

**AGENDA
REGULAR MEETING
YECA GOVERNING BOARD**

**Yolo Emergency Communications Agency, 35 N. Cottonwood Street, Woodland, CA 95695
May 22, 2019
2:00 P.M. Public Session**

ALL ITEMS ARE FOR ACTION UNLESS OTHERWISE NOTED WITH AN ASTERISK (*)

1. Call to Order (2:00 PM)

2. Public Comment *

Speakers must state their name and city of residence for the record and limit their remarks to three minutes. Members of the public audience may address the Governing Board on any item not on today's agenda. No response is required and no action can be taken, however, the Governing Board may add the item to the agenda of a future meeting.

3. Announcements

- a. Agency Service Awards acknowledging the following employees:
 - o 30-years Tammy Leggins
 - o 25-years Dave Hetland
 - o 20-years Kim Soares

4. Approval of the Agenda

5. Consent Agenda

Consent Agenda items are considered to be routine and will be considered for adoption by one motion. There will be no separate discussion of these items unless a member of the Governing Board, member of the audience, or staff requests that the Governing Board remove an item. If an item is removed, it will be discussed in the order in which it appears on the Agenda.

- a. Approval of the Minutes from the April 3, 2019, Regular Meeting
- b. Operations Division Report
- c. Current Year Budget Status Update
- d. CalPERS – Pay Schedules 2019-2021
- e. FY19 Budget Adjustment – CalPERS Additional Payment
- f. 2019 1st Quarter – Dispatch to Que Report

6. Old Business – Information Only

- a. General discussion on countywide Records Management System

7. YECA Building Infrastructure Cost Assessment Presentation – Information only

- a. CSI Report presented and prepared by Craig Trygstad

8. LAFCo JPA Service Review for YECA – Information only

- a. Service Review Report presented and prepared by Christine Crawford
[Click here to see the LAFCo Report.](#)

9. Next Scheduled JPA Board Meeting TBD

10. Items for Future Agenda

11. Adjournment

I declare under penalty of perjury that the foregoing agenda was available for public review and posted on/or before May 17, 2019 on the bulletin board outside of the Yolo County, Erwin Meier Administration Center, 625 Court St., Woodland, California and on the agency website:

<http://www.yolo911.org/board-meetings>



Dena Humphrey, Executive Director

**The meeting room is wheelchair accessible and disabled parking is available. If you are a person with a disability and you need disability related accommodations to attend the meeting, please contact Corina Macias at (530) 666-8919 or (530) 666-8909 (fax). Requests for accommodations must be made at least two full business days before the start of the meeting. **

**YOLO EMERGENCY COMMUNICATIONS AGENCY (YECA)
GOVERNING BOARD**

April 3, 2019

MINUTES

Agenda Item: 5.a

The YECA Governing Board met on Thursday, April 3, 2019 at the Yolo Emergency Communications Agency, 35 N. Cottonwood Street, Woodland. Chair Luis Soler called the meeting to order at 2:10 p.m.

PRESENT: Primary Board Members: Luis Soler, City of Woodland, Tom McDonald, City of West Sacramento, John Donlevy, City of Winters, Gary Fredericksen, Yocha Dehe Wintun Nation, Tom Lopez, Yolo County, Dena Humphrey, YECA Executive Director

Entry No. 2

Minute Order No. 2019-17 Public Comment - None

Entry No. 3

Minute Order No. 2019-18: Announcements

- a. Proclamation “National Public Safety Telecommunications Week April 14th-20th
Chair Luis Soler, City of Woodland recognized National Public Safety Telecommunications Week by releasing an official proclamation.
- b. YECA 2018 Dispatcher of the Year “Krista Bryant”
Executive Director Dena Humphrey presented by reading highlights of Krista Bryant commendations from her peers and other agencies. Krista has 11 years of service to the 911 Dispatcher profession and is recognized for her diversity, service to others, and her accomplishments.
In recognition of 2018 Dispatcher of the Year Krista was presented with an award plaque and bouquet of flowers.
- c. YECA would like to thank the Yolo County Firefighters Association for their continued support and generous donation for a corporate sponsorship to this year’s Dispatcher’s Banquet

Entry No. 4

Minute Order No. 2019-19; Approval of Agenda

The Agenda approved as presented

MOTION: Lopez SECOND: Donlevy AYES: Soler, McDonald, Fredericksen, Donlevy, Lopez

Entry No. 5

Minute Order No. 2019-20; Consent Agenda

The Consent Agenda approved as presented

- a. Approval of the Minutes from the March 7, 2019, Regular Meeting
- b. Operations Division Report
- c. Current Year Budget Status Update
- d. CalPERS Resolution – Pay Schedules 2012-2021 –**Resolution No. 19-0403-5D**

MOTION: Fredericksen SECOND: McDonald AYES: Soler, Donlevy, Lopez, McDonald, Fredericksen

Entry No. 6

Minute Order No. 2019-21; Old Business – Informational Only- Dena Humphrey, Executive Director presented

- a. General discussion and current status update of YECA building
-CSI provided additional cost, will present and provide a comprehensive report at the May JPA Board Meeting.
- b. General discussion on countywide Records Management System – Charles Keasler I.T. Administrator presented – Board agreed to keep RMS on the table for future discussions. Dispatch Supervisor Scott Fletcher presented a Dispatcher scenario/visual of a 911 Dispatch call to clearly understand the impact of not having an uniform RMS Data Base from all member agencies to provide pertinent information to Law Enforcement / Fire.

Entry No. 7

Minute Order No. 2019-22; FY19/20 Proposed Base Budget – *Voted Item-Approved as outlined in 2019 March 7th Board Meeting 7a. Minute Order No. 2019-15.

- a. FY19/20 Proposed Budget

MOTION: Donlevy SECOND: Fredericksen AYES: Soler, Lopez, McDonald, Fredericksen, Donlevy

Minute Order No. 2019-23; FY19/20 Proposed Base Budget – *Voted separately* Approved as outlined in 2019 March 7th Board Meeting 7b & 7c. Minute Order No. 2019-15.

- b. FY19/20 Proposed CIP
- c. FY19/20 Proposed Position Table

MOTION: Lopez SECOND: McDonald AYES: Soler, Fredericksen, Donlevy, Lopez, McDonald

Entry No. 8

Minute Order No. 2019-24; Closed Session – Chair Luis Soler adjourned at 2:52pm for closed session

- a. Public Employee Performance Evaluation (GC54957)
Position Title: Executive Director

Open Session resumed 3:04pm –

Action: Chair Luis Soler and Board in recognition of Performance Evaluation GC54957 – **Approved- Amendment to Non-Represented Compensation & Benefits Package outlined June 6, 2018 Minute Order No. 208-29 No. 8.c;**

Executive Director Non-Represented Compensation & Benefits Package to be amended from 1% pay increase per year, to 2% pay increase per year retroactive with effective date January 1, 2019, to match what the non-representation group received for their 3-year COLA package increase.

