would hinder reoccupancy or functionality. For each earthquake realization, each building component is assigned a repair class based on the extent and severity of damage and the criticality of the component. Some modifications were made to the default repair class assumptions in Arup (2013) based on improved knowledge. These are summarized in Table 10.

Table 10. Summary of Changes to Repair Class Assignments from Those Published in Arup (2013)

Component	Damage Description	Modified Repair Class	Basis
Anchored equipment	Anchorage failure	Repair Class 1 (hinders full recovery)	Equipment overturning or other falling hazards do not represent a persistent life-safety risk and thus would not likely result in yellow or red-tagging of a building (i.e., it would not trigger Repair Class 3). Any associated casualty rate is explicitly accounted for in the risk assessment.
Anchored equipment	Equipment failure	Repair Class 2 (hinders functional recovery)	
Unanchored equipment	Equipment failure due to overturning	Repair Class 2 (hinders functional recovery)	
Lighting fixtures	Disassembly of rod system at connections, fatigue failure, pullout of rods from ceiling	Repair Class 2 (hinders functional recovery)	

The next step in calculating downtime involves developing repair sequence logic that accounts for delays to the initiation of repairs. These delays, which are referred to as impeding factors, include post-earthquake inspection, financing, engineer mobilization, permitting, and contractor mobilization. These delays can be significant, and for low to moderate amounts of building damage can dominate the overall building downtime. Figure 10 shows the repair sequence logic (including impeding factors) described in Arup (2013).

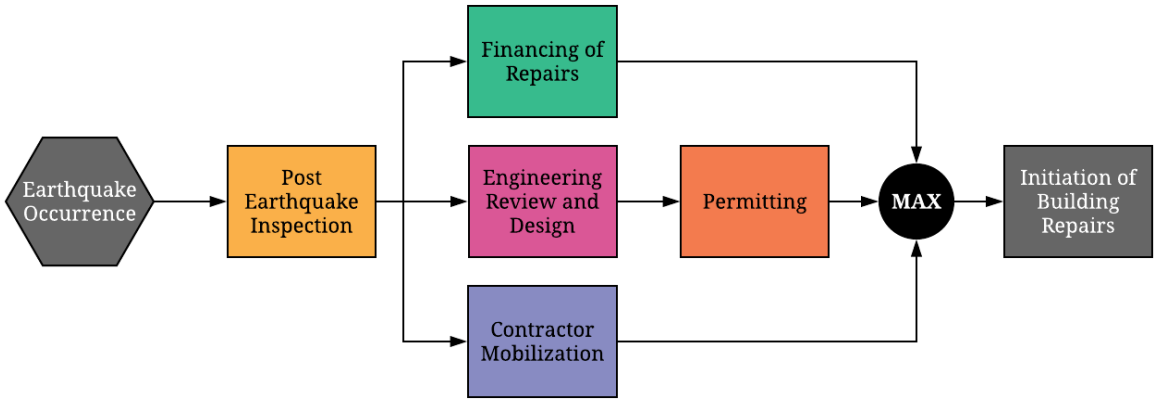

Figure 10. Repair Sequence Logic (Including Impeding Factors) for Calculating Downtime (from Arup 2013)

Table 11 summarizes the values for different impeding factors used in the study. Default values published in Arup (2013) were used for inspection, financing, engineering mobilization, and permitting. In contrast, contractor mobilization was modified to include improved data from previous projects and research efforts, including a survey of contractors and subcontractors to estimate the number of weeks required to procure materials and equipment and mobilize labor for different types of repairs. Contractor

mobilization times also account for the scarcity of contractors in the aftermath of a large earthquake, and for the time required for the bidding and procurement process.

Table 11. Summary of Impeding Factors as a Function of Building Damage

Impeding factor	Component	Delay associated with aesthetic damage	Delay associated with functional or life-safety damage
Inspection	All	5 days	
Financing	All	15 weeks	
Engineering mobilization	Structural	6 weeks	12 weeks
Permitting	All	1 week	8 weeks
Contractor mobilization	Structural	14 weeks	22 weeks
	Architectural	7 weeks	18 weeks
	Exterior cladding	13 weeks	21 weeks
	Mechanical	12 weeks	19 weeks
	Electrical	9 weeks	11 weeks
	Elevators	19 weeks	28 weeks
	Stairs	8 weeks	17 weeks

3. Casualty Rates

Casualty rates (which includes both injuries and fatalities) for damaged structural and nonstructural components (which do not result in building collapse) were taken directly from the FEMA P-58 database. However, casualties tend to be dominated by building collapse as opposed to component-related damage in earthquakes. Thus, an assumption had to be made regarding the casualty rate for collapsed portions of a structure. Because of the heavy nature of most court buildings, a fatality rate of 100 percent was assumed in areas of collapse. Recall that in the event of building collapse, 15 percent of the total building area was assumed to have collapsed (see Section IV.D).

H. PSRA Outputs

The outputs of the PSRA include estimates of casualties, repair costs, and downtime for each court building (including each retrofit and replacement option) at the six earthquake intensities considered in this study. The predicted losses at each intensity can be converted into annualized losses using the annual recurrence of each seismic intensity. Annualized losses represent the anticipated seismic losses in any given year, and typically would not be incurred every year (i.e., in most years, there are no earthquakes and therefore no losses; however, if a significant earthquake occurs, the losses that year will greatly exceed the annualized losses). Over a long period of time, the actual losses incurred would approach the anticipated annualized losses. Though abstract in nature, annualized losses are useful because they capture in a single metric the magnitude of losses across a range of seismic intensities,

thus enabling the risk reduction potential of each retrofit and replacement option to be compared more readily.

Table 12 provides annualized losses for each of the 26 court buildings and the selected retrofit or replacement options. Refer to Section V.B for more information about how annualized losses are computed.

Table 12. Annualized Losses for the Portfolio of 26 Court Buildings

ID	Name	Selected option*	Annualized loss ($thousands)					
			Existing court building			Selected option		
			F†	RC‡	DT**	F†	RC‡	DT**
01-F1	George E. McDonald Hall of Justice	2	2,276	141	112	115	29	73
07-A2	Wakefield Taylor Courthouse	2	3,353	624	430	1,422	184	409
07-F1	George D. Carroll Courthouse	4	9,910	406	383	NS††	86	304
10-A1	Fresno County Courthouse	1	11,405	204	325	4,697	100	281
13-A1	Imperial County Courthouse	4	19,637	1,193	513	NS††	71	238
17-B1	Clearlake Branch Courthouse	4	1,221	29	42	NS††	4	15
19-AD1	Santa Clarita Courthouse	1	2,629	73	161	313	34	137
19-AK1	Norwalk Courthouse	1	8,261	377	767	3,402	194	750
19-AO1	Whittier Courthouse	2	2,495	180	329	280	49	257
19-AP1	Santa Monica Courthouse	1	2,879	134	231	833	37	142
19-AQ1	Beverly Hills Courthouse	5	1,113	162	545	NS††	23	140
19-AX2	Van Nuys Courthouse West	2	9,338	442	880	3,845	202	838
19-G1	Burbank Courthouse	4	2,235	168	217	NS††	30	167
19-H1	Glendale Courthouse	2	3,920	106	224	374	49	159
19-I1	Alhambra Courthouse	1	1,021	136	361	295	77	337
19-J1 J2	Pasadena Courthouse	5	4,755	380	534	NS††	115	454
19-K1	Stanley Mosk Courthouse	1	25,376	676	1,396	NS††	8	32
19-L1	Clara Shortridge Foltz Criminal Justice Center	2	8,104	797	1,853	2,338	342	1,374
19-O1	El Monte Courthouse	4	5,571	289	440	NS††	76	281
19-W2	Pomona Courthouse North	4	5,029	157	203	NS††	35	116
19-X1	West Covina Courthouse	1	5,219	144	374	NS††	31	223
28-B1	Napa Courthouse	4	3,179	194	152	NS††	64	91
30-A1	Central Justice Center	2	17,915	694	1,935	6,780	368	1,505
30-B1	Lamoreaux Justice Center	2	8,483	409	658	3,493	213	571

ID	Name	Selected option*	Annualized loss ($thousands)					
			Existing court building			Selected option		
			F†	RC‡	DT**	F†	RC‡	DT**
30-C1 C2	North Justice Center	1	6,508	329	619	775	122	607
44-A1	Santa Cruz Courthouse	4	5,866	120	188	NS††	31	106

* Option 1: Baseline Retrofit
Option 2: Priority Upgrades Retrofit
Option 3: Full Renovation
Option 4: Replace to 2016 CBC
Option 5: Replace to Beyond Code

† F: annualized loss from fatalities ($thousands), which are based on peak building populations and 90th percentile estimates of fatalities from the seismic risk assessment and, thus, likely represent an upper bound on annual losses from fatalities; refer to Section V.E for findings from a sensitivity study on building populations

‡ RC: annualized loss from repair costs ($thousands)

** DT: annualized loss from downtime ($thousands); For buildings where the selected option is 1, 2, or 3, the primary intent of the retrofit is to reduce the risk of collapse and fatalities. While some reduction in downtime may be expected, the conceptual retrofit scheme does not include specific measures to reduce downtime. Therefore, downtime losses typically do not decrease significantly because of the retrofit.

†† NS: not significant. New replacement buildings (or, in the case of Stanley Mosk, base-isolated retrofits) are expected to have significantly improved seismic safety relative to current existing court buildings; therefore, in this study, fatalities were not modelled

As described in the footnotes to Table 12, annual losses from fatalities are based on peak building populations and 90th percentile estimates of fatalities from the seismic risk assessment, likely resulting in an upper bound on annual losses from fatalities. In contrast, annual losses from repair costs and downtime are based on mean estimates of repair costs and downtime, respectively, which effectively translates into a higher weighting for losses stemming from fatalities. This higher weighting is consistent with the primary focus of the study: improving the seismic safety of the current existing court building. However, it inflates the benefit-cost ratios (BCRs) presented later in this report (refer to Section V) relative to if an equivalent continuous occupancy (ECO) population were assumed for each court building. An ECO population accounts for the fact that the peak population persists for only a short period of time in a building over a typical year, so there is only a small probability that an earthquake would occur when the building is fully occupied. As a result, because the BCRs presented later in this report emphasize fatalities, they should not be considered absolute. Additional limitations in the BCR values are described in Section V.D.

Section V.E presents findings from a sensitivity study of the BCRs to the assumed building population to investigate whether the higher weighting given to fatalities might also change the relative rankings of the BCRs for each of the five retrofit or replacement options considered for each court building. In summary, changing the building population from peak to ECO, which typically reduces the number of fatalities reported by a factor of 4, does not significantly change the relative order of the retrofit and replacement options. While the BCRs were not the only factor in the decision-making process, the sensitivity study demonstrates that changes to the assumed building population do not impact the selected option for each court building.

V. COST-BENEFIT ANALYSIS

This section outlines the cost-benefit analysis performed by the consultant team to evaluate the financial effectiveness of retrofitting or replacing each of the 26 court buildings in this study. Judicial Council Facilities Services staff used results from this analysis to inform decisions about which retrofit or replacement option to pursue for each court building.

In general, cost-benefit analysis involves quantification of the benefits and costs stemming from a particular action — in this study, the retrofit or replacement of a court building. In terms of benefits, the primary consideration is the reduction in seismic risk associated with each retrofit or replacement option. Each option will improve the performance of a court building in future earthquakes to varying degree. The benefits of this improved seismic performance take the form of reduced (or avoided) fatalities, repair costs, and downtime in future earthquakes. The benefit is then compared to cost of retrofitting or replacing the building.

The cost-benefit analysis is based on standard methodologies described in FEMA P-58 (2012b), FEMA P-366 (2017), and FEMA 227 (1991), as well as other recent cost-benefit studies in the published literature (Liel and Deierlein 2013, Welch et al. 2014, Molina Hutt et al. 2015, Sullivan 2016). In overview, the analysis integrates construction cost estimates with results from the probabilistic seismic risk assessment (PSRA; refer to Section IV for additional information) to compute the benefit-cost ratio (BCR) for each retrofit and replacement option and court building. The BCR measures the value of the benefits of an option (in terms of avoided fatalities, repair costs, and downtime in future earthquakes) relative to its initial construction costs and was an important factor in deciding which retrofit or replacement option to pursue.

Section V.A describes how the costs of a retrofit or replacement option are calculated. Section V.B describes how the benefits are calculated. Section V.C describes how the BCR is calculated. Section V.D summarizes important limitations in the cost-benefit analysis. Section V.E provides sample results for the portfolio of 26 court buildings.

A. Calculation of Costs

The consultant team prepared conceptual construction cost assessments for each of the 26 existing court buildings using the proposed scopes of work for seismic upgrades, collateral impacts, fire and life safety and accessibility upgrades, priority upgrades, and other nonstructural upgrades. Where applicable, costs for hazardous materials were also identified based on input from the Judicial Council.

Costs for structural seismic work and code-required upgrades were calculated based on floor plans and narratives describing the conceptual retrofit scheme. The Judicial Council provided specific building system upgrades based on identified deferred facility modification scope items (i.e., priority upgrades). For buildings considered to be a local point of historic interest, a premium was included to cover costs for maintaining or replacing historic elements of the building. None of the buildings is on the federal or state historic buildings register, but several were identified as having features that would be considered historic.

For each court building, cost assessments are provided for the three retrofit options:

- Baseline retrofit (Option 1)
- Priority upgrades retrofit (Option 2)
- Full renovation (Option 3)

For each court building, two cost scenarios were developed for both Options 1 and 2. The first cost scenario assumes **unphased construction**, meaning that construction costs are based on the building being closed and vacated during the retrofit. In this scenario, it is assumed that new commercial building space will be fit out and rented for the duration of construction. The costs assume that an area equivalent to 75 percent of the existing space occupied by the Superior Court would need to be rented.

The second cost scenario assumes **phased construction**, meaning that additional construction costs would be incurred to keep the court building open and operational. These additional costs include premiums for phasing (assuming the work would need to be done in multiple phases either by floors or zones of the buildings), a schedule premium to cover an extended construction duration due to the phasing requirements, and an escalation premium to cover increases in the cost of labor and materials due to the extended time for construction.

Option 3 assumes only unphased construction is possible due to the increased scope of work associated with full renovation (i.e., the court building cannot be occupied during construction).

In addition, two options for replacement of the court building are assumed:

- Replace to 2016 CBC (Option 4)
- Replace to beyond code (Option 5)

For the two replacement building options, floor areas are based on the number of court departments at the existing court building and the median gross area per court department from recently constructed California court buildings. They exclude the floor area currently occupied by agencies other than the Judicial Council. In some cases, this has resulted in a bigger building being required, and in other cases a smaller one. Floor areas were provided to the consulting team by the Judicial Council.

Construction costs for replacement buildings are derived from the Judicial Council cost-model database of construction costs for California Superior Court buildings of similar scope and location constructed in the recent decade. This data was provided to the consulting team by the Judicial Council. A five percent cost premium was assumed for replacing to beyond code (Option 5) based on previous experience of the consultant team. No land costs or demolition costs are considered for the replacement buildings because these costs may not be applicable in all situations. For example, the Judicial Council could obtain land for a new facility from the city or county for free or at a significantly reduced cost. In addition, the

Judicial Council may decide to sell the current existing court building to another entity instead of demolishing it.

All construction cost estimates are provided in current dollars (2018) and market conditions, and exclude costs for future escalation because actual construction start dates have not been established at this time. Other project-related costs such as design and engineering consultant fees, loose furniture, fixtures, and equipment, and construction and owner contingencies have all been excluded. These would need to be considered and factored into overall project budgets by the Judicial Council.

B. Calculation of Benefits

Estimating the benefits of retrofitting or replacing a court building involves a significant amount of uncertainty, as the benefits can accrue over a long period of time in the future, unlike the initial construction costs, which are incurred at the beginning of a project. Furthermore, some benefits are intangible and can be challenging to quantify or measure (e.g., increased productivity or happiness of employees working in a renovated or newly-constructed building). This study focuses on the more tangible and measurable benefits of retrofitting or replacing a court building. The primary benefit is improved seismic performance, which is quantified in terms of reduced (or avoided) fatalities, repair costs, and downtime in future earthquakes. These are standard engineering risk metrics used in FEMA P-58 and previous cost-benefit studies of retrofits.

To calculate the benefits, results from the PSRA are used to compute annualized measures of performance of the existing court building and the five retrofit and replacement options. As described in Section IV, a range of seismic intensities is considered in the PSRA, from rare earthquakes to more frequent ones, which can also generate significant losses. PSRA results from each intensity are used to compute annualized losses for each retrofit and replacement option in terms of fatalities, repair costs, and downtime. Net annual benefits of an option are computed by subtracting the annualized losses for the option from the annualized losses for the current existing court building. Then, net annual benefits are summed over the assumed **asset-life extension** of the option (refer to Table 13 for additional information) and discounted to present value to obtain the net present value of benefits, $NPV_{b,i}$, as shown in Equation 4.

$$NPV_{b,i} = \Delta AAL_i \left[\frac{1 - \frac{1}{(1+r)^{T_i}}}{r} \right] \qquad \text{Equation 4}$$

Where:

$NPV_{b,i}$ = net present value of benefits for Option i, where $i = 1, \ldots, 5$

ΔAAL_i = net annual benefits of Option i

$= AAL_{existing} - AAL_{option\ i}$

$AAL_{existing}$ = annualized losses for current existing court building

$AAL_{option\ i}$ = annualized losses for Option i

T_i = assumed asset-life extension of Option i

r = discount rate, which measures the value of money in the future

The assumed asset-life extension, T_i, is an important variable in the calculation of $NPV_{b,i}$ in Equation 4, as it determines the length of time over which the benefits of retrofit or replacement can accrue. Asset-life extension is the assumed length of time — after a renovation — to the next necessary building-wide renovation or replacement. It is not a prediction of the length of court occupancy in the building (i.e., the court will not abandon or move out of the building at the end of the assumed asset-life extension). Table 13 summarizes the values of asset-life extension assumed for each option. Longer asset-life extension means that the benefits of a retrofit or replacement option have more time to accrue, thus making the option more effective from a financial perspective. The trade-off, however, is that the full renovation and replacement options, which have longer asset-life extensions than the baseline retrofit, often have significantly larger initial construction costs.

Table 13. Assumed Asset-Life Extension for Each Retrofit and Replacement Option

Option	Assumed Asset-Life Extension	Notes
1. Baseline retrofit	15 years	A relatively short asset-life extension is assumed because the baseline retrofit does not address deficient building systems, which are conservatively assumed to have 15 years remaining life. The benefits of the seismic retrofit do not cease after 15 years; however, to continue to occupy the building comfortably, additional investment would be required at that time.
2. Priority upgrades retrofit	25 years	A longer asset-life extension than the baseline retrofit is assumed because deficient building systems are replaced.
3. Full renovation	40 years	A longer asset-life extension than the priority upgrades retrofit is assumed because an entirely new building interior and facade is installed (e.g., all building systems are replaced, a more efficient and secure court layout is implemented).
4. Replace to 2016 CBC	50 years	An asset-life extension consistent with the typical design life for new building is assumed, though buildings can be occupied longer.
5. Replace to beyond code	50 years	An asset-life extension consistent with the typical design life for new building is assumed, though buildings can be occupied longer.

The discount rate, r, is another important variable in determining $NPV_{b,i}$. Because a dollar in the future is not worth the same as a dollar today, the benefits of a retrofit or replacement that accrue in the future need to be converted to present value via the discount rate. Larger discount rate values mean that money today is worth significantly more than money in the future. The federal government requires a discount rate of 7 percent for cost-benefit analysis, which is at the higher end of the range found in the published literature, reflecting the government's tendency to prioritize actions where the benefits accrue quickly (as opposed to 20 years in the future). In previous cost-benefit analyses, the consultant team used discount rates closer to 5 percent. For this study, the Judicial Council Facilities Services selected a value of 6 percent.

Annualized losses for existing court buildings, $AAL_{existing}$, and each retrofit and replacement option, $AAL_{option\ i}$, are calculated by summing the following three quantities: average annualized repair cost, average annualized downtime, and 90th percentile annualized fatalities. Figure 11 shows graphically how the average annualized repair cost is computed, for both an existing court building and the baseline retrofit. The average annualized repair cost for the existing court building is the area under the green curve, which plots the average repair cost as a function of the annual exceedance probability for the six earthquake intensities evaluated (45-year, 100-year, 225-year, 475-year, 975-year, 2,475-year). Average repair cost at each earthquake intensity is obtained from the PSRA (refer to Section IV for more information). Similarly, the average annualized repair cost for the baseline retrofit is the area under the purple curve. The difference between average annualized repair costs for the existing building and the baseline retrofit (i.e., the green shaded area in Figure 11) is the annualized benefit of the baseline retrofit (in terms of repair cost only).

The process for computing the other two annualized performance measures is the same as outlined in the previous paragraph, though for fatalities, 90th percentile values are used instead of average values. The consultant team, with input from Judicial Council Facilities Services staff, decided to use 90th percentile values because the primary goal of the study is to reduce the risk of collapse and loss of life in 26 of the most vulnerable court buildings in California. By using 90th percentile values, fatalities are given higher weighting than repair costs and downtime to emphasize the importance of this performance measure.

Before the three annualized performance measures can be summed to determine the total annualized losses (e.g., $AAL_{existing}$, $AAL_{option\ i}$), the average annualized downtime and 90th percentile annualized fatalities need to be monetized. For downtime, this involves establishing a cost associated with not being able to use a court building after an earthquake. In this study, the cost of downtime is taken as the cost to fit out and rent temporary space. Consequently, if the downtime at a court building exceeds six months after an earthquake, the court must fit out and rent temporary space while building damage is repaired. If downtime is less than six months, it is assumed that the court building can either shift cases to nearby facilities or delay them. Table 14 summarizes the costs of fitting out and renting temporary space.

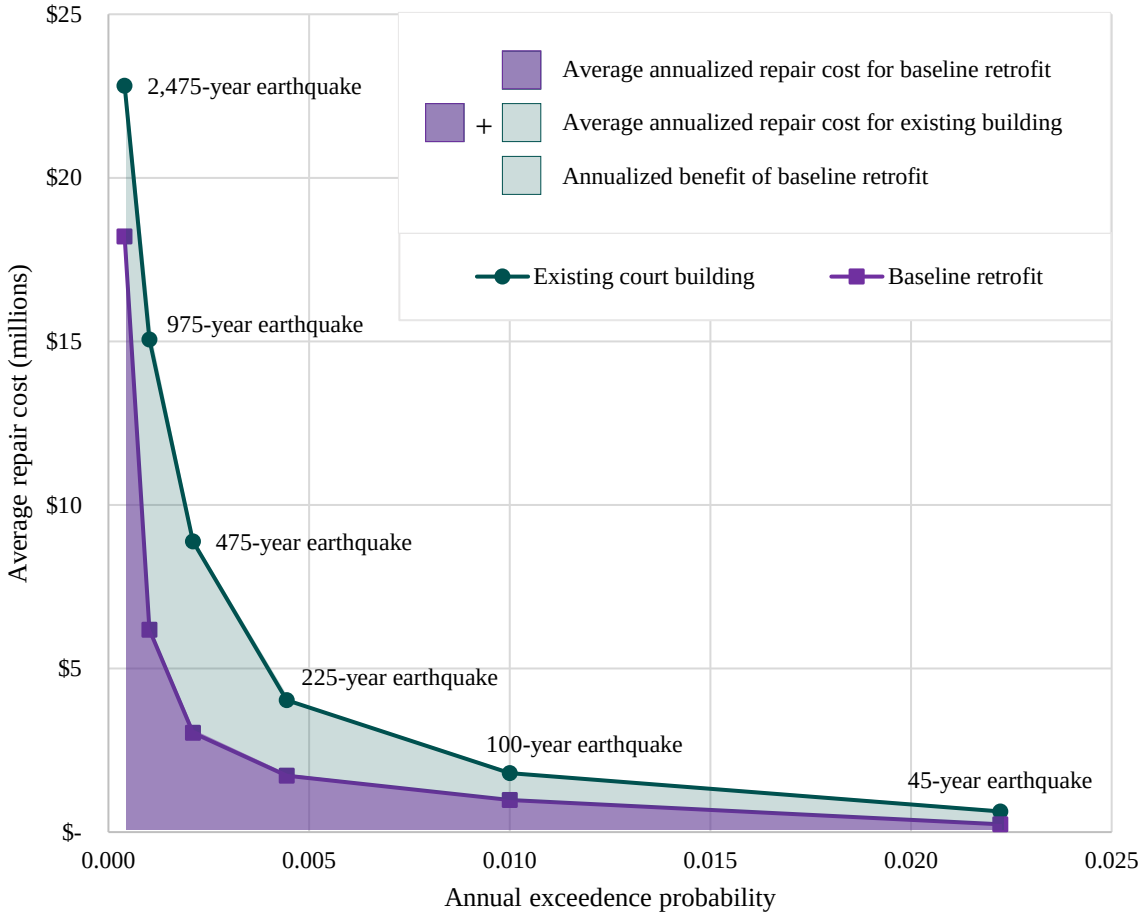

Figure 11. Plot of Average Repair Cost as a Function of the Annual Exceedance Probability for the Six Earthquake Intensities Evaluated

Table 14. Summary of Costs Associated with Fitting Out and Renting Temporary Space

Location	Area rented	Fit out costs	Rental costs (per year)
Urban	75% of current existing court building	$250 per ft^2	$50 per ft^2
Rural	75% of current existing court building	$250 per ft^2	$30 per ft^2

To monetize the cost of fatalities, the value of a statistical life needs to be established. The consultant team reviewed previous cost-benefit studies to determine an appropriate value for this study. Numerous federal agencies, including the Environmental Protection Agency, Department of Agriculture, and Food and Drug Administration, use values between $8 and $10 million (in 2018 dollars). In contrast, academic studies tend to use lower values, typically between $2 and $5 million. In consultation with Judicial Council Facilities Services staff, a value of $9 million was selected for this study.

C. Calculation of Benefit-Cost Ratio

The financial effectiveness of each retrofit and replacement option is evaluated by computing the benefit-cost ratio (BCR) per Equation 5. The BCR measures the value of the benefits of an option (in terms of avoided fatalities, repair costs, and downtime in future earthquakes) relative to its initial construction costs. Values greater than one indicate that the benefits of an option, over the assumed asset-life extension, exceed the initial construction costs. Based on prior experience of the consultant team, it is not uncommon that BCRs for all options remain below one; however, even in this situation, the BCRs are still useful in terms of prioritizing which option makes the most sense to pursue.

$$BCR_i = \frac{NPV_{b,i}}{NPV_{c,i}} \qquad \text{Equation 5}$$

Where:

BCR_i = benefit-cost ratio of Option i

$NPV_{b,i}$ = net present value of benefits for Option i (see Equation 4)

$NPV_{c,i}$ = net present value of costs for Option i
= total initial construction costs for Option i

The BCR is an important consideration in the decision-making process because it incorporates a wide range of factors into a single measure, including the reduction in seismic risks (e.g., fatalities, repair costs, downtime), asset-life extension, and total construction costs. If the retrofit or replacement option with the highest BCR had a value that was significantly larger than the option with the next highest BCR value (the consultant team established 25 percent as the threshold for significantly larger), then it was selected as the option to pursue. The 25 percent threshold was established because the uncertainty in calculating the BCR was such that two values within ± 25 percent of each other could be considered similar.

If the BCRs for each option were similar, then additional metrics were considered in the selection process, including total construction costs, cost per square foot, and the ratio of total construction costs to asset-life extension.

Table 15 compares benefit-cost ratios (BCRs) of the selected retrofit or replacement options across the portfolio of 26 court buildings included in this study. Court buildings are sorted from highest BCR to lowest. Court buildings with the largest BCRs represent the best retrofit or replacement investments, but additional factors (e.g., total construction cost, importance of the existing court building to continuing Superior Court operations) need to be considered in developing judicial branch-wide renovation strategies or priorities. The total construction cost associated with retrofitting or replacing all 26 court buildings is $2.3 billion.

Table 15. Comparison of Construction Costs and Benefit-Cost Ratios for 26 Court Buildings

ID	Name	Court Departments	Selected Option*	Total Construction Cost (millions)	Benefit-Cost Ratio	Asset-Life Extension (years)
13-A1	Imperial County Courthouse	7	4	$48.9	6.78	50
17-B1	Clearlake Branch Courthouse	1	4	$8.0	2.50	50
19-O1	El Monte Courthouse	6	4	$41.0	2.28	50
19-X1	West Covina Courthouse	11	1	$23.6	2.26	15
07-F1	George D. Carroll Courthouse	8	4	$82.2	1.98	50
19-AD1	Santa Clarita Courthouse	3	1	$12.1	1.92	15
44-A1	Santa Cruz Courthouse	7	4	$49.8	1.91	50
19-W2	Pomona Courthouse North	7	4	$47.9	1.72	50
28-B1	Napa Courthouse	4	4	$32.6	1.63	50
01-F1	George E. McDonald Hall of Justice	3	2	$18.4	1.61	25
19-AK1	Norwalk Courthouse	20	1	$45.9	1.07	15
19-H1	Glendale Courthouse	8	2	$44.0	1.07	25
30-A1	Central Justice Center	65	2	$196.5	0.77	25
30-C1 C2	North Justice Center	18	1	$75.4	0.77	15
19-G1	Burbank Courthouse	7	4	$50.4	0.76	50
10-A1	Fresno County Courthouse	28	1	$103.0	0.65	15
30-B1	Lamoreaux Justice Center	29	2	$106.7	0.63	25
19-K1	Stanley Mosk Courthouse	100	1	$461.3	0.58	15
19-AO1	Whittier Courthouse	7	2	$54.3	0.57	25
19-AQ1	Beverly Hills Courthouse	6	5	$47.3	0.55	50
19-J1 J2	Pasadena Courthouse	19	5	$165.3	0.52	50
07-A2	Wakefield Taylor Courthouse	12	2	$64.6	0.47	25
19-AX2	Van Nuys Courthouse West	23	2	$160.4	0.46	25
19-AP1	Santa Monica Courthouse	17	1	$50.5	0.43	15
19-L1	Clara Shortridge Foltz Criminal Justice Center	60	2	$300.2	0.26	25
19-I1	Alhambra Courthouse	9	1	$42.3	0.19	15

* Option 1: Baseline Retrofit
  Option 2: Priority Upgrades Retrofit
  Option 3: Full Renovation
  Option 4: Replace to 2016 CBC
  Option 5: Replace to Beyond Code

As described in the footnotes to Table 12, annual losses from fatalities are based on peak building populations and 90th percentile estimates of fatalities from the seismic risk assessment, likely resulting in an upper bound on annual losses from fatalities. In contrast, annual losses from repair costs and downtime are based on mean estimates of repair costs and downtime, respectively, which effectively translates into a higher weighting for losses stemming from fatalities. This higher weighting is consistent with the primary focus of the study: improving the seismic safety of the current existing court building. However, it inflates the BCRs presented later in Table 15 relative to if an equivalent continuous occupancy (ECO) population were assumed for each court building. An ECO population accounts for the fact that the peak population persists for only a short period of time in a building over a typical year, so there is only a small probability that an earthquake would occur when the building is fully occupied. As a result, because the BCRs presented in Table 15 emphasize fatalities, they should not be considered absolute. Additional limitations in the BCR values are described in Section V.D.

Section V.E presents findings from a sensitivity study of the BCRs to the assumed building population to investigate whether the higher weighting given to fatalities might also change the relative rankings of the BCRs for each of the five retrofit or replacement options considered for each court building. In summary, changing the building population from peak to ECO, which typically reduces the number of fatalities reported by a factor of 4, does not change the relative order of the retrofit and replacement options. While the BCRs were not the only factor in the decision-making process, the sensitivity study demonstrates that changes to the assumed building population do not impact the selected option for each court building.

D. Limitations

The cost-benefit analysis considers a limited set of costs and benefits, as summarized in Table 16.

On the cost side, only hard construction costs and phasing or relocation costs are considered for each retrofit and replacement option. Costs for future escalation, design and engineering consultant fees, loose furniture, fixtures, and equipment, and construction and owner contingencies are not included. For the replacement options, land costs and demolition costs are not included. Refer to Section V.A for additional discussion. In general, inclusion of these costs would make each option more expensive, which, per Equation 5, would reduce its corresponding BCR. While the BCRs of all retrofit and replacement options would decrease, the relative change among the options for an individual court building is more difficult to predict.

Table 16. Summary of Costs and Benefits Included in Cost-Benefit Analysis

Item	Included in cost-benefit analysis					Notes
	Retrofit or replacement option					
	1	2	3	4	5	
Costs						
Hard construction costs	Yes	Yes	Yes	Yes	Yes	Includes costs of site preparation, design contingencies, and labor and material required for repair or construction of substructure, shell, interiors, and building services (as applicable). For Options 1 and 2, the costs of upgrades to accessibility and fire and life safety systems were explicitly calculated. For Options 3-5, compliance with current accessibility and fire and life safety requirements is assumed as part of the construction work.
Temporary relocation costs	Yes	Yes	Yes	N/A	N/A	For Options 1-3 (unphased), includes fit out and rental costs required to relocate court staff and functions to temporary space for the duration of the retrofit. For Options 4-5, temporary relocation costs are not applicable because it is assumed court staff and functions can remain in the existing court building while the new one is constructed in a nearby location.
Construction phasing costs	Yes	Yes	No	N/A	N/A	For Options 1 and 2 (phased), includes costs for phasing the construction work by zones or floors to keep the court building open during the retrofit. For Option 3, construction phasing costs were not included because phasing was assumed to be impractical due to disruptiveness of the construction work.
Demolition costs	N/A	N/A	N/A	No	No	For Options 4 and 5, does not include costs of demolishing current existing building. For Options 1-3, demolition costs are not applicable.
Land costs	N/A	N/A	N/A	No	No	For Options 4 and 5, does not include costs of acquiring land for new court building. For Options 1-3, demolition costs are not applicable.
Escalation costs	No	No	No	No	No	Does not include escalation in construction costs from the time of this study to the actual start of a retrofit or replacement project.
Design and engineering consultant fees	No	No	No	No	No	Does not include consultant fees for further engineering analyses or detailed design services prior to retrofit or replacement of a court building.
Construction and owner contingencies	No	No	No	No	No	
Loose furniture, fixtures, and equipment	No	No	No	No	No	

Item	Included in cost-benefit analysis					Notes
	Retrofit or replacement option					
	1	2	3	4	5	
Benefits						
Avoided injuries in future earthquakes	No	No	No	No	No	Does not include the benefit of avoided injuries due to incomplete data on the financial cost of injuries.
Avoided fatalities in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes the benefit of avoided fatalities. Fatalities were calculated using peak instantaneous building populations, which were derived from magnetometer counts for each court building, and 90th percentile estimates of fatalities from the seismic risk assessment. The value of a statistical life (i.e., cost of a fatality) was selected to be $9 million for this study. Refer to Section V.B for further discussion.
Avoided repair costs in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes costs to repair damage to major structural and nonstructural components. Does not include losses from damage to building contents (e.g., furniture, computers).
Avoided downtime in future earthquakes	Yes	Yes	Yes	Yes	Yes	Includes cost to fit out and rent temporary space for the duration of repair work after an earthquake. Does not include indirect costs from protracted downtime (e.g., increased backlog of court cases, employee attrition)
Improved energy efficiency	No	No	No	No	No	Does not include the benefit of improved energy efficiency from replacing existing mechanical and electrical equipment.
Improved accessibility	No	No	No	No	No	
Improved fire and life safety	No	No	No	No	No	
Improved functionality	No	No	No	No	No	Does not include the benefit of improved functionality from construction work, including possible improvements to daylighting, security, and building layout.
Asset-life extension						
Minimum asset-life extension (years)	15	25	40	50	50	Asset-life extension refers to the assumed life time of a building before further necessary building-wide renovation or replacement is required. It is the length of time over which the benefits (above) are assumed to accrue. It is not a prediction of the length of actual court occupancy in a particular building. Refer to Section V.B for further discussion.

On the benefit side, only repair costs, fatalities, and downtime stemming from structural and nonstructural damage are considered when determining the benefits of each retrofit and replacement option. Losses from damage to building contents are not included; neither are indirect costs stemming from protracted downtime (e.g., increased backlog of court cases, employee attrition). In addition, energy savings from a new facade or HVAC equipment are not included. These benefits, some of which are difficult to quantify, would generally increase the BCRs, making each option more attractive. While the BCRs of all options would increase, the relative change among the options for an individual court building is more difficult to predict.

