



AGENDA

REGULAR MEETING OF THE HEMET CITY COUNCIL

September 8, 2015

6:00 p.m.

City of Hemet Council Chambers
450 E. Latham Avenue

www.cityofhemet.org

Please silence all cell phones

**Notice: Members of the Public attending shall comply with the Council's adopted Rules of Decorum in Resolution No. 4545. A copy of the Rules of Decorum are available from the City Clerk.*

Call to Order

Roll Call

ROLL CALL: Council Members Milne, Raver and Youssef, Mayor Pro Tem Wright and Mayor Krupa

Work Study

Discussion regarding these items, with possible direction to staff

1. Anaerobic Digestion Facility Presentation – Alex Braicovich, CR&R
 2. Update on HERO Program - Rick Bishop, WRCOG
 3. Proposed TUMF Increase - Rick Bishop, WRCOG
-

Closed Session

Notice of Opportunity for Public Comment

Members of the Public may comment upon any identified item on the closed session agenda. Since the Council's deliberation on these items is confidential the City Council and City Staff will not be able to answer or address questions relating to the items other than procedural questions. At the conclusion of the closed session, the City Attorney will report any actions taken by the City Council which the Ralph M. Brown Act required to be publicly reported.

4. Conference with Legal Counsel - Anticipated Litigation
One (1) matter of significant exposure to litigation pursuant to Government Code section 54956.9(d)(2) & (3)
5. Conference with Legal Counsel - Existing Litigation
Pursuant to Government Code section 54956.9(d)(1)
Names of case: *Norman, et. al. v. Charles Webb, III, et. Al.*
RSC Case No. MCC1301868

6. Conference with Labor Negotiators
Pursuant to Government Code section 54957.6
Agency designated representatives: Interim City Manager
Employee organization: *Hemet Mid-Managers Association*
-

REGULAR SESSION

7:00 p.m.
City of Hemet City Council Chambers
450 E. Latham Avenue

Call to Order

Roll Call

ROLL CALL: Council Members Milne, Raver and Youssef, Mayor Pro Tem Wright
and Mayor Krupa

Invocation

Pledge of Allegiance

City Attorney Closed Session Report

7. Conference with Legal Counsel - Anticipated Litigation
One (1) matter of significant exposure to litigation pursuant to Government Code
section 54956.9(d)(2) & (3)
8. Conference with Legal Counsel - Existing Litigation
Pursuant to Government Code section 54956.9(d)(1)
Names of case: *Norman, et. al. v. Charles Webb, III, et. Al.*
RSC Case No. MCC1301868
9. Conference with Labor Negotiators
Pursuant to Government Code section 54957.6
Agency designated representatives: Interim City Manager
Employee organization: *Hemet Mid-Managers Association*
-

City Council Business

Notice to the Public

The Consent Calendar contains items which are typically routine in nature and will be enacted by one motion by the Council unless an item is removed for discussion by a member of the public, staff, or Council. If you wish to discuss a Consent Calendar item please come to the microphone and state the number of the item you wish to discuss. Then wait near the lecture. When the Mayor calls your turn give your last name, and address, then begin speaking. You will have three minutes at that time to address the Council.

Consent Calendar

10. **Approval of Minutes** – August 25, 2015
11. **Receive and File** – Investment Portfolio as of July 2015
12. **Receive and File** – Warrant Register
 - a. Warrant register dated August 20, 2015 in the amount of \$1,091,404.12. Payroll for the period of August 3, 2015 to August 16, 2015 was \$671,314.52.
13. **Recommendation by Housing** – Agreement for Services – New Turtle Island
 - a. Authorize the Interim City Manager to enter into a three year Agreement for Services not to exceed \$40,000 per year with New Turtle Island (N.T.I.) for Housing Program support services; and
 - b. Authorize the finance division to establish an appropriation in the amount of \$40,000 in account 245-8225-2400 for the CalHOME 2011 Grant.

Communications from the Public

Anyone who wishes to address the Council regarding items not on the agenda may do so at this time. As a courtesy, please complete a Request to Speak Form found at the City Clerk's desk. Submit your completed form to the City Clerk prior to the beginning of the meeting. Presentations are limited to three minutes in consideration of others who are here for agenda items. Please come forward to the lectern when the Mayor calls upon you. When you are recognized, you may proceed with your comments.

****Notice: Members of the Public attending shall comply with the adopted Rules of Decorum in Resolution No. 4545. A copy of the Rules of Decorum are available from the City Clerk.***

State law prohibits the City Council from taking action or discussing any item not appearing on the agenda except for brief responses to statements made or questions posed by the public. In addition, they may, on their own initiative or in response to questions posed by the public, ask a question for clarification, provide a reference to staff or other resources for factual information, or request staff to report back to them at a subsequent meeting. Furthermore, a member of the City Council or the Council itself may take action to direct staff to place a matter of business on a future agenda.

Discussion/Action Item

14. **Third Amendment to Exclusive Franchise Agreement for Comprehensive Refuse Services with CR&R Incorporated** – Public Works Director Jensen
 - a. Approve the Third Amendment to Exclusive Franchise Agreement for Comprehensive Refuse Services with CR&R Incorporated (“Third Amendment”); and
 - b. Authorize the Interim City Manager to execute the Third Amendment.

 15. **Retiree Medical Benefit Incentive Program** - Interim City Manager Thornhill
 - a. Adopt a resolution authorizing an incentive payment program through September 30, 2015 for retirees enrolled in the Aetna Managed Choice and Traditional Choice Plans and authorize the City Manager to implement an orderly wind-down and termination of these two plans by September 1, 2016.
Resolution Bill No. 15-043

 16. **Municipal Code Amendment (MCA) No. 15-003** – Community Development Director Elliano
 - a. Introduce, read by title only and waive further reading on an ordinance adding Article XII to Chapter 14 (Buildings and Building Regulations) of the Hemet Municipal Code to provide an expedited permitting process for small residential rooftop solar systems, as mandated by State Assembly Bill No. 2188.
Ordinance Bill No. 15-046
-

City Council Reports

17. CITY COUNCIL REPORTS AND COMMENTS
 - A. Council Member Milne
 1. Riverside County Habitat Conservation Agency (RCHCA)
 2. Riverside Conservation Authority (RCA)
 3. Disaster Planning Commission

 - B. Council Member Raver
 1. Planning Commission
 2. Traffic and Parking Commission
 3. Riverside Transit Agency (RTA)
 4. Riverside County Transportation Commission (RCTC)
 5. Watermaster Board

 - C. Council Member Youssef

 - D. Mayor Pro Tem Wright
 1. Park Commission
 2. Riverside County Habitat Conservation Agency (RCHCA)
 3. Ramona Bowl Association
 4. League of California Cities

5. Western Riverside Council of Governments (WRCOG)

E. Mayor Krupa

1. Riverside Conservation Authority (RCA)
2. Ramona Bowl Association
3. Riverside Transit Agency (RTA)
4. Watermaster Board
5. Library Board
6. League of California Cities
7. Riverside County Transportation Commission (RCTC)
8. Western Riverside Council of Governments (WRCOG)

F. Ad-Hoc Committee Reports

1. West Hemet MSHCP Ad-Hoc Committee (June 11, 2013)
2. Regent Development Agreement Ad-Hoc Committee (December 10, 2013)
3. Diamond Valley Lake Recreation Ad-Hoc Committee (January 27, 2015)
4. Public Safety Ballot Measure Ad-Hoc Committee (January 27, 2015)
5. Ad-Hoc Committee to Explore Revenue Options (May 26, 2015)
6. Grant Ad-Hoc Committee (June 23, 2015)

G. Interim City Manager Thornhill

1. Manager's Reports
 2. Request to participate in the PACE Program
 3. Board of Supervisor's approval of the Taxi Voucher Program
-

Continued Closed Session

City Attorney Continued Closed Session Report

Future Agenda Items

If Members of Council have items for consideration at a future City Council meeting, please state the agenda item to provide direction to the City Manager.

Adjournment

Adjourn to Tuesday, September 22, 2015 at 7:00 p.m. for consideration of items placed on that agenda. The next regular meeting will be held October 13, 2015.

Staff reports and other disclosable public records related to open session agenda items are available at the City Clerk's Office or at the public counter located at 445 E. Florida Avenue during normal business hours.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.



10

MINUTES

REGULAR MEETING OF THE HEMET CITY COUNCIL

August 25, 2015

REGULAR SESSION

7:00 p.m.
City of Hemet City Council Chambers
450 E. Latham Avenue

Call to Order

Mayor Krupa called the meeting to order at 7:00

Roll Call

PRESENT: Council Members Milne and Raver, Mayor Pro Tem Wright and Mayor Krupa

ABSENT: Council Member Youssef

Council Member Milne moved and Council Member Raver seconded a motion to excuse Council Member Youssef. Motion carried 4-0.