MOTION: Fredericksen SECOND: Donlevy AYES: Soler, Lopez, McDonald, Donlevy, Fredericksen

Entry No. 9

Next Scheduled JPA Board Meeting – May 22, 2019 @ 2:00pm, 35 N Cottonwood Street, Woodland

Entry No. 10

Items for Future Agenda

- CSI Report
- Employee 30-year Recognition
- RMS update

Entry No. 11

Adjournment

Meeting Adjourned 3:15pm

Minutes submitted by: Eloise Austin, Recording Secretary

STAFF REPORT

Agenda Item: 5.b

Date: May 22, 2019
To: YECA Governing Board
Thru: Dena Humphrey, Executive Director
From: Leah Goodwin, Operations Manager
Subject: March & April Combined Operations Division Report
Recommendation: No action required; information only.
Summary: Operations staff is currently engaged in the following:

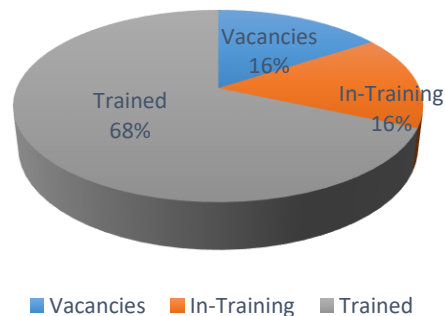
Staffing:

1. Out of 39 funded operations positions:

Classification	Funded	Vacant
Supervisor	4	0
Dispatcher III	4	1
Dispatcher I/II	26	3
Dispatch Assistant	5	2
TOTAL	39	6*

*Includes anticipated retirement in June

May 2019 Staffing



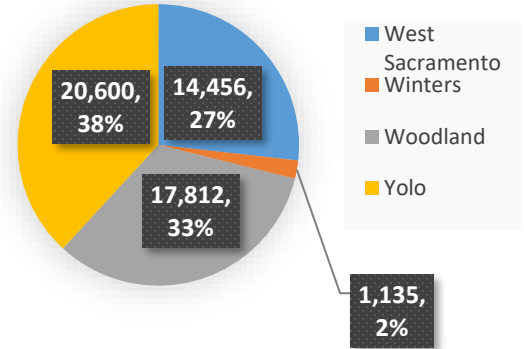
- a. Sarah Roccaforte completed training on the Woodland Police console (1st radio) and has begun training on the Yolo County Sheriff/Winters Police console March 26, 2019.
 - b. Bethany Eakin has completed training on the Fire console (1st radio) and has begun training on the Woodland Police console March 3, 2019.
 - c. Morgan Boston has completed training on the Yolo County Sheriff/Winters Police console (1st radio) and has begun training on the Woodland Police console effective February 13, 2019.
 - d. Connie Kenton has completed training on the Woodland Police console (1st radio) and has begun training on the West Sacramento Police console March 6, 2019.
 - e. New trainees, Tony Frasier and Nicole Hogan, have completed the classroom phase and EMD portion and have started their one-on-one training in the Dispatch Assistant responsibilities.
2. Kim Soares will be retiring after 20 years of service on June 27, 2019.
 3. YECA has closed recruitment for the next in-house academy scheduled for September 9, 2019.
 4. YECA has opened recruitment for the December 8, 2019 in-house academy.

Statistical Information:

Monthly Phone Statistics:

	Jan	Feb	Mar	Apr	YTD
9-1-1	4,138	3,792	4,378	4,440	16,748
7-Digit Emergency	950	793	914	886	3,543
AMR	65	60	90	73	288
West Sacramento	3,612	3,285	3,757	3,802	14,456
Winters	271	247	282	335	1,135
Woodland	4,595	3,852	4,596	4,769	17,812
Yolo	5,399	4,699	5,208	5,294	20,600
Outgoing	5,599	5,201	5,937	5,626	22,363
TOTAL	24,629	21,929	25,162	25,225	96,945

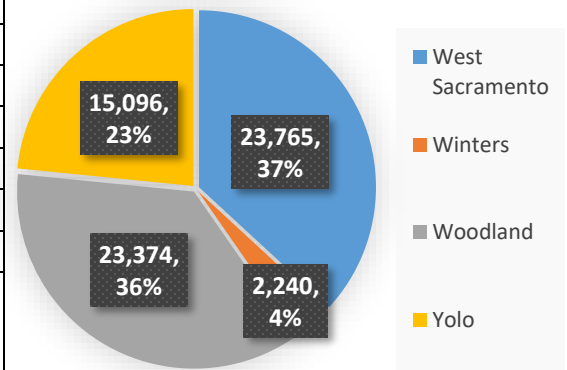
**2019 YTD
Incoming Non-
Emergency Lines**



Monthly CAD Events:

	Jan	Feb	Mar	Apr	YTD
West Sacramento					
TOTAL	5,916	5,354	6,339	6,156	23,765
Winters					
TOTAL	570	453	531	686	2,240
Woodland					
TOTAL	5,787	4,985	6,217	6,385	23,374
Yolo					
TOTAL	3,938	3,682	3,634	3,842	15,096
Yocha Dehe					
TOTAL	48	42	34	34	158
Arbuckle					
TOTAL	50	36	38	34	158
Outside Agency/non-geo validated					
TOTAL	83	44	88	60	275
UCD					
TOTAL	111	103	92	107	413
GRAND TOTAL	16,503	14,699	16,973	17,304	65,479

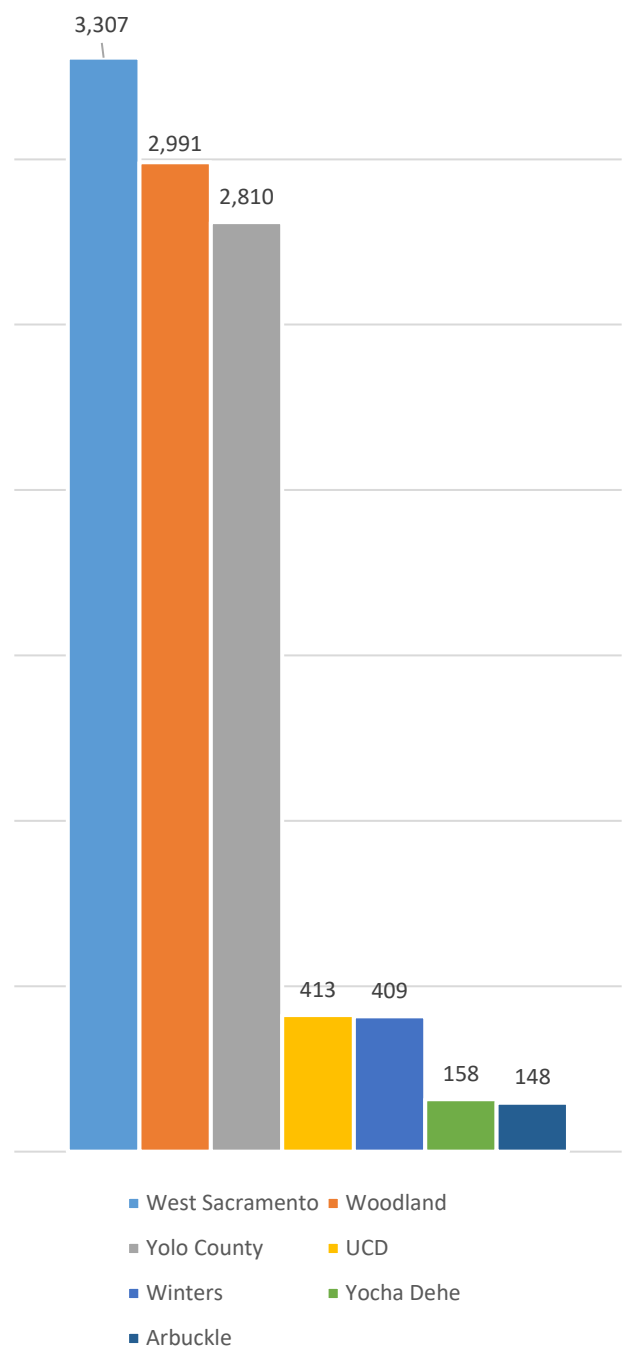
**2019 YTD
CAD Events**



Fire CAD Events:

	Jan	Feb	Mar	Apr	YTD
West Sacramento					
Fire	414	290	318	373	1,395
Medical	468	449	504	491	1,912
TOTAL	882	739	822	864	3,307
Winters					
Fire	61	76	52	97	286
Medical	39	16	29	39	123
TOTAL	100	92	81	136	409
Woodland					
Fire	342	358	348	384	1,432
Medical	350	350	445	414	1,559
TOTAL	692	708	793	798	2,991
Yolo					
Fire	440	610	512	811	2,373
Medical	120	67	116	134	437
TOTAL	560	677	628	945	2,810
Yocha Dehe					
Fire	12	15	12	11	50
Medical	36	27	22	23	108
TOTAL	48	42	34	34	158
Arbuckle					
Fire	35	19	18	18	90
Medical	15	17	20	16	68
TOTAL	40	36	38	34	148
UCD					
Fire	65	58	58	54	235
Medical	46	45	34	53	178
TOTAL	111	103	92	107	413
ALL					
Fire	1,369	1,368	1,260	1,694	5,691
Medical	1,028	926	1,136	1,117	4,207
TOTAL	2,397	2,294	2,396	2,811	9,898

2019 YTD Fire Events



CLETS Inquires>Returns:

	Jan	Feb	Mar	Apr	YTD
Inquiries	35,218	32,321	38,049	40,723	146,311
Returns	56,917	52,235	61,493	65,814	236,459

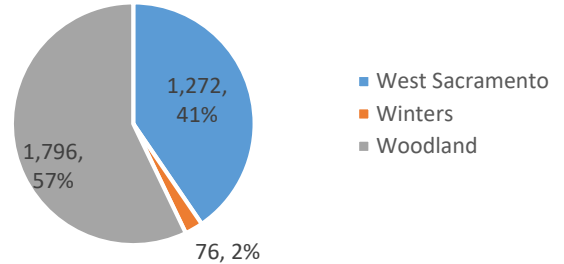
Confidential Records Requests (Audio & CAD Print out):

Jan	Feb	Mar	Apr	YTD
132	62	158	117	469

After-Hours Records Entries:

	Jan	Feb	Mar	Apr	YTD
West Sacramento	354	251	337	330	1272
Winters	9	14	17	36	76
Woodland	431	373	469	523	1796
TOTAL	794	638	823	889	3,144

2019 YTD Records Entries



Text to 9-1-1:

	Jan	Feb	Mar	Apr	YTD
TOTAL	<u>15</u>	<u>10</u>	<u>15</u>	<u>10</u>	50

ROSS Orders/Entries (new report item):

2018 YTD TOTAL 107

	Jan	Feb	Mar	Apr	YTD
ROSS	0	0	0	0	0

ROSS Update training/train the trainer in progress.

Projects:

1. EMD-QA
 - a. Quality Assurance reviews occurring weekly
2. Policy Manual Revisions/Re-format – FIRE Manual
3. Records After-Hours Responsibilities Group
4. Recruitment
 - a. Next academy scheduled for September 9, 2019 & December 8, 2019
 - b. Recruitment Strategy
5. 2019 In-Service Training Plan
 - a. 2019 Pre-Fire season scheduled
 - b. In-service training to include:
 - i. Evacuation Plans
 - ii. Active Shooter
 - c. Annual training topics
 - i. Emotional Intelligence (all staff over next 24 months)

- ii. Customer Service (all staff over next 24 months)
 - iii. Tactical Dispatch
 - d. Dispatcher in Charge monthly update training (in development)
- 6. Radio Procedures Training
 - a. WSP training completed
 - b. WPD (1 session complete, 2nd session TBD- waiting for Woodland Police)
- 7. Disaster Recovery/Facility Evacuation Plan
- 8. Scheduling software
- 9. YDF Accreditation
- 10. RapidLite RapidDeploy
- 11. West Sacramento Police traffic volume reports

Agenda Item: 5.c

YECA BUDGET MANAGEMENT SUMMARY

2018 / 2019 As of 4/30/19

	8% JUL-18	17% AUG-18	25% SEPT-18	33% OCT-18	42% NOV-18	50% DEC-18	58% JAN-19	67% FEB-19	75% MAR-19	83% APR-19	92% MAY-19	100% JUN-19
360 3601-8350 ADMINISTRATION												
Appropriations	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047	\$ 2,196,047
Expenditures	\$ 129,426	\$ 201,940	\$ 382,621	\$ 491,278	\$ 884,171	\$ 979,589	\$ 1,055,751	\$ 1,412,691	\$ 1,539,746	\$ 1,618,514	\$ -	\$ -
Percent Expended	6%	9%	17%	22%	40%	45%	48%	64%	70%	74%	0%	0%
360 3602-8351 OPERATIONS - DISPATCH												
Appropriations	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127	\$ 4,267,127
Expenditures	\$ 409,300	\$ 547,101	\$ 1,257,513	\$ 1,371,871	\$ 1,843,301	\$ 2,101,413	\$ 2,329,423	\$ 2,599,242	\$ 2,818,791	\$ 3,074,525	\$ -	\$ -
Percent Expended	10%	13%	29%	32%	43%	49%	55%	61%	66%	72%	0%	0%
360 3601-8356 INFORMATION TECHNOLOGY												
Appropriations	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000	\$ 149,000
Expenditures	\$ -	\$ 1,997	\$ 63,224	\$ 73,236	\$ 33,944	\$ 60,309	\$ 61,083	\$ 62,303	\$ 69,660	\$ 75,099	\$ -	\$ -
Percent Expended	0%	1%	42%	49%	23%	40%	41%	42%	47%	50%	0%	0%

TOTAL for all budget units - B/U 360-1 Administration; 360-2 Operations Dispatch; 3601-8356-Information Technology												
Appropriations	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174
Expenditures	\$ 538,725	\$ 749,041	\$ 1,640,134	\$ 1,863,149	\$ 2,727,472	\$ 3,081,002	\$ 3,385,174	\$ 4,011,932	\$ 4,358,537	\$ 4,693,038	\$ -	\$ -
Unencumbered	\$ 6,073,449	\$ 5,863,133	\$ 4,972,040	\$ 4,749,025	\$ 3,884,702	\$ 3,531,172	\$ 3,227,000	\$ 2,600,242	\$ 2,253,637	\$ 1,919,136	\$ 6,612,174	\$ 6,612,174
Percent Expended	8%	11%	25%	28%	41%	47%	51%	61%	66%	71%	0%	0%
Estimated Revenue	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174	\$ 6,612,174
Realized Revenue	\$ -	\$ 787,703	\$ 2,900,079	\$ 2,910,222	\$ 4,286,934	\$ 4,299,359	\$ 4,370,653	\$ 4,389,572	\$ 5,921,968	\$ 5,963,434	\$ -	\$ -
Unrealized Revenue	\$ 6,612,174	\$ 5,824,471	\$ 3,712,095	\$ 3,701,952	\$ 2,325,240	\$ 2,312,815	\$ 2,241,521	\$ 2,222,602	\$ 690,206	\$ 648,740	\$ 6,612,174	\$ 6,612,174
Percent Realized	0%	12%	44%	44%	65%	65%	66%	66%	90%	90%	0%	0%