E. Sensitivity Studies

Many of the inputs to the cost-benefit analysis carry significant uncertainty that stems from various sources, including incomplete knowledge (e.g., compressive strength of existing concrete) and use of simplistic calculation methods (e.g., simplified structural analysis procedures to compute EDPs; see Section IV.C). As described in Section IV.A, the PSRA, which provides important inputs to the cost-benefit analysis, explicitly accounts for uncertainty through Monte Carlo analysis, a process in which hundreds to thousands of simulations are performed to determine the range of possible outcomes after an earthquake scenario.

Subsequently, the cost-benefit analysis accounts for uncertainty indirectly via the inputs it obtains from the PSRA, including estimates of fatalities, repair costs, and downtime. While sensitivity studies were not performed for each major input to the cost-benefit analysis, the consultant team explored the impact of a particularly important parameter — building population — on the relative order of BCRs for each court building. Towards this end, the consultant team reran both the PSRA and cost-benefit analysis using ECO rather than peak building populations to study whether the relative order of the BCRs for the five retrofit and replacement options changed for any of the 26 court buildings.

As discussed in Section V.C, using peak building populations inflates the BCRs for all options, meaning the values presented in Table 15 should not be considered absolute. More important, however, is the relative order of the BCRs for each retrofit and replacement option, as that is what informed the final decision-making process for each court building (though other factors were considered). Therefore, the sensitivity study investigates whether using ECO populations, which more accurately reflect the building population over the course of a typical year, would significantly change the relative order of the BCRs.

Table 17 summarizes findings from the sensitivity study. It shows the changes, if any, to the options with the highest BCR using peak and ECO populations. For most court buildings, the option with the highest BCR does not change after adjusting the building population. For five court buildings, however, the option does change. For these buildings, the closeness parameter reported in the last column of Table 17 measures the percent difference between the option with the highest BCR using peak populations and the option with the highest BCR

using ECO populations. Values within 25% are considered to be similar due to the significant uncertainties associated with calculating the BCRs.

For example, for the North Justice Center, the option with the highest BCR using peak populations is Option 1, while the option with the highest BCR using ECO populations is Option 4/5 (for the purposes of the sensitivity study, the two replacement options were considered interchangeable). While the option with the highest BCR changed, the BCR for Option 1 using ECO populations is within 14% of Option 4/5, which has the highest BCR. Consequently, the resulting change is not considered significant because both BCRs are with 25 percent.

As Table 17 shows, even for court buildings where the option with the highest BCR changes, the two options are still within 25 percent of each other. Consequently, changing the building populations does not significantly alter the relative ranking of the BCRs for each court building. While the BCRs were not the only factor in the decision-making process, the sensitivity study demonstrates that changes to the assumed building population do not impact the selected option for each court building.

Table 17. Summary of Findings from Sensitivity Study of Building Populations

ID	Name	Option w highest BCR (peak populations)*	Option w highest BCR (ECO populations)*	Closeness†
01-F1	George E. McDonald Hall of Justice	2	2	match
07-A2	Wakefield Taylor Courthouse	4/5	4/5	match
07-F1	George D. Carroll Courthouse	4/5	4/5	match
10-A1	Fresno County Courthouse	3	4/5	1%
13-A1	Imperial County Courthouse	4/5	4/5	match
17-B1	Clearlake Branch Courthouse	4/5	4/5	match
19-AD1	Santa Clarita Courthouse	1	4/5	4%
19-AK1	Norwalk Courthouse	1	1	match
19-AO1	Whittier Courthouse	4/5	4/5	match
19-AP1	Santa Monica Courthouse	1	1	match
19-AQ1	Beverly Hills Courthouse	4/5	4/5	match
19-AX2	Van Nuys Courthouse West	4/5	4/5	match
19-G1	Burbank Courthouse	4/5	4/5	match
19-H1	Glendale Courthouse	2	2	match
19-I1	Alhambra Courthouse	4/5	4/5	match
19-J1 J2	Pasadena Courthouse	4/5	4/5	match
19-K1	Stanley Mosk Courthouse	1	1	match

ID	Name	Option w highest BCR (peak populations)*	Option w highest BCR (ECO populations)*	Closeness†
19-L1	Clara Shortridge Foltz Criminal Justice Center	4/5	4/5	match
19-O1	El Monte Courthouse	4/5	4/5	match
19-W2	Pomona Courthouse North	1	4/5	3%
19-X1	West Covina Courthouse	1	1	match
28-B1	Napa Courthouse	4/5	4/5	match
30-A1	Central Justice Center	2	2	match
30-B1	Lamoreaux Justice Center	2	4/5	6%
30-C1 C2	North Justice Center	1	4/5	14%
44-A1	Santa Cruz Courthouse	3	3	match

* Option 1: Baseline Retrofit
Option 2: Priority Upgrades Retrofit
Option 3: Full Renovation
Option 4/5: Replacement (for the purposes of the sensitivity study, the two replacement options were considered interchangeable)

† Closeness measures the percent difference between the option with the highest BCR using peak populations and the option with the highest BCR using ECO populations, with values within 25% considered to be similar due to uncertainty in calculating the BCRs. For example, for the North Justice Center, the option with the highest BCR using peak populations is Option 1, while the option with the highest BCR using ECO populations is Option 4/5. However, the BCR for Option 1 using ECO populations is within 14% of Option 4/5, which has the highest BCR. Consequently, the closeness is reported as 14%.

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APPENDIX A. ABBREVIATIONS AND GLOSSARY

A. Abbreviations

ASCE	American Society of Civil Engineers
BCR	benefit-cost ratio
BPOE	basic performance objective for existing buildings
CBC	California Building Code
CBSC	California Building Standards Commission
CEBC	California Existing Building Code
EDP	engineering demand parameters
FEMA	Federal Emergency Management Agency
IDR	interstory drift ratio
PSRA	probabilistic seismic risk assessment
R+C	Rutherford + Chekene
REDi	Resilience-based Earthquake Design Initiative
SRR	seismic risk rating
UHS	uniform hazard spectrum
USGS	United States Geological Survey

B. Glossary

Asset-life extension – For a given retrofit or replacement option, the assumed life time of a building before further necessary building-wide renovation or replacement renovation is required. This is used to calculate total benefit. Asset-life extension is not a prediction of the length of actual court occupancy in a particular building.

Authority having jurisdiction – An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure (NFPA 2014).

Baseline retrofit option (Option 1) – A retrofit option that represents the minimum level of effort and expenditure to mitigate the seismic risk at a court building, including seismic upgrades to structural and nonstructural components (e.g., stairs, elevators, ceilings, lights, partitions) to achieve Risk Level IV performance (i.e., ASCE 41-13 BPOE for Risk Category II structures), nonstructural repairs made necessary by the retrofit, and triggered upgrades to accessibility and fire and life safety systems.

BSE-1E – Basic safety earthquake-1 for use with the BPOE, taken as a seismic hazard with a 20% probability of exceedance in 50 years, but not greater than the BSE-1N, at a site.

BSE-1N – Basic safety earthquake-1 for use with the basic performance objective equivalent to new building standards (BPON), taken as two-thirds of the BSE-2N at a site.

BSE-2E – Basic safety earthquake-2 for use with the BPOE, taken as a seismic hazard with a 5% probability of exceedance in 50 years, but not greater than the BSE-2N, at a site.

BSE-2N – Basic safety earthquake-2 for use with the BPON, taken as the ground shaking based on the Risk-Targeted Maximum Considered Earthquake (MCE_R) per ASCE 7-10 at a site.

Building segment – A portion of a building that may respond independently of other sections in an earthquake. Building segments can have very different properties (e.g., construction material and number of floors), and can be built at different times. However, from an operational perspective, they typically function together as a single facility.

Building type – A classification that groups buildings with common seismic-force-resisting systems and performance characteristics in past earthquakes. The building types relevant to the 26 court buildings in this study include those listed in the table below (ASCE 2003):

Type	Description
C1	Concrete moment frames
C2	Concrete shear walls with stiff diaphragms
C2A	Concrete shear walls with flexible diaphragms
PC1A	Precast/tilt-up concrete shear walls with stiff diaphragms
RM1	Reinforced masonry bearing walls with flexible diaphragms
RM2	Reinforced masonry bearing walls with stiff diaphragms
S1	Steel moment frames with stiff diaphragms
S2	Steel braced frames with stiff diaphragms
S4	Steel frames with concrete shear walls
URM	Unreinforced masonry bearing walls with flexible diaphragms

California Building Code (CBC) – The set of regulations in California that governs how new buildings are designed and constructed.

California Existing Building Code (CEBC) – The set of regulations in California that governs how existing buildings are repaired, altered, or expanded.

Collapse prevention performance – A post-earthquake damage state in which a building is on the verge of partial or total collapse. Substantial damage to the structure has occurred, potentially including significant degradation in the stiffness and strength of the lateral-force-resisting system, large permanent lateral deformation of the structure, and—to a more limited extent—degradation in vertical-load-carrying capacity. However, all significant components of the gravity-load-resisting system must continue to carry their gravity loads. Significant risk of injury caused by falling hazards from structural debris might exist. The structure might not be

technically practical to repair and is not safe for re-occupancy because aftershock activity could induce collapse.

Collapse probability – The likelihood that a building will either partially or totally collapse in an earthquake. FEMA P-154 (2015) defines *collapse* as when the gravity load carrying system in part or all of the building loses the ability to carry the weight.

Collateral impacts – Repair work to nonstructural components (e.g., walls, ceilings, lighting, carpeting) made necessary by the seismic retrofit.

Design basis earthquake – A level of ground shaking defined in the design standards for new buildings (e.g., ASCE 7). For California, this has a return period of between 200 and 800 years.

FEMA P-58 risk assessments – A standard engineering method for quantifying the seismic performance of a building in terms of casualties, repair costs, and repair time.

Full renovation option (Option 3) – A retrofit option that includes the same seismic upgrades to structural components as the baseline retrofit option, plus full demolition and replacement of the interior down to the structural skeleton and removal of the exterior wall and roof cladding. The budget for the nonstructural components is based unit costs per square foot, and no design was performed as part of this study.

Life safety performance – A post-earthquake damage state in which significant damage to a building has occurred but some margin against either partial or total structural collapse remains. Some structural components are severely damaged, but this damage has not resulted in large falling debris hazards, either inside or outside the building. Injuries might occur during the earthquake; however, the overall risk of life-threatening injury from structural damage is expected to be low. It should be possible to repair the structure; however, for economic reasons, this repair might not be practical. Although the damaged structure is not an imminent collapse risk, it would be prudent to implement structural repairs or install temporary bracing before re-occupancy.

Nonstructural components – Architectural, mechanical, and electrical components of a building permanently installed in or integral to a building system.

Phased construction – A scenario in which the court building would be kept open and operational during the retrofit, requiring the work would need to be done in multiple phases either by floors or zones of the buildings.

Priority upgrades – A list of approved, unfunded facility modifications at a court building. Priority upgrades do not include all possible maintenance needs at a court building.

Priority upgrades retrofit option (Option 2) – A retrofit option that includes the same upgrades as the baseline retrofit option, plus any priority upgrades. This retrofit option was included in the study because seismic retrofits often provide an opportunity to upgrade outdated or deficient building systems (which would normally be highly disruptive) at relatively little additional cost

Replace to 2016 CBC option (Option 4) – A replacement option that involves replacing an existing court building with a new facility that satisfies Risk Category III requirements of the 2016 California Building Code (CBC). Risk Category III refers to "buildings and structures that could pose a substantial risk to human life in case of damage or failure," including those with a potential to cause "a substantial economic impact and/or mass disruption of day-to-day civilian life" (ASCE 2013). California Superior Court buildings are classified as Risk Category III because of the consistent large density of occupants in these public buildings.

Replace to beyond code option (Option 5) – A replacement option that involves replacing an existing court building with a new facility that goes beyond the minimum requirements of the 2016 CBC to achieve more resilient seismic performance (e.g., reduced damage, repair costs, and downtime).

Seismic risk rating (SRR) – A ranking based on the relative probability of collapse in a seismic event as estimated by a Hazus model of the building, which considers the structural capacity of the building, site-specific seismic hazard, and structural characteristics that influence the capacity or response to earthquakes. Court buildings with SRRs exceeding 10 are classified as Very High Risk, while those with SRRs between 2 and 10 are classified as High Risk.

Structural components – Components of a building that provide gravity- or lateral-load resistance as part of a continuous load path to the foundation, including beams, columns, slabs, braces, walls, wall piers, coupling beams, and connections.

Supplemental ASCE 41-13 Tier 1 seismic assessment – A standard ASCE 41-13 Tier 1 seismic evaluation involves completing checklists of evaluation statements to identify seismic deficiencies in a building based on performance of similar buildings in past earthquakes. It does not require checking the adequacy of supporting elements in the load path once the deficient components have been retrofitted, or checking the performance of the entire seismic-force-resisting system. Both checks were included in the supplemental seismic evaluations performed by the consultant team.

Unphased construction – A scenario in which the court building is closed and vacated during construction, requiring court staff and functions to be relocated to a temporary facility.

APPENDIX B. R+C PEER REVIEW LETTER

Appendix B provides a letter from Rutherford + Chekene, structural peer reviewer to the Judicial Council, stating their professional opinion about overall appropriateness or validity of the methodology used for the seismic renovation feasibility study.

7 January 2019

Clifford Ham
Senior Project Manager & Architectural Program Lead
Facilities Services Office
Judicial Council of California
455 Golden Gate Avenue
San Francisco, CA 94102
Clifford.Ham@jud.ca.gov

2018-032S, Task 1

Subject: **CALIFORNIA SUPERIOR COURT BUILDINGS SEISMIC RENOVATION FEASIBILITY STUDIES**
SEISMIC PEER REVIEW FINDINGS

Dear Mr. Ham:

On behalf of the Judicial Council of California, Rutherford and Chekene performed Seismic Peer Review for the Court Renovation Feasibility Studies project. The purpose of this project was to create individual Project Feasibility Reports defining the feasibility, scope and budget for renovation construction to mitigate the seismic safety risks in 26 existing superior court facilities with very high or high seismic risk ratings.

Each study involved developing a conceptual seismic retrofit scheme, determining the collateral impacts and associated construction costs of the retrofit scheme and renovation options, and performing cost-benefit analyses to determine the most appropriate renovation strategy for the subject facility. A total of five retrofit and replacement options were considered for each facility. In addition to a seismic retrofit only project (option 1), additional options were developed that included seismic retrofit with priority building infrastructure and systems upgrades (option 2), seismic retrofit with full building renovation (option 3), building replacement (option 4), and building replacement with enhanced performance (option 5). The consultant team then performed costs-benefit analyses to compare the financial effectiveness of the five retrofit and replacement options for each facility. The benefit-cost ratio was the primary consideration of the Judicial Council Facilities Services staff's decision of which retrofit or replacement option to select.

The goal of the peer review was to advice the Judicial Council Facilities Services on the validity of structural engineering performance criteria for the strategic approaches to building renovation, e.g. Life-Safety, Current Code, Enhanced Performance, and the validity of the structural engineering design concepts proposed by Consultant for the building renovations.

This letter summarizes our findings related to the methodology used to develop the retrofit concepts and calculate Benefit-Cost Ratios for the various options considered for each facility, and our findings regarding the validity of the engineering design concept for the building renovation/ retrofit to meet the intended seismic performance level.

FINDINGS

1. The project used the ASCE 41-13 Basic Performance Objective for Existing Buildings for Risk Category II buildings as the Structural Design Criteria for evaluation and retrofit design.

This seismic performance objective is considered equivalent to (and therefore achieves) Risk Level IV performance, which is the minimum performance level required by the Judicial Council of California for the seismic retrofit of court buildings and meets the minimum requirements of the 2016 California Existing Building Code (CEBC) for State Owned Buildings, as stated in Table 317.5 of CEBC - California Code of Regulations – Title 24, Part 10.

2. The consultant team used the ASCE 41-13 Tier 1 Screening procedure and the most recent seismic hazard information for California, supplemented with numerical checks of the adequacy of the load path and seismic force-resisting system to evaluate each building. Based on the deficiencies identified by this seismic evaluation, the consultant team developed a conceptual retrofit scheme to mitigate each deficiency.

3. The scope of architectural impacts and triggered improvements is extensive, and constitutes a significant portion of the retrofit costs.

4. The seismic retrofit drawings incorporate standard structural details, typically taken from the FEMA document "*Techniques for the Seismic Rehabilitation of Existing Buildings*", FEMA 547. Though these details may not reflect the actual construction of the court building and are not developed in enough detail for the purpose of construction, they are typically adequate to convey the intent of the retrofit to the cost estimator.

5. Some of the facilities such as the Central Justice Center (30-A1), the Glendale Courthouse (19-H1), the Imperial County Courthouse (13-A1), the Napa Courthouse (28-B1), and the Wakefield Taylor Courthouse (07-A2) are local points of historic interest, or have historically significant architectural features. Though some attention was given to avoid modification of exterior appearance, interior public space and courtrooms when developing the retrofit concept, it may be expected that the final retrofit design would focus on localizing the retrofit work to the extent possible and would consider additional retrofit schemes to further reduce the impact of the retrofit construction on the historically significant elements.

6. The calculation of seismic benefit-cost ratios is primarily based on the method published in the FEMA document "*Seismic Performance Assessment of Buildings*", FEMA P-58. The method is comprehensive and relatively complex and requires development of many input parameters. The scope of the feasibility studies was limited, requiring determination of many of the parameters more efficiently than recommended by the P-58 methodology, often essentially by engineering judgment. As pointed out in the Detailed Methodology Report, many of the input parameters and resulting output have large uncertainties. Uncertainty is always present in seismic analysis and related calculations, largely due to the uncertainty in the ground motion itself. The methodology used in these reports takes uncertainty into account explicitly, enabling the user to study the potential effects of various uncertainties. Since the methods used for each building and each alternative (and related uncertainties) are consistent throughout the study, the relative values of the results should be sufficiently stable to be used for comparison of various actions.

7. Losses due to casualties are monetized using values common in the industry. However, the number of casualties estimated by the study is exceptionally high. This is due to use of a large occupancy (number of people in the building exposed to damage or collapse), derived from JCC counts of entries into each building. This method, in itself, is susceptible to double counting, but also many studies of the kind use the Equivalent Continuous Occupancy (ECO) which averages occupancy over 24 hour days and 7 day weeks. The ECO is

typically one third of the normal daytime occupancy. In addition, the casualties used to estimate benefit and costs was taken as the 90th percentile of the probabilistic calculation rather than the mean taken for other loss parameters. Studies documented in the Detailed Methodology Report indicate that the assumptions resulting in high casualties and monetized losses have little effect on relative values between options and between buildings and therefore do not invalidate the results of the study.

8. When considering a replacement building as an option, the size and construction cost of each replacement building was provided by the Judicial Council; the gross area is an estimate, subject to change with detailed design, but suitable for these reports. The configuration and structural system of the new building and its site on the other hand were unknown, and detailed loss models could not be developed as a result. Therefore, loss values for the replacement buildings were proportioned using linear scaling factors from losses calculated for the existing building. Although losses from a new building would normally be less than from an existing retrofitted building, it is unclear if all losses have the same proportionality or how variations in the reduced losses could affect the benefits of these options.

9. The benefit-cost ratios calculated in this study are relatively low, often below 1.0. One reason for this result is that there are high costs related to the non-seismic upgrades (e.g. sprinklers, disabled access, mechanical, etc.) required for most of these buildings. The total costs of installation of these systems are included in the "costs" but there are only small seismic-related "benefits;" and therefore the *seismic* cost-benefit ratios are lowered.

To an extent consistent with the scope of our review, our professional opinion is that the retrofit concept presented in this report when further developed into construction documents will be capable of achieving a Risk Level IV and minimum code requirements and is adequate for the purpose of developing conceptual cost estimates used for budget purposes.

We further find that the methodology and assumptions used to calculate cost-benefit ratios for the 5 retrofit and replacement option considered are reasonable and the results properly considered for the purposes of these studies.

SCOPE OF SERVICES

We carried out the Seismic Peer Review in accordance with the agreed upon scope of work, included in our Work Order No. 1035898 with the Judicial Council of California. The scope of our review is summarized below:

- Participated in regular meetings and conference calls between April and November 2018.
- Participated in a series of workshops where design assumptions, retrofit design concepts and benefit-cost ratios were presented and discussed.
- Reviewed submitted information and reports for each building, provided comments, and worked with the consultant team to reach resolution of comments.
- Issued a letter for each building stating our professional opinion about performance criteria for strategic approaches to building renovation/conceptual retrofit design.
- Provided a letter stating our professional opinion about overall appropriateness of the processes used for this project relative to current best engineering practices.

Rutherford + Chekene staff participating in the review were Ayse Celikbas, William Holmes, Afshar Jalalian, and Marko Schotanus.

Please contact us at (415) 568-4400 if you wish to discuss any elements of the review.

Sincerely,

RUTHERFORD + CHEKENE

Afshar Jalalian, S.E.
Executive Principal

cc: Michael Mieler, Rob Smith, Ibrahim Almufti – Arup, San Francisco

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 6 – Quarter 3 Trial Court Facility Modification Reports for FY 2018-19

Summary:
Review and approve Q3 draft report for submission to the Judicial Council.

Supporting Documentation:

- *Quarter 3 Trial Court Facility Modification Report for FY 2018-19*

JUDICIAL COUNCIL OF CALIFORNIA

455 Golden Gate Avenue · San Francisco, California 94102-3688

www.courts.ca.gov

REPORT TO THE JUDICIAL COUNCIL

For business meeting on: May 16, 2019

Title
Court Facilities: Trial Court Facility Modifications Report for Quarter 3 of Fiscal Year 2018–19

Submitted by
Trial Court Facility Modification Advisory Committee
Hon. Donald Cole Byrd, Chair
Hon. William F. Highberger, Vice-chair

Agenda Item Type
Information Only

Date of Report
March 29, 2019

Contact
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Executive Summary

This informational report to the Judicial Council outlines the allocations of facility modification funding made to improve trial court facilities in the third quarter (January through March) of fiscal year 2018–19. To determine allocations, the Trial Court Facility Modification Advisory Committee reviews and approves facility modification requests from across the state in accordance with the council's *Trial Court Facility Modifications Policy.*

Relevant Previous Council Action

This report is submitted quarterly as required by the Judicial Council's *Trial Court Facility Modifications Policy* (see Link A).[1] Most recently, on February 22, 2019, the council received the quarterly report for the second quarter of fiscal year (FY) 2018–19 (see Link B).

Analysis/Rationale

Funding decisions during the third quarter of FY 2018–19 were based on the prioritization and ranking methodologies of the *Trial Court Facility Modifications Policy*. There are six priority

[1] Per this policy, each quarterly report includes a list of all facility modifications funded during the quarter as well as any reallocation of funds between the funding categories (i.e., facility modification priority categories 1–6).

categories of facility modifications: Priority 1, Immediately or Potentially Critical; Priority 2, Necessary, but Not Yet Critical; Priority 3, Needed; Priority 4, Does Not Meet Current Codes or Standards; Priority 5, Beyond Rated Life, but Serviceable; and Priority 6, Hazardous Materials, Managed but Not Abated. The current level of funding allows the Trial Court Facilities Modification Advisory Committee (TCFMAC) to address only the most critically needed Priorities 1 and 2 and some Priority 3 facility modifications statewide.

Facility modification requests are also reviewed and approved in accordance with the Judicial Council's *Court-Funded Facilities Request Policy* (see Link C). This policy presents the procedure and requirements to allow trial courts to make court-funded facilities requests (CFRs). Trial courts may assist with the funding of certain facilities costs (i.e., facility modifications and lease-related costs) by contributing funds toward urgent facilities costs—not including capital-outlay expenses—through allocation reductions from the Trial Court Trust Fund. Allowable facilities costs that a trial court can fund through a CFR include (1) facility modifications as defined in the *Trial Court Facility Modifications Policy*; (2) court operations costs allowable under rule 10.810 of the California Rules of Court, such as equipment, furnishings, interior painting, flooring replacement or repair, furniture repair, and records storage; and (3) lease-related costs, such as lease payments and operating costs, repairs, and modifications authorized by a lease. CFRs are approved by Judicial Council staff, with the following exceptions, which require TCFMAC review and approval: ongoing operational cost increases to the Judicial Council beyond the initial outlay for the project (e.g., additional utility or maintenance costs); staff concerns about whether the CFR meets the policy's criteria or whether the proposed budget is accurate; and appeals of staff determinations.

Fiscal Impact and Policy Implications

During the third quarter of FY 2018–19, the TCFMAC reviewed and approved 263 facility modifications for a total estimated cost of $7.65 million (see Attachment A). Of these, 86 were Priority 1 facility modifications and 177 were Priority 2 facility modifications. The Judicial Council's facility modification program's share of the estimated cost was $5.92 million, with the affected counties responsible for the balance. Most of these facility modifications involved elevator, roofing, plumbing, heating, ventilation, and air conditioning repairs or replacements.

In addition, council staff approved and the TCFMAC reviewed 17 CFRs in the third quarter of FY 2018–19 (see Attachment B).

Completed project spotlights

Below are examples of facility modification projects completed during this quarter.

Priority 2: HVAC Cooling Tower Replacement, Bellflower Courthouse, Los Angeles County

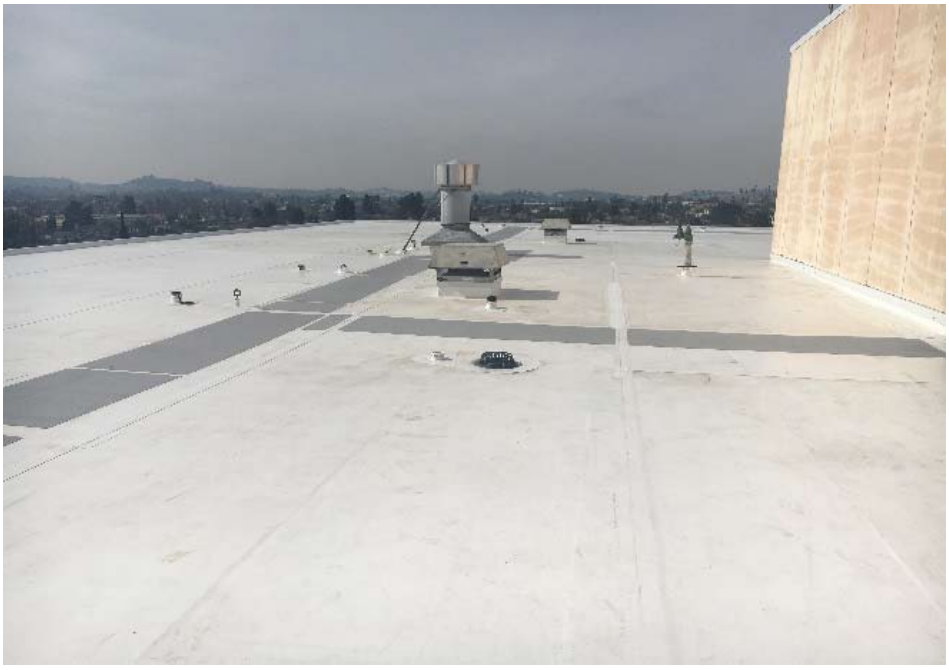
- Replacement of (2) failing cooling towers and installation of a new centrifugal separator. The final project cost was $329,794.80. (FM-0061667)

Above: Existing failing cooling tower
Below: Newly replaced cooling tower

Priority 2: Roof replacement, Alhambra Courthouse, Los Angeles County

- Removal of the existing roofing and replacement with Class-A fire rated, 80 mil, PVC single-ply membrane over new insulation. The final project cost was $897,702. (FM-0053003)

Above: Old roof of Alhambra Courthouse
Below: Replaced roof with Class-A fire rated, 80 mil, PVC single-ply membrane



Attachments and Links

1. Attachment A: TCFMAC-Funded Project List: Quarter 3, Fiscal Year 2018–19
2. Attachment B: Court-Funded Facilities Requests (CFRs): Quarter 3, Fiscal Year 2018–19
3. Link A: *Trial Court Facility Modifications Policy* (rev. Feb. 13, 2019), *www.courts.ca.gov/documents/eandp-20190213-mm.pdf*
4. Link B: *Court Facilities: Trial Court Facility Modifications Report for Quarter 2 of Fiscal Year 2018–19* (February 22, 2019), *https://jcc.legistar.com/View.ashx?M=F&ID=6613667&GUID=2BEDCB08-CC49-407B-A30B-9058A5C6FC57*
5. Link C: *Court Facilities: Court-Funded Facilities Request Policy* (Aug. 26, 2016), *https://jcc.legistar.com/View.ashx?M=F&ID=4625695&GUID=15BB7747-C300-48DA-AA81-5546168A1991*

#	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE % OF COST
1	FM-0059159	Los Angeles	Bellflower Courthouse	19-AL1	1	Plumbing - Replace 3 leaking pneumatic hot water valves & (3) damanged 2' x 4' ceiling tiles. Work performed in ACM known environment.	$ 24,856	$ 19,373	77.94
2	FM-0059338	Los Angeles	Bellflower Courthouse	19-AL1	1	Plumbing - Replace failed 1/2" gate valve. Gate valve leaked, saturating a 2'x1' ceiling tile causing it to fall and land on a court visitor head. Work performed in known ACM Environment.	$ 24,186	$ 18,851	77.94
3	FM-0059639	Los Angeles	Norwalk Courthouse	19-AK1	1	Plumbing - 1st floor Public Defenders restroom toilet backed-up and overflowed. Category 3 sewage water flooded the office area and penetrated down into the basement filing room. Extracted approx. 2,000 sq. ft of waste water, PD Office set up (3) 6 x 10 and (1) 20 x10 critical barriers, basement filing room set up (3) 36 x 39 and (1) 20 x20 critical barriers and a 20 x20 clean room. Executed remediation, ACM enviroment	$ 110,575	$ 94,022	85.03
4	FM-0060199	Los Angeles	Pasadena Courthouse	19-J1	1	Plumbing- Ran Cable through 4 inch sewer clean out approximately 150 feet to clear stoppage. Remediation was performed on category 3 water. Containment was set up in employee restroom and storage rooms to isolate drying equipment. Mens toilet stopped up and 50 gallons of category 3 water had to be extracted. All areas have been cleared for re-occupancy.	$ 30,462	$ 21,125	69.35
5	FM-0062691	San Diego	New Central San Diego Courthouse	37-L1	1	Plumbing - Chambers 1669 replaced 25 sq ft affected drywall, 18 sq ft insulation, and 24 ln ft cove base). Room 1668 replaced 16 sq ft affected insulation, 16 sq ft dry wall, and 15 LN ft cove base. Remediation and environmental testing. Chambers 1669 restroom toilet flapper was stuck open, causing toilet to continuously run clean water down and overflowing the bowl; flooding Chambers 1669. Water ran down the west wall impacting adjacent spaces: 16th floor rooms: 1688, 1689, 1691, and 5 floors below rooms 1579, 1468, 1368, 1269, 1169.	$ 48,491	$ 48,491	100
6	FM-0062719	Santa Clara	Morgan Hill Courthouse	43-N1	1	Elevators, Escalators & Hoists – replace failed load sensor that caused after-hour elevator entrapment and perform required testing to confirm correct operation of elevator #4.	$ 3,104	$ 3,104	100
7	FM-0062947	Los Angeles	Edmund D. Edelman Children's Court	19-Q1	1	Fire protection - Install (1) 6" bally band, 4" sprinkler line is cracked and leaking. Erected (1) 4'x 8' moisture barrier. Dry affected area, 4' x 4' area of hard ceiling.	$ 16,823	$ 11,774	69.99
8	FM-0063007	Los Angeles	Stanley Mosk Courthouse	19-K1	1	Plumbing – Leak from 3rd floor men's public restroom impacted secured hallway, public hallway, escalator pits, 2nd floor room 203, and 1st floor room 105B. 215 sq. ft. of 1 ft. X 1 ft. ACM floor tiles on 3rd floor removed and remediated. Removed/Reinstalled (14) 2 ft. X 2 ft. carpet squares in room 105. Remediation competed under environmental protocol. Source flush valve tailpiece replaced.	$ 92,500	$ 89,966	97.26
9	FM-0063010	San Diego	North County Regional Center - North	37-F2	1	Plumbing - Water intrusion between chambers due to faulty angle stop on commode. Replaced angle stop, set up 207sq ft containment, performed environmental testing, remediation, and demo of affected drywall, studs, insulation, flooring and two (2) wood vanities due to water saturation and mold. Rebuilt 100 sq. ft of drywall, replaced approx. 10 sq. ft of vinyl floor, 120 sq. ft carpet and padding, cove base, vanity cabinets and countertops necessary to return chambers back to normal use.	$ 66,000	$ 66,000	100
10	FM-0063012	Los Angeles	Pasadena Courthouse	19-J1	1	Plumbing -Toilet overflowed in 1st floor Lock-up court exclusive space. ABM secured work area and extracted 50 gallons of water from floor. Remediation team erected containment on floor #1 and Basement. Environmentalist submitted statement of work for CAT3 water loss to JCC environmentalist for review and release for re-occupancy.	$ 20,500	$ 20,500	100
11	FM-0063045	Los Angeles	Inglewood Juvenile Court	19-E1	1	Plumbing - Replaced (1) 1-inch isolation valve, and a 10 ft section of 1-inch copper pipe to hot water supply. Erected containment, completed environmental testing, and all work was performed in a know ACM area. Water leaking inside wall of the 1st floor janitors closet.	$ 25,500	$ 20,599	80.78

#	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE % OF COST
12	FM-0063163	Los Angeles	Pasadena Courthouse	19-J1	1	Plumbing - Replace 50 LF of 1" CP one (1) 1" valve, five (5) flush valves, five (5) toilet spuds, and one (1) coupling, build back and paint walls with access door, due to water leak found inside walls damaging walls causing a health and safety issue for inmates in 2 cells on multiple floors underneath each other. Replace broken porcelain sink to adjacent cell located on 6th floor affecting inmate court operations. ACM and LBP testing and clearance included.	$ 17,920	$ 12,428	69.35
13	FM-0063232	Los Angeles	Compton Courthouse	19-AG1	1	HVAC - Replaced (1) 40 HP VFD on 8th floor supply AHU. VFD is not responding, multiple areas have reported no airflow, and temperatures are exeeding 74 degrees.	$ 8,500	$ 5,621	66.13
14	FM-0063233	Los Angeles	Inglewood Juvenile Court	19-E1	1	Plumbing - Replaced (1) 3-ft section of cast iron pipe, (6) 4-inch no hub fittings, (2) 4-inch combys, and snaked out 150-ft of main drain line to clear stoppage. Extracted 1500 gallons of sewage water from mechanical basement, erected (2) containments, conducted category 3 clearance samples, and all work was performed in a know ACM area. Main line stoppage causing 1,500 gallons of water to leak into the Basement Mechanical Room.	$ 20,123	$ 16,255	80.78
15	FM-0063253	Los Angeles	Edmund D. Edelman Children's Court	19-Q1	1	Elevators, Escalators, & Hoists – Replace failed Elevator relay and blown-out fuse. Judge's elevator is not responding to calls. Elevator is out of service with doors stuck in the open position.	$ 2,500	$ 2,500	100
16	FM-0063264	Sonoma	Hall of Justice	49-A1	1	HVAC - Air Quality issues - Deploy fourteen (14) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and seven (7) filters.	$ 57,415	$ 57,415	100
17	FM-0063269	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing- Snaked 175-feet of main sewage drain line in, extracted 150 gallons of sewage water, erected a 50x50 containment, conducted environmental testing. Basement lock-up main line restriction, 15-20 gallons of water coming from floor drains and toilet. Water ran into the hallway affecting multiple areas in lock up.	$ 19,500	$ 12,895	66.13
18	FM-0063278	Los Angeles	Stanley Mosk Courthouse	19-K1	1	Plumbing - Water intrusion impacting 6th floor employee restroom containment required for drying 12x12x8 extraction of 20 Gallons water, installation of dehumidifier and negative air machine. 5th floor employee break room 523 containment required 15x14x10 with decontamination and installation of dehumidifier and negative air machine. Room 523B containment required 7x7x10 installation of dehumidifier and negative air machine. 6th Floor Room 620 Women's Employee Restroom main line backed up due to clog. On site technician cleared blockage and tested for proper function before releasing area.	$ 23,500	$ 22,856	97.26
19	FM-0063286	Sonoma	Main Adult Detention Facility	49-A2	1	HVAC - Air Quality issues - Deploy two (2) Air Scrubbers due to unhealthy air caused by the CAMP fire.	$ 7,560	$ 7,560	100
20	FM-0063287	Sonoma	Empire Annex	49-B1	1	HVAC - Air Quality issues - Deploy five (5) Air Scrubbers due to unhealthy air caused by the CAMP fire.	$ 18,900	$ 18,900	100
21	FM-0063288	Sonoma	3055 Cleveland Avenue	49-B2	1	HVAC - Deploy 13 air scrubbers throughout facility to remediate smoke - Poor air quality causing health/safety issues for public/Court staff due to wildland fires.	$ 54,041	$ 54,041	100
22	FM-0063289	Sonoma	Juvenile Justice Center	49-D2	1	HVAC - Air Quality issues - Deploy one(1) Air Scrubbers due to unhealthy air caused by the CAMP fire.	$ 3,956	$ 3,956	100
23	FM-0063290	Contra Costa	George D. Carroll Courthouse	07-F1	1	HVAC - Air Quality issues - Deploy twenty (20) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and one hundred- two (102) filters.	$ 65,000	$ 65,000	100
24	FM-0063305	Lake	Lakeport Court Facility	17-A3	1	HVAC - Air Quality issues - Deploy four (4) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and twenty one (21) filters.	$ 20,000	$ 20,000	100