OTHERS PRESENT: Interim City Manager Thornhill, City Attorney Vail and City Clerk McComas

Invocation

Invocation was given by Chief Dave Brown

Pledge of Allegiance

Pledge of Allegiance was led by Mayor Pro Tem Wright

Presentation

1. Recognition of Hemet Fire Department Employees

Fire Chief Brown, explained the details of the May 14th call for a reported structure fire at 1031 W. Latham Avenue. Engine 1,2,3, Truck 1, Squad 5 and Battalion 1 responded. The Hemet Fire Department personnel were recognized for their heroic actions that exemplify the courage, professionalism and dedication to service embodied by all members of the Hemet Fire Department, as well as the skill, coordination and the focus of all first responders.

Mayor Krupa read and presented Certificates of Commendation to Captain Brian Altizer and Firefighter Mike Anaya. Acting Battalion Chief Herder presented both employees with the Hemet Fire Department's Medal of Valor Award.

Mayor Krupa presented Certificates of Commendation to Engineer Paramedic Greg Wilson, Firefighter Paramedic Steve Wilcox and Firefighter Paramedic Daniel Loomis. Acting Battalion Chief Herder presented these employees with the Hemet Fire Department's Life Saving Award. Mayor Krupa presented a Certificate of Commendation to Engineer Paramedic Chris Galletta.

Acting Battalion Chief Herder presented Engineer Paramedic Galletta with the Hemet Fire Department's Meritorious Service Award.

Mayor Krupa, read and presented the Award. "Life Saving Award May 2015 in recognition of Engine 1, 2 & 3, Truck 1, Squad 5 and Battalion 1 for their heroic act which exemplifies the courage, professionalism and dedication to service embodied by all members of the Hemet Fire Department"

City Council Business Consent Calendar

2. **Approval of Minutes** – August 11, 2015
3. **Approval of Minutes** – August 19, 2015
4. **Receive and File** – Warrant Registers
 - a. Warrant registers dated August 4, 2015 in the amount of \$1,894,361.19 and August 6, 2015 in the amount of \$1,628,245.03. Payroll for the period of July 20, 2015 to August 2, 2015 was \$621,513.61.
5. **Receive and File** – Investment Portfolio as of June 2015
6. **Recommendation by Interim City Manager** – Letter of Support for The Salvation Army to operate a Boys & Girls Club of America
 - a. Authorize the Mayor to sign a letter of support for The Salvation Army in Hemet to operate the Boys & Girls Club of America.
7. **Recommendation by Engineering** – Traffic Commission recommendations:
 - a. Allow Riverside Transit Authority to install two temporary bus stops on Sanderson Avenue north of Wentworth Avenue.
 - b. Study the potential of 2-hour parking in the lots behind the Train Depot and Carwash.
 - c. Leave San Marcos Drive between Elk Street and Palm Avenue with an unposted speed limit.
8. **Recommendation by Fire** – First Amendment to Agreement between City of Hemet and Southern California EMS Training Institute
 - a. Approve the First Amendment to Agreement for Advance Life Support Program Training and Quality Control Services between the City of Hemet and Southern California EMS Training Institute amending Section 1.2 of agreement to \$28,000 annually; and
 - b. Authorize the Interim City Manager to execute the agreement.

Item No. 7 was removed from the Consent Calendar. **Council Member Raver moved and Council Member Milne seconded a motion to approve the remaining Consent Calendar items as presented. Motion carried 4-0.**

Item No. 7

Mayor Pro Tem Wright, asked about the timeframe for the installation of the temporary bus stops on Sanderson Avenue.

Steve Latino, Engineering Director, RTA has already pulled encroachment permits and are ready to begin.

The City Council and staff discussed the timing of the sidewalks for the west side of Sanderson south of Acacia. Temporary bus stops on the east side will be asphalt until buildout. Turnouts can be considered as a condition for future development.

Mayor Pro Tem Wright moved and Council Member Milne seconded a motion to approve Item No. 7 as presented. Motion carried 4-0.

Communications from the Public

Trevor Tuttle, Boy Scout Troop 43, told the City Council about his opportunity to participate in the 78th Annual American Legion Boys State in Sacramento. It was a great experience designed to teach Senior's about Government.

Dmitry Shultz, Hemet, told the City Council about his experience at Boys State.

Mayor Pro Tem Wright and Mayor Krupa honored both Mr. Tuttle and Mr. Shultz at an event held at the American Legion.

City Council Reports

9. CITY COUNCIL REPORTS AND COMMENTS

A. Council Member Milne

1. Riverside County Habitat Conservation Agency (RCHCA)
2. Riverside Conservation Authority (RCA)
3. Disaster Planning Commission

Council Member Milne shared her experience riding along with the Fire Department.

B. Council Member Raver

1. Planning Commission
2. Traffic and Parking Commission
3. Riverside Transit Agency (RTA)
4. Riverside County Transportation Commission (RCTC)
5. Watermaster Board

C. Council Member Youssef

D. Mayor Pro Tem Wright

1. Park Commission
2. Riverside County Habitat Conservation Agency (RCHCA)
3. Ramona Bowl Association
4. League of California Cities
5. Western Riverside Council of Governments (WRCOG)

Mayor Pro Tem Wright helped with the fundraising efforts for the Ramona Bowl Band. Mayor Pro Tem Wright attended the Boys State Awards event at the American Legion.

E. Mayor Krupa

1. Riverside Conservation Authority (RCA)
2. Ramona Bowl Association

Final performance of Zorro will be Saturday, August 29, 2015. Cast members will include Police Chief Brown and Mayor Krupa.

3. Riverside Transit Agency (RTA)
4. Watermaster Board

Mayor Krupa attended the Watermaster Board meeting. The Modeling Study for the San Jacinto Groundwater Basin is complete, reaffirming prior studies. Updates were received on the Safe Yield and Overdraft estimations for the San Jacinto Groundwater Basin and an update on Eastern's Santa Ana River Conservation and Conjunctive Use Program.

Mayor Krupa requested an update to the City Council on a future agenda.

5. Library Board
6. League of California Cities
7. Riverside County Transportation Commission (RCTC)

Mayor Krupa attended RCTC's budget implementation meeting. Highway 79's partially recirculated draft Environmental Impact Report, and supplemental draft of the EIR Statement is available for review on RCTC's website. Community Summit meetings are being scheduled. Mayor Krupa strongly encouraged participation in the Summits as these future projects are important to this valley.

8. Western Riverside Council of Governments (WRCOG)

Mayor Krupa requested an update on the proposed TUMF increase.

F. Ad-Hoc Committee Reports

1. West Hemet MSHCP Ad-Hoc Committee
2. Regent Development Agreement Ad-Hoc Committee
3. Diamond Valley Lake Recreation Ad-Hoc Committee
4. Public Safety Ballot Measure Ad-Hoc Committee
5. Ad-Hoc Committee to Explore Revenue Options

Next meeting is Wednesday, August 26, 2015.

6. Grant Ad-Hoc Committee

Mayor Pro Tem Wright reported that the First meeting went well. Looking for ways to streamline the process and watch for funding opportunities.

G. Interim City Manager Thornhill

1. Manager's Reports
-

Closed Session

Notice of Opportunity for Public Comment

There were no public comments presented at this time.

The City Council recessed to Closed Session at 7:33 p.m.

10. Conference with Legal Counsel - Anticipated Litigation
One (1) matter of significant exposure to litigation pursuant to Government Code section 54956.9(d)(2) & (3)
-

Reconvened at 7:56 p.m.

City Attorney Closed Session Report

11. Conference with Legal Counsel - Anticipated Litigation
One (1) matter of significant exposure to litigation pursuant to Government Code section 54956.9(d)(2) & (3)

The City Attorney reported that there was no reportable action.

Future Agenda Items

County funding for Taxi Voucher Program

Adjournment

The City Council adjourned at 8:00 p.m. to Tuesday, September 8, 2015 at 7:00 p.m.



AGENDA

#

11

Staff Report

TO: Honorable Mayor and members of the City Council
FROM: Judith L. Oltman, City Treasurer
DATE: September 8, 2015
RE: Investment Portfolio as of July 2015

RECOMMENDED ACTION:

Receive and file.

ANALYSIS:

The summary statement of activity and balances of the Treasurer's Investment Portfolio for the month of July 2015 is forwarded herewith for your review.