STAFF REPORT

Agenda Item: 5.d

Date: May 22, 2019
To: YECA Governing Board
From: Dena Humphrey, Executive Director
Subject: CalPERS – Pay Schedules Update for 2019 - 2021

Summary:

CalPERS requires updated salary tables to be approved by the governing board anytime there is a change within a salary class. This action formally adopts the change that was made to the Executive Director's salary class at the April 3, 2019, Board meeting to match the non-representative's 3-year COLA increase for periods 2019-2021.

Yolo Emergency Communications Agency

Salary Schedules

Effective December 23, 2018

Revised April 3, 2019

<u>Position</u>		<u>Salary Range</u>	
		<u>Minimum</u>	<u>Maximum</u>
Dispatch Assitant	Hourly	\$20.29	\$24.54
Dispatcher I/II	Hourly	\$21.52	\$32.00
Dispatcher III	Hourly	\$33.60	\$34.96
Dispatch Supervisor	Hourly	\$33.99	\$41.74
Operations Manager	Hourly	\$48.13	\$59.10
IT Specialist	Hourly	\$30.48	\$37.05
System Administrator	Hourly	\$38.90	\$47.28
IT Manager	Hourly	\$48.69	\$57.52
Executive Director	Hourly	\$64.09	\$77.73
Sr. Administrative Specialist II	Hourly	\$20.43	\$25.04
Fiscal/Human Resources Administrator	Hourly	\$37.52	\$43.45

Effective December 22, 2019

Revised April 3, 2019

<u>Position</u>		<u>Salary Range</u>	
		<u>Minimum</u>	<u>Maximum</u>
Dispatch Assitant	Hourly	\$20.70	\$25.03
Dispatcher I/II	Hourly	\$21.95	\$32.64
Dispatcher III	Hourly	\$34.27	\$35.66
Dispatch Supervisor	Hourly	\$34.67	\$42.57
Operations Manager	Hourly	\$49.09	\$60.28
IT Specialist	Hourly	\$31.09	\$37.79
System Administrator	Hourly	\$39.68	\$48.23
IT Manager	Hourly	\$49.66	\$58.67
Executive Director	Hourly	\$65.37	\$79.28
Sr. Administrative Specialist II	Hourly	\$20.84	\$25.54
Fiscal/Human Resources Administrator	Hourly	\$38.27	\$44.32

Effective December 20, 2020

Revised April 3, 2019

<u>Position</u>		<u>Salary Range</u>	
		<u>Minimum</u>	<u>Maximum</u>
Dispatch Assitant	Hourly	\$21.11	\$25.53
Dispatcher I/II	Hourly	\$22.39	\$33.29
Dispatcher III	Hourly	\$34.96	\$36.37
Dispatch Supervisor	Hourly	\$35.36	\$43.42
Operations Manager	Hourly	\$50.07	\$61.49
IT Specialist	Hourly	\$31.71	\$38.55
System Administrator	Hourly	\$40.47	\$49.19
IT Manager	Hourly	\$50.65	\$59.84
Executive Director	Hourly	\$66.68	\$80.87
Sr. Administrative Specialist II	Hourly	\$21.26	\$26.05
Fiscal/Human Resources Administrator	Hourly	\$39.04	\$45.21

STAFF REPORT

Agenda Item: 5.e

Date: May 22, 2019
To: YECA Governing Board
From: Dena Humphrey, Executive Director
Subject: FY19 Budget Adjustment – CalPERS Additional Payment

Summary:

During the FY19/20 budget process, the Board approved the use of \$500k in surplus funds to pay down the agency's CalPERS pension liability. In order to take advantage of paying less interest, an increase to FY18/19 budget is needed to make the payment within this current fiscal year. This action would yield approximately \$4k in savings.

Appropriation Increase: \$500k
Accounting Unit: 69205329518350
Account: Retirement #500310

The overall interest savings is \$801,346, for making the additional payment of \$500k to CalPERS. The savings is realized over an amortization period of 29 years impacting the 6/30/16 Asset (Gain)/Loss base.



Quarter 1, 2019 Law Call Statistics

Call Processing Time - All Calls

Average Seconds from First Keystroke to Pending Queue Entry										
PRIORITY	WDP		WNP		WSP		YSO		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
1	87	221	86	10	83	314	94	173	87	718
2	137	1,623	139	112	125	1,686	135	423	132	3,844

Queue Entry to First Unit Dispatched - Units Available

Average Seconds from Pending Queue Entry to First Unit Dispatched										
PRIORITY	WDP		WNP		WSP		YSO		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
1	57	195	51	10	82	292	80	170	74	667
2	144	1,365	79	111	163	1,517	117	409	147	3,402

Queue Entry to Law Supervisor Notified - No Units Available

Average Seconds from Pending Queue Entry to the Law Supervisor Notification of No Units Available										
PRIORITY	WDP		WNP		WSP		YSO		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
1	221	26		-	99	22	67	3	159	51
2	231	258	692	1	247	169	130	14	235	442

Queue Entry to First Unit Dispatched After Law Supervisor Notification - No Units Available

Average Seconds from Pending Queue Entry to First Unit Dispatched after Law Supervisor Notification has Occurred										
PRIORITY	WDP		WNP		WSP		YSO		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
1	627	26		-	776	22	360	3	676	51
2	1049	258	700	1	874	169	517	14	964	442

Queue Entry to First Unit Dispatched - All Calls - Including Available and Unavailable Units

Average Seconds from Pending Queue Entry to First Unit Dispatched										
PRIORITY	WDP		WNP		WSP		YSO		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
1	124	221	51	10	131	314	87	173	117	718
2	288	1,623	84	112	234	1,686	130	423	241	3,844



Quarter 1, 2019 Fire Call Statistics

Call Processing Time - All Fire Calls

Average Seconds from First Keystroke to Pending Queue Entry												
PRIORITY	WDL		WNF		WSF		YDF		County		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
Code 2	49	456	67	20	53	523	13	3	59	69	52	1,071
Code 3	56	1,349	65	131	60	1,684	40	107	56	807	57	4,078

Queue Entry to First Unit Dispatched - All Fire Calls

Average Seconds from Pending Queue Entry to First Unit Dispatched												
PRIORITY	WDL		WNF		WSF		YDF		County		Total	
	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
Code 2	16	456	20	20	18	523	22	3	22	69	18	1,071
Code 3	19	1,349	20	131	19	1,684	35	107	22	807	20	4,078