#	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE OF PRELIMINARY ESTIMATE	FACILITY MODIFICATION PROGRAM SHARE % OF COST
25	FM-0063310	San Diego	North County Regional Center - North	37-F2	1	Plumbing - remediation and restoration of entire basement level of the Courthouse as a result of a blocked and ruptured sewage line in the parking lot. Sewer water flooded the basement level to approximately 4 to 6 inches. Project includes replacement of all affected doors, drywall, and flooring where applicable. Project also includes removal of contaminated equipment and furniture. Full containment and remediation of the basement is necessary to restore the area for Court use. Costs have been forwarded to Risk Management for Insurance reimbursement and is currently under review.	$ 361,702	$ 361,702	100
26	FM-0063314	Los Angeles	Airport Courthouse	19-AU1	1	Plumbing- Replaced 10-foot section of cast iron pipe, (1) 2" P-trap, (4) 2" no hub couplings, erected (1)19x19 containment, (2) 10x10 containment, and extracted 20 gallons of water. Water leaking from the 1st floor cafeteria down to the Basement room 72, leaking 20 gallons of water on the hard floors and affecting (3) rows of court files. Due to sink draining slowly, plumber snaked out drain causing the 2" p-trap to fail.	$ 28,500	$ 21,993	77.17
27	FM-0063317	Alameda	Hayward Hall of Justice	01-D1	1	HVAC - Air Quality issues - Deploy twenty- five (25) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and one hundred eighty- eight (188) filters.	$ 95,565	$ 84,384	88.3
28	FM-0063325	Los Angeles	Santa Monica Courthouse	19-AP1	1	HVAC- Replace broken regulator and leaking air drier for the pneumatic system, calibrate and set to proper pressure settings. Pneumatic system was lost on all the floors along the south side of the building and making temperature adjustments impossible.	$ 8,481	$ 6,657	78.49
29	FM-0063326	Los Angeles	Downey Courthouse	19-AM1	1	Elevator, Escalators, and Hoists - Replace bad contacts, relay wires, and test due to the Judge's elevator being stuck on the 1st floor and not responding.	$ 4,257	$ 4,257	100
30	FM-0063334	Los Angeles	Santa Monica Courthouse	19-AP1	1	Electrical - Reset high voltage main breaker on the MCC panel. Replaced (1) burned out mag starter and (1) 10 HP motor to supply fan that stopped working due to power outage. The supply fan motor provides comfort cooling and heating to the jury assembly room.	$ 9,570	$ 7,511	78.49
31	FM-0063335	Los Angeles	Beverly Hills Courthouse	19-AQ1	1	Elevator - Replaced (1) controller transformer on Elevator #1 that caused the elevator to stop with the janitorial crew entrapped.	$ 4,305	$ 3,423	79.52
32	FM-0063337	Los Angeles	Burbank Courthouse	19-G1	1	Elevator - Replace water damaged (1) door operator and (3) relays on Custody Elevator #2. Water damage was from roof leak.	$ 15,810	$ 14,349	90.76
33	FM-0063339	San Luis Obispo	Paso Robles Courthouse	40-J1	1	Plumbing - Replace Water heater and related parts. Perform cleanup and repair to surrounding finishes - Water heater burst, water to all chamber restrooms and public restrooms temporarily out of order.	$ 5,700	$ 5,700	100
34	FM-0063342	Alameda	New East County Hall of Justice	01-J1	1	HVAC - Air Quality issues - Deploy twelve (12) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and two hundred (200) filters.	$ 18,172	$ 18,172	100
35	FM-0063344	Los Angeles	Norwalk Courthouse	19-AK1	1	Interior Finishes - Replace (1) 5'x8' ceiling tile has fallen in Dept. N. Set up (1) remediation/enviromental containment (4x4x8h) with single decon chamber. Ceiling tile fell due to seismic activity in area. All work done under ACM envionment.	$ 11,346	$ 9,648	85.03
36	FM-0063346	Los Angeles	Santa Clarita Courthouse	19-AD1	1	County Managed - Plumbing - Replace 4ft of 4inch cast iron drain line. Drain line has crack and spilled sewage in the basement mechanical room.	$ 2,750	$ 2,750	100
37	FM-0063351	Alameda	Fremont Hall of Justice	01-H1	1	HVAC - Air Quality issues - Deploy ten (10) 2000 cfm Air Scrubbers due to unhealthy air caused by the CAMP fire and eighty- eight (88) filters.	$ 14,263	$ 11,325	79.4
38	FM-0063360	Los Angeles	Van Nuys Courthouse East	19-AX1	1	Interior Finishes- Replace approx. 220 sq.ft. of falling and bowing 1'x1' ceiling tiles in Dept C Judge's chambers (Court Exclusive space). Ceiling tiles are loose and bowing due to age & are no longer holding. Work to be performed in known ACM Environment; Environmental testing & Containment.	$ 41,405	$ 41,405	100
39	FM-0063370	Los Angeles	County Records Center	19-AV3	1	County Managed - Plumbing - Flood Clean-up ISD responded to an Emergency call, Fire Sprinkler broke in the 3rd floor at the Archives Building causing water damage. Fire Sprinkler replaced, Water extraction and clearance testing performed.	$ 28,830	$ 28,830	100

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40	FM-0063371	Alameda	Wiley W. Manuel Courthouse	01-B3	1	HVAC - Air Quality issues - Deploy fifteen (15) Air Scrubbers due to unhealthy air caused by the CAMP fire and Three hundred and eight (308) filters.	$ 45,844	$ 45,844	100
41	FM-0063377	Los Angeles	Downey Courthouse	19-AM1	1	Elevator, Escalators, & Hoists - Replace (6) worn elevator cables and (12) wedge shackles on Elevator #1 due to the ropes having rouging, being stretched causing leveling issues and the possibility of damaging the sheave. Industry standards indicate that most elevator wire ropes will last 20 years and since these are 30 years old and rusted, they are deemed unsafe and recommended for replacement.	$ 39,888	$ 33,386	83.7
42	FM-0063378	Alameda	Wiley W. Manuel Courthouse	01-B3	1	HVAC - Remediate water leak; install access panel at enclosed chase; correct failed heating/hot/water pipe unions (4), nipples (8); task requires scaffolding - HVAC water pipe leaked causing damage to area.	$ 22,258	$ 18,652	83.8
43	FM-0063387	Los Angeles	Whittier Courthouse	19-AO1	1	Exterior Shell - Replace 125 feet of failing stucco, cracks in facade, and bottom metal flashing to exterior shell. Clean and apply 80 square feet of liquid epoxy to multiple cracked concrete floor in mechanical penthouse AHU room.	$ 83,100	$ 71,823	86.43
44	FM-0063389	Los Angeles	Stanley Mosk Courthouse	19-K1	1	HVAC - Replace chilled water customized coil due to CFM output. CFM output reading is at 16,027. Building prints indicate that the output should be 27,730 CFM a difference of 11,703 CFM. Replaced filters on AHU S-10 due to initial call of too hot in Dept 1, Room 534. Installed line stop and replaced isolation prior to coil replacement.	$ 99,000	$ 96,287	97.26
45	FM-0063400	Los Angeles	Chatsworth Courthouse	19-AY1	1	Fire Protection - Replace damage air control regulator, reset water flow switch, replace leaking compressor kit, and replace air compressor. Remove and by pass water flow wire connections to remove faults from main fire panel, the pre-action failed and activated the fire alarm which dispatched the fire department.	$ 6,705	$ 5,619	83.8
46	FM-0063406	San Mateo	Northern Branch Courthouse	41-C1	1	HVAC - Correct failed boiler; replace failed boiler vents (4) and (1) failed blower - Air vents failed allowing air into blower causing failure loss of heating to Court space.	$ 7,289	$ 6,065	83.21
47	FM-0063416	Los Angeles	Compton Courthouse	19-AG1	1	HVAC - Replaced flow switch on boiler #3. Flow switch failed on 13th floor Bolier #3, causing 10 gallons of water to leak to 12th floor. Erected containments in affected area, completed build back, and conducted environmental sampling.	$ 16,859	$ 11,149	66.13
48	FM-0063420	Los Angeles	Airport Courthouse	19-AU1	1	Electrical - Replace damaged light contact to restore power to the 1st floor and the entire 3rd floor making the emergency lights illuminate.	$ 5,110	$ 3,943	77.17
49	FM-0063421	Alameda	Fremont Hall of Justice	01-H1	1	Plumbing - Domestic hot water - Replace approximately sixty feet of leaking 3/4" copper and associated fittings and insulation - No hot water anywhere in the building until repairs are made	$ 23,273	$ 18,479	79.4
50	FM-0063424	Los Angeles	Los Padrinos Juvenile Court	19-AI1	1	Interior Finishes - Clerk's Breakroom - Install (1) door barrier (room size 12'x12'), (1) decontamination chamber, & (1) air scrubber. Dept 250 Court Reporters office - Install (1) door barrier (room size 10'x12'), (1) decontamination chamber, & (1) air scrubber. Replace (4) 1ft X 1 ft ceiling tiles, perform environmental testing and clearance due to ceiling tiles falling causing debris in a known environmental area.	$ 5,773	$ 5,773	100
51	FM-0063214	San Diego	East County Regional Center	37-I1	1	Elevators, escalators, & hoists-Replace roller guides, counter weight, and carbon brushes for service elevator #10. Elevator is making loud noises as it travels through the building.	$ 4,654	$ 3,151	67.71
52	FM-0063195	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing-Replace one (1) mop sink faucet. Faulty faucet caused water intrusion. Water leaked to 7th floor, room 756. Containments erected due to wet ceiling tiles. Remediation and environmental oversight required. Occurred after hours.	$ 36,500	$ 24,137	66.13
53	FM-0063203	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing - Hose was left outside of basin in janitor closet on 6th floor. Water ran down to 6th floor, Dept. 9. Dept. 9 has ten (10) 1' x 1' ceiling tiles saturated, six (5) 1' x 1' ceiling tiles have fallen, and 36 SF area of carpet is wet.	$ 20,500	$ -	0
54	FM-0063380	Alameda	Wiley W. Manuel Courthouse	01-B3	1	HVAC - Replace (1) failed chilled water coil in AC2 - difficult location requires crane work - Failure due to End of Life component (original equipment 40+years) causing loss of cooling capacity.	$ 30,057	$ 25,188	83.8

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55	FM-0063436	San Diego	East County Regional Center	37-I1	1	Roof-Replace 30 linear feet of a 4" cracked drain line and 1 defective roof drain. Replace 500 SF of ceiling tile on a 40 foot ceiling, using scaffold. This was discovered when water was leaking in multiple areas on the first floor due to a rainstorm.	$ 64,308	$ 43,543	67.71
56	FM-0063440	San Diego	East County Regional Center	37-I1	1	Elevator, escalators, & hoists - Refurbish generator for elevator #1. Remove generator, take it to shop for refurbishment, and then re-install generator. Elevator is stuck on 1st floor and not responding due to burnt out generator.	$ 15,426	$ 10,445	67.71
57	FM-0063452	San Diego	East County Regional Center	37-I1	1	Elevators, escalators, & hoists-Replace operating computer, 17" monitor, communications cable, software package, and adapter for elevator monitoring for elevators 5 and 6. Existing computer, software package, and monitor failed and cannot be repaired.	$ 2,172	$ 1,471	67.71
58	FM-0063455	Los Angeles	Burbank Courthouse	19-G1	1	Plumbing - Replace damaged float switches and pump out trash/debris. Float switches were damaged by an accumulation of plastic and feminine products in sump causing sewer lines to back up.	$ 3,445	$ 3,127	90.76
59	FM-0063456	Los Angeles	Hollywood Courthouse	19-S1	1	HVAC - Replace (1) damaged control board to package unit #2. Control board shorted causing no airflow to the building causing temperatures to rise to 90 degrees. Court is occupied by Sheriff/Security staff.	$ 6,129	$ 5,583	91.09
60	FM-0063458	Los Angeles	Edmund D. Edelman Children's Court	19-Q1	1	HVAC - Replace one (1) motor, one (1) header, and one (1) relief valve for boiler #2. Boiler pump was leaking due to failed motor.	$ 2,188	$ 1,531	69.99
61	FM-0063459	Los Angeles	East Los Angeles Courthouse	19-V1	1	Roof -Replace four (4) 2' x 2' ceiling tiles in 3rd Floor Dept. 6. Erected (1) containment 4'x 4'x10', in Department 6 impacting court operations. Rain water leaked through the ceiling, affecting a 4' x 4' section of carpet.	$ 7,254	$ 5,638	77.72
62	FM-0063461	San Diego	East County Regional Center	37-I1	1	Elevators, escalators, & hoists-Replace one (1) SSD1 drive and one (1) capacitor for public elevator #3 that failed and caused the elevator to be stuck and not respond.	$ 5,189	$ 3,513	67.71
63	FM-0063474	Monterey	Marina Courthouse	27-B1	1	Plumbing - Clear main sewer line; remediate affected area- Sewer clog caused flooding at Public Restrooms.	$ 3,895	$ 3,895	100
64	FM-0063475	Del Norte	Del Norte County Superior Court	08-A1	1	Roof - Active Leak - Repair damaged gutter sealant (approx. 30 linear feet) and surrounding down spout (1), Repair damage to Ceiling tiles and dry damp carpets in 2 offices.	$ 7,500	$ 4,595	61.27
65	FM-0063476	San Mateo	Traffic/ Small Claims Annex	41-A2	1	Interior Finishes - Remediate rain water intrusion at Courtroom approx. 140 sq. ft. extract water deploy floor fans - Excessive rainfall overnight overwhelmed sump pump and several feet of carpet was affected at emergency exit door.	$ 2,781	$ 2,781	100
66	FM-0063479	Los Angeles	Alfred J. McCourtney Juvenile Justice Center	19-AE1	1	County Managed - Fire Protection - Replace dialer for Fire Panel due to failed Annual Fire Alarm testing/inspection. Dialer is inoperative, therefore does not communicate to monitoring service & fails to clear trouble signals.	$ 4,834	$ 4,834	100
67	FM-0063485	Los Angeles	Bellflower Courthouse	19-AL1	1	HVAC - Replace one (1) 10 house-power supply fan motor, belts, bushings, and all associated hardware for Air Handler Unit #6 on the 3rd floor. Motor seized and supply fan failed to provide heating and cooling to entire floor. Failure due to usage & no Preventive Maintenance program for AHU's.	$ 3,888	$ 3,030	77.94
68	FM-0063487	Los Angeles	Whittier Courthouse	19-AO1	1	Interior Finishes - Water leaked from a cracked 90 degree roof floor sink drain affecting a 30' x 30' area of carpet saturated in 3rd floor self-help office (Court exclusive space). Performed environmental testing, containment, drying, and clearance due to the category 2 water intrusion. Cracked roof floor sink from previous HVAC mechanical equipment, is being re-routed from a sanitary sewer line to the proper storm drain.	$ 29,442	$ 25,447	86.43

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69	FM-0063492	Santa Clara	Hall of Justice (West)	43-A2	1	Plumbing - Replace (1) failed sewer lift pump. Test floats and control panel for proper operation - Sewer lift pump failed (at end of life) causing back-up flooding affecting the courts holding cell capabilities.	$ 30,272	$ 30,272	100
70	FM-0063493	Alameda	Wiley W. Manuel Courthouse	01-B3	1	Vandalism - Remediate overflow toilet water damage at 3rd, 4th & 5th floors; extract water from the carpets; remove ceiling tiles; deploy dehumidification equipment - In-custody clogged toilet and continually flushed causing flood until stopped by Sheriff.	$ 6,974	$ 6,974	100
71	FM-0063498	Butte	Butte County Courthouse	04-A1	1	Fire Protection - Air Quality - Provide (333) N95 respirators for court staff, and (14) air scrubbers for 2 weeks to improve air quality through-out the building, Air sampling services to test air quality.	$ 50,000	$ 50,000	100
72	FM-0063507	Los Angeles	Malibu Courthouse	19-AS1	1	County Managed - Fire Protection - Replacement of leaking fire suppression line and re-energize sump pumps to prevent water from pooling.	$ 5,866	$ 5,866	100
73	FM-0063508	Santa Clara	Historic Courthouse	43-B2	1	HVAC - Correct failed building exhaust fan; remove overhead fan blower, replace (2) failed bearings (emergency repair); inspect fan blower shaft; test operation - Currently affecting the courts HVAC air conditioning system and affecting the building air balance.	$ 4,436	$ 4,436	100
74	FM-0063511	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	1	Plumbing - Replace failed - Hoffman comfort heating valve. 150k gallons of water is estimated for this loss. Electrical - Replace Grounded dry type indoor 3-phase 60HZ class AA transformer on the 4th floor via crane. Supply Temporary generator to minimize operational impact during transformer loss. Environmental- Procedure 5 water loss impacted areas on floors 6, 5, 4, 3, 2, 1, Service and Judges Parking levels. Courtrooms, chambers, elevator 19, cafeteria, and file storage areas severely impacted. Procedure 5 damage to Judges Elevator requires replacement of several key components to maintain compliance. Replacement of carpet, ceiling tiles, and all impacted areas per environmental protocol.	$ 2,265,057	$ 1,558,133	68.79
75	FM-0063514	Los Angeles	Van Nuys Courthouse East	19-AX1	1	Interior Finishes - Replace (1) door opener circuit board for the main entrance sliding doors. Circuit board failed due to age (over 10 yrs. old) causing the Court's main entrance sliding doors to remain stuck in the open position.	$ 1,811	$ 1,625	89.74
76	FM-0063527	Los Angeles	Van Nuys Courthouse West	19-AX2	1	Plumbing - Replace 10 ft. of 4" cracked cast iron sewage water pipe. Replace (1) 3.5 failed flush assembly valve. Men's staff restroom toilet found in auto flush causing water to seep through cracked pipe affecting 2nd floor Clerks area. Remediate cat/3 water contamination. Replace approx. 1,888 sf carpet, replace 50 sf cellulose ceiling tiles. Decontaminate (10) workstations & (4) chairs. Set up containments, work performed with environmental oversight.	$ 118,721	$ 95,547	80.48
77	FM-0063529	Ventura	Juvenile Courthouse	56-F1	1	Elevators, escalators, & hoists - Replace safety edge for lockup elevator #3. The safety edge has failed, the elevator doors will not completely close and will not stop from closing when there is something in the doorway. Replace key cylinder and keys. Keys working intermittently.	$ 5,598	$ 5,598	100
78	FM-0063533	Los Angeles	Burbank Courthouse	19-G1	1	Plumbing - 1st floor women's public restroom. Replace 90 degree 4inch cast iron elbow, (2) 4inch no hubs couplings, a 3feet x 3feet drywall patch and paint. Ceiling is leaking due to damage 90 degree 4inch cast iron elbow vent piping, Erect (1) critical barrier for remediation all work performed under ACM conditions	$ 15,330	$ 13,914	90.76
79	FM-0063535	Orange	Central Justice Center	30-A1	1	Interior Finishes - Remove and replace approximately 890 sq. ft. of carpet, 16 sq. ft. of ceiling tile, 160 sq. ft. of drywall and 80 linear feet of cove base in a total of 8 offices along the Finance/Facilities area damaged during recent rains. Work includes disinfecting, cleaning and drying, and ACM abatement and decontamination in 3rd floor office of affected areas to return offices to normal state.	$ 13,111	$ 11,953	91.17
80	FM-0063537	Los Angeles	Compton Courthouse	19-AG1	1	Plumbing - Replace 20 LF of 6" cast iron pipe and three (3) heavy duty no hub couplings. Erected (10 8x10x9h containment, conducted environmental testing, and replaced (10) ceiling tiles. All work performed in a known ACM environment. Water leaked into Department N from cracked roof drain.	$ 34,610	$ 22,888	66.13

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81	FM-0063542	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	1	Plumbing - Replace 35 feet of corroded 1-1/4 supply line with new copper drain line that had broken from AHU 2-3 drain pan causing water to leak through the ceiling tiles into Dept. 32 Courtroom. Remediation and environmental oversight included.	$ 38,280	$ 26,333	68.79
82	FM-0063547	Contra Costa	Richard E. Arnason Justice Center	07-E3	1	Plumbing - Seal an 18 inch crack in a failed cast iron drain line. Remove fifty (50) gallons of water from the lower level entry. Remove 100 Sq. Ft. of wet sheetrock. Clean and dry the entry area. Water from the leak has flooded the Judges entry area.	$ 25,377	$ 25,377	100
83	FM-0063554	Los Angeles	Stanley Mosk Courthouse	19-K1	1	Elevators, Escalators, & Hoists - Replace non-functioning elevator phone with new ADA phone inside Elevator #3 to provide safety to passengers to reach out for help if an entrapment were to occur.	$ 1,136	$ 1,105	97.26
84	FM-0063562	San Diego	Juvenile Court	37-E1	1	Plumbing - Replace 20 yards of carpet and base affected by sewer leak caused by loose fitting on sewer pipe. Set Up containment, deacon chambers, and install drying equipment. Environmental oversight included. Pipe overhead was leaking due to loose fitting and water leaked into department 4.	$ 25,082	$ 18,716	74.62
85	FM-0063577	Monterey	Salinas Courthouse-North Wing	27-A1	1	Elevators - In custody elevator failed due to leak in hydraulic line – elevator never refurbished so replaced all seals and gaskets - Court impacted by reduced capacity. This is the only elevator in the building.	$ 11,875	$ 11,875	100
86	FM-0063615	San Joaquin	Tracy Branch Courthouse	39-E1	1	Grounds and Parking Lot - Safety Issue - Remove trees and landscaping shrubs around the courthouse to deter vandalism and urban camper population from staging at the courthouse.	$ 33,347	$ 33,347	100
87	FM-0059140	Los Angeles	Pasadena Courthouse	19-J1	2	Exterior Shells - Restore missing paint protection to (43) air vents (48"x48" each), (11) doors & frames, (20) air vents (25"x32"), (1) mechanical tank (10'x30'), and (1) roof access mechanical ladder to protect from the elements and cause damage to the infrastructure.	$ 10,120	$ 7,018	69.35
88	FM-0059141	Butte	Butte County Courthouse	04-A1	2	HVAC- Replaced motor and pump assembly. Pump-Motor was failing along with pipes, expansion tank, chemical feed tank, that have started leaking.	$ 14,967	$ 14,967	100
89	FM-0059165	Fresno	Fresno County Courthouse	10-A1	2	Elevators - Rekey the three public elevator elevators so the Fire Service keys are the same as the ones for the two inmate/staff elevators. Replace the switches and halos for all three elevators as well as the hall stations and supply additional keys - Keys for fire service are required to be uniform per California 2013 Fire Code. Currently, the three public elevators use a flat key no longer supported in the industry. Fresno Fire (AHJ) approval and code reference are attached.	$ 3,238	$ 3,106	95.91
90	FM-0059294	Orange	Central Justice Center	30-A1	2	HVAC - Roof Exhaust Fan Remove and replace failing vibration isolation springs on exhaust fan #10. The current springs are allowing vibration and noise to come into the 11th floor courtroom below, resulting in disruption. Assessment completed by service provider under contract, June 2016.	$ 12,441	$ 11,342	91.17
91	FM-0059562	Orange	Central Justice Center	30-A1	2	Plumbing - Remediate water from flooding effecting 7th thru 9th floor tower and obtain bacterial clearance. Remove and replace approx. 110 sq. feet of drywall, 68 linear feet of cove base and 6 ceiling tiles. P1 SWO 1449281	$ 20,896	$ 19,051	91.17
92	FM-0059624	Santa Cruz	Main Courthouse	44-A1	2	Interior Finishes - Remove (24) existing diffusers and install new diffusers cut to size. Existing light diffusers are brittle and will not maintain shape as well as creating a low light condition. Diffusers are beyond serviceable life.	$ 699	$ 693	99.11
93	FM-0059642	Santa Cruz	Main Courthouse	44-A1	2	Plumbing - Sewer lines require inspection to determine the cause multiple sewer back ups. Sewer lines will be inspected with video as directed by locator service. Court is impacted by down time and required clean up of sewage system overflows during court hours.	$ 10,304	$ 10,212	99.11
94	FM-0059666	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Plumbing-Replace two (2) sewer injector pumps with two (2) macerating pumps. Once pumps were replaced it was discovered that two (2) pump suction lines need to be replaced. It was also discovered that a new motor control and disconnect would be required for the pumps to operate.	$ 47,708	$ 32,818	68.79

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95	FM-0059700	Los Angeles	Glendale Courthouse	19-H1	2	Grounds and Parking Lot - Replace (16) 12" x 12" recessed light fixtures and (2) light posts that need to be retrofitted from Metal Halide to LED. Special equipment will be needed (boom lift). Metal Halide ballasts and lamps have been discontinued and are no longer available to purchase. Provide power to (1) additional parking light pole from nearest source by intercepting the existing conduit at the base of the pole. This is causing the parking lot area to be very dark at night, causing a safety issue for employees.	$ 31,496	$ 28,516	90.54
96	FM-0059707	San Diego	Juvenile Court	37-E1	2	COUNTY MANAGED - HVAC - Replace drift eliminators, fill material and intake louvers on cooling tower at Central Plant. Currently, cooling tower that supports Juvenile Justice Complex is losing significantly more water than through natural evaporation process. This has resulted in a small amount of salts found in water corroding components. In addition, repairs will conserve water, improve energy, and provide the needed capacity of cooling water required to support campus.	$ 19,071	$ 14,231	74.62
97	FM-0059779	Los Angeles	Bellflower Courthouse	19-AL1	2	Interior Finishes - Replace failing non-reflective window film on Forty-eight (48) windows. The window film reduces energy consumption on the building HVAC system.	$ 5,981	$ 4,662	77.94
98	FM-0059824	Lake	Lakeport Court Facility	17-A3	2	Interior Finishes - Safety Correct sub-floor (approx. 1050 sq./ft.) at Court Ops & Jury Services to remove trip hazards; replace carpet tiles at patches - Currently 9 identified locations of 3800 sq./ft. area have damaged sub-floor from repeated Roof/HVAC water leaks.	$ 56,001	$ 16,800	30
99	FM-0059844	Los Angeles	Hollywood Courthouse	19-S1	2	HVAC-Replace one (1) duplex horizontal air compressor. Install one (1) new PRV station, one (1) new tank drain and aftercooler, and one (1) new air dryer. Existing compressor not functioning properly which affects cooling and heating controls.	$ 19,167	$ 17,459	91.09
100	FM-0059930	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	Electrical - Replace (3) Flagpole lights not functioning due to short circuit in conductors. Rewire conductors on (3) Flagpoles using total of 150' #8 & #10 wire.	$ 7,410	$ 5,447	73.51
101	FM-0059998	Los Angeles	Whittier Courthouse	19-AO1	2	Interior Finishes -Furniture & Equipment-Relocate ninety-four (94) audience seats from upper courtrooms to Room 102. Re-upholster backs and seats. Additional costs to cover Environmental Consultant on site supervision and air monitoring. Current seating is broken, with protruding springs causing a safety issue; parts are obsolete.	$ 10,000	$ 10,000	100
102	FM-0060727	Los Angeles	Santa Monica Courthouse	19-AP1	2	Interior Finishes - LA County ISD will provide construction documents for plan review and permit, JCC will review/comment on documents and issue permit and inspect construction as required. County will reimburse JCC for all costs.	$ 10,000	$ -	0
103	FM-0060768	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	Grounds and Parking Lot- Remove and replace thirty-six (36) light fixtures in the parking lot with LED light fixtures. The existing lights are burned out, creating a safety issue. The LED lights will create a savings in power consumption and will last longer than current lighting. Currently a safety issue. 50% of the lights are currently not working.	$ 67,569	$ 49,670	73.51
104	FM-0061951	Kings	Hanford Courthouse	16-A5	2	Grounds and Parking Lot - Per architectural plan, provide and install 12 new poles with No Parking signs in existing planters, layout and paint 36 parallel parking stalls, and paint red the face of the existing 6" curbs adjacent to the new designated No Parking areas and 720 lf of additional fire lane curbing - The public is parking in unmarked fire lanes, creating a safety hazard, which has been called out by the Hanford Fire Department. The Hanford Fire Department has approved the architectural plan and will provide local inspection. OSFM has reviewed the proposed project, which will need submittal via GovMotus.	$ 7,008	$ 7,008	100
105	FM-0062971	Humboldt	Humboldt County Courthouse (Eureka)	12-A1	2	COUNTY MANAGED - Interior Finishes - air samples - check air for issues after odors found in floors 2,3 & 4 of courthouse common areas	$ 2,172	$ 2,172	100

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106	FM-0063011	Nevada	Nevada City Courthouse	29-A1	2	COUNTY MANAGED - HVAC- Replace building gas fired boiler. The system is leaking and beyond life expectancy.	$ 10,753	$ 10,753	100
107	FM-0063017	Butte	North Butte County Courthouse	04-F1	2	Electrical - Replace internal parts of lighting due to water damage. Excavate a portion of the planter surrounding lights to access wiring and reposition grade ring. Remove (2) defective lights and install new lights. Lights are filled with water due to incorrect installation preventing the fixtures from sealing correctly which has caused defective lighting. Currently there is no landscape lighting in this area. Need to repair/replace to prevent further damage.	$ 2,386	$ 2,386	100
108	FM-0063183	Ventura	Juvenile Courthouse	56-F1	2	HVAC - Rooftop Exhaust Fan; Replace failed pillow bearings due to wear/tear & rebalance unit. The exhaust fan bearings are worn and the shaft is out of balance causing the exhaust fan to vibrate. The vibration is causing a loud rattling noise & disrupting Court operation. Noise is heard throughout the Judges Chambers and Law Library.	$ 3,007	$ 3,007	100
109	FM-0063188	Shasta	Main Courthouse	45-A1	2	HVAC - Remove existing compressor, replace with new compressor. Recover existing refrigerant from circuit. Pressure test circuit with Nitrogen. Vacuum system to deep vacuum, recharge with refrigerant. Unlock unit and operate for test. Return Unit to service. There is currently only one circuit on one unit cooling in room #B-8 Replacing the defective compressor which is leaking oil and vibrating excessively will provide back-up and better functionality, as well as reducing the risk of catastrophic failure due to compromised refrigerant lines. This unit is critical for cooling room B-8	$ 7,670	$ 7,670	100
110	FM-0063202	Stanislaus	Modesto Main Courthouse	50-A1	2	Plumbing - replace 50lf of 4in roof drain line from 2nd floor to basement (total of 6 downspouts) - pipes have deteriorated and are actively leaking throughout courthouse.	$ 14,590	$ 14,590	100
111	FM-0063209	Fresno	B.F. Sisk Courthouse	10-O1	2	HVAC - Grind down existing cooling tower cold water basins and sand blast as necessary. Re-line all seams with sealant, and apply a new basin liner/coating of two-part urethane, approximately 800 sf - Cooling tower basin is leaking water and liner is lifting and pealing, adversely affecting HVAC performance and risking greater equipment failure.	$ 25,002	$ 25,002	100
112	FM-0063210	Fresno	Fresno County Courthouse	10-A1	2	HVAC - Grind down and re-line all cooling tower basin seams with sealant. Apply a new basin liner/coating of two-part urethane covering all seams, approximately 800 sf - Cooling tower basin is leaking water, adversely affecting HVAC performance and risking greater equipment failure.	$ 17,682	$ 16,888	95.51
113	FM-0063261	Lassen	Hall of Justice	18-C1	2	Electrical- Removed (5) defective lamps (possible defective ballasts) and install new lamps and ballasts. This job will require 2 Technicians (required for safety concerns) and a Lift. 5 parking pole lamps are burned out and causing safety concerns to employees and public personnel.	$ 5,401	$ 5,401	100
114	FM-0063265	San Diego	Hall of Justice	37-A2	2	HVAC - Re-insulate pipes, valves, and fittings for chilled water line on booster pumps with 1 1/2" fiberglass and re-insulate pumps with 1/4" rubber. Existing insulation is allowing condensation to drip on ceiling and tile floor below causing a trip and environmental hazard.	$ 6,570	$ 6,570	100
115	FM-0063266	San Bernardino	San Bernardino Justice Center	36-R1	2	HVAC - Install new pulleys, bearings, and belt, align and tension belt, and refurbish shaft for Exhaust Fan PEF B1-1. Fan is currently not functioning.	$ 7,859	$ 7,859	100
116	FM-0063270	Sacramento	Carol Miller Justice Center Court Facility	34-D1	2	HVAC - Replace the motor winding temperature sensors on chiller #2. Remove the refrigerant from the chiller, (330 lbs.), replacing the motor winding sensors and gaskets. Evacuating the chiller vessel of air, and charging the chiller with the reclaimed refrigerant. The motor winding temperature sensors are part of the safety circuit that allows the chiller to run. This is the second of four sensors that has failed on the compressor motor. This must be replaced to ensure longevity of the compressor.	$ 7,267	$ 7,267	100
117	FM-0063273	Humboldt	Humboldt County Courthouse (Eureka)	12-A1	2	HVAC - Repair refrigerant Leak - Isolate compressor A power, recover remaining R-22 refrigerant, make repairs to located leaks, pull a triple vacuum, recharge and test.	$ 5,500	$ 5,500	100