Our HUSD Bonds #5006 matured on 7/1/15; our Sallie Mae NCD #3163 matured on 7/27/15; and on 7/30/15 our Ally Bank #3124 and G.E. Money Bank #3126 NCDs matured. On 7/9/15 we purchased a 5 year Atlanta Development Authority General Obligation Bond #5030 for \$825,000 with a 2.40% yield. On 7/15/15 we purchased a 5 year Capital One NA NCD #3186 for \$247,000 at 2.3%. On 7/17/15 we purchased a 5 year BMW Bank NCD #3187 for \$247,000 at 2.25% and on 7/31/15 we purchased a 5 year Synchrony Bank NCD #3188 FOR \$247,000 at 2.30%.

I hereby certify that this report accurately reflects all City of Hemet pooled investments and is in conformity with the investment policy of the City of Hemet and that a copy hereof is on file in the office of the City Clerk. Our third party custodial bank, Bank of New York Mellon, has provided us with the monthly market values.

It is further certified that there is sufficient liquidity to meet the next six months' estimated day-to-day operational expenses.

Respectfully Submitted,

Judith L. Oltman
City Treasurer

attachment

CITY OF HEMET, CALIFORNIA
Monthly Report of Investment Activities

JULY 2015

INVESTMENT CLASSIFICATIONS	MONTHLY ACTIVITY	CONSOLIDATED BALANCE
PORTFOLIO AS OF JUNE	67,949,362.90	
CERTIFICATES OF DEPOSIT		
Placed this month	741,000.00	
Matured this month	-742,000.00	
Balance		7,429,000.00
LOCAL AGENCY INVESTMENT FUND: City of Hemet		
Deposits	15,683.07	
Withdrawals		
Balance		25,278,517.97
BANK OF NEW YORK MELLON Custodial Acct.		
Deposits	2,834,110.05	
Withdrawals	-1,663,109.18	
Balance		2,926,612.23
CITIBANK: Money Market Account		
Deposits	94,578.06	
Withdrawals	-6,250.00	
Balance		159,773.03
CITIBANK: Money Market Account 3		
Deposits	2,398,447.15	
Withdrawals	-5,144,565.20	
Balance		6,339,764.82
MUNICIPAL BONDS & NOTES		
Deposits	825,000.00	
Withdrawals	-2,000,000.00	
Balance		14,668,588.80
GOVERNMENT AGENCIES		
2252 1.0% FNMA 8/21/17		500,000.00
2253 1.0% FNMA 11/29/17		500,000.00
2254 1.05 FHLB 1/17/18		500,000.00
2255 1.15% FNMA 2/28/18		500,000.00
2256 1.10% FHLMC 4/17/18		500,000.00
2257 1.15% FHLMC 4/25/18		500,000.00
2258 1.0% FNMA 4/30/18		500,000.00
2259 .75% FNMA 4/30/18		500,000.00
2260 1.0% FNMA 5/21/18		500,000.00
2261 1.17% FHLB 6/13/18		500,000.00
2277 2.00% FNMA 8/27/19		500,000.00
2278 2.0% FNMA 9/18/19		1,000,000.00
2281 2.0% FNMA 2/27/20		1,000,000.00
2282 2.15% FHLV 6/30/20		1,000,000.00
PORTFOLIO BALANCE AS OF JULY 2015	65,302,256.85	65,302,256.85

INTEREST EARNINGS	15-16 FISCAL YEAR-TO-DATE	
EARNINGS BALANCE AS JULY 1, 2015		0.00
CERTIFICATES OF DEPOSIT INT.	6,998.31	
OTHER GOVERNMENT SECURITIES	75,563.73	
CITIBANK MONEY MARKET ACCOUNT	18.31	
CITIBANK MONEY MARKET ACCOUNT 3	1,074.97	
BANK OF NY MONEY MARKET ACCT.	10.20	
ACCRUED INTEREST	-208,318.79	
LOCAL AGENCY INVESTMENT FUNDS		
City of Hemet Interest	15,683.07	
ACCRUED LAIF INTEREST	-15,683.07	
MONTHLY EARNINGS TOTAL	-124,653.27	-124,653.27
MEMO ONLY:		
MERCHANT BANK CHG.	-5,954.90	
LIBRARY CREDIT CARD FEES	-130.31	
ARMORED CAR		
ASSET SEIZURE FUNDS		
Charges as of June 1, 2015	-6,085.21	
14-15 YEAR-TO-DATE INTEREST EARNINGS		-124,653.27

**CITY OF HEMET
Portfolio Management
Portfolio Summary
July 31, 2015**

Investments	Par Value	Market Value	Book Value	% of Portfolio	Term	Days to Maturity	YTM 360 Equiv.	YTM 365 Equiv.
Certificates of Deposit - Bank	1,484,000.00	1,496,573.08	1,484,000.00	2.27	1,584	417	1.365	1.384
Managed Pool Accounts	25,278,517.97	25,278,517.97	25,278,517.97	38.64	1	1	0.316	0.320
Passbook/Checking Accounts	9,426,150.08	9,426,150.08	9,426,150.08	14.41	1	1	0.301	0.305
Local Government Bonds	9,668,583.80	9,745,313.35	9,767,630.89	14.93	2,187	1,843	2.480	2.514
Medium Term Notes	5,000,000.00	5,032,975.00	5,023,063.31	7.68	1,792	1,295	1.843	1.868
Federal Agency Issues - Coupon	8,500,000.00	8,495,490.00	8,500,000.00	12.99	1,826	1,232	1.435	1.455
Negotiable CDs	5,945,000.00	6,038,860.18	5,945,000.00	9.09	1,773	1,189	1.661	1.684
Investments	65,302,251.85	65,513,879.66	65,424,362.25	100.00%	899	653	1.045	1.060

Cash and Accrued Interest

Accrued Interest at Purchase		19,914.65	19,914.65					
Subtotal		19,914.65	19,914.65					
Total Cash and Investments	65,302,251.85	65,533,794.31	65,444,276.90		899	653	1.045	1.060

Total Earnings	July 31 Month Ending	Fiscal Year To Date
Current Year	58,055.58	58,055.58
Average Daily Balance	67,496,253.29	
Effective Rate of Return	1.01%	