Call Processing Time - Fire and Medical

Average Seconds from First Keystroke to Pending Queue Entry													
Call Type	PRIORITY	WDL		WNF		WSF		YDF		County		Total	
		Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
Fire Call Types	Code 2	38	212	42	2	37	129		-	69	10	38	353
	Code 3	52	355	73	59	57	494	44	22	50	442	54	1,372
Medical Aid Call Types	Code 2	59	244	70	18	60	394	13	3	57	59	59	718
	Code 3	57	994	58	72	61	1,190	39	85	63	365	59	2,706

Queue Entry to First Unit Dispatched - Fire and Medical

Average Seconds from Pending Queue Entry to First Unit Dispatched													
Call Type	PRIORITY	WDL		WNF		WSF		YDF		County		Total	
		Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls	Average	# of Calls
Fire Call Types	Code 2	16	212	25	2	23	129		-	34	10	19	353
	Code 3	23	355	26	59	23	494	20	22	24	442	24	1,372
Medical Aid Call Types	Code 2	16	244	19	18	17	394	22	3	20	59	17	718
	Code 3	17	994	15	72	17	1,190	39	85	20	365	18	2,706

YECA DISPATCH MOVE EVALUATION

CSI TELECOMMUNICATIONS, INC.

Prepared by: Craig Trygstad P.E.

March 26, 2019

Background

The purpose of this report is to evaluate two options for moving from the current YECA dispatch center. The first option would be to relocate the dispatch center on the current campus on N. Cottonwood Street and the second would be to relocate to a new property procured by the City of Woodland for a new fire station on Gibson Rd. The underlying assumption is that the current building will need to be evacuated, including all radio equipment. The evaluation is limited to the communication system and does not address other issues such as dispatch center construction, land use issues, or operational issues other than communications. One additional assumption is that the current simulcast and base station equipment at YECA dispatch will remain at the current tower. The evaluation of the effect of moving the simulcast stations to Willow Springs was not included in the scope of this project. There would be some impact to coverage if the simulcast stations were moved, as the signal levels would change in the area as well as the site separation to Bald Mtn. would increase which would more than likely require adjustment to the launch delays.

The tasks of this project were the following:

- Comparing potential new locations in terms of links to the radio system infrastructure from a cost and reliability point of view.
- Sizing a new communication shelter near the existing YECA dispatch center tower with recommendations of where to locate it and a budgetary estimate for the shelter.
- Creating a preliminary implementation and cutover plan for moving dispatch operations to a new building and moving the existing radio infrastructure to a new shelter, including the evaluation of moving the existing equipment or replacing it.

N. Cottonwood Campus Scenario Overview

The first option would be to construct and relocate to a new building on the Yolo County campus along N. Cottonwood St. In this scenario, it would be recommended that a new communication shelter be built near the existing tower to house the two-way radio infrastructure and the microwave network. Underground fiber would be used to connect the shelter to the new dispatch center which would house the dispatch console equipment, 911 trunks, logging recorder equipment, and the networking equipment supporting them. Backup control stations would be located in the dispatch center building to avoid a single point of failure issue with the fiber link.

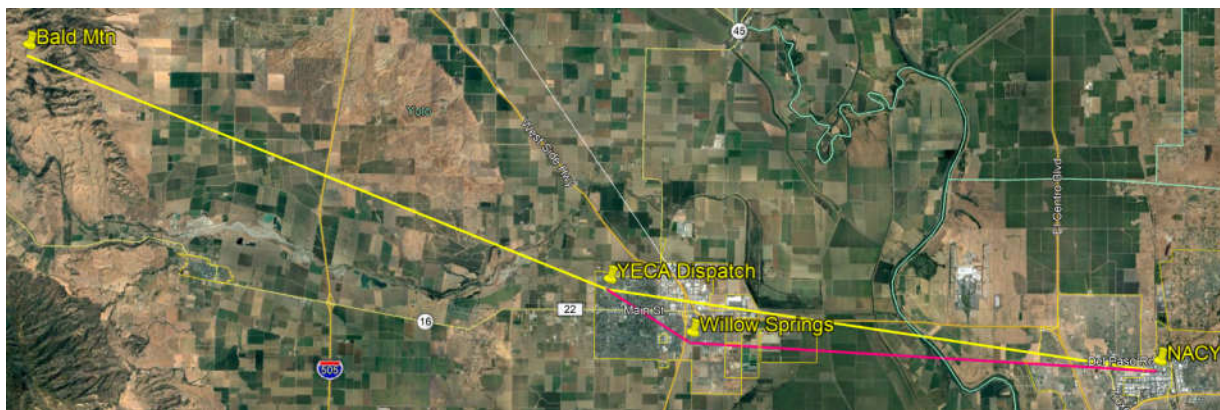
The microwave dishes would stay in place on the existing tower, so there would be no effect to the microwave system other than the outage during the move from the existing radio room to the new communication shelter, which will be addressed later.

Willow Springs Scenario Overview

The second option would be to locate on the new parcel obtained by Woodland on the location of the former Willow Springs Elementary School on the northeast corner of Gibson Road and Hwy 113. In this scenario, it would be recommended that the two-way radio equipment be moved to a new communication shelter next to the existing tower at the current YECA location. The dispatch console, 911 trunks, logging recorder, and associated networking equipment would be located at the new dispatch center.

Alternatively, YECA could add a simulcast site to this location to improve coverage to the southern portion of Woodland, which may be desirable given the recent and future growth of the town towards the south.

For microwave, the existing microwave radios would be relocated to the shelter, but the microwave link between the existing YECA dispatch center tower and the site located at the Sacramento City North Area Corporation Yard (NACY) would be split into two hops, one from the existing dispatch center tower to the new dispatch center location and one from the new dispatch center to NACY. This would maintain the loop redundancy of the system while providing loop protection to the new dispatch center while only having to add one pair of microwave radios to the system. If one of the links is not feasible, another possibility is to place the new dispatch center in the microwave loop between Bald Mtn. and the existing dispatch center.



Map 1: Bald to NACY paths, existing paths in yellow, potential new paths in magenta

Link Comparison

In the first scenario, the apparent best choice to link the relocated dispatch center to the radio system would be fiber to the communication shelter. Keeping fiber on the campus would minimize the opportunity for “backhoe fades” disrupting communication to the radio infrastructure. Equipping the dispatch center with backup control stations for both the 800 MHz trunked system as well as the VHF system would also increase resiliency.

One other potential redundancy for the first scenario could be the use of underground and above ground fiber links, one to address backhoe fades and one to address fires and other causes of the loss of overhead

fiber links. This method is becoming more popular, but does incur significant cost and is not as critical with the link traveling only through the campus.

For the second scenario, it is recommended that the new site be placed within the microwave loop for resiliency. This method is inherently more reliable that a single link as two paths are maintained to connect sites under normal operations. The existing link between YECA and NACY is approximately 17 miles; by placing the new dispatch center between these two sites in the link, the resulting paths are approximately 14.3 miles from the new site to NACY and 3.0 miles from the new site to YECA. All things being equal, shorter paths are inherently more reliable, so assuming there is no obstruction issues or frequency coordination issues, breaking up the link into two links should maintain and perhaps improve overall reliability. The existing link between YECA and NACY utilizes space diversity receivers, primarily due to the inversion effects which occurs in the Sacramento Valley. Space diversity would be recommended for the path between Willow Springs and NACY as well. With anticipated obstruction heights, this means that the tower at Willow Springs has an anticipated height of 180', pending a physical path survey. This would be just below incurring FCC requirements for lighting and/or painting which is set at 200' (including appurtenances such as antennas) when not within a flight path boundary.