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118	FM-0063274	Los Angeles	Compton Courthouse	19-AG1	2	Exterior Finishes - Cap all water supply lines, terminate all electrical power, fill with (8) cubic yards of gravel base, and (4) cubic yards of concrete. Area has been vandalized several times and it has become a safety issue due to fires started by transients.	$ 11,129	$ 7,360	66.13
119	FM-0063275	Los Angeles	Torrance Courthouse	19-C1	2	Elevator - Unbolt selector sheave, and deliver to shop for bearing replacement. Re-install, lift elevator, calibrate and test for proper operation. Elevator #2 is making excessively loud noise when elevator is in motion.	$ 18,717	$ 15,936	85.14
120	FM-0063276	Los Angeles	Hollywood Courthouse	19-S1	2	Electrical - Replace (9) exit lights, (4) egress lights, and restore remaining lights that did not illuminate under generator power during the annual PM under SWO 2793682.	$ 4,490	$ 4,090	91.09
121	FM-0063277	Lake	Lakeport Court Facility	17-A3	2	County Managed - HVAC- Failed boiler tubes - Replace (40) boiler tubes. Beyond useful life, Pitted and rusting through. Imminent failure due to condition, resulting in no heat to entire building for 6-8 weeks.	$ 5,918	$ 5,918	100
122	FM-0063279	Fresno	Juvenile Delinquency Courthouse	10-P1	2	Elevators - Replace failed circuit boards for door controller in Judges Elevator #3 - During preliminary order work, the circuit boards failed after a bad elevator breaker was replaced and power turned back on. Elevator is non-functional.	$ 5,000	$ 5,000	100
123	FM-0063281	Monterey	Salinas Courthouse-North Wing	27-A1	2	HVAC - Correct failed motor; install one (1) new 40hp Weg cooling tower rated motor; Provide crane and rigging crew for the new/old motor; alignment of new motor to blower wheel pully; testing - High speed cooling tower motor failed causing HVAC failure.	$ 14,983	$ 14,983	100
124	FM-0063292	Los Angeles	Chatsworth Courthouse	19-AY1	2	HVAC - Restored condenser pump #1 and replace leaking shaft seals to condenser pump #1. Condenser pump #1 has failed and is effecting the cooling to the building.	$ 11,166	$ 9,290	83.2
125	FM-0063293	Los Angeles	Chatsworth Courthouse	19-AY1	2	HVAC - Replace (1) failed seal from chiller #1 due to refrigerant leak. Remove refrigerant to perform leak check and re-fill refrigerant for normal operations. Add 45 pounds of refrigerant.	$ 8,045	$ 6,742	83.8
126	FM-0063294	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	Fire Protection - Replace (15) dry pendent SSPs located throughout the building that are outdated per the Annual Dry System inspection.	$ 7,266	$ 5,341	73.51
127	FM-0063295	Santa Clara	New Santa Clara Family Justice Center	43-B5	2	Plumbing - Replace failed pvc pipe (6ft.) for water softener; remediate water damage at 8th floor conference room (approx. 400 sq.ft.) and 7th floor "custom" ceiling panels - Water softener pipe failed causing damage to area.	$ 7,831	$ 7,831	100
128	FM-0063297	Sutter	Sutter County Superior Courthouse	51-C1	2	HVAC - Remove defective motor and install new motor on roof. Test motor operations. Remove debris and clean surrounding areas. Deliver defective motor to ground level. This cooling system runs 2 pumps/motors and 1 is defective. This Chiller is critical to cooling the MDF rooms on all 3 floors, continuously, 7 days per week.	$ 4,180	$ 4,180	100
129	FM-0063298	San Francisco	Civic Center Courthouse	38-A1	2	Plumbing - Correct sewage ejector pump (1); confined space; 2 man crew w/additional safety man for emergency rescue - Pump check valve clogged causing pump to keep running.	$ 11,283	$ 11,283	100
130	FM-0063299	Los Angeles	West Covina Courthouse	19-X1	2	Interior finishes - Replace one (1) 35 3/4 " x 83 1/2" x 1 34" stain grade 1 hour fire rated door, hinges, closer, and lock. Door is damaged and cannot be opened and closed safely, and has lost its fire rating.	$ 4,913	$ 4,078	83.01
131	FM-0063301	Solano	Hall of Justice	48-A1	2	Roof - Clean and prep parapets (5,600 sqft); Seal cracks and splits; Install caulking (1,200 LF); Install Acrylic sealant (two gallons per square), on the ledge (1,600 Sqft) and a double coat on the vertical walls (4,000 Sqft); Provide 20 year warranty on product and installation. - Parapet roof sealant has failed allowing water intrusion into the building.	$ 43,862	$ 31,940	72.82
132	FM-0063304	San Bernardino	Barstow Courthouse	36-J1	2	HVAC - Replace four (4) faulty Termincal Electronic Controllers (TEC) for 4 mixing boxes at Barstow Courthouse. TECs failed and are not controlling temperatures.	$ 6,225	$ 4,851	77.93

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133	FM-0063306	El Dorado	Johnson Bldg.	09-E1	2	Interior Finishes - Infill stair risers to prevent catching the upper tread lip and tripping upon accent of the stairs. Repaint all treads and risers after installation of infill - Safety concern. Retrofit and repair stairwells.	$ 6,514	$ 6,514	100
134	FM-0063307	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	Fire Protection - Replace existing 1/6 HP pre-action air compressor with new 1/4 HP air compressor. Replace corroded 1 1/2" ball drip drain piping and drip cup along with ball ball drip. Conduct a ceiling leak inspection due to the system not holding the air needed to keep compressor off and only coming on when needed to maintain the desired system air pressure.	$ 5,894	$ 4,333	73.51
135	FM-0063308	Los Angeles	Torrance Courthouse	19-C1	2	Electrical - Remove old outlet and install (15) new GFCI outlets in Judge's Chamber restrooms and employee's restrooms. Replace (3) dimly lit exit signs through out the courthouse per SFM write up.	$ 2,513	$ 2,140	85.14
136	FM-0063309	Los Angeles	S. Bay Municipal Traffic Court Trailer	19-C4	2	HVAC - Replace (1) package unit. Unit has failed and system is currently not allowing heat transfer causing traffic trailer to get too hot.	$ 11,203	$ 9,538	85.14
137	FM-0063311	San Diego	North County Regional Center - North	37-F2	2	Interior finishes-Replace one (1) 20 minute fire rated door that was damaged by the fire department, when reporting to an after-hrs call.	$ 2,780	$ 2,780	100
138	FM-0063312	Alameda	Hayward Hall of Justice	01-D1	2	Electrical - Replace one failed Generator Day Tank float switch - Sticking causes a fuel overflow into secondary containment.	$ 3,438	$ 3,036	88.3
139	FM-0063313	Los Angeles	Torrance Courthouse	19-C1	2	Interior Finishes - Replace malfunctioning door closer to the front doors of Department 8 Courtroom that is slamming too hard when doors are opened or closed.	$ 8,090	$ 6,888	85.14
140	FM-0063315	Stanislaus	Modesto Main Courthouse	50-A1	2	HVAC - Replace failed control-air compressor valve unloader assembly and head gasket - compressor is leaking oil from one of two compressors.	$ 2,798	$ 2,798	100
141	FM-0063316	San Joaquin	Stockton Courthouse	39-F1	2	Exterior Shell - Replace failed rheostats for Doors 01225B, 01225B.3 and Service doors. Two of the front doors are slamming and the rheostats that control the closing function of the motors need to be replaced.	$ 2,640	$ 2,640	100
142	FM-0063318	Santa Clara	Hall of Justice (West)	43-A2	2	Interior Finishes - Vandalism: Correct public restroom and elevators building wide; repair/replace (18) mirrors; Install (1) removable metal shield to elevator door; sand/patch/paint (4) restroom partitions walls - Gang related graffiti in public areas.	$ 19,085	$ 19,085	100
143	FM-0063320	Los Angeles	Torrance Courthouse	19-C1	2	Elevator - Replace deteriorating car roller on Judge's Elevator #5 that is making loud noises and causes a rough ride in both directions.	$ 4,455	$ 3,793	85.14
144	FM-0063328	Los Angeles	Alhambra Courthouse	19-I1	2	Plumbing-Replace one (1) butterfly valve for boiler #3. The boiler could not pass AQMD test and cannot be brought up to standard because the valve is seized and needs to be replaced.	$ 3,072	$ 2,642	86
145	FM-0063329	Los Angeles	Norwalk Courthouse	19-AK1	2	HVAC-Replace the two (2) floats for cooling towers 1 & 2. Existing floats are not functioning as designed and are filling either too high causing excessive water usage or too low intermittently.	$ 9,961	$ 8,470	85.03
146	FM-0063331	Los Angeles	El Monte Courthouse	19-O1	2	HVAC-Replace the pump for the pneumatic air compressor. The compressor is failing and making a loud screeching noise. If the compressor fails, it will not be possible to control temperatures throughout the courthouse.	$ 4,979	$ 2,894	58.12
147	FM-0063332	Los Angeles	El Monte Courthouse	19-O1	2	Interior finishes-Replace floor closer for exit door. The existing closer is not functioning as designed and is causing the door to slam and creating a safety issue.	$ 2,747	$ 1,597	58.12
148	FM-0063333	Los Angeles	Compton Courthouse	19-AG1	2	Plumbing-Replace one (1) penalware sink and faucet for 11th floor lockup , cell 11E. Existing sink and faucet are obsolete and parts are not available, so they need to be replaced. Existing sink in not functioning.	$ 5,934	$ 3,924	66.13
149	FM-0063336	Los Angeles	Bellflower Courthouse	19-AL1	2	Elevators, escalators, & hoists - Replace the door operating motor for public elevator #1. The existing motor failed due to excessive usage.	$ 9,064	$ 7,064	77.94
150	FM-0063338	Los Angeles	Norwalk Courthouse	19-AK1	2	HVAC-Remove hot water pump #6 from premises and refurbish. Weld crack in flange. Return pump, re-install, and correctly align pump. Existing pump is leaking damaged seals and flange.	$ 8,055	$ 6,849	85.03

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151	FM-0063340	San Bernardino	Juvenile Dependency Courthouse	36-P1	2	Electrical- Parking Lot- Replace 20 high pressure sodium ballasts & lamps with 20 LED Retro-Kit outdoor parking lot lights. Currently 8 lights are out causing a safety hazard. Existing lights are approx. 8 yrs old and failing. LED light fixtures are cheaper than repairing existing, will save energy, last longer and more cost effective since a boom lift will already be onsite.	$ 11,957	$ 6,520	54.53
152	FM-0063343	Los Angeles	Bellflower Courthouse	19-AL1	2	Elevators, escalators, & hoists-Replace one (1) hydraulic pump muffler for elevator 5. Existing muffler has failed due to out living life expectancy.	$ 9,964	$ 7,766	77.94
153	FM-0063345	Los Angeles	Burbank Courthouse	19-G1	2	Interior Finishes - Conduct environmental test, remove damaged approx. 20 sq. ft. of ceiling tiles & drywall on the NE corner of Judge's chambers. Erect dust barrier to enclose the affect area. Plaster and tiles are water damaged from previous roof leak.	$ 12,736	$ 12,736	100
154	FM-0063349	Santa Barbara	Figueroa Division	42-B1	2	Electrical - The relays are old and showing signs of age as they are intermittently failing. The control board (computer elements of this panel) are out dated and paired with the intermittently failing relays, causing the board to malfunction and not maintain the schedule for turning lights on and off for the court, causing service provider to have to manually turn lights on and off at times. Replace one (1) control panel for outside lighting for courtyard and clerk's area and program the control panel. Existing panel is not functioning as designed and needs to be replaced.	$ 6,107	$ 6,107	100
155	FM-0063350	San Mateo	Hall of Justice	41-A1	2	COUNTY MANAGED - HVAC - Correct failed supply fan unit #1 (SF1); install temporary fan shaft; manufacture new replacement fan shaft - AHU fan shaft broke causing loss of HVAC to Courtroom/Chambers 2A, 2B, 2C, 2D, CEO and Jury Services offices.	$ 28,577	$ 28,577	100
156	FM-0063352	Riverside	Southwest Justice Center	33-M1	2	Interior Finishes - S101 Main Courtroom Doors Remove and replace failed courtroom fire rated entry doors for S101. The doors have split and separated at the latching device compromising their effectiveness during a fire and security. Additionally, the condition is preventing the courtroom doors from being properly locked and secured.	$ 12,571	$ 12,571	100
157	FM-0063353	San Bernardino	Central Courthouse	36-A1	2	Elevators, escalators, & hoists-Replace four (4) door gibs. Door gibs are failing and doors get stuck intermittently.	$ 3,886	$ 3,717	95.64
158	FM-0063355	Riverside	Larson Justice Center	33-C1	2	Fire Protection - 1st Floor Public Stairwell East - Remove and replace two (2) 1.5 hour fire rated doors at the 1st floor public stairwell east. The current doors have hardware failure (hinges) and have broken in multiple places and require replacement to meet NFPA code and are required to prevent the spread of fire from the second floor to other areas of the Court. Work includes replacement of 6 hinges, 2 panic bars, and 2 surface mounted door closers with new.	$ 11,713	$ 11,407	97.39
159	FM-0063358	Tulare	South County Justice Center	54-I1	2	Electrical - Replace the malfunctioning Electronic Control Module in the emergency generator - Fuel is flooding the engine and the generator cannot operate.	$ 4,467	$ 4,467	100
160	FM-0063359	Los Angeles	Norwalk Courthouse	19-AK1	2	HVAC - Replace one (1) 10 Hp motor for return fan #5. Existing fan motor bearings are seized.	$ 2,929	$ 2,461	84.03
161	FM-0063361	Los Angeles	Pasadena Courthouse	19-J1	2	Elevator - Replace non-functioning fuel transfer pump and associated parts for the generator which is not working and creating a safety issue since the path of egress will not be lit in case of emergency.	$ 2,194	$ 1,522	69.35
162	FM-0063365	Contra Costa	Wakefield Taylor Courthouse	07-A14	2	Interior Finish - Replace existing 24" Urinal Partition with a 48" Deep Partition - Complaints from staff, that when the door to the restroom opens, people in the hallway can see men using the urinal.	$ 1,694	$ 1,694	100
163	FM-0063366	Fresno	B.F. Sisk Courthouse	10-O1	2	Electrical - Replace three existing defective VAV controllers on the 5th Floor: VAV5-3 for Room 511, VAV5-4 for Room 510 and VAV5-5 for Room 521, install new room temperature sensors, and install new communications cable from VAV controllers to existing supervisory controller - Existing VAV controllers have failed and new controllers need to be installed and added to the BACnet system.	$ 5,304	$ 5,304	100

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164	FM-0063367	Fresno	B.F. Sisk Courthouse	10-O1	2	HVAC - Replace two existing defective VAV controllers on the 1st Floor: VAV1-36 and VAV1-37 for Room 100 (Jury Assembly Room), install new room temperature sensor, and install new communications cable from VAV controllers to existing supervisory controller on the 2nd floor - Existing VAV controllers have failed and new controllers need to be installed and added to the BACnet system.	$ 3,878	$ 3,878	100
165	FM-0063368	Los Angeles	Malibu Courthouse	19-AS1	2	COUNTY MANAGED - Electrical - Restore power to shared campus parking lot specific to the employee parking lot. Handled by County as an Emergency due to Public Security Safety concern	$ 1,986	$ 1,986	100
166	FM-0063369	Los Angeles	County Records Center	19-AV3	2	County Managed - Interior Finishes - Install nine (9) strike plate covers at County Records Center (archives). Current strike plates are severely worn allowing access to doors without key. Replacement strike plates will solidify latching when doors are closed.	$ 1,674	$ 1,674	100
167	FM-0063381	Los Angeles	Compton Courthouse	19-AG1	2	Plumbing - Replace drinking fountain in public hallway. Wall must be cut open to replace drain and other plumbing lines. Install (1) 24x24 access panel for maintenance repairs. Environmental oversight Included. Existing fountain does not function and is obsolete and cannot be refurbished.	$ 14,420	$ 9,536	66.13
168	FM-0063382	Los Angeles	Inglewood Courthouse	19-F1	2	HVAC - Install one (1) new EZ Float Stainless Steel External Float Assembly for Cooling Tower #1, to include all applicable materials. Reenergize the electrical for the Cooling Tower, Start, test and check float assembly operations. Cooling tower #1 float is inoperative due to wear and corrosion build up. Inoperative internal floats are leading to cooling tower water overflow.	$ 8,871	$ 6,614	74.56
169	FM-0063383	Orange	Central Justice Center	30-A1	2	HVAC - Remove and replace existing VAV box above chambers of department C61. The hot water coil broke and leaked, there is no way to repair the coil itself so the VAV box needs to be replaced. Remove 24" X 30" area of contaminated plaster ceiling in order to access the area and clean up approximately 10 square feet of contaminated debris field. There is absolutely no heating to the Judges Chambers, this needs to be addressed as soon as possible.	$ 23,404	$ 23,404	100
170	FM-0063384	Ventura	Juvenile Courthouse	56-F1	2	Electrical - Replace one (1) ECM module for emergency generator. Existing module is faulty and causing the generator not to run properly and is creating a lot of smoke when operating.	$ 8,376	$ 8,376	100
171	FM-0063385	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Plumbing - Replace 10ft -2.5 copper pipe, 10ft- 3/4 copper pipe, ball valve, 2.5 ball valve, 2.5 coupling, 2.5 copper T. Water leaking from ceiling in 2nd floor public area between the public elevators and window's #5 & #6 causing tripping hazard to public, domestic water 2" copper 90 degree pipe leaking. Building domestic water drained and re-filled to complete plumbing replacement, remediation and environmental oversight included.	$ 12,020	$ 9,674	80.48
172	FM-0063386	Los Angeles	Torrance Courthouse	19-C1	2	Plumbing - Replace 10' of cracked 4" cold domestic water line, couplings, add new isolation valve, and 2" cast iron fittings due to water leaking above the basement file room ceiling. Environmental testing will take place on the insulation covering the 4" water line.	$ 11,199	$ 9,535	85.14
173	FM-0063390	Riverside	Southwest Justice Center	33-M1	2	Grounds and Parking Lot - Remove and replace failed coating and seal cracks within the diesel generator secondary containment with Sikaflex Urethane sealant (concrete cracks) and diesel resistant Urethane mastic (basin). Work also includes replacement of failed 1' anti-siphon valve. The generator fuel system failed leaking 50-60 gallons of fuel within the containment however the coating failed, with fuel seeping into concrete cracks and into nearby storm basin and pump and was contained there.	$ 13,653	$ 10,431	76.4
174	FM-0063391	Fresno	B.F. Sisk Courthouse	10-O1	2	Grounds and Parking Lot - Replace inside and outside ground loops, re-locate the gate opener several inches out and replace the cracked drive belt for the South P St. secured parking gate Exit gate is not functioning due to exposed and shorted loop wires, and guide wheel bolt has been sheared off from hitting the gate opener.	$ 4,687	$ 4,687	100
175	FM-0063392	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Plumbing - Replaced defective combo toilet/sink which has a leak in the weld allowing water to leak down to the public hallway creating a slip hazard. Water has been shut off to the unit and the inmates do not have access to use the restroom if housed in the cell which becomes a health issue.	$ 9,341	$ 9,341	100

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176	FM-0063396	Los Angeles	Alhambra Courthouse	19-I1	2	Plumbing-Replace 10 Lf of 5" drain line coming from roof. Existing drain is clogged with roofing material and does not drain, causing puddling and potential leaking on the roof. Area known to have ACM and will have containment, decon chambers, environmental and remediation. Scaffold will be required.	$ 15,791	$ 13,580	86
177	FM-0063397	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Electrical - Replace burnt out motor on the inner cell door of the 14th floor, Holding Cell #7 that allows the door to open/close.	$ 3,967	$ 3,967	100
178	FM-0063398	San Diego	Juvenile Court	37-E1	2	Plumbing - Replace 40 LF of 4" Cast Iron pipe and fittings, and replace 20 LF of 2" Cast Iron pipe and fittings above courtrooms. Existing pipes are corroded and are leaking.	$ 5,529	$ 4,126	74.62
179	FM-0063399	San Diego	East County Regional Center	37-I1	2	HVAC - Replace one (1) 30 Hp motor for AHU 3 return. Existing motor shorted out and is not functioning.	$ 6,966	$ 4,717	67.71
180	FM-0063401	Los Angeles	Norwalk Courthouse	19-AK1	2	Interior Finishes - Replace two (2) panic bars and two (2) lever trims for doors in jury room on 7th floor. Existing door hardware is worn out and no longer functioning as designed causing a security issue.	$ 5,589	$ 4,752	85.03
181	FM-0063402	Calaveras	Calaveras Superior Court	05-C1	2	Electrical - Replace failed UPS batteries and install new batteries - UPS batteries are in fail. UPS serves Court and JCC equipment in first floor Data Room.	$ 7,359	$ 7,359	100
182	FM-0063403	Los Angeles	East Los Angeles Courthouse	19-V1	2	HVAC - Replace one (1) 15 Horse power return fan motor for Air handler unit #3. Motor bearings have seized, affecting entire 2nd floor.	$ 4,795	$ 3,727	77.72
183	FM-0063404	Tulare	South County Justice Center	54-I1	2	Plumbing - Replace Cracked Burners and Gaskets on Both domestic hot water heaters (OM37244 & OM37245) - Units are currently inoperable and no domestic hot water in building.	$ 7,125	$ 7,125	100
184	FM-0063405	Stanislaus	Hall of Records	50-A2	2	HVAC - Replace 3 failed air purge valves on closed boiler loop. - System Currently losing 250 gallons a day in closed boiler loop through failed Hoffman air bleed valves.	$ 4,298	$ 3,345	77.82
185	FM-0063407	Contra Costa	Wakefield Taylor Courthouse	07-A2	2	Interior Finish - Remediate a 20 X 30' section of wet carpet; Vacuum up the water and place 3 dehumidifiers and 6 air fans to circulate the air - Water came into the building through an outside door during heavy rain.	$ 8,370	$ 8,370	100
186	FM-0063409	Santa Clara	Sunnyvale Courthouse	43-F1	2	Fire Protection- Fire Inspection corrections - Replace (32) Painted/corroded/outdated Sprinkler heads at Basement: (23) brass 165 upright heads; (5) brass 165 pendant heads; (1) brass 212 upright head; (3) brass 286 upright heads: Restock Sprinkler cabinet with: (4) brass 165 upright heads; (4) brass 165 pendant heads; (2) 212 brass upright heads; (2) brass 286 upright heads; (1) head wrench: Install (1) sight glass and pipe at 2" main drain - Building out of compliance as per inspection report	$ 4,271	$ 4,271	100
187	FM-0063410	Kern	Bakersfield Superior Court	15-A1	2	Plumbing - Replace 1 LF of 1/2" copper pipe, 3 LF of 2" galvanized pipe, and two (2) 2" galvanized 90s. A pin hole leak on the hot water main line located in the First Floor Men's Restroom has been discovered during R&Rs and needs to have pipe replaced.	$ 3,641	$ 2,281	62.64
188	FM-0063411	Ventura	East County Courthouse	56-B1	2	HVAC - Corroded connection coupling causing a pinhole leak where the connection coupling meets the straight pipe, currently a small drip. Replace 10 LF of 2" pipe and connectors for HVAC pipe located in the ceiling in the Lobby of 56-F1. Re-insulate pipe. Pipe is leaking. Environmental initial testing and scope of work included. Corroded, rusted connection coupling pinhole leak where the connection coupling meets the straight pipe, currently a drip.	$ 13,022	$ 8,041	61.75
189	FM-0063412	Santa Barbara	Figueroa Division	42-B1	2	Interior finishes - Remove 30 SF of Terra Cotta floor tiles in Basement walkway near dpt B; level flooring, replace tiles & re-grout. Existing tiles are coming loose due to high traffic & warping underlayment. Environmental testing included.	$ 13,089	$ 13,089	100

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190	FM-0063413	Los Angeles	Metropolitan Courthouse	19-T1	2	Interior Finishes - Erect (2) 5'x5'x11' containment and replace (12) 1'x1' loose ceiling tiles in Dept 801 B. Ceiling tiles were not secure and could have fallen on someone creating a safety issue for the court. Work was completed in a known hot area. Ceiling tiles became loose due to high HVAC damper vibrations.	$ 4,223	$ 3,992	94.54
191	FM-0063414	Los Angeles	Stanley Mosk Courthouse	19-K1	2	Elevators, Escalators, & Hoists - Remove debris from the top end of the escalators and cleaned down. Preliminary Order - Regulatory Compliance for Corrections - SWO# 2847660 and 2847665	$ 13,044	$ 12,687	97.26
192	FM-0063415	San Bernardino	San Bernardino Justice Center	36-R1	2	Interior Finishes - Replace one (1) walking beam pivot for right door of Dept S12. Existing pivot is worn and very loud, disturbing the court while in session.	$ 3,923	$ 3,923	100
193	FM-0063418	Los Angeles	Chatsworth Courthouse	19-AY1	2	HVAC - Replace rusted and deteriorating (4) support braces to the cooling tower #2 and all installation hardware that can lead to structural integrity failure of the cooling tower.	$ 11,806	$ 9,893	83.8
194	FM-0063419	Alameda	Fremont Hall of Justice	01-H1	2	Plumbing - Domestic hot water - Replace approximately fifteen feet of aged, corroded, failed and leaking copper return pipe.	$ 2,544	$ 2,020	79.4
195	FM-0063422	Alameda	Berkeley Courthouse	01-G1	2	Electrical - Lighting - Replace approximately seven (7) lamps and ballasts as needed to repair failed light fixtures - Excessive height of ceiling and fixed seating requires scaffolding to perform work.	$ 3,235	$ 3,235	100
196	FM-0063423	Alameda	Hayward Hall of Justice	01-D1	2	Exterior Shell - Replace failed door hinge (continuous) on main exit door; requires additional anchorage - Door will not operate due to broken hinge	$ 3,231	$ 2,853	88.3
197	FM-0063425	Contra Costa	Bray Courts	07-A3	2	Grounds - Safety - Remove and discard 25 10 ft. overgrown Juniper trees that border the 180 ft path of travel from the jail to the Courthouse. This path is used by deputies escorting in-custodies to and from the courthouse. The trees provide full cover for an ambush or for contraband. Contraband has been found hidden in the trees. The Sheriff office and JCC have provide written analyses regarding the safety risk.	$ 11,400	$ 9,749	85.52
198	FM-0063427	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Exterior Finishes - Replace (1) 1/2" cracked clear laminated glass panel approx 84" X 42" in steel frame at lobby area for the safety of the court staff and visitors.	$ 2,536	$ 2,042	80.52
199	FM-0063428	Santa Clara	Sunnyvale Courthouse	43-F1	2	Grounds and Parking lot - Remove (1) Fallen tree - Remove all debris from site - Court safety hazard; wind blew down large section of tree	$ 2,467	$ 2,467	100
200	FM-0063429	Kern	Bakersfield Juvenile Center	15-C1	2	Elevators, escalators, & hoists-Replace phones in elevators 1 & 2 with ADA phones to comply with current codes. Existing phones are not ADA.	$ 3,562	$ 2,231	62.64
201	FM-0063430	Riverside	Larson Justice Center	33-C1	2	Plumbing - Domestic Water Backflow - Install new 4" main domestic water backflow device just after the city meter feed, per the Indio Water Authority by way of a compliance notice. Work includes 6 ft dig to hook piping behind meter.	$ 19,525	$ 19,015	97.39
202	FM-0063431	Los Angeles	Inglewood Courthouse	19-F1	2	HVAC / Drain hot loop, remove pump and drop off for rebuild, pick up newly rebuilt pump and install with new coupling, align pump and test operation. Hot water pump seal is leaking at the coupling and has been valved off to prevent a potential ceiling leak down to the 6th floor. There is only one hot water pump currently running. If pump #5 were to go down there would be no heating hot water supplied to the building.	$ 9,183	$ 6,847	74.56
203	FM-0063432	Los Angeles	Inglewood Courthouse	19-F1	2	HVAC - Install 1 water pressure regulator on boiler make up water line to maintain water pressure below the boiler bleed valve activation pressure of 70 psi. Excessive incoming water pressure spiking above 80psi and triggering boiler bleed valves which are activated at 70psi. This causes boilers to begin dumping water until pressure drops below 70 psi.	$ 4,751	$ 3,542	74.56
204	FM-0063433	San Diego	East County Regional Center	37-I1	2	Plumbing-Replace 2 LF of 2" copper pipe, fittings, and shut off valve. Valve had pinhole leak.	$ 2,898	$ 1,962	67.71

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205	FM-0063434	Santa Barbara	Santa Maria Courts, Bldg G	42-F5	2	HVAC - The heat exchanger, inducer fan assembly, gaskets, and burners for this unit are damaged to the point that they are no longer operating due to age. Also the burners are not igniting due to failure. Requires replacement of the heat exchanger, inducer fan assembly, gaskets, and burners to PKU #2. PKU #2 is currently not functioning.	$ 5,603	$ 5,603	100
206	FM-0063437	Tulare	Dinuba Division of the Tulare Superior Court	54-E1	2	Fire Protection - Replace one failed 8" fire sprinkler water flow switch and replace two 12-volt fire alarm panel batteries - To correct deficiencies noted during annual fire alarm inspection.	$ 1,375	$ 590	42.89
207	FM-0063438	Fresno	Firebaugh Court	10-K1	2	HVAC - Replace four non-functioning actuators - Actuators have failed, resulting in lack of proper building heat for occupants.	$ 4,824	$ 2,799	58.02
208	FM-0063439	San Francisco	Civic Center Courthouse	38-A1	2	Interior Finishes - install (4) metal edge guards onto 205 & 208 entry doors - existing internal vertical rods have crack doors - causing doors not to close, security issue - normal wear and tear.	$ 13,717	$ 13,717	100
209	FM-0063442	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Plumbing - Replace non-functioning control board for heat exchanger #1 due to electrical components malfunctioning, not allowing heat exchanger to help warm water throughout the building.	$ 4,365	$ 3,003	68.79
210	FM-0061660	Shasta	Justice Center	45-A2	2	COUNTY MANAGED - HVAC - Replace the buildings gas fired boilers and heat exchangers. The system is beyond life expectancy and the coils are failing.	$ 20,449	$ 20,449	100
211	FM-0062932	Orange	Central Justice Center	30-A1	2	Plumbing - Remove and replace two sewer pipes, 10" and 4", both 120' in length, in known ACM environment. Currently the sewer lines have cracks on top of the pipes and leak under pressure from back up. The main sewer line backed up and leaked over the breaker causing a building power shutdown and courthouse closure.	$ 57,610	$ 52,523	91.17
212	FM-0063193	Los Angeles	Pomona Courthouse South	19-W1	2	HVAC - Replace one hundred forty-eight (148) carbon steel boiler tubes in boiler number 2. Tubes are corroded and leaking.	$ 34,580	$ 31,516	91.14
213	FM-0063268	Kern	Bakersfield Superior Court	15-A1	2	HVAC - Replace PKU with 6-ton energy efficient unit that includes a fresh air economizer. Replace condensate line and disconnect. Existing unit has a failed compressor (locked up), and bad coil (leaking oil).	$ 19,363	$ 12,129	62.64
214	FM-0063272	Los Angeles	Pomona Courthouse South	19-W1	2	Fire protection - Replace main fire pump. Pump is leaking and corroded and failed under a PM.	$ 21,507	$ 19,601	91.14
215	FM-0063330	Contra Costa	Wakefield Taylor Courthouse	07-A2	2	Electrical - Design - Provide design for replacement of existing emergency generator. Existing generator is at end of life; Efficiency is down 25%, which is barely enough to handle the load; elevators are on generator power; Unit requires frequent maintenance; water pump is leaking.	$ 43,035	$ 43,035	100
216	FM-0063379	Napa	Criminal Court Building	28-A1	2	Fire Protection - Replace Failed Fire Doors and Smoke Dampers - (2) Two Counter Roll-Up Fire Doors (physically bound preventing proper operation) and (3) Three Smoke Dampers (internal gear failure) failed during testing, prior to inspection by the Fire Department, and they require replacement.	$ 44,396	$ 44,396	100
217	FM-0063393	Santa Barbara	Santa Maria Courts Bldgs C + D	42-F1	2	Plumbing - Replace 80 LF of 3" Domestic water pipe exterior located in the Landscape area. Trench through 70 LF of lawn area and saw cut/trench through 10 LF of concrete to expose pipe. Pipe is deteriorated & rusted due to age. Remediation vendor to remove ACM from existing pipe prior to cutting out and removal and will properly remove pipe from premises. Environmental oversight will be included. Domestic water services entire Court building.	$ 52,580	$ 28,761	54.7
218	FM-0063395	Los Angeles	Stanley Mosk Courthouse	19-K1	2	Elevators, escalators, and hoists-Compliance - Replace eight (8) double wrapped elevator cables and wedged shackles. Ropes to be replaced per Department of Industrial Relations Orders to correct.	$ 24,269	$ 23,604	97.26
219	FM-0063408	San Bernardino	San Bernardino Justice Center	36-R1	2	Interior Finishes - Replace (1) exterior window pane 61-1/2" X 69-3/4" rectangle 1/4" SB90 TP/7/16" Clr Lami TP on the 11th floor. Glass is cracked on upper corner due to unknown reason that is currently being investigated. A special boom long enough to reach the 11th floor must be used after-hours to replace the glass. Window currently leaks when it rains.	$ 15,598	$ 15,598	100

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220	FM-0063444	San Bernardino	Juvenile Dependency Courthouse	36-P1	2	HVAC - Remove and replace indoor coil which is clogged and TXV on air conditioner (PKU18). AC unit not providing adequate cooling to affected area creating unconfortable temperatures for the staff.	$ 10,125	$ 5,521	54.53
221	FM-0063445	San Bernardino	San Bernardino Justice Center	36-R1	2	HVAC - Replace Boiler Blower Assembly. Blower failed, unit shut down and is not providing comfort heating to occupied spaces.	$ 4,190	$ 4,190	100
222	FM-0063453	Los Angeles	San Fernando Courthouse	19-AC1	2	Elevators, Escalators, & Hoists - Replace non-functioning fans in the cab of Custody Elevators #2 & #3. Fan has failed causing the elevator to get extremely hot for passengers.	$ 5,361	$ 5,361	100
223	FM-0063462	Los Angeles	Edmund D. Edelman Children's Court	19-Q1	2	Fire Protection - Replace one (1) 8 amp fuse on power supply for Fire Alarm panel. Speakers did not meet required decibels for emergency the alarms to be heard, discovered during the Annual Fire Alarm Panel PM - 2772745.	$ 173	$ 121	69.99
224	FM-0063463	Los Angeles	Monrovia Training Center	19-N1	2	Interior Finishes - SFM Correction-Remove and replace approx. 10 square feet of floor tiles that have raised through settling, grind down concrete flooring, and replace tiles. Environmental testing work to be performed under known ACM environment. Floor has raised through time & obstructing Fire rated double doors from closing, main hallway.	$ 10,115	$ 7,110	70.29
225	FM-0063464	Los Angeles	Compton Courthouse	19-AG1	2	Electrical - 400 AMP Breakers - Remove and replace four 400 AMP/600 Volt Breakers and associated wiring to the Chiller Pumps and VFD's. Thermal imaging requested by JCC Inspector, the temperatures were at 90 degrees, well above normal operational temperatures.	$ 10,000	$ 6,613	66.13
226	FM-0063471	Los Angeles	Norwalk Courthouse	19-AK1	2	HVAC-Replace one (1) 460 V 70 A 3 Ph secondary compressor for package unit 1. High pressure line failed on existing compressor, which is now non-functional and causing high tempretures in elevator machine room.	$ 3,411	$ 2,900	85.03
227	FM-0063473	San Benito	New Hollister Courthouse	35-C1	2	Exterior Shell - Correct failed Exit door ADA opener; replace (1) door operator and (1) operator control board; program operator controls and test for operation - ADA door opener failed causing access issues to facility; only available unit at facility.	$ 6,851	$ 6,851	100
228	FM-0063477	San Bernardino	Central Courthouse	36-A1	2	Elevators, escalators, & hoists-Replace one (1) rope gripper cylinder for elevator #2. Elevator rope gripper is faulty, causing the elevator to stall/fail.	$ 3,160	$ 3,022	95.64
229	FM-0063478	Lake	South Civic Center	17-B1	2	Plumbing - Replace copper elbow - Repair leaking 2 1/2" water line above ceiling. Isolate domestic water source and repair.	$ 4,224	$ 4,224	100
230	FM-0063481	San Mateo	Northern Branch Courthouse	41-C1	2	HVAC - Replace (1) failed supply fan VFD to AHU1 - VFD will not operate on "auto" manual over-ride "on-hand" to supply air - Original (18yr) VFD has failed causing loss of supply air to 3 Courtrooms, public & secure areas.	$ 16,292	$ 13,557	83.21
231	FM-0063483	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Elevators, Escalators, & Hoists - Resurface break drum, replace brake shoes, pivot arms, and brake pins, and provide full load test for Employee Elevator #5. Elevator breaks are worn and out of adjustment due to usage & wear/tear, creating a safety situation. Elevator is out of service on ground level & Locked Out/Tagged Out (shut-down).	$ 27,057	$ 24,281	89.74
232	FM-0063486	Lassen	Hall of Justice	18-C1	2	HVAC - Main BAS controller has failed. Install used temporary FX70 controller to get by until new FX 80 controller is installed to get BAS system back online.	$ 10,944	$ 10,944	100
233	FM-0063488	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Interior Finishes - Restore plaster ceiling around 150 sprinkler heads in Lock up areas. Gaps around the sprinkler heads are a point penetration and noted in the state fire marshal report.	$ 12,363	$ 12,363	100
234	FM-0063490	Los Angeles	Van Nuys Courthouse West	19-AX2	2	HVAC - Replace (1) board and relays for Boiler #3. The main board has failed and boiler is non-operational and affecting hot water supply.	$ 3,743	$ 3,359	89.74
235	FM-0063494	San Diego	Central Courthouse	37-L1	2	Vandalism - Restore stainless steel surface on public elevator #1. The interior cab was marred with gang related graffiti.	$ 3,199	$ 3,199	100
236	FM-0063497	Santa Clara	Hall of Justice (West)	43-A2	2	HVAC - Replace failed (1) HHW pump; Install new (1) control valve, (2) new fittings w/seals; check operation - 25 yr. old, heating hot water pump failed causing loss of heat in building.	$ 5,509	$ 5,509	100