JUDITH L. OLTMAN, TREASURER

Reporting period 07/01/2015-07/31/2015

Run Date: 08/25/2015 - 15:04

Portfolio COFH
AP
PM (PRF_PM1) 7.3.0
Report Ver. 7.3.5

CITY OF HEMET
Portfolio Management
Portfolio Details - Investments
July 31, 2015

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	S&P	YTM 365	Days to Maturity	Maturity Date
Certificates of Deposit - Bank												
06740KEX1	3146	BARCLAYS BANK DE		12/07/2011	247,000.00	250,767.84	247,000.00	1.900		1.902	494	12/07/2016
SYS3174	3174	BANK OF HEMET		09/06/2013	494,000.00	494,000.00	494,000.00	0.500		0.500	402	09/06/2016
SYS3144	3144	BANK OF THE WEST		10/12/2011	249,000.00	252,018.53	249,000.00	1.750		1.750	438	10/12/2016
SYS3136	3136	CIT BANK		08/24/2011	247,000.00	249,872.78	247,000.00	1.800		1.800	389	08/24/2016
36160WVR7	3132	G.E. Capital Financial, Inc.		08/12/2011	247,000.00	249,913.93	247,000.00	1.850		1.850	377	08/12/2016
Subtotal and Average			1,715,064.52		1,484,000.00	1,496,573.08	1,484,000.00			1.384	417	
Managed Pool Accounts												
SYS1001	1001	LOCAL AGENCY INVESTMENT FUND			25,278,517.97	25,278,517.97	25,278,517.97	0.320		0.320	1	
Subtotal and Average			25,271,435.29		25,278,517.97	25,278,517.97	25,278,517.97			0.320	1	
Passbook/Checking Accounts												
SYS5009	5009	BANK OF NEW YORK			2,926,612.23	2,926,612.23	2,926,612.23			0.000	1	
SYS5001	5001	Citibank			159,773.03	159,773.03	159,773.03	0.150		0.150	1	
SYS5004	5004	CITIBANK3			6,339,764.82	6,339,764.82	6,339,764.82	0.450		0.450	1	
Subtotal and Average			11,525,895.68		9,426,150.08	9,426,150.08	9,426,150.08			0.305	1	
Local Government Bonds												
044555PA2	5025	ASHLAND OREGON		10/23/2014	1,145,000.00	1,125,294.55	1,133,389.74	2.800	AA	2.926	3,288	08/01/2024
048339SE6	5018	ATLANTIC CITY N.J.		06/02/2014	465,000.00	476,815.65	485,115.52	3.953	A	2.075	974	04/01/2018
048339SF3	5019	ATLANTIC CITY N.J.		06/02/2014	440,000.00	451,866.80	464,113.72	4.253	A	2.651	1,339	04/01/2019
04780NHS9	5030	ATLANTA DEVELOPMENT AUTHORITY		07/09/2015	825,000.00	826,047.75	829,481.79	2.518	A	2.400	1,796	07/01/2020
13124MAH8	5026	CALLEGUAS CA MUNI WATER DIST		10/23/2014	745,000.00	753,418.50	758,720.91	2.601	AAA	2.201	1,796	07/01/2020
156792GW7	5027	CERRITOS COMMUNITY COLLEGE DIS		12/01/2014	1,260,000.00	1,280,802.60	1,271,872.49	2.971	AA	2.821	2,557	08/01/2022
404476HH9	5022	HABERSHAM COUNTY HOSPITAL AUTH		08/13/2014	795,000.00	805,692.75	799,491.45	2.250		2.080	1,280	02/01/2019
533020DC4	5012	CITY OF LINCOLN		03/02/2013	995,000.00	996,810.90	995,000.00	3.000		3.000	32	09/02/2015
650035J66	5015	NEW YORK STATE REVENUE BONDS		03/25/2014	500,000.00	503,810.00	499,140.38	2.000		2.050	1,322	03/15/2019
767169DY8	5028	RIO RANCHO		02/12/2015	498,583.80	491,523.85	501,550.15	3.200	A	3.122	3,227	06/01/2024
786134VB9	5029	SACRAMENTO CO. SANITATION DIST		03/02/2015	1,000,000.00	1,017,410.00	1,020,875.75	2.810	AA	2.451	2,314	12/01/2021
13063CKL3	5017	STATE OF CALIFORNIA		05/16/2014	1,000,000.00	1,015,820.00	1,008,878.99	2.250		2.000	1,369	05/01/2019
Subtotal and Average			9,554,539.55		9,668,583.80	9,745,313.35	9,767,630.89			2.514	1,843	
Medium Term Notes												
037833AQ3	5016	APPLE		05/15/2014	1,000,000.00	1,011,650.00	1,004,993.30	2.100		1.960	1,374	05/06/2019

Portfolio COFH
AP
PM (PRF_PM2) 7.3.0

CITY OF HEMET
Portfolio Management
Portfolio Details - Investments
July 31, 2015

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	S&P	YTM 365	Days to Maturity	Maturity Date
Medium Term Notes												
084670BL1	5023	BERKSHIRE HATHAWAY		08/14/2014	1,000,000.00	1,008,570.00	1,003,818.16	2.100		2.000	1,474	08/14/2019
14912L6B2	5020	CATERPILLAR		06/09/2014	1,000,000.00	1,004,890.00	1,002,922.51	2.100	A	2.020	1,408	06/09/2019
36962G7G3	5014	G.E. CAPITAL CORP.		03/14/2014	500,000.00	507,085.00	507,405.62	2.300		1.932	1,262	01/14/2019
68389XAN5	5010	ORACLE		03/28/2013	500,000.00	499,450.00	500,535.96	1.200		1.150	806	10/15/2017
90261XHE5	5024	UBS AG STAMFORD CT		08/18/2014	500,000.00	501,040.00	501,609.95	2.375		2.290	1,474	08/14/2019
94974BFG0	5013	WELLS FARGO		04/26/2013	500,000.00	500,290.00	501,777.81	1.500		1.350	899	01/16/2018
Subtotal and Average			5,023,318.25		5,000,000.00	5,032,975.00	5,023,063.31			1.868	1,295	
Federal Agency Issues - Coupon												
313381MV4	2254	FEDERAL HOME LOAN BANK		01/17/2013	500,000.00	498,590.00	500,000.00	1.050		1.050	900	01/17/2018
313383GY1	2261	FEDERAL HOME LOAN BANK		06/13/2013	500,000.00	498,515.00	500,000.00	1.170		1.170	1,047	06/13/2018
3130A5LD9	2282	FEDERAL HOME LOAN BANK		06/30/2015	1,000,000.00	1,002,520.00	1,000,000.00	2.150		2.150	1,795	06/30/2020
3134G37C8	2256	FEDERAL HOME LOAN MTG ASSOC.		04/17/2013	500,000.00	499,250.00	500,000.00	1.100		1.100	990	04/17/2018
3134G37H7	2257	FEDERAL HOME LOAN MTG ASSOC.		04/25/2013	500,000.00	499,480.00	500,000.00	1.150		1.150	998	04/25/2018
3135G0NF6	2252	FEDERAL NTL MORTGAGE ASSOC.		08/21/2012	500,000.00	500,190.00	500,000.00	1.000		1.000	751	08/21/2017
3136G04U2	2253	FEDERAL NTL MORTGAGE ASSOC.		11/29/2012	500,000.00	499,110.00	500,000.00	1.000		1.000	851	11/29/2017
3135G0UN1	2255	FEDERAL NTL MORTGAGE ASSOC.		02/28/2013	500,000.00	500,115.00	500,000.00	1.150		1.146	942	02/28/2018
3135G0WN9	2258	FEDERAL NTL MORTGAGE ASSOC.		04/30/2013	500,000.00	496,740.00	500,000.00	1.000		1.000	1,003	04/30/2018
3136G1LB3	2259	FEDERAL NTL MORTGAGE ASSOC.		04/30/2013	500,000.00	500,345.00	500,000.00	0.875		0.815	1,003	04/30/2018
3135G0XG3	2260	FEDERAL NTL MORTGAGE ASSOC.		05/21/2013	500,000.00	497,195.00	500,000.00	1.000		1.000	1,024	05/21/2018
3136G23T2	2277	FEDERAL NTL MORTGAGE ASSOC.		08/27/2014	500,000.00	500,580.00	500,000.00	2.000		2.000	1,487	08/27/2019
3136G25Q6	2278	FEDERAL NTL MORTGAGE ASSOC.		09/18/2014	1,000,000.00	1,002,140.00	1,000,000.00	2.000		2.000	1,509	09/18/2019
3135G0C84	2281	FEDERAL NTL MORTGAGE ASSOC.		02/27/2015	1,000,000.00	1,000,720.00	1,000,000.00	2.000	AA	2.000	1,671	02/27/2020
Subtotal and Average			8,500,000.00		8,500,000.00	8,495,490.00	8,500,000.00			1.455	1,232	
Negotiable CDs												
02437PAG8	3173	AMERICAN NATIONAL BANK DALLAS		08/12/2013	248,000.00	249,739.52	248,000.00	1.250		1.251	742	08/12/2017
02587DWWK0	3184	AMERICAN EXPRESS CENTURIAN		11/28/2014	247,000.00	254,056.00	247,000.00	2.200		2.012	1,581	11/29/2019
02587CAW0	3180	AMERICAN EXPRESS FSB		08/21/2014	247,000.00	253,161.98	247,000.00	2.100		2.101	1,481	08/21/2019
05580ACF9	3187	BMW BANK OF NORTH AMERICA, UT		07/17/2015	247,000.00	253,950.58	247,000.00	2.250		2.253	1,812	07/17/2020
0606247B3	3176	BANK OF BARODA N.Y.		11/12/2013	248,000.00	254,996.01	248,000.00	2.150		2.151	1,200	11/13/2018
856284-E3-4	3147	BANK OF INDIA NEW YORK		04/27/2012	248,000.00	253,010.27	248,000.00	2.000		2.001	635	04/27/2017
14042E4P2	3186	CAPITAL ONE NA		07/15/2015	247,000.00	254,536.59	247,000.00	2.300		2.303	1,810	07/15/2020
140420SQ4	3185	CAPITAL ONE		06/24/2015	247,000.00	253,479.75	247,000.00	2.200		2.230	1,789	06/24/2020
17037TDV6	3169	CHOICE FINANCIAL GROUP		11/20/2012	248,000.00	248,084.39	248,000.00	1.000		1.001	842	11/20/2017