Costs of the links of the two scenarios will be compared in the cost summary section.

Communication Shelter

Diagram #1 in the appendix shows the contents of the current radio room. The diagram shows the current racks and the equipment mounted in them. There are a few exceptions to the summarized racks, but the summary is good for determining which racks are associated with the radio room and will need to go into the shelter, and which racks support the consoles and other dispatch center functions and need to stay as close to the consoles as possible.

The row of 12 racks down the middle of the room support the microwave equipment, dispatch center consoles and network primarily, including backup control stations for the SRRCS dispatch consoles. Two of the racks are empty and some of the other equipment could be consolidated into fewer racks if needed.

Bay 1-1 supports six Tait 8100 simulcast stations for four channels plus a repeater for Local Government and the Woodland PD backup. Bay 1-2 supports six more Tait 8100's for the Gold Repeater and five control stations. Bay 1-3 supports six Tait 8100's, one is a spare, the others support interoperability channels. Bay 1-4 supports more interoperability with a mix of radio types: one Astro Consolette, a Kenwood mobile-in-a-tray control station, and MTR2000, and three Tait 8100's.

Bay 3-1 supports audio filters, Bay 3-2 supports audio distribution, Bay 3-3 supports punch blocks, (there are also a number of punch blocks on the adjacent wall, many of which are no longer in use), Bay 3-4 supports the voting comparators, and Bay 3-5 supports the Intraplex channel banks associated with the simulcast and other VHF channels.

For the scenario that the dispatch center stays on the current campus with a fiber connection to a shelter the console backroom equipment could be housed in either the communication shelter or in the building with the dispatch consoles. That decision would be driven by ease of maintenance, link reliability, and the ability of a suitable room for the equipment in the dispatch center. Assuming it goes in the dispatch center, 8 racks would be located in the dispatch center and 11 racks would be located in the communication shelter, along with the DC plant and the transmitter combiners.

For the scenario that the dispatch center is located at Willow Springs, microwave equipment would be needed at both sites. The communication shelter next to the current YECA dispatch tower would house 6 racks and the new dispatch building would support 12 racks, assuming that the site will not extend coverage into south Woodland. Another three or four racks would be needed for extending coverage, depending on which channels would be extended. A rack would also be needed for both sites for DC power as well as space for batteries. Diagrams in the appendix show a rough floor plan layout for the shelters and radio room in the new dispatch center.

One note about the current radio room. There are control stations associated with the VHF simulcast channels in the room, presumably in case of the microwave network failure. The comparators are also located at this location, so if there was a catastrophic failure of the microwave network, the simulcast system would no longer be working as a simulcast system. A technician would need to be dispatched to Bald Mtn. or another key site to put the simulcast system into a single site repeater mode. This scenario is small relative to the risk of interference and the complexities of having simulcast stations co-located with control stations on their channels, and we would recommend not continuing this when the radio room is relocated.

Preliminary Implementation and Cutover Plan

To begin the implementation, the new sites would be developed as needed prior to modifying anything at the current dispatch center and radio room.

For both scenarios, the console operator positions will need to move from the existing building to a new dispatch center location. There are two cutover approaches for this which would allow continued dispatch operations during the move.

The first approach is to utilize the six training positions located at the Sacramento Police Department, as they are tied into the same zone core as YECA's console. Other than programming and requiring staff to temporarily relocate, this would be the lowest cost solution, assuming Sacramento PD would agree to it.

The second would be to purchase the router and other backroom equipment to support the console positions for the new location, then move the console positions from the old to the new location on a position by position basis. There would be some operational impacts on splitting staff, though the cutover should be able to be accomplished in a matter of one to two days.

To link the new dispatch center to the radio network, if it is located on the existing campus, the fiber connection would first be made, multiplex modified to accommodate the link, then the console system would be moved. If it is located at Willow Springs, after the new site was fully built out, the path from YECA and NACY would be severed, which would temporarily negate loop protection on the microwave network. Then the microwave dishes at NACY and at the existing YECA dispatch would be reoriented to Willow Springs. If done properly, the lack of loop protection in the microwave network would be on the order of hours and not days.

For the simulcast system, the equipment would move from the existing radio room to a communication shelter near the tower as well as to the new dispatch center. The difficulty with this move is that this is the prime site for the simulcast system. The prime site equipment could be located at either the dispatch center as the comparators are connected to the conventional channel gateway (CCGW) of the console system, or located in the radio room as it has connections to both the local simulcast system there as well as the microwave network. There are number of differing ways to approach this cutover which trade off costs and down time. One approach would be to move one microwave radio first while the other

microwave radio on the loop continues to be connected to the remote simulcast sites. Either a second Nokia multiplex is purchased to minimize downtime or the existing multiplex is moved to save costs. Temporary T1 connections would then be made between the existing radio room and the new shelter. The complexity at this point is that there are two major components of the prime site equipment which need to be moved. The first are the channel banks which have a one to one association with each remote site and each one supports all of the channels. The second are the comparators which have a one to one association with each channel and each one supports all of the sites. To further complicate the issue is that the audio levels between the comparators and the channel banks are critical for successfully simulcasting. Other than buying duplicate equipment, options include moving a combination of channel banks and comparators creating a scenario of certain channels working at certain sites only during cutover. For example, if channel bank associated with Bald Mtn. and the comparator associated with Yolo SO Primary were moved together, Bald Mtn. and the Yolo SO Primary channel would be down while being move, but then the Yolo SO Primary would be a single site channel working off of Bald Mtn. until other channel banks were moved.

The downtime would be reduced if at least one comparator and channel bank were purchased and pre-installed prior to cutover. The implementation order at that point would be once the console is cutover and a channel bank and comparator are installed with the backroom equipment in the dispatch center, the channel bank is either provisioned over the microwave network if it is at Willow Springs or tied over the fiber connection from the new campus dispatch center to the new shelter which has one microwave radio in operation. Then a spare port (an additional CCGW may be needed if there are no spare ports) from the console ties to the new comparator while continuing to tie to the original comparator. Then, that site has that single channel operating until more comparators are connected to the channel bank for more channels at that site, and/or more channel banks are fed by that comparator for more sites for that channel. This could be done in batches by purchasing more channel banks and comparators, decreasing the impact with each additional channel bank and comparator purchased. Ideally, all channel banks and comparators associated with critical sites and channels would be duplicated to minimize the prime site cutover impact.

Summary

As shown the next table, the Willow Springs site would be more expensive scenario due to the tower required to support microwave. The benefit to using the site would be its availability to act as an additional radio site to enhance coverage to the south Woodland area, including the Sheriff building and jails on Gibson Road. The cost shown for the fiber link is a most likely cost, but this could vary wildly depending on the location of the new dispatch center and availability of conduit to support the fiber. If the costs become too high, there would be the option of a tower and microwave link, which would make the two scenarios roughly equal in cost.

Factors such as the cost of the new dispatch center building will most likely be the primary driver of the overall costs to the two scenarios.