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237	FM-0063501	San Diego	East County Regional Center	37-I1	2	Interior finishes - Remove and replace bedding for 65 SF of buckling floor tiles presenting a Safety and tripping hazard - 1st floor public hallway and ground floor elevator lobby - existing floor tiles to be removed, prepare subfloor, installation of new bedding and reinstallation of existing floor tiles. Apply adhesive to another 100 SF of loose tiles. Environmental oversight required for removal of tiles.	$ 12,923	$ 8,750	67.71
238	FM-0063504	Sutter	Sutter County Superior Courthouse	51-C1	2	HVAC- Two technicians Removed 50hp weight approx. 350 lb. motor - disassemble motor remove rear bearing and install new. Front bearing would not come off with puller, had to cut front bearing from motor shaft, clean and dress shaft, install new front bearing. Reinstall motor back in place, install tension belts, test run motor.	$ 3,551	$ 3,551	100
239	FM-0063505	San Diego	North County Regional Center - North	37-F2	2	Plumbing Replaced one (1) union and one (1) 90 degree angle connector on the domestic hot water loop, one (1) inlet dielectric fitting for cold water loop, and one (1) dielectric fitting and nipple at valve on hot water tank in ceiling plenum due to leaks caused by oxidation and corrosion at solder and dielectric connections. Leak saturated ceiling tiles and impacted D9 thru D12 public corridor resulting in a P1.	$ 14,754	$ 14,754	100
240	FM-0063512	Los Angeles	Downey Courthouse	19-AM1	2	Fire Protection - Replace corroded 4" nipple at riser and replace air compressor that is continually cycling & struggling to compress air. These are defects found during the LEVEL IV PM - PRE-ACTION FIRE SYSTEM (PRE) - 2788245.	$ 5,533	$ 4,631	83.7
241	FM-0063513	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Electrical - Replace (1) 1 HP motor for loading dock gate that has burned out Motor has failed not allowing the gate to be raised or lowered which is causing problems for deliveries for the courthouse.	$ 4,011	$ 3,228	80.48
242	FM-0063516	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	19-AZ1	2	HVAC - Replace (1)15 HP VFD, (1) 15HP Motor air handler unit that serves the cafeteria and judge's lounge. VFD has failed and motor bearing are failing resulting in no air.	$ 13,393	$ 9,845	73.51
243	FM-0063524	Orange	North Justice Center	30-C1	2	Plumbing - Water Heater - Remove and replace failed 100 gallon water heater located in the bus bay of the courthouse. The current unit is actively leaking and services two-thirds of the building (phases 1 and 2). Work includes tie in to existing cold and hot water at shut off valves, gas tie in, venting, strapping and supports.	$ 9,656	$ 8,720	90.31
244	FM-0063525	Santa Clara	Hall of Justice (East)	43-A1	2	Vandalism - Replace (1) cracked window at holding cell (approx. 20 x 32 x 13/16) - In-Custody smashed holding cell window; currently compromising the court holding cell capability.	$ 4,449	$ 4,449	100
245	FM-0063530	Santa Clara	Sunnyvale Courthouse	43-F1	2	Grounds and Parking Lot - Remove (4) fallen trees from site - Safety hazard at public walkways and parking area - Trees have fallen due to high winds.	$ 6,303	$ 6,303	100
246	FM-0063532	Fresno	Firebaugh Court	10-K1	2	Fire Protection - Provide labor, backhoe, and all materials to dig up corroded existing fire sprinkler pipe and replace with new, and provide labor and materials to install new concrete kicker/thrust block behind the riser 90 degree pipe. Fire sprinkler pipe serving vacant holding area has ruptured, causing flooding and shutting down the fire sprinkler system. City of Firebaugh Fire Chief to inspect.	$ 8,333	$ 8,333	100
247	FM-0063538	Fresno	Fresno County Courthouse	10-A1	2	HVAC - Replace four non-functioning, obsolete fire damper actuators located in the B-2 attic space with new fire-rated actuators with damper arm kits - Damper actuators are not functioning properly and need to be replaced.	$ 3,291	$ 3,291	100
248	FM-0063539	San Diego	South County Regional Center	37-H1	2	Interior finishes - Replace (3) Door Leverset Clutch Housings at public entrance to Dept 12, 14 and 16. The existing units mal-functioned resulting in failure to open or lock the doors consistently. The internal housings are made of plastic and springs and have failed over time due to the age and use.	$ 5,394	$ 5,394	100

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249	FM-0063543	Los Angeles	Stanley Mosk Courthouse	19-K1	2	Elevators, Escalators, hoists - Replace broken step treads on escalators 8-7 W & 7-6 W and remove debris from top end of escalators, clean down excessive grease. This work is for existing escalator Regulatory Compliance Corrections. All compliance work required is outside of the renovation project involving completely different scope of work.	$ 29,170	$ 28,371	97.26
250	FM-0063544	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Plumbing - Replace (1) toilet sink combo in the 5th floor holding cell. Toilet and sink combo has failed and is non-operational, internal parts have been leaking and corroded the plumbing fixture. Holding cell can't be used and is disrupting court operations.	$ 7,192	$ 7,192	100
251	FM-0063553	Los Angeles	Van Nuys Courthouse West	19-AX2	2	Exterior - Re-seal (2) tile patio decks (approximately 300 sq. ft.) on the 10th floor with 2 coats of epoxy commercial grade sealer. Existing decking has cracks and joints allowing water to leak down to the 9th floor.	$ 11,012	$ 8,862	80.48
252	FM-0063556	Monterey	Marina Courthouse	27-B1	2	Fire Protection - Replace 1" x 1-0 Nipple and 1 x 1/2 RC on the ITV - Replace (2) OS&Y tamper switches on back-flow that are showing signs of corrosion - Add (2) FDC and Control with addresses - Repair deficiencies noted on 5 yr inspection - Regulatory compliance.	$ 6,694	$ 6,694	100
253	FM-0063558	San Diego	North County Regional Center - North	37-F2	2	Interior finishes - Replace 100 SF of ceiling tiles and spline in conference room B. Ceiling was damaged from water leaking from roof, due to faulty roof drain. Not within original scope of roof work.	$ 7,265	$ 7,265	100
254	FM-0063559	Alameda	Wiley W. Manuel Courthouse	01-B3	2	Exterior Shell - Remove existing storefront door (1) and operator; remove floor closer; install new aluminum/glass door (1) to match adjacent doors; install new touch-bar electric panic device (compliance); replace existing hinges w/new full height, heavy-duty, mortise geared hinge; install (1) new commercial ADA operator; re-use existing electrical supply, access controls and brass door handle – Main entry/exit door is not operating due to constant use causing hinges and door opener to fail.	$ 11,599	$ 9,720	83.8
255	FM-0063560	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Interior Finishes - Provide environmental testing, install containment approximately 5'x5'x8', remove damaged ceiling approximately 46 sq ft, perform hepa-vacuuming & wipe down all surfaces in restroom, install 5/8" drywall, primer & paint to restore bathroom back to usable conditions. Restroom located in sub level P. Ceiling now showing efflorescence and is deteriorating due to previously repaired leaks.	$ 14,023	$ 9,647	68.79
256	FM-0063561	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	19-L1	2	Exterior Shell - Remove existing letters on building name monument, paint matte black, fabricate new letters to replace continuously vandalized monument, secure letters to 2.5" stainless steel metal to secure to building to prevent further vandalism to monument.	$ 14,160	$ 9,741	68.79
257	FM-0063563	Alameda	Hayward Hall of Justice	01-D1	2	HVAC - Replace Failed and leaking Hot water coil - Install (1) new circuit setter and (1) new die-electric union on HHW piping at reheat coil - Currently coil is shutdown and effecting court heating capacity	$ 2,779	$ 2,454	88.3
258	FM-0063564	Riverside	Larson Justice Center	33-C1	2	Fire Protection - Main Fire Panel - Remove and replace failed fire alarm power supply/master monitor card. The fire panel is currently showing 7 false troubles throughout the building that cannot be resolved or cleared without the card replacement. Work includes full retesting of the entire fire alarm system due to removal of power card. The electrical panel serving the fire panel will be taken down to perform the work and locked out.	$ 6,432	$ 5,198	80.81
259	FM-0063565	San Diego	East County Regional Center	37-I1	2	Plumbing-Replace one (1) Bearing assembly and seal for domestic hot water pump and unclog drain. Pump was leaking.	$ 2,800	$ 1,896	67.71
260	FM-0063568	Los Angeles	Compton Courthouse	19-AG1	2	Plumbing-Replace 40 Lf of 6" drain pipe in parking garage. Pipe is cracked in various places, causing a leak and slip hazard to pedestrians in the parking garage.	$ 11,022	$ 7,289	66.13
261	FM-0063570	Los Angeles	Compton Courthouse	19-AG1	2	HVAC - Replace 40 Lf of 1 1/2" copper pipe and five (5) 1 1/2" valves on heat exchanger #3. Insulate new piping. Exchanger supply and return lines have small leaks and the isolation valves do not hold.	$ 14,450	$ 9,556	66.13
262	FM-0063201	Riverside	Riverside Juvenile Cou	33-N1	2	Roof - Remove and replace existing roof with new 80 mil PVC single-ply roof system - Remove and replace approxin	$ 920,000	$ 453,928	49.34

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263	FM-0062970	San Luis Obispo	Courthouse Annex	40-A1	2	County Managed - Exterior Shell - Seal 120ft x 4 stories of windows/sliding doors at west entrance. Remove caulking, grind concrete, install new pans, install sill pan in concrete pit to address drainage issues. Install new sealant and caulking, paint. - The exterior shell is showing severe signs of degradation, leaks, and inadequate drainage at basement level, current installation well beyond eol. Signs of possible indoor biologic growth prevention; install is meant to be a 5 year installation pending larger project.	$ 101,469	$ 101,469	100.00
							$ 7,654,273	$ 5,918,276	

JUDICIAL COUNCIL OF CALIFORNIA
TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Attachment B

Court-Funded Facilities Requests (CFRs)
Quarter 3, Fiscal Year 2018-19

ITEM #	CFR NUMBER	COUNTY	BUILDING ID	FACILITY NAME	LEASE, LICENSE, OR FM	CFR DESCRIPTION	CFR TERM	FUND SOURCE	TOTAL ESTIMATED CFR COMMITMENT (CFR Term)
1	07-CFR007	Contra Costa	07-A14	Family Law Center	Facility Modification	Convert an existing workshop room within the Family Law Center into a Children's Waiting Room which includes installation of a new restroom within the children's waiting room.	One-Time	Special Revenue Non-Grant	$80,000
2	24-CFR021	Merced	24-A1	Old Court	Facility Modification	Other facility improvements that are not allowable court operations expenditures under rule 10.810: One-time budget expense in the amount of $43,600 to paint the exterior of the building.	One-Time	TCTF	$43,600
3	24-CFR022	Merced	24-F2	810 West Main Street	Lease	Renewal of lease for records storage at McAuley Properties. This location is used to store the court's civil, criminal, and Family Law cases including system furniture equipment	Ongoing	TCTF	$74,160
4	30-CFR029	Orange	30-E3	HJC Newport Beach Parking License	Lease	One year lease renewal for 50 parking spaces on a month to month basis at 5190 Campus/4699 Jamboree, Newport Beach, CA 92660 from WPI-Newport, LLC for employee parking.	One-Time	TCTF	$39,404
5	34-CFR009	Sacramento	34-A1	Gordon Schaber Sacramento Superior Court	Facility Modification	Convert vacant office space into a large conference/training room. The scope of the work includes demo of interior office walls, patch and paint, remove electrical outlets and light switches from interior office walls, reroute the HVAC control thermostat, and install new carpet.	One-Time	TCTF	$18,568
6	34-CFR010	Sacramento	34-J1	813 6th Street	Lease	This request relocates court functions from two seperate leased buildings, and consolidates functions within the fourth floor of the Hall of Justice building. Terminating the two leases at 901 H Street and 800 H Street results in a net savings in rent and utilities of over $96,000 a year.	One-Time	TCTF	$71,433
7	36-CFR054	San Bernardino	36-F1	Rancho Cucamonga Courthouse	Facility Modification	The $100,000 will cover the design and engineering cost required to expand the room into adjacent court occupied space. This expansion creates a new entry in the lobby, more seating, and larger room.	One-Time	Non-TCTF	$100,000
8	36-CFR055	San Bernardino	36-L1	Victorville Courthouse	Facility Modification	Relocation of the family law courtrooms, including, Self Help Resource Center and Family Court from Victorville to Barstow. Plus the opening of a children's waiting room in Barstow. Also reprogramming the Victorville footprint to add courtroom, expansion of jury room and Self Help Resource Center, and children's waiting room within existing building footprint	One-Time	Non-TCTF	$225,000
9	42-CFR012	Santa Barbara	42-A1	Santa Barbara County Courthouse	Facility Modification	Installing security anti-ballistic glazing in building for improved security in clerk's office.	One-Time	TCTF	$135,885
10	42-CFR013	Santa Barbara	42-F1	Santa Maria Courts Bldgs C + D	Facility Modification	In order to take advantage of the contractor's presence on site the court wishes to add the bathroom to the chambers in conjunction with the restoration.	One-Time	TCTF	$50,000
11	43-CFR014	Santa Clara	43-B6	64 N. Market Street	Lease	Lease extension to continue to provide parking for jurors.	Ongoing	TCTF	$120,000
12	48-CFR007	Solano	48-A1	Hall of Justice	Lease	Office space for the Court Executive Office (Administration, HR, Fiscal, IT Director, Facilities and Jury Manager, Collaborative Courts Manager) The lease is for 4,437 square feet at 550-600 Union Avenue, 3rd Floor, Fairfield. The monthly rent is $8,075.34 or annually $96,904.08 excluding janitorial services. The starting rate of $1.82 has annual nickel increases.	Ongoing	TCTF	$657,260
13	22-CFR020	Mariposa	22-C1 & 22-C2	Court Administration & Self Help Center	Lease	Lease renewals for Court Administration and Self Help Center	Ongoing	TCTF	$ 80,604
14	37-CFR028	San Diego	37-K1	Banks Street Storage	Lease	New three year lease amendment for the building	Ongoing	TCTF	$ 33,624
15	31-CFR010	Placer	31-H1	Howard Gibson Courthouse	Facility Modification	Fabrication and installation of tables in the courthouse lobby to provide litigants and attorneys work surfaces and meeting space between hearings.	One-Time	TCTF	$ 11,752
16	31-CFR011	Placer	31-H1	Howard Gibson Courthouse	Facility Modification	Funding to provide for the fabrication and installation of eight judges' bench and nine clerks' desktops in the Gibson Courtrooms. Existing bench/desktops do not provide sufficient space for current technology needs and/or are chipping and splintering	One-Time	TCTF	$ 48,000
17	04-CFR008	Butte	04-A1	Butte County Courthouse	Facility Modification	Upgrade a portion of the court's AV system that relates to the public address system.	One-Time	TCTF	$ 24,401
								Total:	**$ 1,813,691**

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 7 – Reallocation of Funds

Summary:

Review and approve reallocation of $1,000,000 from FMs Less than $100K Allocation to Priority 1 FM Allocation, and $750,000 from Unplanned FMs over $100K Allocation to Priority 1 FM Allocation.

Supporting Documentation:

- *See Presentation*

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 8 – FY 20-21 Budget Change Proposal (BCP) Initial Funding Requests (IFRs)

Summary:
Review, prioritize and approve the two FY 20-21 BCP IFRs for submittal in May to the Judicial Branch Budget Committee.

Supporting Documentation:

- 2020-21 Initial Funding Request - Trial Court Facility Operations and Maintenance Funding

- 2020-21 Initial Funding Request - Trial and Appellate Court Deferred Maintenance Funding

Action Requested:
Review, prioritize and approve the FY 2020-21 Budget Change Proposal Initial Funding Requests.

2020-21 Initial Funding Request

Requesting Entity: Trial Court Facility Modification Advisory Committee
Contact: Karen Baker **Date Prepared:** 02/19/2019
Budget Services Liaison: Mike Sun **Document Tracking Number:** IFR-20-08

A. Working Title: Trial Court Facility Operations and Maintenance Funding (A contingency submittal)

B. Description of Funding Request:

The Judicial Council requests 25.0 positions and $51.5 million General Fund in 2020-21 and ongoing to provide funding for underfunded trial court facility operations and maintenance costs (O&M). Funding is required to provide operations and maintenance services at an industry standard level of service for the entire portfolio.
Maintenance is crucial to efficient facility management, resulting in fewer emergency repairs and increased asset longevity. In order to provide oversight to ensure that maintenance is being done, we propose the creation of 25 new field positions to help provide portfolio oversight. These positions are funded at an average of $120,000 each, including benefits, for a total of $3 million. That amount, with the increased funding of $48.5 million needed to bring the original portfolio's funding up to the International Facility Management Association (IFMA) standards, brings our request to $51.5 million in ongoing resources. These resources are requested to bring our level of expenditure up to industry standards for the remainder of the portfolio.

C. Estimated Costs: ☐ **One Time** $ ☒ **Ongoing** $51,500,000
The estimated cost for this request is $51.5 million which includes $3 million for additional staffing and $48.5 million to bring the O&M up to the IFMA standard. The calculation is based on the industry-standard funding level of $6.90 per square foot times the square footage of the entire portfolio ($141.81 mil) and subtracting the existing funding of $73.2 million for the original portfolio and the proposed funding of $20.15 million in 2019-20 Governor's Budget for the new square footage. The portfolio includes 17.63 million square feet that are funded at only $4.15 per square foot rather than at $6.90 per square foot.

	IFMA 2017 Average Cost per Square Foot	Total Current JCC Facilities Square Footage (net)[1]	Portfolio Funding Level Recommended by IFMA	New JCC Facilities Square Footage (net)	IFMA Level funding for new space (19-20 Governor's Budget)	Current Available Funding for 17.63 million square feet	Operations & Maintenance Funding Gap
	a.	b.	c.	d.	e.	f.	= c - e - f
Maintenance	$3.81	20.55 million	$78.3 million	2.92 million	$11.13 million	$39.8 million	$27.37 million
Utilities	$3.09	20.55 million	$63.5 million	2.92 million	$9.02 million	$33.4 million	$21.08 million
TOTALS:	**$6.90**		$141.8 million		$20.15 million	$73.2 million	**$48.45 million**

[1] The JCC Portfolio may fluctuate from year to year as properties become inactive due to termination of leases, transfers and sales, etc.

	FTE	Annual Cost [3]	Total
Staff Oversight [2]	**25**	$120,000	**$3,000,000**

[2] Inclusive of proportionate Facilities Services staff in support of additional maintenance funds, to ensure quality assurance and fiscal oversight. Positions would include Facilities Operations Supervisors and Facilities Administrators
[3] Average cost per year, per employee, inclusive of salary, health, and benefits

D. Relevance to the Judicial Branch Budget and Other Funding Requests:

The Governor's Budget for 2019-20 proposes an augmentation to the operations and maintenance funding. The increase is specifically for the additional 2.9 million square feet of space for new construction projects authorized by SB 1732 and SB 1407. This augmentation of $20.15 million is based on IFMA's 2017 rate of $6.90 per square foot for maintenance and utilities. Trial court facilities from the original portfolio comprise 17.63 million square feet and are funded at $4.15 per square foot; just above 60% of the IFMA industry standard. This underfunding combined with rising utility costs, results in fewer resources available for repairs and preventive maintenance tasks. This work is foundational to the work of the Judicial Branch. Our mission is to ensure that every courthouse be as uniformly well-constructed and maintained as possible with respect to the essential components which make a building inhabitable. Without a fully functional court facility, there is no equal access to justice. This funding request will help us comply with the originating legislative directives that resulted in the creation of the Facilities Services office and to ensure that the many courthouse occupants are safe and comfortable during the course of their time in the buildings.

E. Required Review/Approvals:

Trial Court Facility Modification Advisory Committee has reviewed and approved this request. No additional advisory body approvals required.

F. Proposed Lead Advisory Committee:

Budget Services proposes that Trial Court Facility Modification Advisory Committee take the lead advisory role as this committee provides ongoing oversight of the judicial branch programs that manage renovations, facilities operations, maintenance, and real estate for trial courts throughout the state.

2020-21 Initial Funding Request

Requesting Entity: Trial Court Facility Modification Advisory Committee
Contact: Karen Baker **Date Prepared:** 2/22/2019
Budget Services Liaison: Mike Sun **Document Tracking Number:** IFR-20-07

A. Working Title: Trial and Appellate Court Deferred Maintenance Funding

B. Description of Funding Request:

The Judicial Council (JCC) requests $100 million General Fund in 2020-21 to provide funding to address deferred maintenance in trial and appellate courts. The request supports the JCC's strategic goals by means of sustaining court facilities at an industry level of service; thus, mitigating disruptions that could negatively affect trial and appellate courts from discharging their duties as required by statute.

The JCC's existing $2.8 billion deferred maintenance backlog includes building system repairs (i.e. elevators, roofs, fire/life/safety), retrofits, upgrades and other deferred maintenance activities that have been postponed due to funding priorities, but do not represent an imminent threat to the facility or its occupants; however, this insufficient funding has continued to cause the JCC to operate facilities on a "run to failure" basis. The requested funding is necessary to ensure that proper facility maintenance occurs in order to avoid costlier (and earlier than expected) system replacements which contribute to the increased degradation of the state-owned assets.

C. Estimated Costs: ☒ **One Time** $100,000,000 ☐ **Ongoing**

The one-time General Fund augmentation of $100 million would be exclusively used towards addressing the most urgent deferred maintenance activities. This effort will minimize the rate of decay of state-owned facilities and avoids costly system failures.

D. Relevance to the Judicial Branch Budget and Other Funding Requests:

The JCC developed a facility master plan for its trial courts, conducting an assessment of the State's courthouses and prioritizing the need for upgrades or new construction under legislation AB 233 which restructured California's court system to a state-funded system and created a Task Force on Court Facilities. The Task Force conducted a needs assessment of state's facilities and reported to the Legislature the need for equality in funding service to trial courts.

Additionally, our programs' ongoing budget has remained relatively flat over the past five years; however, in the same period an additional 3 million square feet of new courthouse space has been absorbed into the maintenance program. The JCC received one-time funding for deferred maintenance in 2016-17 ($45 million) and 2018-19 ($50 million) to address the failures of roofs, elevators, and HVAC systems. The 2019-20 Governor's budget proposes $40 million to address fire/life/safety systems. Funding of $100 million for deferred maintenance allows for continued

efforts to address deferred maintenance in court facilities to improve the life-expectancy of state assets. The California's courts are aging and the continued lack of re-investment in facilities can lead to early deterioration of buildings and exponentially higher repair or replacement costs.

E. Required Review/Approvals:

Trial Court Facility Modification Advisory Committee reviewed and approved this request. No additional advisory body approvals required.

F. Proposed Lead Advisory Committee:

Budget Services proposes that Trial Court Facility Modification Advisory Committee take the lead advisory role as this committee provides ongoing oversight of the Judicial Branch program that manages renovations, facilities operations, maintenance, and real estate for trial courts throughout the state.

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Action Item 9 – DMF Funding Cost Increase

Summary:
Review and approve total cost increase of $1,247,895 for two DMF-I projects.

Supporting Documentation:

- *DMF Contingency Status Report*
- *DMF Cost Increase Requested*

DMF #	LOCATION	FACILITY NAME	BUILDING ID	FM NUMBER	SHORT TITLE	TOTAL PROJECT COSTS	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF TCFMAC FUNDED COST	Reason for Cost Increase	ADDITIONAL COST	JUDICIAL COUNCIL SHARE FUNDED FROM FM FUNDS	FACILITY MODIFICATION PROGRAM BUDGET % OF COST
1	Alameda	Hayward Hall of Justice	01-D1	FM-0060534	DMF - Roof - Replace existing roof system and components (approximately 34,700 SF) with new 80 mil PVC roofing system as specified.	$ 4,108,767	$ 3,628,041	Additional costs for unplugging existing roof drains and added area to the project scope.	$ 42,969	$ 37,942	88.30
2	Kern	Bakersfield Superior Courthouse	15-A1	FM-0060510	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 2,080,436	$ 1,300,273	Additional costs for ACM costs that were not discovered until roof was demolished and the adding of warning strips as required by building inspector.	$ 98,789	$ 61,743	62.50
3	Kern	Bakersfield Juvenile Courthouse	15-C1	FM-0060509	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 1,248,053	$ 833,200	Additional cost for adding waterproofing over existing decks and warning strips on the edge of the roof per building inspector.	$ 44,764	$ 29,884	66.76
4	Kern	Delano/North Kern Courthouse	15-D1	FM-0060508	DMF - Roof - Remove and replace the existing roof and all components (Approximately 17,000 SF) with 80 mil PVC roof system per the specification. Seal all wall parapets and provide 20 years warranty.	$ 478,856	$ 386,149	Additional Cost for replacing rotted wooden posts that were supporting the parapet and were discovered when demolition occurred.	$ 23,167	$ 18,682	80.64
5	Kern	Shafter/Wasco Courts Building	15-E1	FM-0060511	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 511,208	$ 459,832	Additional cost to replace existing rotted and damaged wall sections on roof due to previous water leaks.	$ 15,148	$ 13,626	89.95
6	Orange	North Justice Center	30-C1	FM-0060518	DMF - Roof - Repair existing roof and apply Polyurethane coating to entire roof.	$ 2,456,720	$ 2,218,664	Additional cost for capture and recylce of the construction water offsite instead of sending it to the city storm drain system as required by City of Fullerton and warning strips at the roof edge.	$ 34,093	$ 30,789	90.31
7	San Diego	North County Regional Center - NORTH	37-F2	FM-0060515	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 2,687,806	$ 2,687,806	Additional cost due to the falling debris and dust from the roof during demolition, rescheduling of work due to noise impact to Court, leaks caused to building due to faulty roof drains which were not part of project.	$ 410,883	$ 410,883	100.00
8	Santa Clara	Hall of Justice-East	43-A1	FM-0060531	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 1,411,686	$ 1,411,686	Additional cost for failling fire proofing material in mechanical room that dropped during construction and plumbing work required to divert existing HVAC equipment.	$ 33,281	$ 33,281	100.00
9	Santa Clara	Historic Courthouse	43-B2	FM-0060532	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 963,075	$ 963,075	Additional cost for cleaning gutters and downspouts as required by SHPA prior to getting approval	$ 17,300	$ 17,300	100.00
10	Los Angeles	Van Nuys Courthouse East	19-AX1	FM-0061449	DMF - Elevators - The project includes refurbishment and modernization of elevators within the facility in accordance with the assessment report	$ 3,587,769	$ 3,219,663	Additional cost for electrical and mechanical plan reviews that were required for the project.	$ 10,755	$ 9,652	89.74
11	Los Angeles	Inglewood Juvenile	19-E1	FM-0061468	DMF - Elevators - The project includes refurbishment and modernization of elevators within the facility in accordance with the assessment report	$ 314,365	$ 253,944	Additional cost for electrical and mechanical plan reviews that were required for the project.	$ 14,605	$ 11,798	80.78
12	Los Angeles	Inglewood Courthouse	19-F1	FM-0061448	DMF - Elevators - The project includes refurbishment and modernization of elevators within the facility in accordance with the assessment report	$ 3,505,710	$ 2,613,857	Additional cost for ACM monitoring and air samples; electrical and mechanical plan reviews that were required for the project.	$ 32,165	$ 23,982	74.56

DMF #	LOCATION	FACILITY NAME	BUILDING ID	FM NUMBER	SHORT TITLE	TOTAL PROJECT COSTS	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF TCFMAC FUNDED COST	Reason for Cost Increase	ADDITIONAL COST	JUDICIAL COUNCIL SHARE FUNDED FROM FM FUNDS	FACILITY MODIFICATION PROGRAM BUDGET % OF COST
13	Los Angeles	Alhambra Courthouse	19-J1	FM-0061446	DMF - Elevators - The project includes refurbishment and modernization of elevators within the facility in accordance with the assessment report	$ 2,669,805	$ 2,296,032	Additional cost for upgrading the elevator controllers, accelerate the two elevators and upgrade to vandal resistant finishes.	$ 71,579	$ 61,558	86.00
14	Los Angeles	Stanley Mosk Escalators	19-AX1	FM-0061568	DMF - Escalators - The project includes refurbishment and modernization of 26 escalators within the facility.	$ 8,820,156	$ 8,578,484	Additional cost for fixing carrier rail between 5th and 6th floor that moves the stair treads down is bent causing the steps to hit on the 5th floor landing combi-plate.	$ 5,115	$ 4,975	97.26
15	Los Angeles	Edmund D. Edelman Children's Court	19-Q1	FM-0061642	DMF-Elevators- The project includes refurbishment and modernization of elevators within the facility in accordance with the assessment report	$ 4,533,078	$ 3,172,701	Additional cost for upgrading to vandal resistant finishes	$ 73,030	$ 51,114	69.99
16	Solano	Hall of Justice-East	48-A1	FM-0061636	DMF - Elevators- The project includes inspection and assessment of elevators within the facility and professional services to prepare site investigation and recommendations reports, development of scoping documents and performance criteria to refurbish and modernize the elevators.	$ 31,109	$ 22,654	Additional cost for site access during assessment	$ 1,987	$ 1,447	72.82
17	Contra Costa	Jail Annex	07-A4	FM-0061768	DMF - Roofing - COUNTY MANAGED - Correct failed roofing system on building - Roof leaks in several areas requires new roofing system	$ 138,286	$ 138,286	Additional Cost overrun from the County provided by the shared cost letter	$ 359	$ 359	100.00
18	Napa	Criminal Court Building	28-A1	FM-0061895	DMF-ROOF Remove and Replace approximately 16,000 square feet of BUR (built up roofing) with new 80 mil PVC. Work to include all work necessary for a complete tear off and replacement.	$ 454,755	$ 454,755	Additional cost for additional plan review on the project	$ 2,750	$ 2,750	100.00
									$ 932,739	**$ 821,764**	
								Total DMF Contingency remaining		**$ 178,236**	

DMF #	LOCATION	FACILITY NAME	BUILDING ID	FM NUMBER	SHORT TITLE	TOTAL PROJECT COSTS	FACILITY MODIFICATION PROGRAM BUDGET SHARE OF TCFMAC FUNDED COST	Reason for Cost Increase	ADDITIONAL COST	JUDICIAL COUNCIL SHARE FUNDED FROM FM FUNDS	FACILITY MODIFICATION PROGRAM BUDGET % OF COST
1	Orange	North Justice Center	30-C1	FM-0060518	DMF - Roof - Repair existing roof and apply Polyurethane coating to entire roof.	$ 4,056,720	$ 3,663,624	Additional costs for fire safing removal, accessibility requirements, permits and ACM monitoring. Total cost increase of $1.6M will be split $1.1M for DMF 1 and $0.5M for BMS Project in DMF 2. The request is for using FM funds to cover the cost increase on DMF 1 project.	$ 1,100,000	$ 993,410	90.31
2	San Bernardino	SB Courthouse Annex	36-A2	FM-0060517	DMF - Roof - Tear off and re-roof with Class-A fire-rated 80 mil PVC single ply as specified	$ 560,147	$ 535,725	Additional cost left for the portion of the roof area, ACM abatement was added to the building	$ 266,086	$ 254,485	95.64
									$ 1,366,086	**$ 1,247,895**	

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Discussion Item 1 – Court Facilities Trust Fund (CFTF) Fund Status

Summary:
Update on the status of the Court Facilities Trust Fund.

Supporting Documentation:

- *See Presentation*

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 4/8/2019

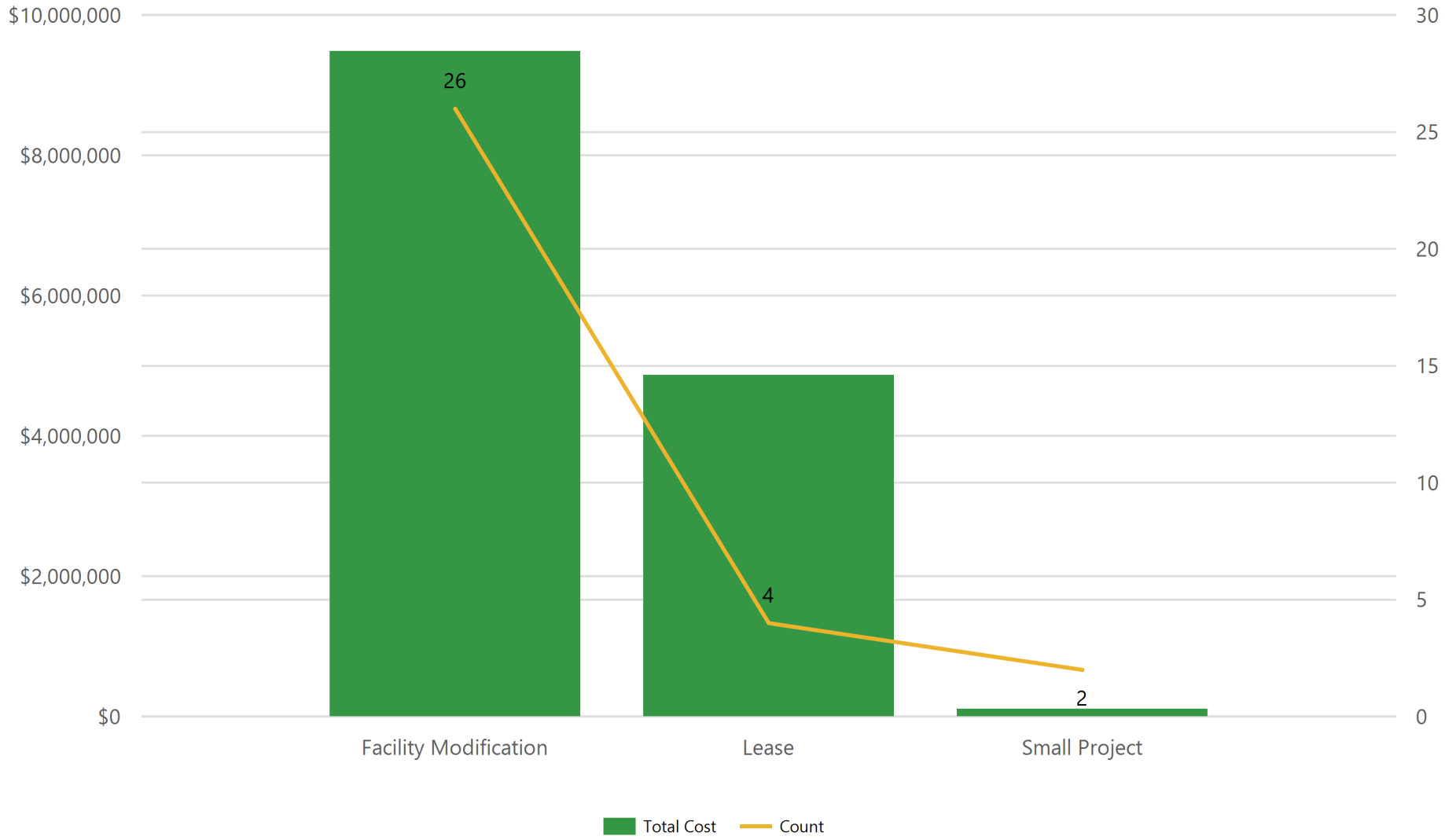
Discussion Item 2 - List E - Approved Court Funded Requests (CFRs)

Summary:
Review approved List E - Court-Funded Facilities Requests (Facility Modification and Leases).