CITY OF HEMET
Portfolio Management
Portfolio Details - Investments
July 31, 2015

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	S&P	YTM 365	Days to Maturity	Maturity Date
Negotiable CDs												
20033AAG13	3168	COMENITY CAPITAL BANK		10/25/2012	249,000.00	249,508.46	249,000.00	1.050		1.065	816	10/25/2017
20451PEN2	3175	COMPASS BANK		09/25/2013	247,000.00	252,860.72	247,000.00	2.000		2.001	1,151	09/25/2018
20786AAL9	3177	CONNECTONE BANK N.J.		12/13/2013	247,000.00	251,507.70	247,000.00	1.850		1.851	1,230	12/13/2018
2546714X5	3181	DISCOVER BANK		08/27/2014	247,000.00	253,185.79	247,000.00	2.100		2.101	1,487	08/27/2019
29976DNY2	3166	EVERBANK		10/15/2012	248,000.00	248,223.77	248,000.00	1.000		1.001	807	10/16/2017
373128DS3	3167	GEORGIA BANK AND TRUST		10/17/2012	249,000.00	249,226.84	249,000.00	1.000		1.014	808	10/17/2017
38148JBU4	3183	GOLDMAN SACHS		11/05/2014	247,000.00	253,436.70	247,000.00	2.150		2.151	1,554	11/02/2019
48124JSB5	3171	JP MORGAN CHASE BANK		01/28/2013	248,000.00	246,843.35	248,000.00	0.850		0.850	911	01/28/2018
628779FJ4	3178	NBT BANK		06/06/2014	247,000.00	250,456.15	247,000.00	1.800		1.801	1,405	06/06/2019
700654AV8	3182	PARK NATIONAL BANK		09/26/2014	249,000.00	255,591.05	249,000.00	2.100		2.099	1,333	03/26/2019
74267GUQ8	3179	PRIVATEBANK & TRUST CO.		07/21/2014	247,000.00	252,292.72	247,000.00	2.000		2.001	1,451	07/22/2019
7865803L2	3164	SAFRA NATIONAL BANK		09/27/2012	249,000.00	249,252.74	249,000.00	0.800		0.800	58	09/28/2015
87165FJG0	3188	SYNCHRONY BANK		07/31/2015	247,000.00	254,383.00	247,000.00	2.300		2.303	1,826	07/31/2020
909557CL2	3170	UNITED BANKERS' BANK		11/29/2012	249,000.00	249,669.56	249,000.00	1.100		1.115	851	11/29/2017
94986TMF1	3172	WELLS FARGO		03/28/2013	248,000.00	247,406.54	248,000.00	1.000		1.000	970	03/28/2018
Subtotal and Average			5,906,000.00		5,945,000.00	6,038,860.18	5,945,000.00			1.684	1,189	
Total and Average			67,496,253.29		65,302,251.85	65,513,879.66	65,424,362.25			1.060	653	

**CITY OF HEMET
Portfolio Management
Portfolio Details - Cash
July 31, 2015**

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	S&P	YTM 365	Days to Maturity
		Average Balance	0.00	Accrued Interest at Purchase		19,914.65	19,914.65				0
				Subtotal		19,914.65	19,914.65				
		Total Cash and Investments	67,496,253.29		65,302,251.85	65,533,794.31	65,444,276.90			1.060	653

CITY OF HEMET
Received Interest
Sorted by Issuer
Received July 1, 2015 - July 31, 2015

Issuer	CUSIP	Investment #	Security Type	Par Value	Current Rate	Date Due	Date Received	Interest		Variance
								Amount Due	Amount Received	
BANK OF HEMET	SYS3174	3174	BCD	494,000.00	0.500	07/06/2015	07/07/2015	203.01	203.01	-
							Subtotal	203.01	203.01	
BANK OF THE WEST	SYS3144	3144	BCD	249,000.00	1.750	07/12/2015	07/14/2015	358.15	358.15	-
							Subtotal	358.15	358.15	
CALLEGUAS CA MUNI WATER DIST	13124MAH8	5026	NCB	745,000.00	2.601	07/01/2015	07/02/2015	9,688.73	9,688.73	-
							Subtotal	9,688.73	9,688.73	
COMENITY CAPITAL BANK	20033AAG13	3168	NC2	249,000.00	1.050	07/25/2015	07/28/2015	217.88	214.89	-2.99
							Subtotal	217.88	214.89	
CONNECTONE BANK N.J.	20786AAL9	3177	NC2	247,000.00	1.850	07/13/2015	07/14/2015	375.58	375.58	-
							Subtotal	375.58	375.58	
FEDERAL HOME LOAN BANK	313381MV4	2254	FAC	500,000.00	1.050	07/17/2015	07/20/2015	2,625.00	2,625.00	-
							Subtotal	2,625.00	2,625.00	
G.E. CAPITAL CORP.	36962G7G3	5014	MTN	500,000.00	2.300	07/14/2015	07/15/2015	5,750.00	5,750.00	-
							Subtotal	5,750.00	5,750.00	
GEORGIA BANK AND TRUST	373128DS3	3167	NC2	249,000.00	1.000	07/17/2015	07/20/2015	207.50	204.66	-2.84
							Subtotal	207.50	204.66	
HEMET UNIFIED SCHOOL DISTRICT	423542KL2	5006	NCB	0.00	5.375	07/01/2015	07/02/2015	53,750.00	53,750.00	-
							Subtotal	53,750.00	53,750.00	
JP MORGAN CHASE BANK	48124JSB5	3171	NC2	248,000.00	0.850	07/28/2015	07/29/2015	1,054.00	1,045.34	-8.66
							Subtotal	1,054.00	1,045.34	
PARK NATIONAL BANK	700654AV8	3182	NC2	249,000.00	2.100	07/26/2015	07/28/2015	429.78	429.78	-
							Subtotal	429.78	429.78	

CITY OF HEMET
Received Interest
Received July 1, 2015 - July 31, 2015

Issuer	CUSIP	Investment #	Security Type	Par Value	Current Rate	Interest				
						Date Due	Date Received	Amount Due	Amount Received	Variance
PRIVATEBANK & TRUST CO.	74267GUQ8	3179	NC2	247,000.00	2.000	07/22/2015	07/22/2015	2,449.70	2,449.70	-
								Subtotal	2,449.70	2,449.70
SALLIE MAE	795450NR2	3163	NC2	0.00	1.200	07/27/2015	07/28/2015	16.17	16.31	0.14
								795450NR2	3163	NC2
	Subtotal	1,504.17	1,492.08							
UNITED BANKERS' BANK	909557CL2	3170	NC2	249,000.00	1.100	07/28/2015	07/30/2015	228.25	225.12	-3.13
								Subtotal	228.25	225.12
WELLS FARGO	94974BFG0	5013	MTN	500,000.00	1.500	07/16/2015	07/20/2015	3,750.00	3,750.00	-
								Subtotal	3,750.00	3,750.00
						Total		82,591.75	82,562.04	
						Total Cash Overpayment		0.14		
						Total Cash Shortfall		-29.85		

CITY OF HEMET
 Received Interest
 Received July 1, 2015 - July 31, 2015

Issuer	CUSIP	Investment #	Security Type	Par Value	Current Rate	Date Received	Interest
							Amount Received
Cash Accounts							
BANK OF NEW YORK	SYS5009	5009	PA1	3,173,612.23		07/13/2015	10.20
						Subtotal	10.20
Citibank	SYS5001	5001	PA1	153,814.20	0.150	07/31/2015	18.31
						Subtotal	18.31
CITIBANK3	SYS5004	5004	PA1	6,338,689.85	0.450	07/31/2015	1,074.97
						Subtotal	1,074.97
LOCAL AGENCY INVESTMENT FUND	SYS1001	1001	LA1	25,278,517.97	0.320	07/15/2015	15,683.07
						Subtotal	15,683.07
						Total	16,786.55

Local Agency Investment Fund
P.O. Box 942809
Sacramento, CA 94209-0001
(916) 653-3001

www.treasurer.ca.gov/pmia-laif/laif.asp
 August 10, 2015

CITY OF HEMET

CITY TREASURER
 445 EAST FLORIDA AVENUE
 HEMET, CA 92543-4209

PMIA Average Monthly Yields

Account Number:
 98-33-362

Tran Type Definitions

July 2015 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Authorized Caller	Amount
7/15/2015	7/14/2015	QRD	1472110	SYSTEM	15,683.07

Account Summary

Total Deposit:	15,683.07	Beginning Balance:	25,262,834.90
Total Withdrawal:	0.00	Ending Balance:	25,278,517.97

HEMET SUCCESSOR AGENCY to
Former Hemet Redevelopment Project Area
Cash W/Fiscal Agent: MUFG Union Bank N.A.
2014 Hemet Refunding Project TAB Series A