Budgetary Estimates

These estimates include estimates provided by CSI for the radio system move and supporting infrastructure as well as estimates provided by YECA staff for utilities, networking, and 911 trunks.

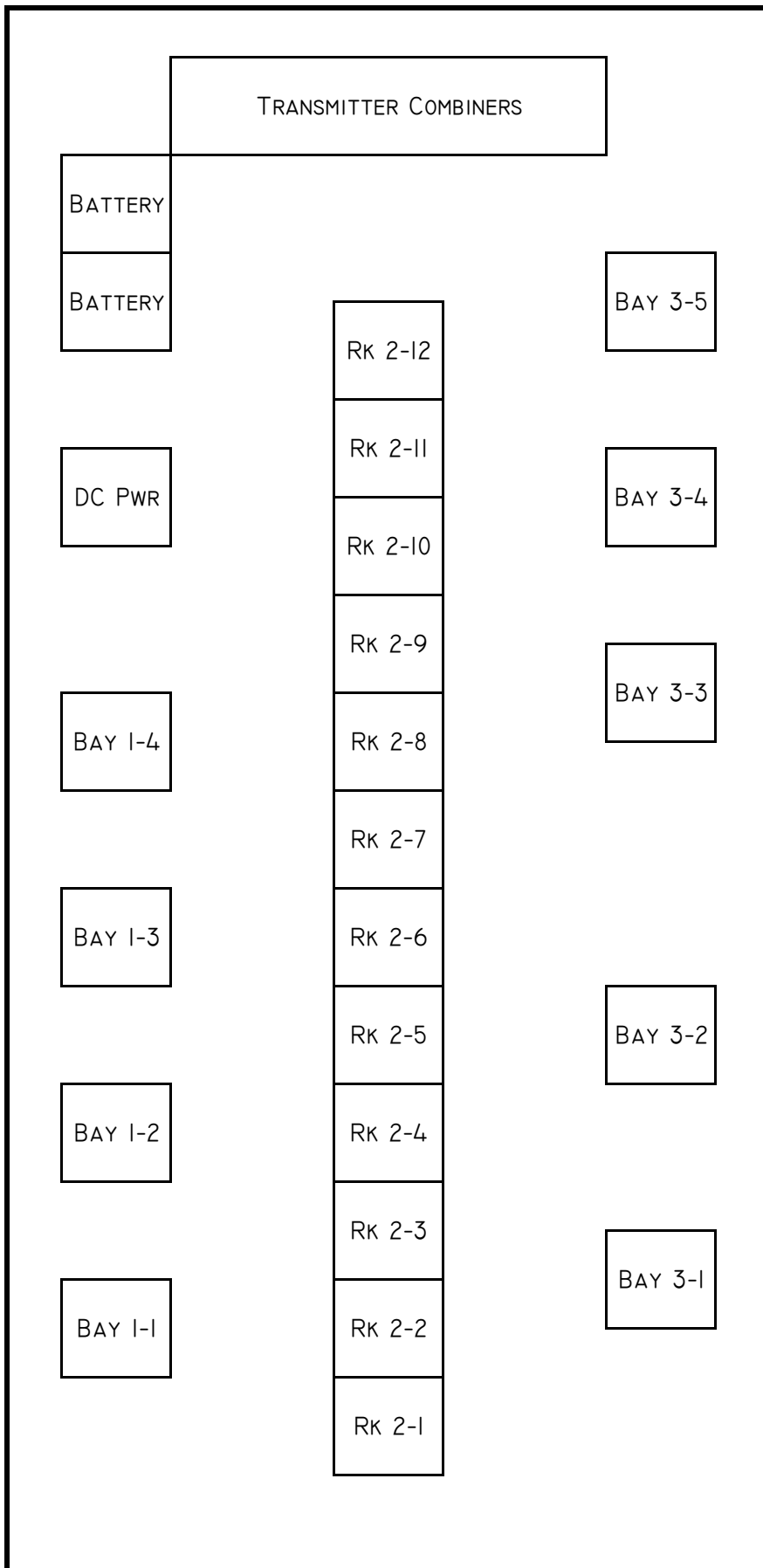
Budgetary Costs		
Item	Dispatch Center Location Scenario	
	Cottonwood Campus	Willow Springs
Communication Shelter near existing YECA tower	\$160,000	\$160,000
180' Tower and foundation at Willow Springs		\$240,000
Fiber connection across campus	\$15,000	
New Microwave and reconfiguration for Willow Springs		\$80,000
Moving dispatch center equipment	\$50,000	\$50,000
AT&T MPOE & 911 CPE	\$0*	\$0*
Wave Internet	\$0	\$10,000
Network Connectivity (\$30/ft)	\$5,000	\$15,000
Network Professional Services	\$70,000	\$70,000
Additional Console backroom equipment to address cutover	\$10,000	\$10,000
Additional comparators/channel banks to address cutover	\$145,000	\$145,000
Total	\$455,000	\$780,000

* Free MPOE per Parcel State Funds

Note: In providing this opinion of probable cost, it is recognized that neither the Client nor CSI Telecommunications, Inc. has control over the costs of labor, equipment, or materials, or over the Contractor's methods of determining prices for bidding. This opinion of probable costs is based on CSI Telecommunications, Inc.'s reasonable professional judgment and experience and does not constitute a warranty, express or implied, that the Contractor's bids or negotiated price of work will not vary from the Client's budget or from any opinion prepared by CSI Telecommunications, Inc.