Facility Modification CFRs:	26
Lease CFRs:	4
Small Project CFRs:	2
Total CFRs:	**32**

Supporting Documentation:
- List E - Approved Court-Funded Facilities Requests

List E Distribution



Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
1	04-CFR006	Butte	04-A1	Butte County Courthouse	Facility Modification	Install a glass panel system at the public counters in the main and side lobbies at the Butte County Courthouse. The cost of this project includes labor, glass, metal trim, paneling, structural support, and window numbering.	NA	NA	One-Time	TCTF	$27,390	Accepted	03/08/19
2	04-CFR007	Butte	04-A1	Butte County Courthouse	Facility Modification	Upgrade a portion of the court's A/V system. The court is also requesting project management support and subject matter expertise from the Judicial Council as teh court does not have the requisite internal resources to fully and successfully facilitate this project.	NA	NA	One-Time	TCTF	$120,000	Accepted	03/07/19
3	04-CFR009	Butte	04-A1	Butte County Courthouse	Facility Modification	The purpose of this request is to improve the condition of a historic courtroom at the Butte County Courthouse in Oroville. This request involves refinishing and re-staining wood gallery seating (76 chairs), reupholstering jury box seating (14 chairs), and painting interior walls. Hardware will also be replaced as necessary for both the jury and gallery seats. These updates will provide much needed improvements to the courtroom while also allowing this room to retain its historic aesthetic.	NA	NA	One-Time	TCTF	$30,000	Accepted	03/08/19
4	15-CFR007	Kern	15-H1	Arvin/ Lamont Branch	Facility Modification	Design Costs for secure parking for judicial officers.	NA	NA	One-Time	TCTF	$22,000	Accepted	03/08/19
5	15-CFR008	Kern	15-I1	Mojave-Main Court Facility	Facility Modification	Design Costs for secure parking for judicial officers	NA	NA	One-Time	TCTF	$22,000	Accepted	03/08/19
6	15-CFR009	Kern	15-E1	Shafter/Wasco Courts Bldg.	Facility Modification	Design Costs for secure parking for judicial officers.	NA	NA	One-Time	TCTF	$22,000	Accepted	03/08/19
7	15-CFR010	Kern	15-A1	Bakersfield Superior Court	Facility Modification	The courts funding will cover all costs associated with design, abatement, demolition, and the construction of a new courtroom and surrounding office areas.	N/A	N/A	One-Time	TCTF	$4,200,000	Accepted	03/08/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
8	19-CFR063	Los Angeles	19-M1	Central Civil West Court	Lease	CFR, in the amount of $356,753.70, would fund rent for the 3rd, 14th, 16th and partial 4th floor rent: rent for June, July and August 2019.	County of Los Angeles	Judicial Council	3 Months	TCTF	$356,754	Accepted	03/01/19
9	19-CFR064	Los Angeles	19-L1	Clara Shortridge Foltz Criminal Justice Center	Facility Modification	Costs in the amount of $250,000.00 would fund the demolition of existing A/V equipment, cages and all exterior satellite and related equipment, renovation and installation of required electrical, A/V and data outlets and whip connections to newly purchased and installed smart desks (NIC) per attached supplemental drawing. In addition, new carpeting, paint on walls and ceiling.	NA	NA	One-Time	TCTF	$250,000	Accepted	03/07/19
10	19-CFR065	Los Angeles	19-AE1	Alfred J. McCourtney Juvenile Justice Center	Facility Modification	CFR in the amount of $2,100,000.00 to fund tenant alterations and re-configuration work due to operational needs at the facility. CFR will include the completion of the remaining balance of base agreement #1022947 task order for the general contractor.	NA	NA	One-Time	TCTF	$2,100,000	Accepted	03/07/19
11	19-CFR066	Los Angeles	19-K1	Stanley Mosk Courthouse	Facility Modification	Cost in the amount of $128,000.00 would fund the demolition and removal of existing kitchen equipment. Environmental testing of existing floor and installation of new ovens, griddles, steamer and fryer with associated electrical and plumbing requirements.	NA	NA	One-Time	TCTF	$128,000	Accepted	03/07/19
12	19-CFR067	Los Angeles	19-00	Multiple	Facility Modification	Costs in the amount of $245,000 would be intended to repair and/or replace asphalt in the parking lots of Santa Clarita, Torrance and the Pasadena Judges Secured Parking Lot to mitigate life and safely hazards and to address claims that have been recorded.	NA	NA	One-Time	TCTF	$245,000	Accepted	03/07/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
13	19-CFR068	Los Angeles	19-00	Multiple	Facility Modification	Cost in the amount of $581,580 would be intended to install, upgrade, and modify security features according to the attached list of identified projects and locations.	NA	NA	One-Time	TCTF	$581,580	Accepted	03/07/19
14	19-CFR069	Los Angeles	19-AX1	Van Nuys Courthouse East	Facility Modification	Proposed funding contribution from the court in the amount of $290,000 would cover the costs associated with a tenant alteration project to develop a training room, conference room, and staff break space in the Van Nuys East Courthouse. (Additional details on scope of work is attached)	NA	NA	One-Time	TCTF	$290,000	Accepted	03/07/19
15	24-CFR023	Merced	24-A8	Main Merced Courthouse	Facility Modification	Court funding will be used to construct an office to be used by seven Court Reporters. The OFfice will be built in space that was recelty made available due to the removal of a large power file shelving unit. The Vacant space is located in the Crimminal Division. Due to space limimitations in the courthouses utilizing this space for an office is the most effective means.	NA	NA	One-time	TCTF	$162,790	Accepted	03/08/19
16	27-CFR004	Monterey	27-A1	Salinas Courthouse- North Wing	Facility Modification	1) Judicial officer chambers on the first and second floors windows need to be fitted with Level III ballistic glass, and 2) fenced off utilites on the north side of the courthouse; they control the HVAC systems and utilites for critical areas, such as the MDF room.	NA	NA	One-time	TCTF	$85,250	Accepted	03/08/19
17	27-CFR005	Monterey	27-B1	Marina Courthouse	Facility Modification	Erect perimeter fencing to surround the sides and back of the court facility, and 2) Judicial officer chambers on the first floor windwos need to be fitted with LEvel III ballisct glass.	NA	NA	One Time	TCTF	$96,650	Accepted	03/08/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
18	30-CFR030	Orange	30-A1	Central Justice Center	Facility Modification	The court is replacing the Uninterrupted Power Supply (UPS) in their main server room. They would like to include a Temporary Power supply to keep critical systems online during the 2-3 day install.	N/A	N/A	One-Time	TCTF	$10,451	Accepted	01/28/19
19	31-CFR012	Placer	31-H1	Hon. Howard G. Gibson Courthouse	Small Project	The Gibson Courthouse security controls are experiencing a series of failures, creating greater risk of incident. The IBA is needed to ensure better coordination of service repairs to avoid cascading failures and inefficient use of public funds. See attached - Security Control Intra-Branch Agreement.	NA	NA	3 years	TCTF	$60,000	Accepted	03/18/19
20	31-CFR013	Placer	31-H1	Hon. Howard G. Gibson Courthouse	Facility Modification	Fabrication and installation of tables in the courthouse lobby to provide litigants and attorneys work surfaces and meeting space between hearings. See attached SWO#1591319 with total cost of $11,752.	NA	NA	One-Time	TCTF	$11,800	Accepted	03/08/19
21	31-CFR014	Placer	31-00	Multiple	Small Project	Funding would cover remediation costs for the new Department 20. The attached scope is roughly estimated between $25,000 and $50,000. The court seeks to have $50,000 tied to this CFR and reduced form the court's FY 18/19 allocation. If final costs are lower than $50,000, any excess would be used for small projects at the court's other facilities.	NA	NA	One-Time	TCTF	$50,000	Accepted	03/08/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
22	33-CFR024	Riverside	33-A3	Hall of Justice	Facility Modification	ADA Barrier Removal Proejct - Public Restrooms - Hall of Justice - Second Floor: Planning and design work including ACM survey, plan check and permitting. Construction activities to include: ACM abatement, if required. Aggressvie cleaning of floor and wall tile inlcuding grout replacment, if required. REplacment of toilets, urinals, sinks, counter tops, mirrors and stall partitions. And a construction contingency of approximately 10%	NA	NA	One-time	TCTF	$100,000	Accepted	03/08/19
23	36-CFR057	San Bernardino	36-E1	Joshua Tree Courthouse	Facility Modification	This Court Funding Request for $60,000 will cover the architectural design, engineering costs required to remodel the existing fire rated transaction counter wall in the main lobby of the Joshua Tree Courthouse. The current public transaction counter are stand-up style counters, and no longer serves the current business needs of the court. This style of transaction counter has presented many ergonomic challenges for staff, including very limited work surfaces, staff having to sit on tall stools instead a more ergonomic task chair and the lack of space necessitating equipment placement that results in significant reach problems. The remodel would consist of demo of existing counter, construction of lower sit-down height counter windows, furniture, electrical and data.	NA	NA	One-Time	TCTF	$60,000	Accepted	03/08/19
24	36-CFR059	San Bernardino	36-J1	Barstow Courthouse	Facility Modification	Construction cost associated with the installation of a new perimeter security fence, rolling drive gates, barrier arms, pedestrian gates and assocated controls for the judicial and staff parking area. One-time project cost totalling $248,900.	N/A	N/A	One-Time	Non-TCTF	$248,900	Accepted	03/18/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
25	37-CFR029	San Diego	37-H1	South County Regional Center	Facility Modification	San Diego Superior Court is requesting the Judicial Council approve a CFR funded project for tenant improvements (TI) to the 2nd floor Bail Office of the South County Regional Center (SCRC). This TI will create an elevated platform for staff to sit on while helping customers at the business center. Currently Bail Office Staff stand or sit on high stools. This none ergonomic condition has resulted in staff claims. The total TI cost would not exceed $200,000.	NA	NA	One-Time	TCTF	$200,000	Accepted	03/08/19
26	37-CFR030	San Diego	37-F2	North County Regional Center - North	Facility Modification	San Diego Superior Court is requesting the Judicial Council approve a CFR funded project for tenant improvements (TI) to the Criminal Business Office of the North County Regional Center (NCRC). This TI will create an elevated platform for staff to sit on while helping customers at the business center. Currently Bail Office Staff stand or sit on high stools. This none ergonomic condition has resulted in injuries and staff claims. The total TI cost would not exceed $250,000.	NA	NA	One-Time	TCTF	$250,000	Accepted	03/08/19
27	42-CFR014	Santa Barbara	42-B3	1019 Garden Street	Lease	Court will cover the cost of hte County's yuse of 20 parking spaces in teh City ownded Granada Parking structure in exhchange for providing the Court 40 oarking spaces in the Garden St. parking lot described in the attached lease aggreement.	County of Santa Barbara	Judicial Council	One Year	TCTF	$72,000	Accepted	02/27/19
28	42-CFR015	Santa Barbara	42-A1	Santa Barbara County Courthouse	Facility Modification	Request to modify court space to function as a consolidated self-help center. Pending approval of MOU.	N/A	N/A	One-Time	TCTF	$175,000	Accepted	03/12/19

Item #	CFR Number	County	Building ID	Facility Name	Lease, License, or FM	CFR Description	Lessor	Lessee	CFR Term	Fund Source	Total CFR Committment (CFR Term)	Status	Date Approved
29	43-CFR015	Santa Clara	43-G1	Santa Clara Courthouse	Facility Modification	At the March 2019 TCFMAC meeting it was decided that Santa Clara Court and the JCC would share 50/50 of the total cost to replace a failed security panel.	N/A	N/A	One-Time	TCTF	$18,828	Accepted	03/28/19
30	49-CFR005	Sonoma	49-B1	Empire Annex	Lease	One year of lease from 2/1/2019 through 1/31/2020 for 50% of the lease cost. The Judicial Council took transfer of this facility from Sonoma county and will fund the remaining 50% of the total annual lease expense (Court Facility Trust Fund).	Empire College	Judicial Council	One Year	TCTF	$148,017	Accepted	01/30/19
31	49-CFR006	Sonoma	49-B2	3055 Cleveland Avenue	Lease	Five Year lease from April 1, 2019 through March 30, 2024 for 40% of the lease costs. The Judicial Council assumed responsibility for this facility from Sonoma County and funds the remaining balance of the total annual lease expense.	Vimark, Inc.	Judicial Council	5 Year	TCTF	$4,295,123	Accepted	03/08/19
32	54-CFR013	Tulare	54-A1	Visalia Superior Court	Facility Modification	Provide architectural services for schematic design, permitting, construction consultation and project closeout.	NA	NA	One-Time	TCTF	$23,880	Accepted	03/07/19
											$14,463,413		

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Discussion Item 3 – List F – Funded Facility Modifications on Hold

Summary:

Review and discuss List F – *Funded Facility Modifications on Hold*.

Total Project – Count:	8
Total FM Budget Share:	$8,471,897

Supporting Documentation:

- List F – *Funded Facility Modifications on Hold*

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM SHARE OF COST	FACILITY MODIFICATION PROGRAM BUDGET % OF	TCFMAC APPROVAL DATE	DAYS PENDING*	ON HOLD FOR SHARED COST?	PROJECT MANAGER ASSIGNED?	COMMENTS
1	FM-0040733	Solano	Hall of Justice	48-A1	2	EXECUTION -- Construct 1,070 lf of retaining wall, 525 lf of earthen berms, 575 lf of access ramps; install drainage pipe and 2 pumps to extract water trapped within the prevention area. $1.7M was spent in 2005 for flood damage and $146K was spent in FY 10/11 on flood prevention measures. Emergency exiting must be sealed during flood conditions.	$ 1,211,241	$ 882,026	72.82	1/30/2012	2613	Yes	Hold	Shared Cost for design phase approved. Design effort is in work.
2	FM-0061091	Del Norte	Del Norte County Superior Court	08-A1	3	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 643 fixtures)	$ 38,368	$ 23,508	61.27	8/28/2017	576	Yes	Hold	Hold for Shared Cost
3	FM-0061181	Kern	Bakersfield Superior Court	15-A1	3	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 3714 fixtures)	$ 244,437	$ 152,773	62.50	8/28/2017	576	Yes	Hold	Hold for Shared Cost
4	FM-0061130	San Diego	East County Regional Center	37-I1	3	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 6362 fixtures)	$ 453,600	$ 307,133	67.71	8/28/2017	576	Yes	Hold	Hold for Shared Cost
5	FM-0011923	San Diego	East County Regional Center	37-I1	2	Elevator - Elevator Renovation - Complete renovation of nine (9) gearless traction elevators. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equip., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, governors (elevators 1,2&3 only), closed loop heavy duty high speed operators, current code required wiring, interior and lobby control panels, counterweights and roller guides (Elevators 7&9 only), hoist and governor ropes, cab ceilings with LED down lights, rope compensation and seismic provisions.	$ 6,633,519	$ 5,205,543	78.47	4/13/2018	348	Yes	Hold	NTP issued on 100% Judicial Council Cost.
6	FM-0017040	Los Angeles	Compton Courthouse	19-AG1	2	Fire Protection - Phase 2 -Installation of a new Fire Detection and Notification Alarm system.	$ 978,025	$ 646,768	66.13	12/3/2018	114	Yes	Hold	Hold for Shared Cost
7	FM-0063503	Los Angeles	Compton Courthouse	19-AG1	2	Fire Protection - Fire/Life/Safety - Remove and replace the exisitng single wall fuel lines(two each) with a rigid dual wall system from the main storage tank, to the fuel pumps in the basement and up to the two (2) Fire Pump Day Tanks in the Penthouse on the 13th Floor (Approximately 1,800 LF of pipe). This work will require high reach equipment, ACM/Haz Mat work, after hours schedule and plan review and inspections by the State Fire Marshals office.	$ 640,000	$ 423,232	66.13	1/28/2019	58	Yes	Hold	Hold for Shared Cost and DMF 2 authorization

*Days Pending, as of March 26, 2019

	FM NUMBER	LOCATION	FACILITY NAME	BUILDING ID	PRIORITY	SHORT TITLE	TCFMAC FUNDED COST	FACILITY MODIFICATION PROGRAM SHARE OF COST	FACILITY MODIFICATION PROGRAM BUDGET % OF	TCFMAC APPROVAL DATE	DAYS PENDING*	ON HOLD FOR SHARED COST?	PROJECT MANAGER ASSIGNED?	COMMENTS
8	FM-0061966	Los Angeles	Compton Courthouse	19-AG1	2	HVAC- Replace (13) coils and drain pans for air handling units throughout the building. Each unit will require (4) thermometers, (4) pressure gauges, (4) isolation valves, replace 150 LF of 4" piping/insulation, and 25 LF of 1" pipe for condensate system. ACM testing will be performed on existing insulation, and if positive, the cost will vastly increase for removal of insulation. Drain pans, coils, and piping is rusted and deteriorating.	$ 1,256,486	$ 830,914	66.13	1/28/2019	58	Yes	Hold	Hold for Shared Cost and DMF 2 authorization
							$ 11,455,677	**$ 8,471,897**						

*Days Pending, as of March 26, 2019

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Date: 04/08/2019

Information Only Item 1 – DMF-I Project List Status

Summary:
Update on the DMF-I projects

Supporting Documentation:

- DMF-I Project Progress Report

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects

Monthly Report No. 13
March 28, 2019

Project Management	Judicial Council of California - Facilities Services - Administrative Division
Construction Management	Kitchell CEM
Architect	Development One, Inc.
Contractors	MTM Construction, Mark Scott Construction, Mackone Development, Enovity, Vincor, ABM, MIK Construction Inc.

Deferred Maintenance Fund Projects Status: For all work associated with roof repairs or replacement; skylights, elevators, escalators, and wheel chair lifts refurbishment or replacement:

Project Status	Number of Projects	Original Estimate	Current Amount
Roof Projects			
Design Phase	1	$ 139,000	$ 50,317
Plan Check Phase	-	$ -	$ -
Bidding Phase	-	$ -	$ -
Awaiting Shared Cost Letter	-	$ -	$ -
Construction Phase	5	$ 1,602,000	$ 6,029,594
On Hold - County owned and managed facility.	4	$ 487,000	$ 487,000
Funded by FM Fund	-	$ -	$ -
Future Funding	4	$ 2,245,000	$ 7,798,727
Completed	20	$ 6,898,000	$ 17,650,144
Cancelled	7	$ 2,240,000	$ 156,182
Subtotal	**41**	**$ 13,611,000**	**$ 32,171,964**
Elevator Projects			
Design Phase	-	$ -	$ -
Plan Check Phase	-	$ -	$ -
Bidding Phase	-	$ -	$ -
Awaiting Shared Cost Letter	-	$ -	$ -
Construction Phase	8	$ 19,355,000	$ 23,446,726
On Hold - County owned and managed facility.	6	$ 3,016,000	$ 1,147,473
Funded by FM Fund	2	$ 275,000	$ 275,000
Future Funding	21	$ 7,318,000	$ 17,828,260
Completed	-	$ -	$ -
Cancelled	8	$ 2,426,000	$ -
Subtotal	**45**	**32,390,000**	**42,697,458**
Grand Total	**86**	**$ 46,001,000**	**$ 74,869,422**

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects

Monthly Report No. 13
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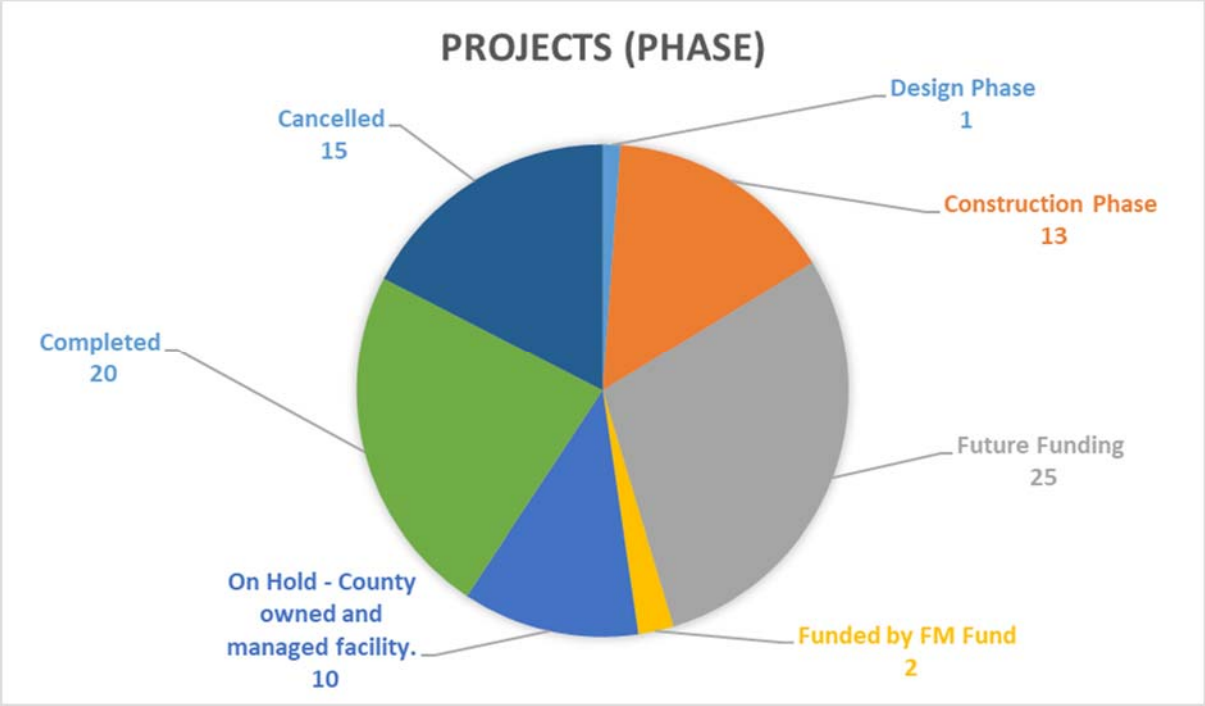
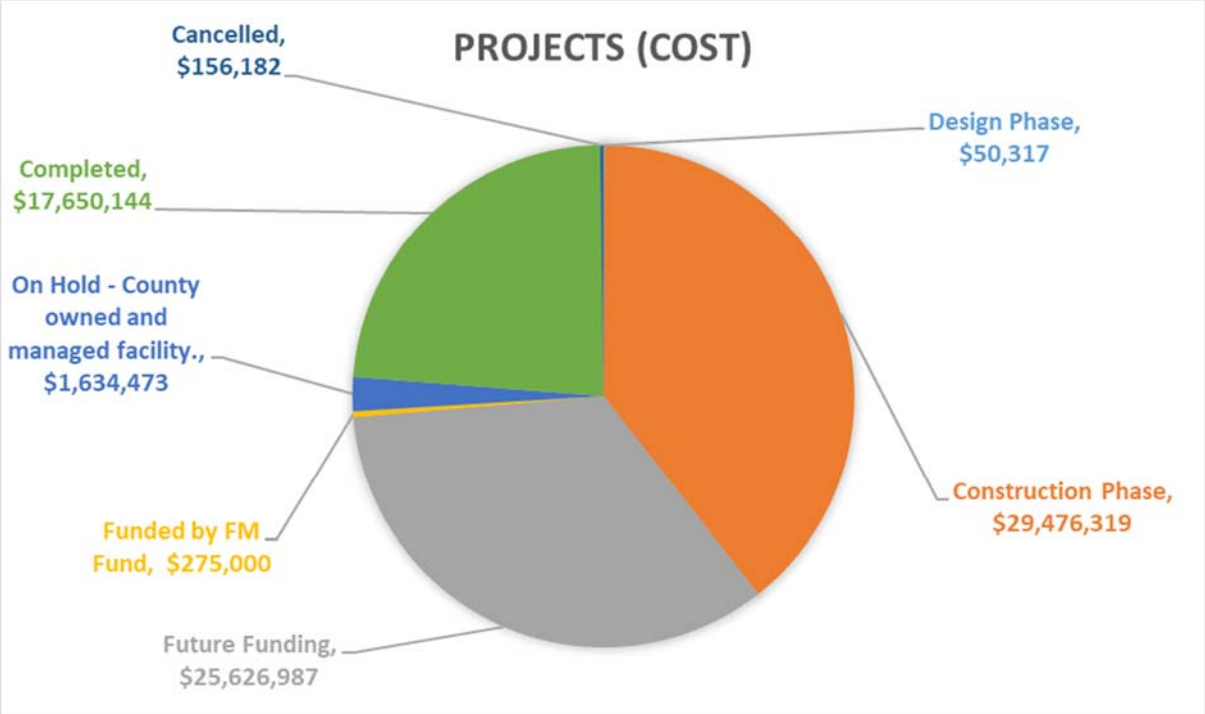




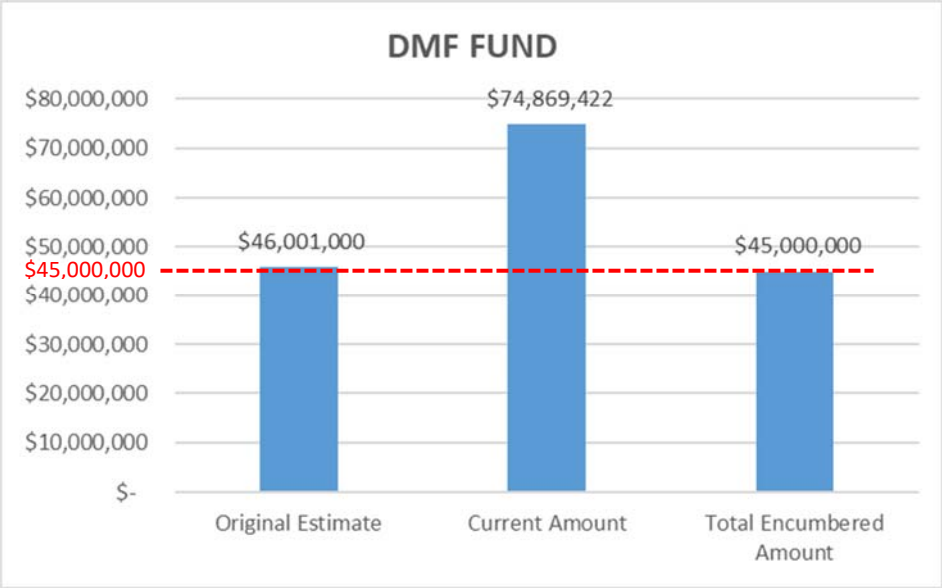
JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects

Monthly Report No. 13

March 28, 2019



Design Phase:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
11	Humboldt	Humboldt County Courthouse (Eureka)	Roof Replacement	$ 139,000	$ 50,317

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects

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Construction Phase:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
5	San Bernardino	Annex Courthouse	Roof Replacement	$ 157,000	$ 479,200
12	Kern	Bakersfield Superior Court	Roof Replacement	$ 529,000	$ 1,687,180
15	Kern	Delano/North Kern Court	Roof Replacement	$ 145,000	$ 431,996
27	Orange	North Justice Center	Roof Replacement	$ 534,000	$ 2,430,336
35	Santa Clara	Historic Courthouse	Roof Replacement	$ 237,000	$ 870,349
54	Kern	Bakersfield Superior Court	Elevator Replacement	$ 540,000	$ 541,183
61	Los Angeles	Van Nuys Courthouse East	Elevator Replacement	$ 2,143,000	$ 3,408,802
64	Los Angeles	Inglewood Juvenile Court	Elevator Replacement	$ 72,000	$ 398,644
65	Los Angeles	Inglewood Courthouse	Elevator Replacement	$ 1,872,000	$ 3,303,653
67	Los Angeles	Alhambra Courthouse	Elevator Replacement	$ 919,000	$ 2,430,336
68	Los Angeles	Stanley Mosk Courthouse	Escalator Renovation	$ 10,300,000	$ 8,646,341
70	Los Angeles	Edmund D. Edelman Children's Court	Elevator Replacement	$ 3,330,000	$ 3,983,044
72	Los Angeles	West Covina Courthouse	Elevator Replacement	$ 179,000	$ 622,575

On Hold - County owned and managed facility. Working with county to initiate the project:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
8	Solano	Solano Justice Building	Skylight Replacement	$ 33,000	$ 33,000
28	Placer	Historic Courthouse	Roof Replacement	$ 55,000	$ 55,000
29	San Diego	Hall of Justice	Roof Replacement	$ 59,000	$ 59,000
39	San Luis Obispo	Courthouse Annex	Skylights Replacement	$ 340,000	$ 340,000
43	Riverside	Corona	Elevator Replacement	$ 55,000	$ 55,000
46	Solano	Solano Justice Building	Elevator Replacement	$ 72,000	$ 72,000
55	Kern	Bakersfield Justice Bldg.	Elevator Replacement	$ 423,000	$ 423,000
80	San Diego	South County Regional Center	Elevator Replacement	$ 401,000	$ 401,000
81	San Mateo	Hall of Justice	Wheelchair Lift Replace	$ 16,000	$ 16,000
86	Ventura	Hall of Justice	Elevator Replacement	$ 2,049,000	$ 150,000

Funded by FM Fund:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
78	San Diego	North County Regional Center - South	Elevator Replacement	$ 232,000	$ 232,000
83	Santa Clara	Historic Courthouse	Elevator Replacement	$ 43,000	$ 43,000

Future Funding:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
6	Santa Barbara	Santa Maria Courts Bldgs C + D	Roof Replacement	$ 577,000	$ 2,000,000
26	Orange	Betty Lou Lamoreaux Justice Center	Skylights Replacement	$ 209,000	$ 209,000
33	San Diego	East County Regional Center	Roof Replacement	$ 1,131,000	$ 3,643,501
38	Ventura	East County Courthouse	Roof Replacement	$ 328,000	$ 1,930,805
42	Santa Barbara	Santa Maria Courts Bldgs C + D	Elevator Replacement	$ 234,000	$ 274,320
44	Solano	Hall of Justice	Elevator Replacement	$ 418,000	$ 418,000
48	Alameda	Hayward Hall of Justice	Elevator Replacement	$ 892,000	$ 2,788,802
49	Alameda	Fremont Hall of Justice	Elevator Replacement	$ 634,000	$ 926,800
50	Contra Costa	Wakefield Taylor Courthouse	Elevator Replacement	$ 485,000	$ 1,104,000
51	Contra Costa	Danville District Courthouse (Walnut Cree	Elevator Replacement	$ 96,000	$ 511,985
52	Contra Costa	George D. Carroll Courthouse	Elevator Replacement	$ 231,000	$ 326,000
53	San Bernardino	Barstow Courthouse	Elevator Replacement	$ 75,000	$ 167,760
57	Los Angeles	Bellflower Courthouse	Wheelchair Lift Replace	$ 50,000	$ 50,000
58	Los Angeles	Downey Courthouse	Wheelchair Lift Replace	$ 140,000	$ 140,000
59	Los Angeles	Beverly Hills Courthouse	Elevator Replacement	$ 777,000	$ 2,688,288
62	Los Angeles	Van Nuys Courthouse West	Elevator Controls Repla	$ 205,000	$ 205,000
63	Los Angeles	Torrance Courthouse	Elevator Replacement	$ 1,321,000	$ 2,929,621
66	Los Angeles	Burbank Courthouse	Elevator Replacement	$ 119,000	$ 616,238
69	Los Angeles	El Monte Courthouse	Elevator Replacement	$ 536,000	$ 2,040,000
74	Orange	North Justice Center	Elevator Replacement	$ 553,000	$ 1,260,000
76	San Diego	Kearny Mesa Court	Dumbwaiter Replacem	$ 60,000	$ 60,000
77	San Diego	Juvenile Court	Elevator Replacement	$ 88,000	$ 262,813
79	San Diego	North County Regional Center - North	Elevator Replacement	$ 95,000	$ 241,000
82	San Mateo	Northern Branch Courthouse	Elevator Replacement	$ 84,000	$ 279,000
84	Santa Clara	Santa Clara Courthouse	Elevator Replacement a	$ 225,000	$ 254,000

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects

Monthly Report No. 13
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Completed:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost
1	Alameda	Hayward Hall of Justice	Roof Replacement	$ 627,000	$ 3,879,313
2	Los Angeles	Airport Courthouse	Roof Replacement	$ 555,000	$ 622,796
3	Santa Barbara	Santa Maria Bldg G	Roof Replacement	$ 255,000	$ 1,200,000
4	Riverside	Riverside Juvenile Justice Trailer	Roof Replacement	$ 24,000	$ 7,575
7	Santa Barbara	Santa Maria Courts, Bldg F	GuttersReplacement	$ 11,000	$ 350,000
10	Contra Costa	Jail Annex	Roof Replacement	$ 11,000	$ 11,000
14	Kern	Bakersfield Juvenile Center	Roof Replacement	$ 119,000	$ 1,125,458
16	Kern	Shafter/Wasco Courts Bldg.	Roof Replacement	$ 203,000	$ 472,218
17	Kern	Taft Courts Bldg.	Roof Replacement	$ 75,000	$ 239,710
18	Los Angeles	Sylmar Juvenile Court	Roof Replacement	$ 52,000	$ 231,000
19	Los Angeles	Beverly Hills Courthouse	Roof Replacement	$ 241,000	$ 674,936
21	Los Angeles	Chatsworth Courthouse	Roof Replacement	$ 864,000	$ 976,361
25	Napa	Criminal Court Building	Roof Replacement	$ 232,000	$ 452,185
30	San Diego	Department 9 Trailer	Roof Replacement	$ 23,000	$ 7,206
31	San Diego	Department 10 Trailer	Roof Replacement	$ 23,000	$ 7,053
32	San Diego	North County Regional Center - North	Roof Replacement	$ 1,831,000	$ 2,100,428
34	Santa Clara	Hall of Justice - East	Roof Replacement	$ 353,000	$ 1,278,789
37	Ventura	Hall of Justice	Roof Replacement	$ 837,000	$ 1,005,285
40	Riverside	Blythe Courthouse - Superior Court	Roof Replacement	$ 163,000	$ 163,791
41	San Francisco	Civic Center Courthouse	Roof Replacement	$ 399,000	$ 2,326,404

Cancelled:

#	County	Facility Location	Project Title	Estimated Cost	Updated Cost	Devo One Costs
9	Alameda	Wiley W. Manuel Courthouse	Roof Replacement	$ 283,000	$ -	$ 102,690
13	Kern	Bakersfield Justice Bldg.	Roof Replacement	$ 195,000	$ -	$ -
20	Los Angeles	Hall of Records	Roof Replacement	$ 6,000	$ -	$ -
22	Los Angeles	Mental Health Court	Roof Replacement	$ 234,000	$ -	$ -
23	Los Angeles	West Covina Courthouse	Roof Replacement	$ 1,283,000	$ -	$ -
24	Madera	Sierra Courthouse	Roof Replacement	$ 41,000	$ 26,746	$ 26,746
36	Tulare	Visalia Superior Court	Roof Replacement	$ 198,000	$ -	$ -
45	San Bernardino	Rancho Cucamonga Courthouse	Elevator Replacement	$ 361,000	$ -	$ -
47	Alameda	Wiley W. Manuel Courthouse	Elevator Replacement	$ 934,000	$ -	$ -
56	Los Angeles	Santa Clarita Courthouse	Lift Replacement	$ 10,000	$ -	$ -
60	Los Angeles	Hall of Records	Elevator Replacement	$ 16,000	$ -	$ -
71	Los Angeles	Central Arraignment Courts	Elevator Replacement	$ 533,000	$ -	$ -
73	Nevada	Nevada City Courthouse	Elevator Replacement	$ 151,000	$ -	$ -
75	Placer	Historic Courthouse	Elevator Replacement	$ 72,000	$ -	$ -
85	Tulare	Visalia Superior Court	Elevator Replacement	$ 349,000	$ -	$ -

Project Progress Pictures:

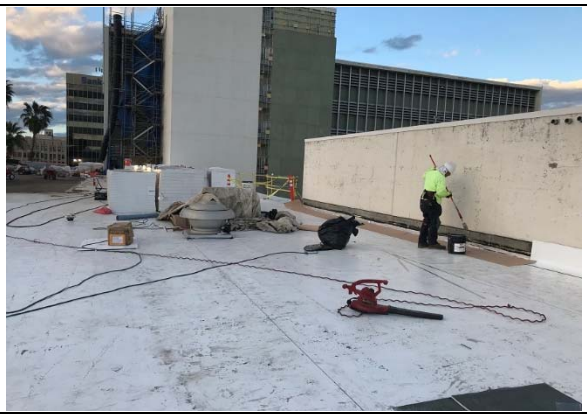
North Justice Center - Fullerton - Roof

North Justice Center - Fullerton - Roof

Delano Courthouse – Kern - Roof

Delano Courthouse – Kern - Roof

Bakersfield Superior Court - Kern - Roof



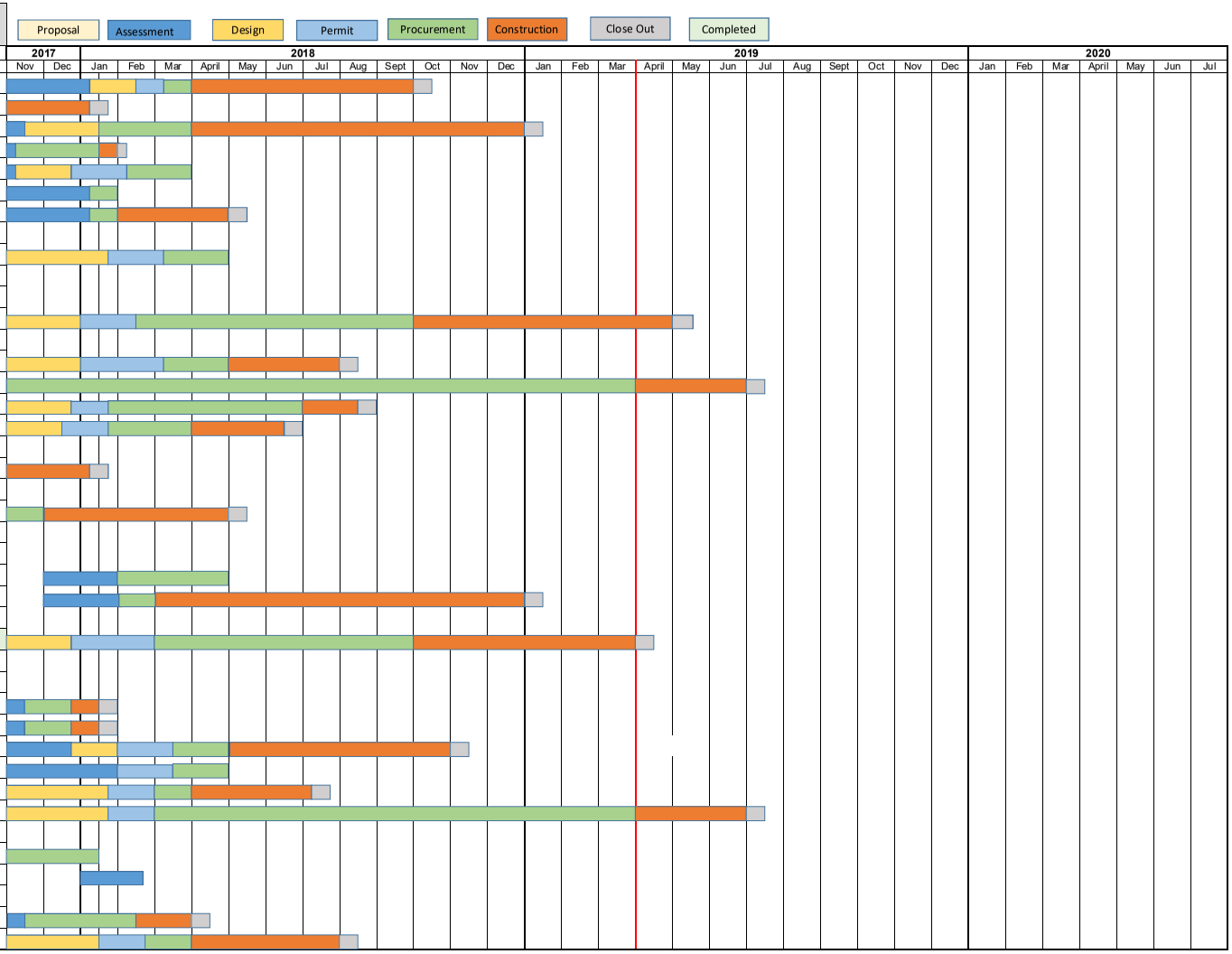
Bakersfield Superior Court - Kern - Roof