Date	Activity	Riverside County Public Financing - Fiscal Agent					496-8005-4100		496-8005-4200
		6712115701 Revenue Fund	6712115702 Interest Fund	6712115703 Principal Fund	6712115704 Bond Purchase Fund	6712115705 Cost of Issuance Fund	6712115800 SA to Hemet RDA 2014 TTE	6712115801 Debt Service Fund	6712115802 Interest Account
	BALANCE	0.00	0.00	0.00	11,109,999.00	0.00	0.00	7,899.19	0.00
7/31/2015	Interest							0.16	0.16
	Interfund transfer							(0.16)	
	Debt Service from SA Hemet Redevel								
	Debt Service Pmt								
	Cost Basis Adjustment								
	City of Hemet								
	Barthe & Wahman								
	SA to Redevelopment Agy								
	BALANCE	0.00	0.00	0.00	11,109,999.00	0.00	0.00	7,899.19	0.16

Morgan Stanley Prime Instl 11,109,999.00
Municipal Bond Insurance - BAM 1.00 not carried on City books
Held by Fiscal Agent 11,110,000.00

CITY OF HEMET
 Cash W/Fiscal Agent: US BANK
 2006 Refunding Bonds Series Heartland Project

Date	Activity		103852000 788-1508 Bond	103852001 788-1508 Prepayment	103852002 Special	103852003 788-1510 Escrow	103852004 788-1502 Cost of	103852005 788-1506 Reserve	TOTAL
	BALANCE	0.00	776,803.08	302,771.66	(0.00)	0.00	0.00	274,141.25	1,353,715.99
7/31/2015	Interest								0.00
	Transfer funds								0.00
	City of Hemet								0.00
	Debt Service								0.00
	Khov prepay (31 lots)								0.00
	Trust fees								0.00
	BALANCE	0.00	776,803.08	302,771.66	(0.00)	0.00	0.00	274,141.25	1,353,715.99

First American Treasury Oblig	1,353,715.99	
US Treasury Notes, various		not carried on COH books
Misc Assets	<u>1.00</u>	
	1,353,716.99	
Cash held by FA, net of Escrow acct	1,353,715.99	
	0.00	



Staff Report

TO: Honorable Mayor and Members of the City Council
FROM: Jessica A. Hurst, DCM/Administrative Services
Gary Thornhill, Interim City Manager
DATE: September 8, 2015
RE: Warrant Register

The City of Hemet's warrant register dated August 20, 2015 in the amount of \$1,091,404.12 is currently posted on the City's website in the Finance Department section, under *Financial Information*. Payroll for the period of August 3, 2015 to August 16, 2015 was \$671,314.52.

CLAIMS VOUCHER APPROVAL

"I, Jessica A. Hurst, Deputy City Manager/Administrative Services, do hereby certify that to the best of my knowledge and ability, that the warrant register posted on the city's website is a true and correct list of warrants for bills submitted to the City of Hemet, and the payroll register through the dates listed above, and that there will be sufficient monies in the respective funds for their payment."

Respectfully submitted,

Jessica A. Hurst
Deputy City Manager/Administrative Services

JAH: mh

CITY OF HEMET
VOUCHER/WARRANT REGISTER
FOR ALL PERIODS

CLAIMS VOUCHER APPROVAL

I, JESSICA A. HURST, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND ABILITY, THAT THE WR POSTED ON THE CITY WEBSITE IS A TRUE AND CORRECT LIST OF WARRANTS FOR BILLS SUBMITTED TO THE CITY OF HEMET THROUGH THE DATES LISTED ABOVE, AND THAT THERE WILL BE SUFFICIENT MONIES IN THE RESPECTIVE FUNDS FOR THEIR PAYMENT.

JESSICA A. HURST
DCM/ADMINISTRATIVE SERVICES DIRECTOR



Staff Report

TO: Honorable Mayor and Members of the Hemet City Council

FROM: Gary Thornhill, Interim City Manager *GT*
Edna I. Lebrón, Housing Specialist

DATE: September 8, 2015

SUBJECT: Agreement for Services – New Turtle Island

RECOMMENDATION:

1. That the City Council authorizes the Interim City Manager to enter into a three year Agreement for Services not to exceed \$40,000 per year with New Turtle Island (N.T.I.) for Housing Program support Services.
2. Authorize the finance division to establish an appropriation in the amount of \$40,000 in account 245-8225-2400 for the CalHome 2011 Grant.

BACKGROUND:

New Turtle Island provides Program Management, Construction Management & Inspections Services. The City has utilized N.T.I. in the past for prior CalHOME and CDBG programs.

N.T.I. will provide bid package preparation, contractor bid evaluation, attendance at pre-construction conferences, and oversight of construction activities due to the reduced staffing levels in the Housing Division. The services that will be provided by N.T.I. are required to ensure compliance with the CalHOME program.

The Housing Division loans up to \$30,000 to low-income homeowners to rehabilitate their "stick built" homes or up to \$20,000 for mobile homes. Presently the Housing Division has two Department of Housing & Community Development (HCD) \$600,000 CalHOME grants. A Request for Proposal (RFP) was distributed to housing rehabilitation consultants on July 30, 2015, and two proposals were received. Of the proposals received, N.T.I. was the only one in compliance with the requirements of the RFP.

ANALYSIS:

Staff is recommending that the Housing Division enter into an Agreement for Services with New Turtle Island, a small business that has been operating for 14 years serving cities throughout Southern California. N.T.I.'s staff has 33 years of experience working with State and Federal funding sources and has a professional understanding of regulations regarding State-funded programs.

FISCAL IMPACT:

This recommendation, if approved, would appropriate \$40,000 of CalHOME funds to account number 245-8225-2400. The CalHOME grant is a reimbursable grant and will have no impact to the General Fund.

Prepared by,

Approved By:

Fiscal Review:



Edna I. Lebrón,
Housing Specialist



Gary Thornhill,
Interim City Manager



Jessica Hurst
Deputy City Manager/
Administrative Services

AGREEMENT FOR SERVICES

By and Between

**THE CITY OF HEMET,
a municipal corporation**

and

**NEW TURTLE ISLAND
a Sole Proprietor Company**

**AGREEMENT FOR SERVICES
BETWEEN
THE CITY OF HEMET, CALIFORNIA
AND
NEW TURTLE ISLAND**

This Agreement for Services ("Agreement") is entered into as of this 8th day of September, 2015 by and between the City of Hemet, a municipal corporation ("City") and New Turtle Island a Sole Proprietor Company ("Service Provider"). City and Service Provider are sometimes hereinafter individually referred to as "Party" and hereinafter collectively referred to as the "Parties."

RECITALS

A. City has sought, by ***request for proposals*** the performance of the services defined and described particularly in Section 2 of this Agreement.

B. Service Provider, following submission of a ***proposal*** for the performance of the services defined and described particularly in Section 2 of this Agreement, was selected by the City to perform those services.

C. Pursuant to the City of Hemet's Municipal Code, City has authority to enter into this Services Agreement and the City Manager has authority to execute this Agreement.

D. The Parties desire to formalize the selection of Service Provider for performance of those services defined and described particularly in Section 2 of this Agreement and desire that the terms of that performance be as particularly defined and described herein.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the mutual promises and covenants made by the Parties and contained here and other consideration, the value and adequacy of which are hereby acknowledged, the Parties agree as follows:

SECTION 1. TERM OF AGREEMENT.

Subject to the provisions of Section 20 "Termination of Agreement" of this Agreement, the Term of this Agreement is for ***three (3) years*** commencing on the date first ascribed above. The City reserves the right to extend this Agreement for two (2) additional one-year terms. Should the option to renew for additional years be exercised, the City and Service Provider will negotiate any increase in costs at such time. The

option to extend the term of this Agreement shall be by written notice to the Service Provider within 30 days of expiration of the original term.

SECTION 2. SCOPE OF SERVICES & SCHEDULE OF PERFORMANCE.

(a) Scope of Services. Service Provider agrees to perform the services set forth in Exhibit "A" "Scope of Services" (hereinafter, the "Services") and made a part of this Agreement by this reference.

(b) Schedule of Performance. The Services shall be completed pursuant to the schedule specified in Exhibit "A." Should the Services not be completed pursuant to that schedule, the Service Provider shall be deemed to be in Default of this Agreement. The City, in its sole discretion, may choose not to enforce the Default provisions of this Agreement and may instead allow Service Provider to continue performing the Services.

SECTION 3. ADDITIONAL SERVICES.

Service Provider shall not be compensated for any work rendered in connection with its performance of this Agreement that are in addition to or outside of the Services unless such additional services are authorized in advance and in writing in accordance with Section 26 "Administration and Implementation" or Section 28 "Amendment" of this Agreement. If and when such additional work is authorized, such additional work shall be deemed to be part of the Services.