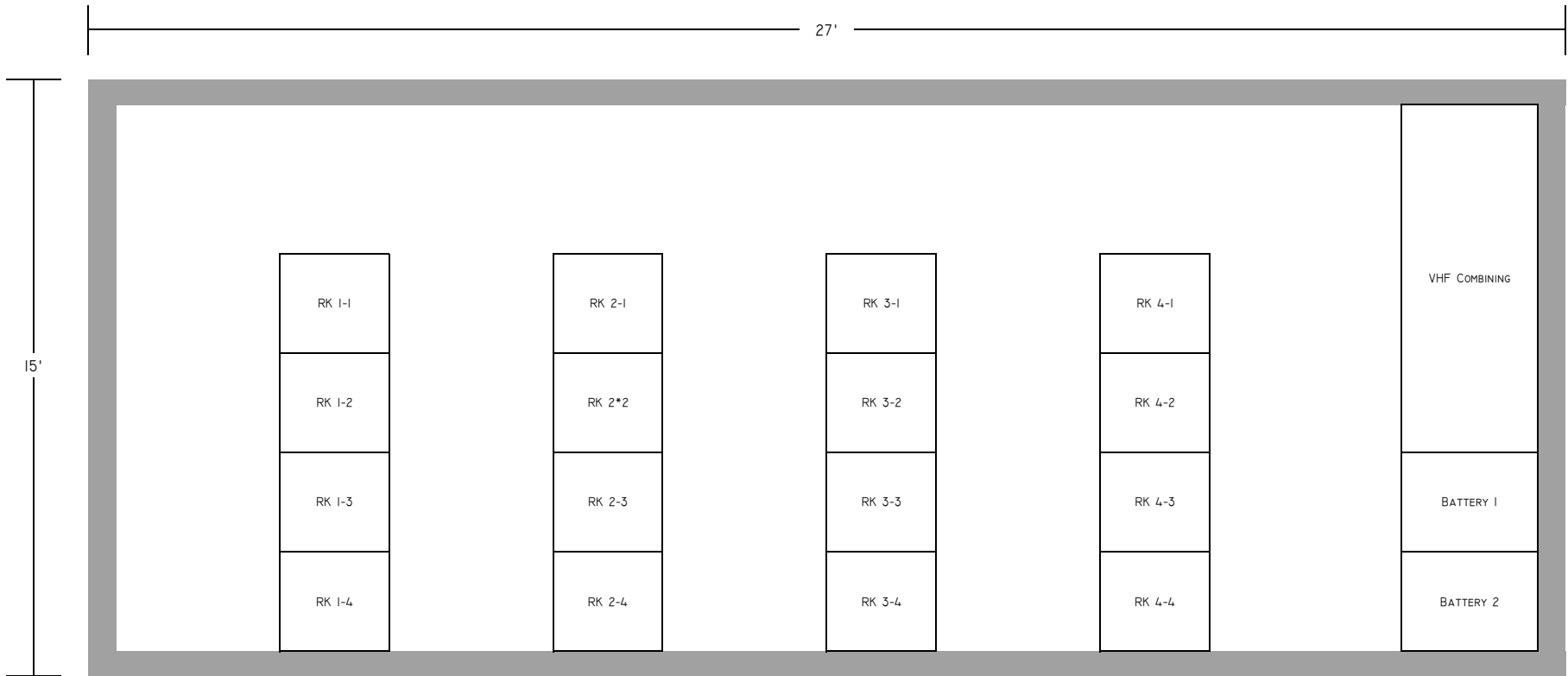
Design Professional shall prepare an opinion of the probable costs of construction. Design Professional has no control, however, over (a) the cost of labor, material, or equipment; (b) the means, methods and procedures of the Contractor's work; or (c) the competitive bidding. Design Professional's opinion of probable cost shall be based on its experience and qualifications and represents its judgment as a Design Professional but shall not be a guarantee that construction costs will not vary from its opinions of probable cost.

Appendix: Rough Room Layout Diagrams

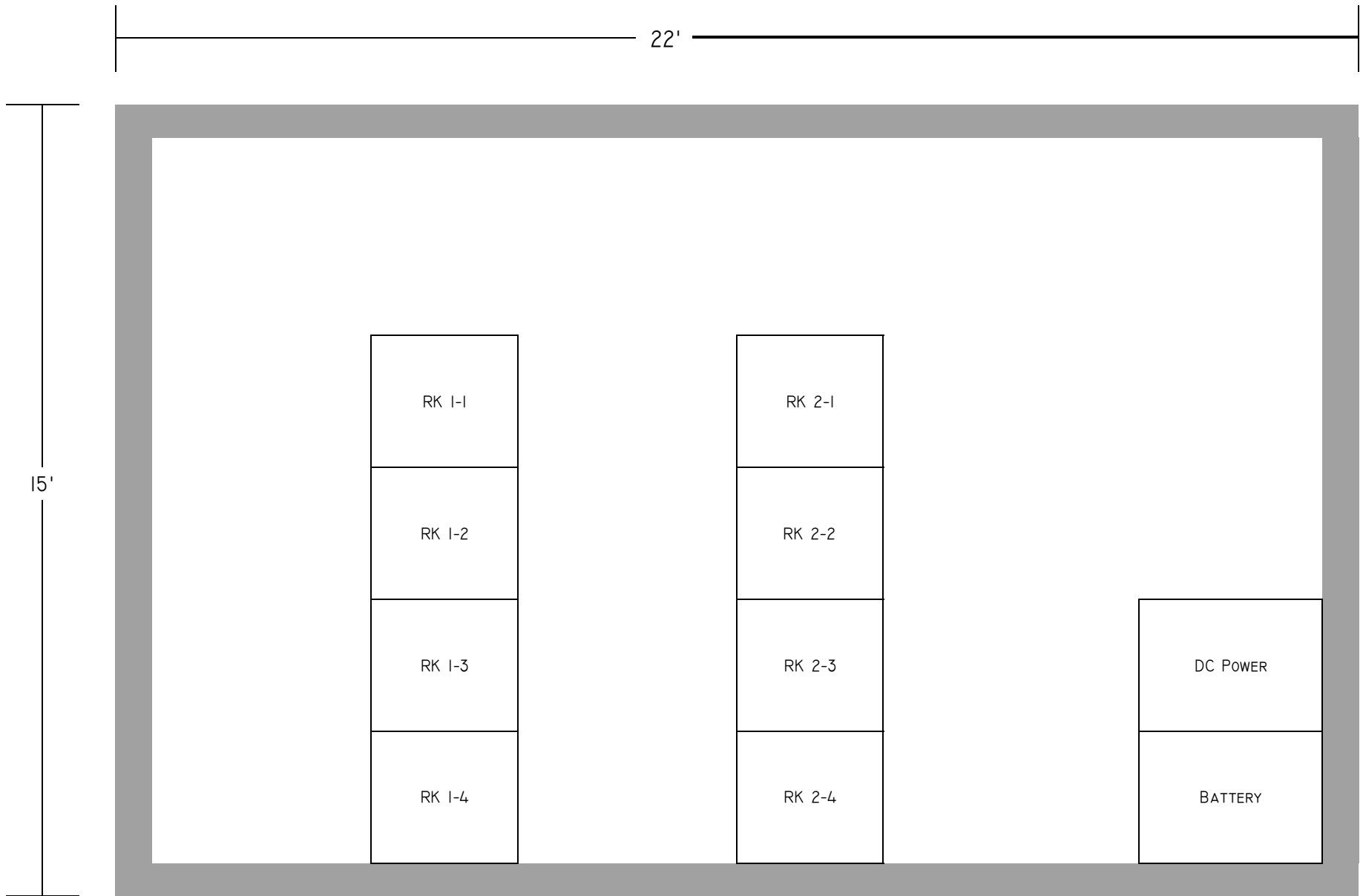


EXISTING RADIO ROOM LAYOUT
(NOT TO SCALE)

BAY 1-1	SIMULCAST STNS
BAY 1-2	CNTL STNS
BAY 1-3	BASE STNS
BAY 1-4	BASE STNS
BAY 3-1	AUDIO FILTERS
BAY 3-2	AUDIO DISTRIBUTION
BAY 3-3	PUNCH BLOCKS
BAY 3-4	COMPARATORS
BAY 3-5	CHAN BANKS
Rk 2-1	ETHERNET SWITCH
Rk 2-2	SERVER
Rk 2-3	MODEMS
Rk 2-4	ROUTER
Rk 2-5	EMPTY
Rk 2-6	EMPTY
Rk 2-7	VESTA
Rk 2-8	MCC7500 CONSOLE
Rk 2-9	KVM
Rk 2-10	MANAGEMENT POS
Rk 2-11	BACKUP CNTL STN
Rk 2-12	TENSR CHAN BANK
	DSX/MUX
	MW RADIOS
	SAC FIRE PAGING
	RX MULTICOUPLERS



16 Rack Room Layout for New Shelter at YECA Dispatch



Dispatch Center Backroom Equipment