	
Alhambra Courthouse - LA - Elevator	Alhambra Courthouse - LA - Elevator
	
Edelman Children's Court - LA - Elevator	Edelman Children's Court - LA - Elevator
	
Stanley Mosk Courthouse - LA - Escalators Phase 5	Stanley Mosk Courthouse - LA - Escalators Phase 5

JUDICIAL COUNCIL OF CALIFORNIA
TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Judicial Council Deferred Maintenance (DMF I)
Project Schedule
March 2019

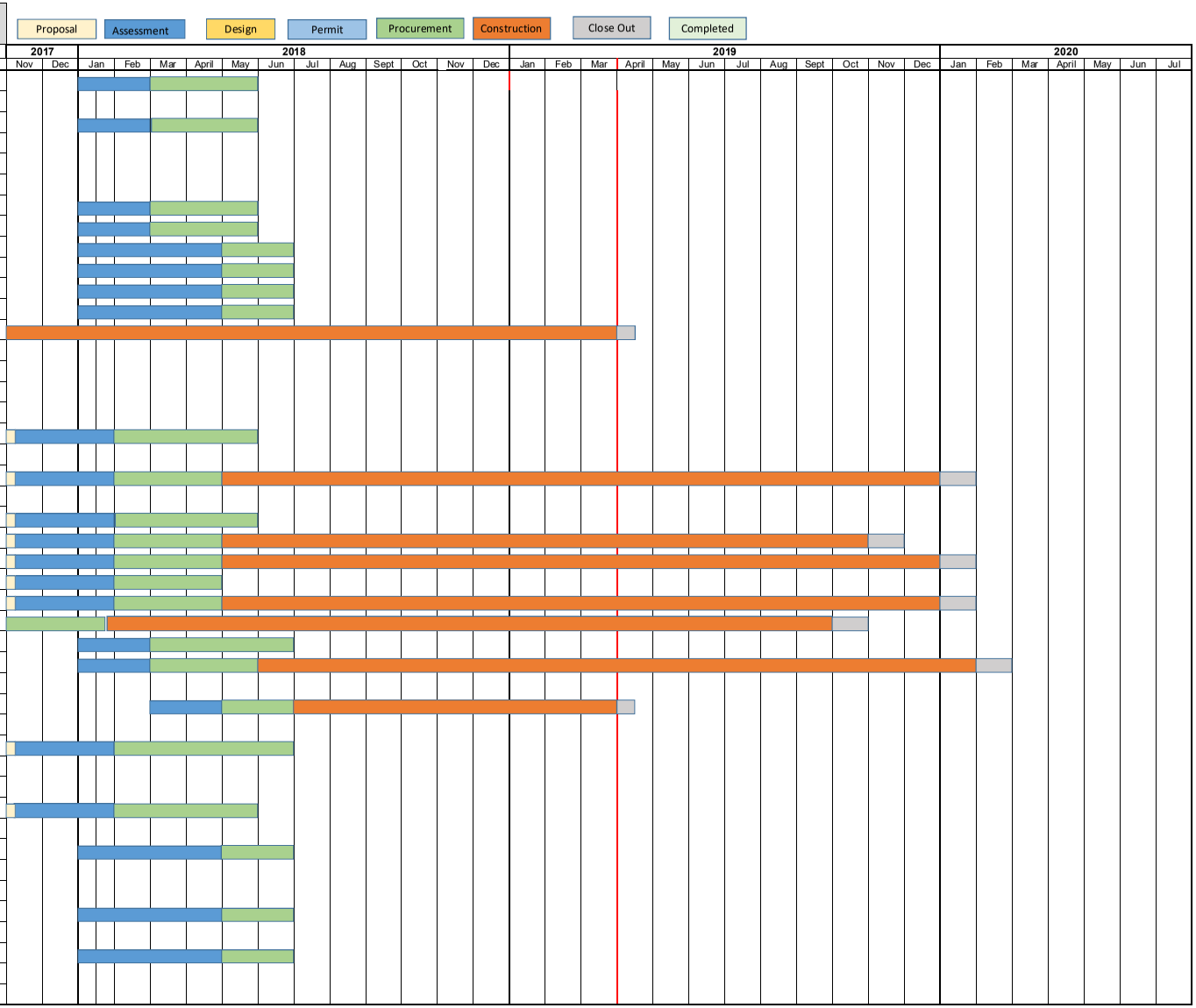
#	County	Facility Location	Project Title
1	Alameda	Hayward Hall of Justice	Roof
2	Los Angeles	Airport Courthouse	Roof
3	Santa Barbara	Santa Maria Bldg G	Roof
4	Riverside	Riverside Juvenile Justice Trailer	Roof
5	San Bernardino	San Bernardino Courthouse	Roof
6	Santa Barbara	Santa Maria Courts Bldgs C + D	Roof
7	Santa Barbara	Santa Maria Courts, Bldg F	Gutters
8	Solano	Solano Justice Building	Skylights
9	Alameda	Wiley W. Manuel Courthouse	Roof
10	Contra Costa	Jail Annex	Roof
11	Humboldt	Humboldt County Courthouse (Eureka)	Roof
12	Kern	Bakersfield Superior Court	Roof
13	Kern	Bakersfield Justice Bldg.	Roof
14	Kern	Bakersfield Juvenile Center	Roof
15	Kern	Delano/North Kern Court	Roof
16	Kern	Shafter/Wasco Courts Bldg.	Roof
17	Kern	Taft Courts Bldg.	Roof
18	Los Angeles	Sylmar Juvenile Court	Roof
19	Los Angeles	Beverly Hills Courthouse	Roof
20	Los Angeles	Hall of Records	Roof
21	Los Angeles	Chatsworth Courthouse	Roof
22	Los Angeles	Mental Health Court	Roof
23	Los Angeles	West Covina Courthouse	Roof
24	Madera	Sierra Courthouse	Roof
25	Napa	Criminal Court Building	Roof
26	Orange	Betty Lou Lamoreaux Justice Center	Skylights
27	Orange	North Justice Center	Roof
28	Placer	Historic Courthouse	Roof
29	San Diego	Hall of Justice	Roof
30	San Diego	Department 9 Trailer	Roof
31	San Diego	Department 10 Trailer	Roof
32	San Diego	North County Regional Center - North	Roof
33	San Diego	East County Regional Center	Roof
34	Santa Clara	Hall of Justice (East)	Roof
35	Santa Clara	Historic Courthouse	Roof
36	Tulare	Visalia Superior Court	Roof
37	Ventura	Hall of Justice	Roof
38	Ventura	East County Courthouse	Roof
39	San Luis Obispo	Courthouse Annex	Skylights
40	Riverside	Blythe Courthouse - Superior Court	Roof
41	San Francisco	Civic Center Courthouse	Roof



JUDICIAL COUNCIL OF CALIFORNIA
TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Judicial Council Deferred Maintenance (DMF I)
Project Schedule
March 2019

#	County	Facility Location	Project Title
42	Santa Barbara	Santa Maria Courts Bldgs C + D	Elevator
43	Riverside	Corona	Elevator
44	Solano	Hall of Justice	Elevator
45	San Bernardino	Rancho Cucamonga Courthouse	Elevator
46	Solano	Solano Justice Building	Elevator
47	Alameda	Wiley W. Manuel Courthouse	Elevator
48	Alameda	Hayward Hall of Justice	Elevator
49	Alameda	Fremont Hall of Justice	Elevator
50	Contra Costa	Wakefield Taylor Courthouse	Elevator
51	Contra Costa	Danville District Courthouse	Elevator
52	Contra Costa	George D. Carroll Courthouse	Elevator
53	San Bernardino	Barstow Courthouse	Elevator
54	Kern	Bakersfield Superior Court	Elevator
55	Kern	Bakersfield Justice Bldg.	Elevator
56	Los Angeles	Santa Clarita Courthouse	Chair Lift
57	Los Angeles	Bellflower Courthouse	Chair Lift
58	Los Angeles	Downey Courthouse	Chair Lift
59	Los Angeles	Beverly Hills Courthouse	Elevator
60	Los Angeles	Hall of Records	Elevator
61	Los Angeles	Van Nuys Courthouse East	Elevator
62	Los Angeles	Van Nuys Courthouse West	Controls
63	Los Angeles	Torrance Courthouse	Elevator
64	Los Angeles	Inglewood Juvenile Court	Elevator
65	Los Angeles	Inglewood Courthouse	Elevator
66	Los Angeles	Burbank Courthouse	Elevator
67	Los Angeles	Alhambra Courthouse	Elevator
68	Los Angeles	Stanley Mosk Courthouse	Escalator
69	Los Angeles	El Monte Courthouse	Elevator
70	Los Angeles	Edmund D. Edelman Children's Court	Escalator
71	Los Angeles	Central Arraignment Courts	Elevator
72	Los Angeles	West Covina Courthouse	Elevator
73	Nevada	Nevada City Courthouse	Elevator
74	Orange	North Justice Center	Elevator
75	Placer	Historic Courthouse	Elevator
76	San Diego	Kearny Mesa Court	D.waiter
77	San Diego	Juvenile Court	Elevator
78	San Diego	North County Regional Center - South	Elevator
79	San Diego	North County Regional Center - North	Elevator
80	San Diego	South County Regional Center	Elevator
81	San Mateo	Hall of Justice	Chair Lift
82	San Mateo	Northern Branch Courthouse	Elevator
83	Santa Clara	Historic Courthouse	Elevator
84	Santa Clara	Santa Clara Courthouse	Elevator
85	Tulare	Visalia Superior Court	Elevator
86	Ventura	Hall of Justice	Elevator



JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Information Only Item 2 – DMF-II Project List Status

Summary:
Update on the DMF-II projects

Supporting Documentation:

- DMF-II Project Progress Report

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects - II

Monthly Report No. 3

March 28, 2019

Project Management	Judicial Council of California - Facilities Services - Administrative Division
Construction Management	Kitchell CEM
Architect	Development One, Inc.
Contractors	MTM Construction, Mark Scott Construction, Mackone Development, Enovity, Vincor.

Deferred Maintenance Fund Projects Status: For all work associated with roofs, elevators, wheel chair lifts, and Building Automation Systems repairs, refurbishment, or replacement.

Project Status	Number of Projects	Original Estimate	Current Amount
Roof Projects			
Awaiting for Shared Cost Letter	3	$ 7,801,975	$ 7,801,975
Consultant Procurement Phase	-	$ -	$ -
Design Phase	3	$ 872,000	$ 872,000
Contractor Procurement Phase	-	$ -	$ -
Bidding Phase	-	$ -	$ -
Construction Phase	1	$ 556,857	$ 556,857
Completed	-	$ -	$ -
Subtotal	**7**	**$ 9,230,832**	**$ 9,230,832**
Elevator Projects			
Awaiting for Shared Cost Letter	3	$ 6,333,162	$ 6,333,162
Consultant Procurement Phase	2	$ 190,000	$ 190,000
Contractor Procurement Phase	2	$ 436,180	$ 436,180
Bidding Phase	11	$ 13,450,886	$ 13,450,886
Design Phase	1	$ 205,000	$ 205,000
Construction Phase	-	$ -	$ -
Completed	-	$ -	$ -
Subtotal	**19**	**20,615,227**	**20,615,227**
Building Autmation System (BAS)			
Consultant Procurement Phase	-	$ -	$ -
Contractor Procurement Phase	-	$ -	$ -
Bidding Phase	-	$ -	$ -
Construction Phase	-	$ -	$ -
Completed	-	$ -	$ -
Subtotal	**29**	**31,250,636**	**31,250,636**
Grand Total	**55**	**$ 61,096,695**	**$ 61,096,695**

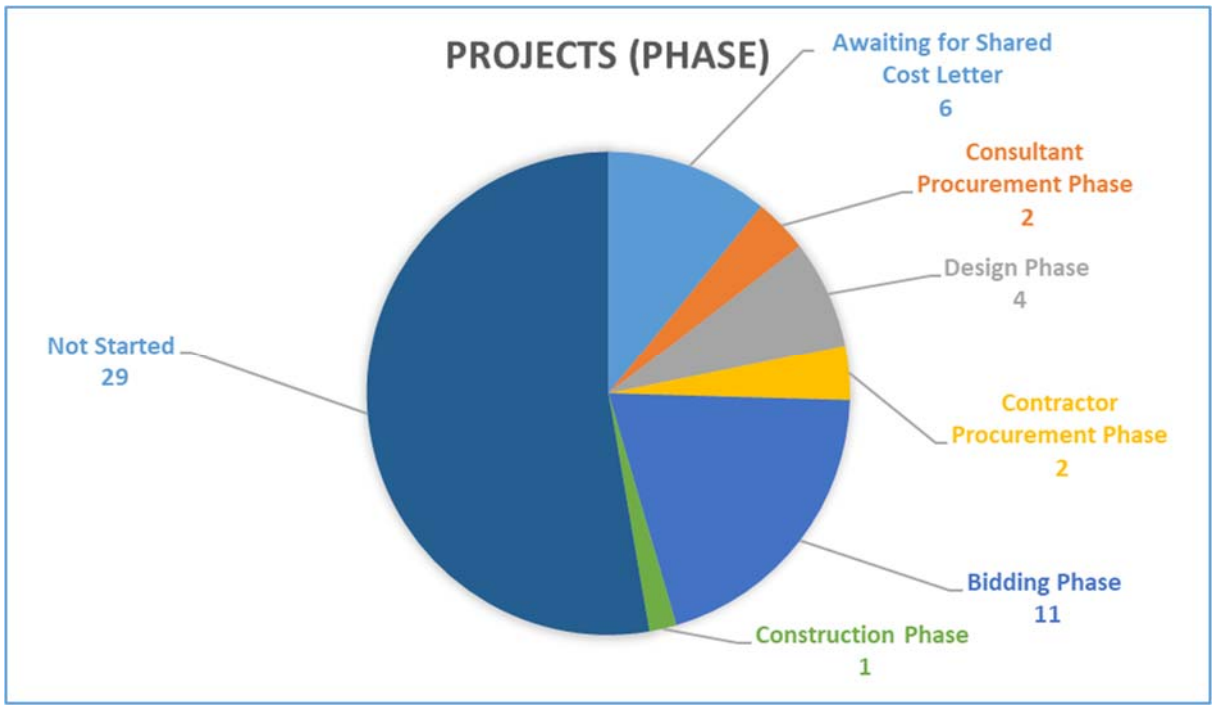
JUDICIAL COUNCIL OF CALIFORNIA

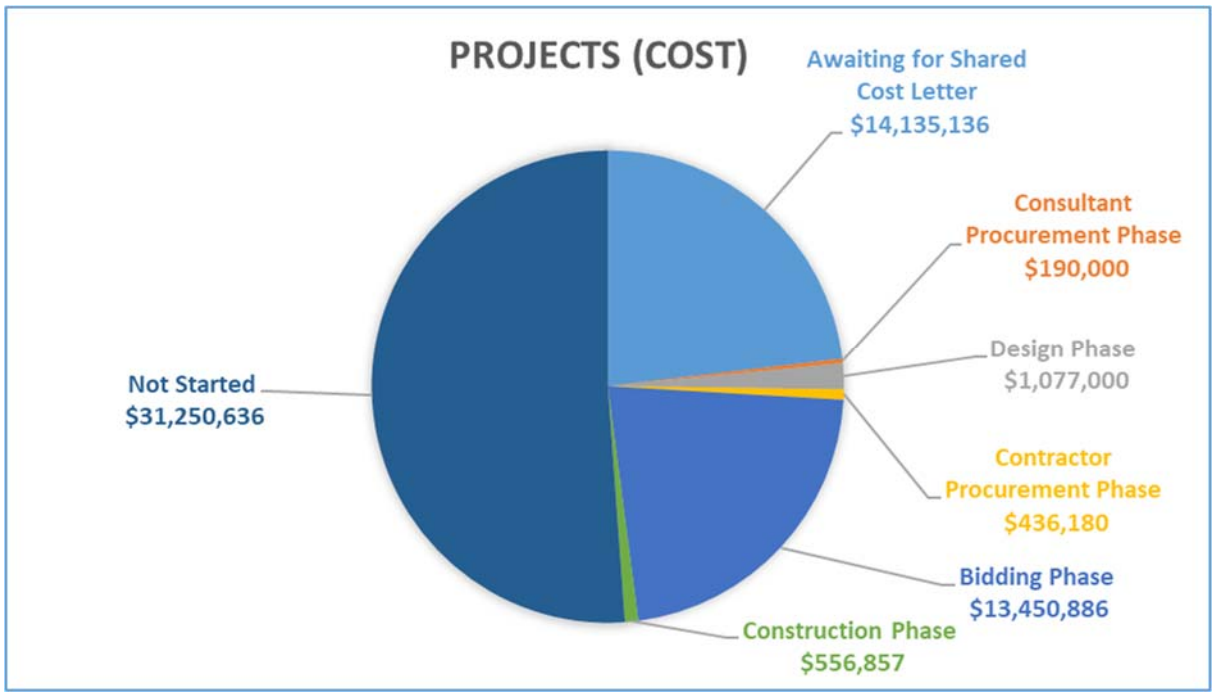
Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects - II

Monthly Report No. 3

March 28, 2019





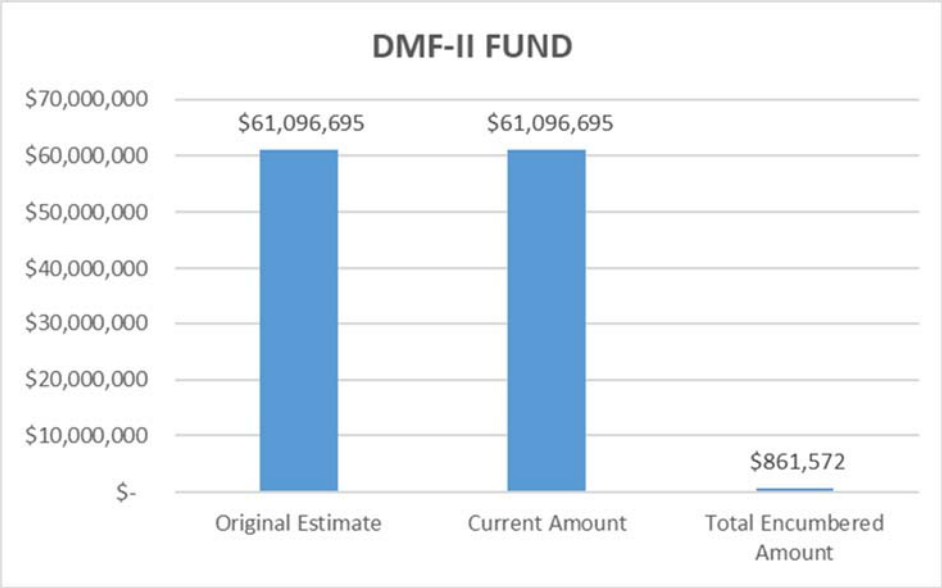
JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects - II

Monthly Report No. 3

March 28, 2019



Awaiting For Shared Cost Letter

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
1	Santa Barbara	Santa Maria Courts Bldgs C + D	Roof Replacement	$ 2,015,421	$ 2,015,421
2	San Diego	East County Regional Center	Roof Replacement	$ 3,855,749	$ 3,855,749
3	Ventura	East County Courthouse	Roof Replacement	$ 1,930,805	$ 1,930,805
13	Los Angeles	Beverly Hills Courthouse	Elevator Replacement	$ 2,688,288	$ 2,688,288
18	Los Angeles	Edmund D. Edelman Children's Court	Elevator Replacement	$ 3,368,223	$ 3,368,223
20	San Diego	Juvenile Court	Elevator Replacement	$ 276,651	$ 276,651

Consultant Procurement Phase

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
11	Los Angeles	Bellflower Courthouse	Wheelchair Lift Replacement	$ 50,000	$ 50,000
12	Los Angeles	Downey Courthouse	Wheelchair Lift Replacement	$ 140,000	$ 140,000

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects - II

Monthly Report No. 3

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Contractor Procurement Phase

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
10	San Bernardino	Barstow Courthouse	Elevator Replacement	$ 181,343	$ 181,343
21	San Diego	North County Regional Center - North	Elevator Replacement	$ 254,838	$ 254,838

Bidding Phase

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
4	Solano	Hall of Justice	Elevator Replacement	$ 443,553	$ 443,553
5	Alameda	Hayward Hall of Justice	Elevator Replacement	$ 2,814,355	$ 2,814,355
6	Alameda	Fremont Hall of Justice	Elevator Replacement	$ 947,163	$ 947,163
7	Contra Costa	Wakefield Taylor Courthouse	Elevator Replacement	$ 1,118,468	$ 1,118,468
8	Contra Costa	Walnut Creek Courthouse	Elevator Replacement	$ 524,983	$ 524,983
9	Contra Costa	George D. Carroll Courthouse	Elevator Replacement	$ 338,998	$ 338,998
15	Los Angeles	Torrance Courthouse	Elevator Replacement	$ 2,953,248	$ 2,953,248
16	Los Angeles	Burbank Courthouse	Elevator Replacement	$ 679,558	$ 679,558
17	Los Angeles	El Monte Courthouse	Elevator Replacement	$ 2,060,363	$ 2,060,363
19	Orange	North Justice Center	Elevator Replacement	$ 1,278,203	$ 1,278,203
22	San Mateo	Northern Branch Courthouse	Elevator Replacement	$ 291,998	$ 291,998

Construction Phase

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
24	Los Angeles	Santa Clarita Courthouse	Roof Replacement	$ 556,857	$ 556,857

Design Phase

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
14	Los Angeles	Van Nuys Courthouse West	Elevator Replacement	$ 205,000	$ 205,000
23	Santa Clara	Santa Clara Courthouse	Roof Replacement	$ 196,000	$ 196,000
26	Orange	Central Justice Center	Roof Replacement	$ 234,000	$ 234,000
25	San Diego	Kearny Mesa Court	Roof Replacement	$ 442,000	$ 442,000

JUDICIAL COUNCIL OF CALIFORNIA

Trial Court Facility Modification Advisory Committee

Judicial Council Deferred Maintenance Projects - II

Monthly Report No. 3

March 28, 2019

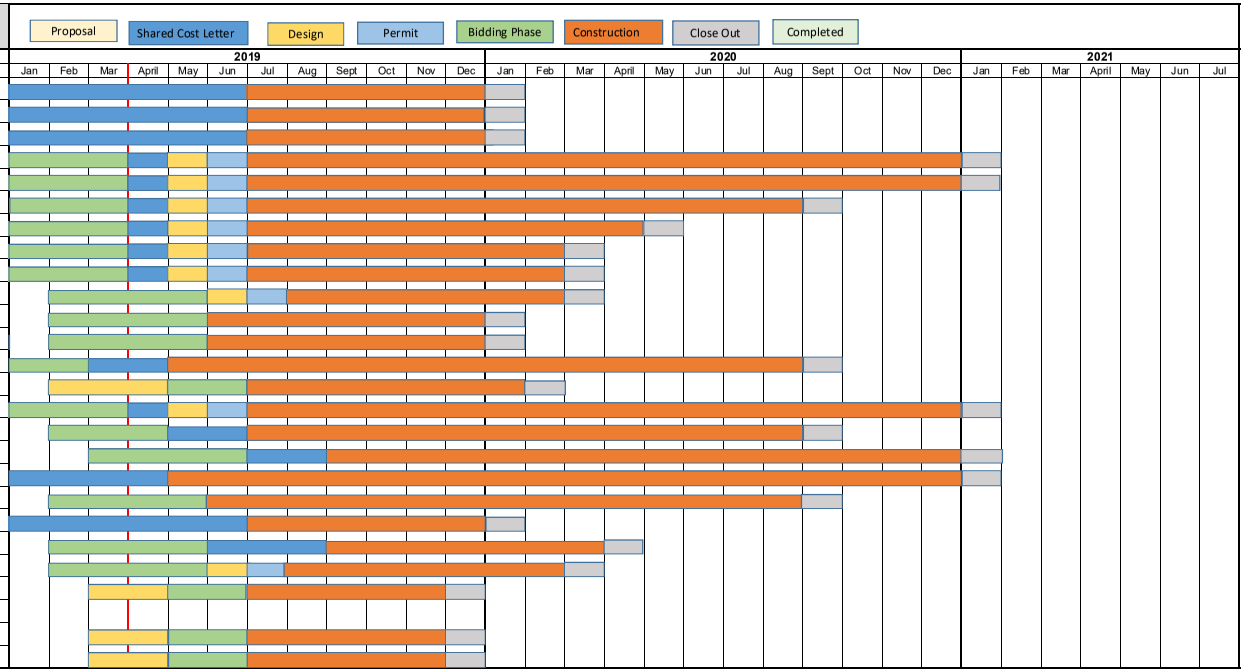
Not Started

#	County	Facility Location	Project Title	Original Project Cost	Current Project Cost
27	Los Angeles	Van Nuys Courthouse West	BAS Upgrades	$ 537,636	$ 537,636
28	Los Angeles	Compton Courthouse	BAS Upgrades	$ 1,945,000	$ 1,945,000
29	Los Angeles	San Fernando Courthouse	BAS Upgrades	$ 1,116,000	$ 1,116,000
30	Los Angeles	Norwalk Courthouse	BAS Upgrades	$ 2,254,000	$ 2,254,000
31	Los Angeles	Bellflower Courthouse	BAS Upgrades	$ 150,000	$ 150,000
32	Los Angeles	Airport Courthouse	BAS Upgrades	$ 472,000	$ 472,000
33	Los Angeles	Van Nuys Courthouse East	BAS Upgrades	$ 1,432,000	$ 1,432,000
34	Los Angeles	Van Nuys Courthouse West	BAS Upgrades	$ 2,060,000	$ 2,060,000
35	Los Angeles	Glendale Courthouse	BAS Upgrades	$ 399,000	$ 399,000
36	Los Angeles	Alhambra Courthouse	BAS Upgrades	$ 990,000	$ 990,000
37	Los Angeles	Pasadena Courthouse	BAS Upgrades	$ 1,347,000	$ 1,347,000
38	Los Angeles	Metropolitan Courthouse	BAS Upgrades	$ 1,624,000	$ 1,624,000
39	Los Angeles	Pomona Courthouse South	BAS Upgrades	$ 1,372,000	$ 1,372,000
40	Orange	Civil Complex Center ("CXC")	BAS Upgrades	$ 77,000	$ 77,000
41	Alameda	George E. McDonald Hall of Justice	BAS Upgrades	$ 124,000	$ 124,000
42	Napa	Criminal Court Building	BAS Upgrades	$ 181,000	$ 181,000
43	San Diego	North County Regional Center - North	BAS Upgrades	$ 750,000	$ 750,000
44	Los Angeles	Inglewood Juvenile Court	BAS Upgrades	$ 129,000	$ 129,000
45	San Bernardino	Barstow Courthouse	BAS Upgrades	$ 120,000	$ 120,000
46	Orange	West Justice Center	BAS Upgrades	$ 722,000	$ 722,000
47	Riverside	Riverside Juvenile Court	BAS Upgrades	$ 177,000	$ 177,000
48	Orange	North Justice Center	BAS Upgrades	$ 972,000	$ 972,000
49	Riverside	Larson Justice Center	BAS Upgrades	$ 909,000	$ 909,000
50	Alameda	Hayward Hall of Justice	BAS Upgrades	$ 1,608,000	$ 1,608,000
51	Kern	Bakersfield Juvenile Center	BAS Upgrades	$ 594,000	$ 594,000
52	Los Angeles	East Los Angeles Courthouse	BAS Upgrades	$ 1,124,000	$ 1,124,000
53	Alameda	Fremont Hall of Justice	BAS Upgrades	$ 1,571,000	$ 1,571,000
54	San Diego	East County Regional Center	BAS Upgrades	$ 1,494,000	$ 1,494,000
55	Statewide	Statewide	Assessment	$ 5,000,000	$ 5,000,000

JUDICIAL COUNCIL OF CALIFORNIA
TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Judicial Council Deferred Maintenance (DMF I)
Project Schedule
March 2019

#	County	Facility Location	Number of Cars	Project Title
1	Santa Barbara	Santa Maria Courts Bldgs C + D		Roof Replacement
2	San Diego	East County Regional Center		Roof Replacement
3	Ventura	East County Courthouse		Roof Replacement
4	Solano	Hall of Justice	5	Elevator Replacement
5	Alameda	Hayward Hall of Justice	5	Elevator Replacement
6	Alameda	Fremont Hall of Justice	4	Elevator Replacement
7	Contra Costa	Wakefield Taylor Courthouse	2	Elevator Replacement
8	Contra Costa	Walnut Creek Courthouse	1	Elevator Replacement
9	Contra Costa	George D. Carroll Courthouse	1	Elevator Replacement
10	San Bernardino	Barstow Courthouse	1	Elevator Replacement
11	Los Angeles	Bellflower Courthouse	6	Wheelchair Lift Replacement
12	Los Angeles	Downey Courthouse	7	Wheelchair Lift Replacement
13	Los Angeles	Beverly Hills Courthouse	4	Elevator Replacement
14	Los Angeles	Van Nuys Courthouse West	1 (9)	Elevator Replacement
15	Los Angeles	Torrance Courthouse	5	Elevator Replacement
16	Los Angeles	Burbank Courthouse	3	Elevator Replacement
17	Los Angeles	El Monte Courthouse	5	Elevator Replacement
18	Los Angeles	Edmund D. Edelman Children's Court	7 (14)	Elevator Replacement
19	Orange	North Justice Center	4	Elevator Replacement
20	San Diego	Juvenile Court	1	Elevator Replacement
21	San Diego	North County Regional Center - North	1	Elevator Replacement
22	San Mateo	Northern Branch Courthouse	1	Elevator Replacement
23	Santa Clara	Santa Clara Courthouse		Roof Replacement
24	Los Angeles	Santa Clarita Courthouse		Roof Replacement
25	Orange	Central Justice Center		Roof Replacement
26	San Diego	Kearny Mesa Court		Roof Replacement



JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Information Only Item 3 – Architectural Revolving Fund (ARF) Projects Update

Summary:
Receive the latest update on the status of facility modification projects in the ARF.