SECTION 4. COMPENSATION AND METHOD OF PAYMENT.

(a) Subject to any limitations set forth in this Agreement, City agrees to pay Service Provider the amounts specified in Exhibit "B" "Compensation" and made a part of this Agreement by this reference. The total compensation, including reimbursement for actual expenses, shall not exceed Forty Thousand dollars (\$40,000) annually. The total amount for a three year term is not to exceed One Hundred Twenty Thousand dollars (\$120,000), unless additional compensation is approved in writing in accordance with Section 26 "Administration and Implementation" or Section 28 "Amendment" of this Agreement.

(b) Each month Service Provider shall furnish to City an original invoice for all work performed and expenses incurred during the preceding month. The invoice shall detail charges by the following categories: labor (by sub-category), travel, materials, equipment, supplies, and sub-Service Provider contracts. Sub-Service Provider charges shall be detailed by the following categories: labor, travel, materials, equipment and supplies. If the compensation set forth in subsection (a) and Exhibit "B" include payment of labor on an hourly basis (as opposed to labor and materials being paid as a lump sum), the labor category in each invoice shall include detailed descriptions of task

performed and the amount of time incurred for or allocated to that task. City shall independently review each invoice submitted by the Service Provider to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. In the event that no charges or expenses are disputed, the invoice shall be approved and paid according to the terms set forth in subsection (c). In the event any charges or expenses are disputed by City, the original invoice shall be returned by City to Service Provider for correction and resubmission.

(c) Except as to any charges for work performed or expenses incurred by Service Provider which are disputed by City, City will use its best efforts to cause Service Provider to be paid within forty-five (45) days of receipt of Service Provider's correct and undisputed invoice.

(d) Payment to Service Provider for work performed pursuant to this Agreement shall not be deemed to waive any defects in work performed by Service Provider.

SECTION 5. INSPECTION AND FINAL ACCEPTANCE.

City may inspect and accept or reject any of Service Provider's work under this Agreement, either during performance or when completed. City shall reject or finally accept Service Provider's work within sixty (60) days after submitted to City. City shall reject work by a timely written explanation, otherwise Service Provider's work shall be deemed to have been accepted. City's acceptance shall be conclusive as to such work except with respect to latent defects, fraud and such gross mistakes as amount to fraud. Acceptance of any of Service Provider's work by City shall not constitute a waiver of any of the provisions of this Agreement including, but not limited to, Section 16 "Indemnification" and Section 17 "Insurance."

SECTION 6. OWNERSHIP OF DOCUMENTS.

All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents prepared, developed or discovered by Service Provider in the course of providing the Services pursuant to this Agreement shall become the sole property of City and may be used, reused or otherwise disposed of by City without the permission of the Service Provider. Upon completion, expiration or termination of this Agreement, Service Provider shall turn over to City all such original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents.

If and to the extent that City utilizes for any purpose not related to this Agreement any maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files or other documents prepared, developed or discovered by Service Provider in the course of providing the Services pursuant to this

Agreement, Service Provider's guarantees and warranties in Section 9 "Standard of Performance" of this Agreement shall not extend to such use of the maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files or other documents.

SECTION 7. SERVICE PROVIDER'S BOOKS AND RECORDS.

(a) Service Provider shall maintain any and all documents and records demonstrating or relating to Service Provider's performance of the Services. Service Provider shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, or other documents or records evidencing or relating to work, services, expenditures and disbursements charged to City pursuant to this Agreement. Any and all such documents or records shall be maintained in accordance with generally accepted accounting principles and shall be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Service Provider pursuant to this Agreement. Any and all such documents or records shall be maintained for three (3) years from the date of execution of this Agreement and to the extent required by laws relating to audits of public agencies and their expenditures.

(b) Any and all records or documents required to be maintained pursuant to this section shall be made available for inspection, audit and copying, at any time during regular business hours, upon request by City or its designated representative. Copies of such documents or records shall be provided directly to the City for inspection, audit and copying when it is practical to do so; otherwise, unless an alternative is mutually agreed upon, such documents and records shall be made available at Service Provider's address indicated for receipt of notices in this Agreement.

(c) Where City has reason to believe that any of the documents or records required to be maintained pursuant to this section may be lost or discarded due to dissolution or termination of Service Provider's business, City may, by written request, require that custody of such documents or records be given to the City. Access to such documents and records shall be granted to City, as well as to its successors-in-interest and authorized representatives.

SECTION 8. INDEPENDENT CONTRACTOR.

(a) Service Provider is and shall at all times remain a wholly independent contractor and not an officer, employee or agent of City. Service Provider shall have no authority to bind City in any manner, nor to incur any obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by City.

(b) The personnel performing the Services under this Agreement on behalf of Service Provider shall at all times be under Service Provider's exclusive direction and control. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall have control over the conduct of Service Provider or any of Service Provider's officers, employees, or agents except as set forth in this Agreement. Service Provider shall not at any time or in any manner represent that Service Provider or any of Service Provider's officers, employees, or agents are in any manner officials, officers, employees or agents of City.

(c) Neither Service Provider, nor any of Service Provider's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to City's employees. Service Provider expressly waives any claim Service Provider may have to any such rights.

SECTION 9. STANDARD OF PERFORMANCE.

Service Provider represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the Services required under this Agreement in a thorough, competent and professional manner. Service Provider shall at all times faithfully, competently and to the best of its ability, experience and talent, perform all Services. In meeting its obligations under this Agreement, Service Provider shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to the Services required of Service Provider under this Agreement. In addition to the general standards of performance set forth in this section, additional specific standards of performance and performance criteria may be set forth in Exhibit "A" "Scope of Work" that shall also be applicable to Service Provider's work under this Agreement. Where there is a conflict between a general and a specific standard of performance or performance criteria, the specific standard or criteria shall prevail over the general.

SECTION 10. COMPLIANCE WITH APPLICABLE LAWS; PERMITS AND LICENSES.

Service Provider shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement. Service Provider shall obtain any and all licenses, permits and authorizations necessary to perform the Services set forth in this Agreement. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall be liable, at law or in equity, as a result of any failure of Service Provider to comply with this section.

SECTION 11. PREVAILING WAGE LAWS

It is the understanding of City and Service Provider that California prevailing wage laws do not apply to this Agreement because the Agreement does not involve any of the following services subject to prevailing wage rates pursuant to the California Labor Code or regulations promulgated thereunder: Construction, alteration, demolition, installation, or repair work performed on public buildings, facilities, streets or sewers done under contract and paid for in whole or in part out of public funds. In this context, "construction" includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.

SECTION 12. NONDISCRIMINATION.

Service Provider shall not discriminate, in any way, against any person on the basis of race, color, religious creed, national origin, ancestry, sex, age, physical handicap, medical condition or marital status in connection with or related to the performance of this Agreement.

SECTION 13. UNAUTHORIZED ALIENS.

Service Provider hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C.A. §§ 1101, et seq., as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Service Provider so employ such unauthorized aliens for the performance of the Services, and should the any liability or sanctions be imposed against City for such use of unauthorized aliens, Service Provider hereby agrees to and shall reimburse City for the cost of all such liabilities or sanctions imposed, together with any and all costs, including attorneys' fees, incurred by City.

SECTION 14. CONFLICTS OF INTEREST.

(a) Service Provider covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Service Provider's performance of the Services. Service Provider further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor without the express written consent of the City Manager. Service Provider agrees to at all times avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City in the performance of this Agreement.

(b) City understands and acknowledges that Service Provider is, as of the date of execution of this Agreement, independently involved in the performance of non-related services for other governmental agencies and private parties. Service Provider

is unaware of any stated position of City relative to such projects. Any future position of City on such projects shall not be considered a conflict of interest for purposes of this section.

(c) City understands and acknowledges that Service Provider will perform non-related services for other governmental agencies and private Parties following the completion of the Services under this Agreement. Any such future service shall not be considered a conflict of interest for purposes of this section.

SECTION 15. CONFIDENTIAL INFORMATION; RELEASE OF INFORMATION.

(a) All information gained or work product produced by Service Provider in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Service Provider. Service Provider shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from the City Manager, except as may be required by law.

(b) Service Provider, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the City Manager or unless requested by the City Attorney of City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered "voluntary" provided Service Provider gives City notice of such court order or subpoena.

(c) If Service Provider, or any officer, employee, agent or subcontractor of Service Provider, provides any information or work product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Service Provider for any damages, costs and fees, including attorney's fees, caused by or incurred as a result of Service Provider's conduct.