Supporting Documentation:

- Report – CFARF Funds Update – Open Projects

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
AOC-10-018							
FM-0023340	Santa Barbara	Santa Maria Court, Building G	Security - Repair/reconfigure exterior and interior security doors and screening equipment - upgrade needed to correct security deficiencies. Exterior and Interior Security Doors and new security vestibule needed. Includes securing all other doors into the secured building, HVAC, lighting, electrical and fire alarm systems.	$ 148,744	$ 148,744	8/23/2010	Completed (closed task)
AOC-11-027							
FM-0031644	Santa Barbara	Santa Maria Court	Site - Parking lot safety issues - Remove and replace existing campus parking lot areas where sink holes have developed, compaction around under ground pipes is failing and asphalt deterioration has created trip hazards. Recompact, Repave & Restripe to comply with ADA standards; Sinkhole/Surface Damage. The new pavement areas will be a combination of both new asphalt and concrete to meet the proper traffic index required. Approximate area of renovation is 82,300 S.F. which includes general parking as well as a secured parking area with approximately 300 lf of fencing, one automatic gate with card reader and electrical power for the gate as well as lighting and cameras.	$ 355,968	$ 355,968	4/20/2012	Completed (closed task)
FM-0040733	Solano	Hall of Justice	Construct 1,070 lf of concrete retaining wall, 525 lf of earthen berms, 575 lf of access ramps; install drainage pipe and 2 pumps to extract water trapped within the prevention area. Relocate existing utilities infrastructure where the footings will be excavated for the retaining walls. New asphalt will be installed along the retaining wall in the parking areas. New fencing and gate will be installed after excavation is complete.$1.7M was spent in 2005 for flood damage and $146K was spent in FY 10/11 on flood prevention measures. Emergency exiting must be sealed during flood conditions.	$ 1,114,874	$ 128,102	1/30/2012	In Progress (Design / Assessment) & Deferred for Construction
AOC-11-033							
FM-0044237	San Francisco	San Francisco Hall of Justice	Elevator - (Phase 1)Refurbish Court Exclusive Elevators (4) - 50+ yr old, 350 daily in-custody transfers per car, in immediate need of refurbishment due to increased high numbers of entrapments, failures, and no connection to building fire system as required	$ 400,000	$ 400,000	5/25/2012	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
AOC-12-004							
FM-0044214	Los Angeles	Edelman Children's Court	HVAC - Replace BAS and Refrigerant Monitoring systems - Remove and replace the failed controls with new DDC controls to control the existing heating and boiler plant, chillers, cooling towers and pumps, air handing system and VAV controllers. Install louvers over the existing outdoor air intake and exhaust air outlet on the roof. Install a balancing damper set serving the sixth floor. Provide air balance and commissioning. Remove and replace the failed refrigeration monitoring sensors and alarm, alarm to include both visual and audible inside and outside of the room. BAS (Building Automation System) has failed and does not function as designed. The Refrigerant Monitoring System is not functioning and does not comply with AQMD requirements.	$ 1,644,765	$ 1,644,765	7/20/2012	In Work (Construction)
FM-0046136	Los Angeles	Edelman Children's Court	Exterior Shell - Remove and replace approximately 118,600 SF of the existing exterior insulation finishing system (EIFS) covered walls. The EIFS wall covering is cracked, disintegrating and deteriorating, which could cause rain water to leak into the wall structures and do damage of significant magnitude. Scope of work will include misc. light steel framing, Reglet moldings, high reach equipment and major scaffolding efforts.	$ 3,420,646	$ 3,834,505	7/20/2012	In Work (Construction)
FM-0049657b	Imperial	Imperial County Courthouse	HVAC - Replace eight (8) air handling units, thermostats, and control valves. Replace thirty (30) fan coil units, thermostats, and control valves. Integrate BAS. Majority of mechanical equipment is old, has leakage and wiring issues, and is not controlled properly. Due to poor control system and inefficient equipment, the costs associated with their operation and maintenance are high when the costs are compared to other courthouse properties.	$ 1,369,200	$ 149,092	10/26/2012	In Work (Construction)
FM-0044237b	San Francisco	San Francisco Hall of Justice	Elevator - Phase 2 - Refurbish four (4) court-exclusive elevators - 50+ yrs old, 350 daily in-custody transfers per car, in immediate need of refurbishment due to increasingly high numbers of trapped passengers, failures, and no connection to building fire system as required.	$ 450,000	$ 450,000	7/20/2012	In Work (Construction)
AOC-13-017							
FM-0043878	Alameda	Wiley W. Manuel Courthouse	Elevators (5EA) - Completely install new elevators with new controls - Includes design, mechanical and electrical upgrades to bring systems to current code. FA interface on existing Notifier 3030 fire alarm system for the 2010 Editions of CBC, CFC and NFPA-72. Note: Inmate Elevator down-time requires tunnel walkways to be operational between courts and adjacent County Jail or an alternate means of transport of inmates between these facilities, currently inmate stairs may not be used as primary	$ 2,531,346	$ 2,800,164	3/10/2014	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0052004	Los Angeles	Stanley Mosk Courthouse	HVAC - Building Automation System (BAS) and Air Handling Unit (AHU) Renovation - Install new energy efficient AHU motors and Variable Frequency Drives to replace aged and failing motors. Convert AHU controls system to Direct Digital Control and replace obsolete BAS system with modern system to monitor and control building functionality. Replace failed air filter baffles and leaking ductwork. Clean oil and water contamination from floor level pneumatic control system.	$ 2,074,271	$ 2,113,345	4/11/2014	Completed (awaiting Invoice)
FM-0049849	Alameda	Wiley W. Manuel Courthouse	HVAC - Controls and Components - Remove and replace (16) VAV boxes and controls with reheat coils including (64) valves - Replace as current coils are plugged and non operational - Install (1) Flow meter for installed VAVs to monitor usage - Install (1) Paragon controller and Reconfigure paragon controls on SF-1 and SF-2 for proper operation - Install new hot and chilled water BTU meters - Provide and install a web based interface for the existing Schneider Electric Inet BAS - This new web base system will allow three concurrent users. Poor air velocity control capability creates negative pressure within courtrooms which impairs proper climate control - Project involves ACM abatement	$ 820,187	$ 834,702	1/17/2014	In Work (Construction)
FM-0050486a	Alameda	George E. McDonald Hall of Justice	HVAC - Remove Pneumatic building control Board(1) - Install VAVs (3)- Install DDC controls(60 sensors)-Install VFDs Supply and Return fans (4)- Install Building Control Interface (1)Install automated control valves with feedback signal (60)- Install VFD 15hp (480 Volt Variable Frequency Drive Wall mounted Qty. 9)Install VFD 25hp (480 Volt Variable Frequency Drive Wall mounted Qty.15) Court BAS system is defunct and requires control of all equipment supporting critical utilities for the court for heating, cooling and lighting.	$ 605,045	$ 256,825	7/12/2013	In Work (Construction)
AOC-13-018							
FM-0034865	Los Angeles	Metropolitan Courthouse	Elevators - Renovate thirteen (13) Elevators - Complete renovation of the courts thirteen elevators; nine Passenger, two In - Custody, one dedicated Judges and one shuttle. While retaining the cars themselves, the renovations will include new controls, new cables, updated electrical, new doors and operators, new roller guides, new emergency lighting system and add proper ventilation and lighting in the machine room.	$ 3,138,887	$ 3,138,887	4/11/2014	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
JCC-14-019							
FM-0011923	San Diego	East County Regional Center	Elevator - Elevator Renovation - Complete renovation of nine (9) gearless traction elevators. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equip., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, governors (elevators 1,2&3 only), closed loop heavy duty high speed operators, current code required wiring, interior and lobby control panels, counterweights and roller guides (Elevators 7&9 only), hoist and governor ropes, cab ceilings with LED down lights, rope compensation and seismic provisions.	$ 2,742,062	$ 2,628,225	12/15/2014	Shared Elevators (On Hold for Shared Cost Letter) Judicial Council elevators (In Construction)
FM-0017040	Los Angeles	Compton Courthouse	Fire Alarm System - Phase 1 - Installation of a new Fire Detection and Notification Alarm system, building alarm system is not code compliant and must be replaced to comply with State Fire Marshal notice to comply. Work includes design and ACM abatement as needed.	$ 540,943	$ 540,943	4/13/2015	In Work (Construction)
FM-0028322	Orange	Central Justice Center	Fire Alarm System - Phase 1 -Replace/Renovate/Upgrade the existing Fire Alarm System - The existing building alarm system is not code compliant and must be brought to compliance per the State Fire Marshals notice to comply. Work includes design and ACM abatement as needed.	$ 833,269	$ 98,181	4/13/2015	In Progress (Construction Procurement)
FM-0035537	Los Angeles	Pasadena Courthouse	Elevator - Elevator Renovation - Complete renovation of five (5) traction and two (2) hydraulic elevators. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equipt., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, fly ball governors, closed loop heavy duty high speed operators, current code required wiring, interior and lobby control panels, counterweights and roller guides, hoist and governor ropes, cab ceilings with LED down lights, rope compensation, new submersible pump units and underground cylinders encased in PVC for hydraulic elevators, and seismic provisions. Provide new air conditioning to the machine rooms.	$ 3,182,112	$ 1,111,200	12/15/2014	In Work (Construction)
FM-0049106	Los Angeles	Stanley Mosk Courthouse	Elevator - Elevator Renovation - Complete renovation of eight (8) gearless traction elevators, six 3,000 lb capacity and two 8,000 lb capacity. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equipt., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, fly ball governors, closed loop heavy duty high speed operators, current code required wiring, interior and lobby control panels, counterweights and roller guides, hoist and governor ropes, cab ceilings with LED down lights, rope compensation and seismic provisions.	$ 3,745,483	$ 703,029	12/15/2014	In Work (Construction)
FM-0052129a	Los Angeles	Foltz Courthouse	HVAC - Renovate the BAS - Convert the existing pneumatic controls to DDC, replace the front end control to the system, install VFD's on all AHU supply fans, Isolate and eliminate all leaks throughout the system, replace the worn bearings on AH 19-1 AHU fan, replace the failed return air sensor on AHU 1-9 and insulate the chilled and hot water piping at thirty-one (31) locations.	$ 1,133,210	$ 1,137,318	7/11/2014	Completed (awaiting Invoice)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0052243	Los Angeles	Alhambra Courthouse	Energy Efficiency Project -19I1_02282013LV1 - Lighting and controls upgrade - Retrofit (1,533) F32T8 fluorescent fixtures with new 28-watt lamps and new ballast, (249) 3-lamp and 4-lamp fluorescent fixtures with new reflector, 28-watt lamps and new ballast, and (1) 2x2 fluorescent fixtures with new reflector, 17-watt lamps and new ballast. Install (2) Vending Miser sensors to control vending machines. Replace (32) Exterior HID fixtures on the with new lower wattage LED fixtures.	$ 190,970	$ 194,681	1/16/2015	Completed Closed Task
FM-0053008	Los Angeles	Compton Courthouse	Roof - Remove and replace the upper roof, main roof deck and stand alone restroom roofs (approximately 34,000 SF) with a 3 ply roofing system, roofing system is failing. Work includes new flashings, and reglet metal where needed.	$ 494,134	$ 494,134	3/6/2015	Completed (awaiting Invoice)
FM-0054053	Santa Barbara	Santa Barbara Jury Assembly Building	Interior Finishes - Construct three (3) Attorney/Client Meeting Rooms - Required to Facilitate move of juvenile proceedings to this location.	$ 75,654	$ 125,653	5/22/2015	Completed (closed task)
FM-0054270	Los Angeles	Parking Structure Edelman Courthouse	Elevator - Elevator Renovation - Complete renovation of two (2) traction and one (1) hydraulic elevators. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equipt., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, fly ball governors, current code required wiring, interior and lobby control panels, car and hall door panels with new doors, counterweights and roller guides, hoist and governor ropes, cab ceilings with LED down lights, rope compensation, new submersible pump units and underground cylinders encased in PVC for hydraulic elevators, and seismic provisions. Install new machine room air conditioning.	$ 739,271	$ 739,271	12/15/2014	In Work (Construction)
FM-0044228	Placer	Bill Santucci Justice Center	Interior Finishes - New Arraignment Courtroom - Complete the interior buildout of the South Placer Jail Arraignment Courtroom - The shell of the courtroom was completed at County of Placer expense.	$ 2,030,000	$ 2,067,366	1/16/2015	In Work (Construction)
FM-0052982	Los Angeles	Metropolitan Courthouse	Roof - Remove and replace existing main deck, penthouse & stairwell deck roofs (27,000 SF) with new 3 ply roof systems. Roofing system is failing. Work includes new flashings and reglet metal where needed, metal etching and repainting of the deteriorating standing seam metal roof (2,535 SF) and cleaning and resetting roof drains and caps.	$ 599,535	$ 599,535	3/6/2015	Completed (awaiting Invoice)
JCC-15-014							
FM-0044229b	Orange	West Justice Center	HVAC - Air Handlers and BAS - Remove and replace the original failing air handlers and a failed heat pump. Convert the phase 2 AHU-5 damper controls, the phase 1 AHU-3 and the phase 3 Zone controls to DDC control. Retro commission the Building Automation System. Work includes the installation of code required refrigerant monitoring system to phases 1 and 2. Reprogram the BAS to run all BAS controlled equipment at the most efficient levels.	$ 138,876	$ 138,876	8/31/2015	In Work (Construction)
FM-0044237e	San Francisco	Hall of Justice	Phase 2 - Elevator - Refurbish Court Exclusive Elevators (4) - 50+ yr old, 350 daily in-custody transfers per car, in immediate need of refurbishment due to increased high numbers of entrapments, failures, and no connection to building fire system as required	$ 114,742	$ -	12/7/2015	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0050766	Santa Clara	Morgan Hill Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of lighting controls on exterior pole lights, integration of lighting controls with BAS system, upgrade of existing metal halide lights in sallyport and on the building exterior to LED lighting; upgrade interior fixtures to LED lighting; install CO2 monitors to support demand ventilation controls; and upgrade air handling system to support new variable frequency drive units.	$ 302,461	$ 197,278	5/20/2016	Completed (awaiting Invoice)
FM-0057347	Fresno	B.F. Sisk Federal Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of lighting, occupancy and daylighting controls, 2 VFD drives on the 15HP condenser pumps, and upgrade of lighting fixtures on the exterior and interior to LED lighting (approx. 1860 lamps).	$ 304,927	$ 277,559	5/20/2016	Completed (awaiting Invoice)
FM-0058653	Alameda	Hayward Hall of Justice	Energy Efficiency - Electrical - Implement energy efficiency measures including installation Variable Frequency Drives on chiller, chilled cold & hot water pumps (3); replace exterior metal halide fixtures with LED lighting; and install occupancy sensors private offices, file areas, mechanical space and bathrooms; install bi-level lighting controls in stairwells.	$ 107,922	$ 107,922	5/20/2016	In Work (Construction)
FM-0058654	Santa Clara	Historic Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including reprogramming of the BAS, installation of occupancy sensors, and upgrading interior hallway, courtroom, office, and bathroom CFL lamps and exterior metal halide lighting to LED lighting.	$ 75,382	$ 73,024	5/20/2016	Completed Closed Task
FM-0058656	San Benito	New Hollister Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including conversion of existing High Intensity Discharge lamps with LED lighting in the parking and on the building exterior. Install two Variable Frequency Drives on chilled water and cooling tower pumps.	$ 60,336	$ 14,944	5/20/2016	Completed (awaiting Invoice)
FM-0058657	Butte	Butte County Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of bi-level lighting and occupancy controls; installation of variable frequency drive on chilled water pump, and upgrade of high pressure sodium & Metal Halide exterior fixtures (39) and interior fluorescent fixtures (approx. 758) to LED lighting.	$ 150,229	$ 157,127	5/20/2016	Completed (awaiting Invoice)
FM-0058658	San Joaquin	Manteca Branch Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of lighting fixtures on the interior to LED lighting (approx. 252 lamps).	$ 9,557	$ 19,661	5/20/2016	Completed (awaiting Invoice)
FM-0058660	Sacramento	Carol Miller Justice Center Court Facility	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of approx. 1,415 LED lamps and daylighting controls, 2 VFD drives and associated valves on the chilled water pumps, and Occupancy sensing circuit controls for common area and breakroom plug load.	$ 114,932	$ 165,146	5/20/2016	Completed (Closed Task)
FM-0017040c	Los Angeles	Compton Courthouse	Fire - Phase 2 - Building alarm system is not code compliant and must be renovated to comply with State Fire Marshal notice to comply.	$ 1,213,353	$ 1,221,353	1/17/2015	In Work (Construction)
FM-0020439	Santa Clara	Santa Clara Courthouse	Roof - Replace approx. 16,580 sq. ft. of failed leaking roof, including 830 sq. ft. of flashing, (6) 15" roof drains and dome strainers. Due to deterioration there is evidence of cracking, ponding and water intrusion into the building.	$ 510,083	$ -	4/4/2016	In Progress (Design / Assessment)
FM-0028322c	Orange	Central Justice Center	Fire - Phase 2 - Building alarm system is not code compliant and must be renovated to comply with State Fire Marshal notice to comply.	$ 1,666,539	$ -	7/17/2015	In Progress (Plan Check)
FM-0052988	Los Angeles	San Fernando Courthouse	Roof - Remove and replace existing failing roofing systems on main deck, 2nd and 3rd floor Northeast decks as well as machine room roofs at the main roof (approximately 38,000) with a SBS roof System. Roof metal will be replaced as needed.	$ 673,266	$ 698,763	10/23/2015	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0053002	Los Angeles	Monrovia Training Center	Roof - Remove and replace existing roof system at eleven different areas (20,000 SF). Due to the poor condition of these areas, recommended removal and replacement of existing and building metal will bring entire building roof to good condition.	$ 316,305	$ 339,756	10/23/2015	In Work (Construction)
FM-0053003	Los Angeles	Alhambra Courthouse	Roof - Remove and replace existing roof with new SBS roof system - Remove and replace approximately 31,800sf of failing built up roof system. Work will include new building metal, vents and walk pads as needed.	$ 601,846	$ 780,749	10/23/2015	In Work (Construction)
FM-0053004	Los Angeles	Van Nuys Courthouse West	Roof - Remove and replace existing failing roof with new SBS roof system - Work to include replacing approximately 25,000sf of failing built up roof, two roof drains, re-coat the Heli-Stop and replace building metal as needed.	$ 470,864	$ 472,977	10/23/2015	In Work (Construction)
FM-0053030	Los Angeles	Glendale Courthouse	Roof - Remove and replace existing roof with new SBS roof system - Work to include replacing approximately 34,000sf of failing built up roof, restore roof drains, install tapered insulation as needed and replace building metal if not re-usable.	$ 685,694	$ 736,020	10/23/2015	Completed (awaiting Invoice)
FM-0053394	Los Angeles	Torrance Courthouse	Roof - Remove and replace 40,000 square feet of the existing main deck and lower deck sections with new SBS roof system / Due to roof decks currently failing and leaking. Work to include new building metal, vent jacks and equipment curbs as needed	$ 719,972	$ 746,274	10/23/2015	In Work (Construction)
FM-0053460	Los Angeles	Edmund D. Edelman Children's Courthouse	Roof - Remove and replace 43,000 sf of existing roof with new SBS roof system, currently the existing roof is in poor to fair condition at best, work will replace the roof at three building sections at various levels. New building metal and curbs will be replaced as needed. (No work to be done on the Heli - Stop).	$ 662,105	$ 327,944	10/23/2015	In Work (Construction)
FM-0053549	Los Angeles	Downey Courthouse	Roof - Remove and replace existing main deck, lower east deck and lower west deck (approximately 34,000 sf) with a SBS type roof system - Due to main and lower decks are past due and beginning to leak during rainy weather.	$ 630,669	$ 686,920	10/23/2015	In Work (Construction)
FM-0053554	Los Angeles	Pomona Courthouse South	Roof - Remove and replace existing roof with new SBS roof system at main deck (23,220 sq. ft.), lower north deck (2,838 sq. ft.), and lower south deck (2,838 sq. ft.). Roofing metal will be replaced as needed.	$ 622,391	$ 113,755	10/23/2015	In Work (Construction)
FM-0054101	Los Angeles	Santa Monica Courthouse	Roof - Remove and replace 53,000 sf of existing roof with new SBS roof system, currently the existing roof is in poor to fair condition at best, work will replace the roof at three building sections at various levels. New building metal and curbs will be replaced as needed.	$ 874,646	$ 918,159	10/23/2015	In Work (Construction)
FM-0057043	Los Angeles	Inglewood Juvenile Court	Roof - Remove and replace approximately 11,600 SF of failing built up roof. New roof to be a SBS multi-ply roof, to include new building metal, clean all roof drains and supply and install new roof drain caps	$ 226,432	$ 242,117	12/7/2015	Completed (awaiting Invoice)
FM-0057412	Los Angeles	Santa Monica Courthouse	HVAC - North side - Replace deteriorating roof top hot water pipe; approx. 200LF of 2" copper pipe & fittings. Re-insulate 200LF of pipe, replace 210SF aluminum insulation jacket & bands. Conduct work under known ACM environment, Glove bag 200LF of ACM Thermal System Insulation	$ 63,816	$ 113,082	4/4/2016	Completed (closed task)
FM-0057496	Los Angeles	Michael D. Antonovich Antelope Valley Courthouse	HVAC - Retro commission Fire Smoke Dampers. Restore complete operability of existing equipment. Work to include replacing any Microsmart DMS controllers, contactor relays, or failed FSDs. FSDs are not working as designed, FSDs will successfully shut but are incapable of modulating open. Recommended measures were identified as a part of the RCx.	$ 69,835	$ 69,835	4/4/2016	Completed (awaiting Invoice)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0058161	Los Angeles	Metropolitan Courthouse	Plumbing - Remove/replace (2) 8 supply water isolation gate valves & (1) Secondary 4 isolation valve; install 20- of 8 & 6 L-Type Copper pipes and connections. Existing valves are severely rusted and leak	$ 52,715	$ 52,715	5/20/2016	Completed (closed task)
FM-0058636	Santa Clara	Hall of Justice East	Roof - Replace 21,000 sq. ft. of deteriorated roof, 500 ln. Ft. of coping metal, deteriorated roof drain rings and over flow drains. The roof is over 40 years old showing signs of damaged insulation, cracking, ponding and roof leaks are evident in the building.	$ 811,254	$ -	5/20/2016	In Progress (Design / Assessment)
FM-0054951	Orange	North Justice Center	HVAC - Phase 1 - Design - Cooling Towers - Demo, remove, replace, and relocate two 250+ ton (20hp ea.) cooling towers. The cooling towers require relocation due to current unsafe work conditions and replacement due to age and failing components. The rooftop location has a rusting and failing blower wheel shaft that could break at any moment and cannot be replaced or maintained due to lack of fall protection; relocation will allow preventive maintenance to be performed in a safe and efficient manner.	$ 233,000	$ 179,684	7/17/2015	In Work (Construction)
FM-0056965	Monterey	Monterey Courthouse	COUNTY-MANAGED - Electrical - install replacement generator. Work to include crane lift. Current equipment has failed. A temp rental has been deployed during replacement.	$ 127,900	$ 127,900	4/4/2016	Completed (awaiting Invoice)
FM-0057336	Los Angeles	Downey Courthouse	DESIGN - Phase 1 - Exterior Shell - Renovate failing wall area leading into the sally port per the recommendations within the engineering study. Work to include excavation and bracing of wall areas, removal of trees contributing to wall system failure, replacement of failed drainage system.	$ 129,735	$ 102,461	2/19/2016	In Work (Construction)
FM-0057576	San Mateo	Hall of Justice	COUNTY MANAGED: HVAC - Replace failed 60yr old AHU's (S-1, S-2, S-3, S-6 & S-7) - AHUs (5) have failed resulting in severe temperature issues and disruptions to Court	$ 856,375	$ 856,375	4/4/2016	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0057600	Santa Clara	Hall of Justice (East)	Exterior Shell - Install (1) concrete ADA ramp, 70 ln ft. of hand rails, and (2) ADA push buttons for exterior doors to meet code compliance. Work to include demo of existing ADA ramp and fill with dirt. The court CEO has received complaints from the board member chief of staff and the public who have fallen down the stairs.	$ 187,602	$ 215,822	4/4/2016	Completed (closed task)
FM-0058627	Butte	Butte County Courthouse	Fire Protection - Replace the fire alarm control panel and all its devices throughout the building with a non-proprietary "Notifier" system. The SimplexGrinnell fire alarm system is obsolete, cannot be repaired, and currently has several devices in trouble-alarm.	$ 120,000	$ 120,000	5/20/2016	Completed (closed task)
FM-0052979a	Los Angeles	Burbank Courthouse	Roof - Original Gable Roof Section - Remove approximately 12,500 sf of existing rolled roofing over a pre-existing roof. Work will include new plywood roof sheathing, Dens Deck material, insulation board and a new SBS roof system with Cool Roof coating. Two pieces of abandoned mechanical equipment will also be removed from the roof and the penetrations will be capped. The existing gable roof membrane is failing and requires immediate replacement.	$ 209,186	$ 209,186	7/17/2015	Completed (closed task)
JCC-15-015							
FM-0035096	Orange	North Justice Center	HVAC - Replace failing air handlers units 1-8. Current air handlers are the buildings original and fail intermittently. Structural instability for coupler systems was noted during AHU-1 bearing replacement occurring within the last year. Install refrigerant monitoring system as required by code.	$ 1,086,429	$ 1,086,429	5/20/2016	In Work (Construction)
FM-0058661	Amador	New Amador County Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of BAS Controls for all HVAC units, upgrade existing air handler to Climate Wizard (CW) indirect evaporative cooling air handler, upgrade existing internal lamps to LED, and install energy efficient telecom switches decreasing overall plug load.	$ 465,010	$ 60,201	5/20/2016	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
JCC-16-013							
FM-0060574	Fresno	Fresno County Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 3755 Fixtures)	$ 120,496	$ 114,216	5/19/2017	In Work (Construction)
FM-0060524	Los Angeles	Norwalk Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 68,192	$ 67,880	5/19/2017	In Work (Construction)
FM-0060579	Los Angeles	Bellflower Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1234 Fixtures)	$ 32,187	$ 22,433	5/19/2017	In Work (Construction)
FM-0060581	Los Angeles	Downey Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1222 Fixtures)	$ 34,322	$ 34,322	5/19/2017	In Work (Construction)
FM-0060584	Los Angeles	Whittier Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1583 Fixtures)	$ 45,795	$ 45,585	5/19/2017	Completed (awaiting Invoice)
FM-0060583	Los Angeles	Beverly Hills Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 2246 Fixtures)	$ 59,755	$ 59,755	5/19/2017	In Progress (Construction Procurement)
FM-0060525	Los Angeles	Airport Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 129,857	$ 119,382	5/19/2017	In Progress (Construction Procurement)
FM-0060192	Los Angeles	Inglewood Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (Approx. 2172 lamps)	$ 168,808	$ 168,808	3/3/2017	In Progress (Construction Procurement)
FM-0060545	Los Angeles	Alhambra Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 38,511	$ 22,009	5/19/2017	In Work (Construction)
FM-0035537	Los Angeles	Pasadena Courthouse	Elevator - Elevator Renovation - Complete renovation of five (5) traction and two (2) hydraulic elevators.	$ 2,163,921	$ 2,159,505	3/3/2017	In Work (Construction)
FM-0060575	Los Angeles	Stanley Mosk Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 12937 Fixtures)	$ 420,212	$ 424,211	5/19/2017	In Work (Construction)
FM-0060573	Los Angeles	Clara Shortridge Foltz Criminal Justice Center	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 17928 Fixtures)	$ 411,229	$ 412,169	5/19/2017	In Work (Construction)
FM-0060582	Los Angeles	Monrovia Training Center	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 350 Fixtures)	$ 8,238	$ 8,238	5/19/2017	In Work (Construction)
FM-0060528	Los Angeles	East Los Angeles Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 33,366	$ 33,133	5/19/2017	In Work (Construction)
FM-0060529	Los Angeles	Pomona Courthouse South	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 71,865	$ 72,029	5/19/2017	In Work (Construction)
FM-0060537	Los Angeles	Pomona Courthouse North	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 27,423	$ 27,798	5/19/2017	In Work (Construction)
FM-0060526	orange	North Justice Center	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 48,395	$ 48,394	5/19/2017	In Work (Construction)
FM-0060538	San Bernardino	San Bernardino Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 50,770	$ 39,567	5/19/2017	In Work (Construction)
FM-0060536	San Bernardino	San Bernardino Courthouse - Annex	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 47,695	$ 38,564	5/19/2017	Completed (Awaiting Invoice)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0060580	San Bernardino	San Bernardino Justice Center	Energy Efficiency - Electrical Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 7272 Fixtures)	$ 223,251	$ 179,230	5/19/2017	In Work (Construction)
FM-0060527	Santa Clara	Downtown Superior Court	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 51,216	$ 51,215	5/19/2017	In Work (Construction)
FM-0060503	Tulare	South County Justice Center	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 40,767	$ 40,752	5/19/2017	In Work (Construction)
JCC-17-018							
FM-0011923e	San Diego	East County Regional Center	Elevator - Elevator Renovation - Complete renovation of nine (9) gearless traction elevators. Work will include but not be limited to, car frames and platforms, buffers and safeties, hoistway entrance frames, doors and pit equip., new AC gearless machines, micro-processor control systems, regenerative VVVF AC drives, governors (elevators 1,2&3 only), closed loop heavy duty high speed operators, current code required wiring, interior and lobby control panels, counterweights and roller guides (Elevators 7&9 only), hoist and governor ropes, cab ceilings with LED down lights, rope compensation and seismic provisions.	$ 5,048,597	$ -	4/9/2018	On Hold for shared cost letter
FM-0060689	Mono	New Mammoth Lakes Courthouse	Grounds & Parking Lot - Provide and install a new structural steel roof system over the existing utility yard. The new roof will be structurally designed for snow loads. This system will allow maintenance during the winter months and keep snow from all equipment and utilities housed in this enclosure. - The current utility enclosure houses the main condensing unit and building 12Kv transformer. The enclosure does not have protection from snow for the equipment.	$ 87,377	$ 87,377	3/3/2017	In Work (Construction)
FM-0058653d	Alameda	Hayward Hall of Justice	Energy Efficiency - Electrical - Implement energy efficiency measures including installation Variable Frequency Drives on chiller, chilled cold & hot water pumps (3); replace exterior metal halide fixtures with LED lighting; and install occupancy sensors private offices, file areas, mechanical space and bathrooms; install bi-level lighting controls in stairwells.	$ 39,079	$ 39,079	12/4/2017	In Work (Construction)
FM-0059231d	Los Angeles	El Monte Courthouse	Energy Efficiency Project - Electrical - Complete energy efficiency measures identified in recent energy audits completed by third party. Measures include: HVAC modifications and lighting replacement and controls projects.	$ 29,671	$ -	12/4/2017	On Hold
FM-0060524g	Los Angeles	Norwalk Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 1,661	$ -	12/4/2017	On Hold
FM-0060525d	Los Angeles	Airport Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 7,545	$ -	12/4/2017	On Hold
FM-0060528d	Los Angeles	East Los Angeles Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 17,697	$ -	12/4/2017	On Hold
FM-0060526c	Orange	North Justice Center	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 9,428	$ -	12/4/2017	On Hold
FM-0060538d	San Bernardino	San Bernardino Courthouse	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 9,124	$ -	12/4/2017	On Hold
FM-0060536d	San Bernardino	San Bernardino Courthouse - Annex	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 23,364	$ -	12/4/2017	Completed (awaiting Invoice)
FM-0060527c	Santa Clara	Downtown Superior Court	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 17,095	$ 17,095	12/4/2017	Completed (awaiting Invoice)
FM-0060503c	Tulare	South County Justice Center	Energy Efficiency - Electrical - Implement energy efficiency measures including installation of Interior and Exterior Lighting re-lamps and retrofit	$ 52,014	$ -	12/4/2017	In Work (Construction)

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0060574d	Fresno	Fresno County Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 3755 Fixtures)	$ 19,093	$ -	12/4/2017	In Work (Construction)
FM-0060579d	Los Angeles	Bellflower Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 1234 Fixtures)	$ 31,292	$ -	12/4/2017	In Work (Construction)
FM-0060581d	Los Angeles	Downey Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 1222 Fixtures)	$ 26,075	$ -	12/4/2017	In Work (Construction)
FM-0060584d	Los Angeles	Whittier Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 1583 Fixtures)	$ 30,592	$ 30,592	12/4/2017	Completed (awaiting Invoice)
FM-0060583d	Los Angeles	Beverly Hills Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 2246 Fixtures)	$ 16,599	$ -	12/4/2017	On Hold
FM-0060582d	Los Angeles	Monrovia Training Center	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 350 Fixtures)	$ 31,985	$ 31,985	12/4/2017	In Work (Construction)
FM-0060580d	San Bernardino	New San Bernardino Courthouse	Energy Efficiency - Electrical Implement energy efficiency upgrade of intertior and exterior lighting to LED (approx. 7272 Fixtures)	$ 11,556	$ -	12/4/2017	On Hold
FM-0061174a	Riverside	Family Law Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1256 fixtures)	$ 67,668	$ -	8/28/2017	On Hold
FM-0061157a	El Dorado	Johnson Bldg.	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 621 fixtures)	$ 33,312	$ -	8/28/2017	On Hold
FM-0061136a	Merced	New Downtown Merced Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 961 fixtures)	$ 51,060	$ -	8/28/2017	On Hold
FM-0061132a	Santa Barbara	Santa Maria Juvenile Court (new)	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 258 fixtures)	$ 7,530	$ -	8/28/2017	On Hold
FM-0061184a	Santa Clara	Santa Clara Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 557 fixtures)	$ 29,414	$ -	8/28/2017	On Hold
FM-0061180a	Kern	Bakersfield Juvenile Center	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1373 fixtures)	$ 48,294	$ -	8/28/2017	On Hold
FM-0061177a	Imperial	Imperial County Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1000 fixtures)	$ 52,663	$ -	8/28/2017	On Hold
FM-0061130	San Diego	East County Regional Center	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 6362 fixtures)	$ 307,133	$ -	8/28/2017	On Hold
FM-0061179a	Riverside	Larson Justice Center	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 2540 fixtures)	$ 129,889	$ -	8/28/2017	On Hold
FM-0061181	Kern	Bakersfield Superior Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 3714 fixtures)	$ 152,773	$ -	8/28/2017	On Hold
FM-0061185a	Solano	Hall of Justice	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1845 fixtures)	$ 70,383	$ -	8/28/2017	On Hold
FM-0061109a	Merced	Old Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 392 fixtures)	$ 16,992	$ -	8/28/2017	On Hold
FM-0061152a	Santa Barbara	Santa Maria Clerks Building	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 413 fixtures)	$ 17,848	$ -	8/28/2017	On Hold
FM-0061128a	San Diego	North County Regional Center - Annex	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 493 fixtures)	$ 21,173	$ 302	8/28/2017	On Hold

Transfers	Location (County)	Facility Name	Project Title	TCFMAC Approved Funds	Total Amount Encumbered	Date of TCFMAC Approval	Current Status
FM-0061091a	Del Norte	Del Norte County Superior Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 643 fixtures)	$ 16,817	$ -	8/28/2017	On Hold for shared cost letter
FM-0061092a	Santa Cruz	Main Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 833 fixtures)	$ 35,175	$ -	8/28/2017	On Hold
FM-0061125a	San Diego	Kearny Mesa Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 919 fixtures)	$ 39,075	$ 305	8/28/2017	On Hold
FM-0061097a	Lassen	New Susanville Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 938 fixtures)	$ 39,872	$ -	8/28/2017	On Hold
FM-0061126a	San Diego	Juvenile Court	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1037 fixtures)	$ 32,837	$ 186	8/28/2017	On Hold
FM-0061088a	Contra Costa	Bray Courts	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1084 fixtures)	$ 39,317	$ -	8/28/2017	On Hold
FM-0061135a	Santa Clara	Palo Alto Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1851 fixtures)	$ 51,310	$ -	8/28/2017	On Hold
FM-0061121a	Napa	Criminal Court Building	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1049 fixtures)	$ 44,018	$ -	8/28/2017	On Hold
FM-0061101a	Los Angeles	Glendale Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1238 fixtures)	$ 47,006	$ -	8/28/2017	On Hold
FM-0061107a	Los Angeles	Hollywood Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1281 fixtures)	$ 48,939	$ -	8/28/2017	On Hold
FM-0061105a	Los Angeles	Burbank Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1300 fixtures)	$ 49,457	$ -	8/28/2017	On Hold
FM-0061123a	San Bernardino	Fontana Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1353 fixtures)	$ 46,593	$ -	8/28/2017	On Hold
FM-0061133a	Santa Clara	Hall of Justice (West)	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1554 fixtures)	$ 65,154	$ -	8/28/2017	On Hold
FM-0061127a	San Diego	North County Regional Center - North	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 1203 fixtures)	$ 141,916	$ 302	8/28/2017	On Hold
FM-0061106a	Los Angeles	Pasadena Courthouse	Energy Efficiency - Electrical - Implement energy efficiency upgrade of interior and exterior lighting to LED (approx. 2041 fixtures)	$ 138,969	$ -	8/28/2017	On Hold

Shaded region shows an update to the information

JUDICIAL COUNCIL
OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION
ADVISORY COMMITTEE

Meeting Date: 04/08/2019

Information Only Item 4 – Facility Modification Budget Reconciliation Report

Summary:
FM Budget Reconciliation Projects Update

Supporting Documentation:

- *FM Budget Reconciliation Projects Report*

JUDICIAL COUNCIL OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Meeting Date: April 08, 2019

Facility Modifications Completed and Canceled

This fiscal year 774 facility modifications funded over multiple fiscal years were completed. Collectively, the actual costs were under budget of the original estimated amounts by approximately 94.79%.

REPORTING PERIOD STATUS	Quantity	Estimated Cost of FM Program Budget Share	Actual Cost of FM Program Budget Share	% of Estimated Cost
Completed	774	$21,571,238	$20,447,377	94.79%
Funded FMs Canceled	19	$1,040,681	N/A	N/A
Non-Funded FMs Canceled	28	N/A	N/A	N/A

CURRENT YEAR STATUS (FY18-19)	Quantity	Cost Adjustment to Current Year FM Program Budget
Completed	331	$656,290
Canceled	10	$22,204
TOTAL COST ADJUSTMENT		$629,046

FY 2018-2019 FM Budget YTD Reconciliation

The first meeting of the year in July 2018 included initial encumbrances for statewide planning, Priority 1 FMs, FMs less than $100,000, and planned FMs, as well as encumbrances for Firm Fixed Price and the approved FMs over $100,000 and cost increases greater than $50,000. The revised proposal to the budget amount has been indicated and the reconciled expenditure has been updated to reflect the revised budget amount that is going to be pre-encumbered for the remaining fiscal year. Any end of the year fiscal revisions will be reflected after the end of the fiscal year 2018-2019.

JUDICIAL COUNCIL OF CALIFORNIA

TRIAL COURT FACILITY MODIFICATION ADVISORY COMMITTEE

Meeting Date: April 08, 2019

FY 2018-2019 ($1,000s)					
Description	**Budget Amount**	**Revision to Budget**	**Revised Budget Amount**	**Reconciled Expenditure**	**Funds Available**
Statewide FM Planning Allocation	$5,600	$0	$5,600	$5,600	$0
Priority 1 FM Allocation	$7,500	$1,750	$9,250	$9,250	$0
FMs Less Than $100K Allocation	$9,000	($1,000)	$8,000	$8,000	$0
Planned FMs Allocation	$1,864	$0	$1,864	$1,864	$0
Priority 2-6 FMs Allocation	$37,673	($750)	$36,923	$34,724	$2,199
Energy Efficiency Projects	$2,364	$0	$2,364	$2,364	$0
DMF Contingency	$1,000	$0	$1,000	$822	$178
Facility Assessments	$5,000	$0	$5,000	$5,000	$0
DMF 2 Funds to offset Facility Assessments	($5,000)	$0	($5,000)	($5,000)	$0
TOTALS:	**$65,000**	**$0**	**$65,000**	**$62,624**	**$2,377**

Note: The sum totals might be exact because of rounding errors

FY 2018-2019 FM Budget Spending Plan

FY 2018-2019 Spending Plan ($1,000s)	
Month/Item	**Spending**
JUL 2018 (approved 7/20)	$36,624
DMF Contingency	$1,000
AUG 2018 (approved 8/27)	$3,022
OCT 2018 (approved 10/12)	$5,609
Energy Efficiency	$201
DEC 2018 (approved 12/03)	$1,317
.....Facility Assessments	$5,000
JAN 2019 (approved 1/29)	$5,748
MAR 2019 (approved 3/8)	$938
APR 2019 (proposed)	$3,342
MAY 2019	$2,199
TOTAL	**$65,000**