(d) Service Provider shall promptly notify City should Service Provider, its officers, employees, agents or subcontractors, be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the work performed thereunder. City retains the right, but has no obligation, to represent Service Provider or be present at any deposition, hearing or similar proceeding. Service Provider agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Service Provider. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

SECTION 16. INDEMNIFICATION.

(a) Indemnification for Professional Liability. Where the law establishes a professional standard of care for Service Provider's services, to the fullest extent permitted by law, Service Provider shall indemnify, protect, defend and hold harmless City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorney's fees and costs, court costs, interest, defense costs, and expert witness fees) arise out of, are a consequence of, or are in any way attributable to, in whole or in part, any negligent or wrongful act, error or omission of Service Provider, or by any individual or entity for which Service Provider is legally liable, including but not limited to officers, agents, employees or sub-contractors of Service Provider, in the performance of professional services under this Agreement.

(b) Indemnification for Other than Professional Liability. Other than in the performance of professional services and to the full extent permitted by law, Service Provider shall indemnify, protect, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorney's fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Service Provider, or by any individual or entity for which Service Provider is legally liable, including but not limited to officers, agents, employees or sub-contractors of Service Provider.

(c) Indemnification from Sub-Service Providers. Service Provider agrees to obtain executed indemnity agreements with provisions identical to those set forth in this section from each and every sub-Service Provider or any other person or entity involved by, for, with or on behalf of Service Provider in the performance of this Agreement naming the Indemnified Parties as additional indemnitees. In the event Service Provider fails to obtain such indemnity obligations from others as required herein, Service Provider agrees to be fully responsible according to the terms of this section. Failure of City to monitor compliance with these requirements imposes no additional obligations on City and will in no way act as a waiver of any rights hereunder. This obligation to indemnify and defend City as set forth herein is binding on the successors, assigns or heirs of Service Provider and shall survive the termination of this Agreement or this section.

(d) Limitation of Indemnification. Notwithstanding any provision of this section to the contrary, design professionals are required to defend and indemnify the City only to the extent permitted by Civil Code Section 2782.8, which limits the liability of a design professional to claims, suits, actions, arbitration proceedings, administrative

proceedings, regulatory proceedings, losses, expenses or costs that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the design professional. The term "design professional," as defined in Section 2782.8, is limited to licensed architects, licensed landscape architects, registered professional engineers, professional land surveyors, and the business entities that offer such services in accordance with the applicable provisions of the California Business and Professions Code.

(e) City's Negligence. The provisions of this section do not apply to claims occurring as a result of City's sole negligence. The provisions of this section shall not release City from liability arising from gross negligence or willful acts or omissions of City or any and all of its officials, employees and agents.

SECTION 17. INSURANCE.

Service Provider agrees to obtain and maintain in full force and effect during the term of this Agreement the insurance policies set forth in Exhibit "C" "Insurance" and made a part of this Agreement. All insurance policies shall be subject to approval by City as to form and content. These requirements are subject to amendment or waiver if so approved in writing by the City Manager. Service Provider agrees to provide City with copies of required policies upon request.

SECTION 18. ASSIGNMENT.

The expertise and experience of Service Provider are material considerations for this Agreement. City has an interest in the qualifications and capability of the persons and entities who will fulfill the duties and obligations imposed upon Service Provider under this Agreement. In recognition of that interest, Service Provider shall not assign or transfer this Agreement or any portion of this Agreement or the performance of any of Service Provider's duties or obligations under this Agreement without the prior written consent of the City. Any attempted assignment shall be ineffective, null and void, and shall constitute a material breach of this Agreement entitling City to any and all remedies at law or in equity, including termination of this Agreement pursuant to Section 20 "Termination of Agreement." City acknowledges, however, that Service Provider, in the performance of its duties pursuant to this Agreement, may utilize sub-contractors.

SECTION 19. CONTINUITY OF PERSONNEL.

Service Provider shall make every reasonable effort to maintain the stability and continuity of Service Provider's staff and sub-contractors, if any, assigned to perform the Services. Service Provider shall notify City of any changes in Service Provider's staff and sub-contractors, if any, assigned to perform the Services prior to and during any such performance.

SECTION 20. TERMINATION OF AGREEMENT.

(a) City may terminate this Agreement, with or without cause, at any time by giving thirty (30) days written notice of termination to Service Provider. In the event such notice is given, Service Provider shall cease immediately all work in progress.

(b) Service Provider may terminate this Agreement for cause at any time upon thirty (30) days written notice of termination to City.

(c) If either Service Provider or City fail to perform any material obligation under this Agreement, then, in addition to any other remedies, either Service Provider, or City may terminate this Agreement immediately upon written notice.

(d) Upon termination of this Agreement by either Service Provider or City, all property belonging exclusively to City which is in Service Provider's possession shall be returned to City. Service Provider shall furnish to City a final invoice for work performed and expenses incurred by Service Provider, prepared as set forth in Section 4 "Compensation and Method of Payment" of this Agreement. This final invoice shall be reviewed and paid in the same manner as set forth in Section 4 "Compensation and Method of Payment" of this Agreement.

SECTION 21. DEFAULT.

In the event that Service Provider is in default under the terms of this Agreement, the City shall not have any obligation or duty to continue compensating Service Provider for any work performed after the date of default. Instead, the City may give notice to Service Provider of the default and the reasons for the default. The notice shall include the timeframe in which Service Provider may cure the default. This timeframe is presumptively thirty (30) days, but may be extended, though not reduced, if circumstances warrant. During the period of time that Service Provider is in default, the City shall hold all invoices and shall, when the default is cured, proceed with payment on the invoices. In the alternative, the City may, in its sole discretion, elect to pay some or all of the outstanding invoices during the period of default. If Service Provider does not cure the default, the City may take necessary steps to terminate this Agreement under Section 20 "Termination of Agreement." Any failure on the part of the City to give notice of the Service Provider's default shall not be deemed to result in a waiver of the City's legal rights or any rights arising out of any provision of this Agreement.

SECTION 22. EXCUSABLE DELAYS.

Service Provider shall not be liable for damages, including liquidated damages, if any, caused by delay in performance or failure to perform due to causes beyond the control of Service Provider. Such causes include, but are not limited to, acts of God, acts of the public enemy, acts of federal, state or local governments, acts of City, court

orders, fires, floods, epidemics, strikes, embargoes, and unusually severe weather. The term and price of this Agreement shall be equitably adjusted for any delays due to such causes.

SECTION 23. COOPERATION BY CITY.

All public information, data, reports, records, and maps as are existing and available to City as public records, and which are necessary for carrying out the Services shall be furnished to Service Provider in every reasonable way to facilitate, without undue delay, the Services to be performed under this Agreement.

SECTION 24. NOTICES.

All notices required or permitted to be given under this Agreement shall be in writing and shall be personally delivered, or sent by telecopier or certified mail, postage prepaid and return receipt requested, addressed as follows:

To City: City of Hemet
Attn: City Manager
445 E. Florida Avenue
Hemet, CA 92543

To Service Provider: New Turtle Island
Attn: Patrick Piatt
951 West Princeton Street
Ontario, CA 91762

Notice shall be deemed effective on the date personally delivered or transmitted by facsimile or, if mailed, three (3) days after deposit of the same in the custody of the United States Postal Service.

SECTION 25. AUTHORITY TO EXECUTE.

The person or persons executing this Agreement on behalf of Service Provider represents and warrants that he/she/they has/have the authority to so execute this Agreement and to bind Service Provider to the performance of its obligations hereunder.

SECTION 26. ADMINISTRATION AND IMPLEMENTATION.

This Agreement shall be administered and executed by the City Manager or his or her designated representative. The City Manager shall have the authority to issue

interpretations and to make amendments to this Agreement, including amendments that commit additional funds, consistent with Section 28 "Amendment" and the City Manager's contracting authority under the Hemet Municipal Code.

SECTION 27. BINDING EFFECT.

This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the Parties.

SECTION 28. AMENDMENT.

No amendment to or modification of this Agreement shall be valid unless made in writing and approved by the Service Provider and by the City. The City Manager shall have the authority to approve any amendment to this Agreement if the total compensation under this Agreement, as amended, would not exceed the City Manager's contracting authority under the Hemet Municipal Code. All other amendments shall be approved by the City Council. The Parties agree that the requirement for written modifications cannot be waived and that any attempted waiver shall be void.

SECTION 29. WAIVER.

Waiver by any Party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any Party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision nor a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or services by Service Provider shall not constitute a waiver of any of the provisions of this Agreement.

SECTION 30. LAW TO GOVERN; VENUE.

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the Parties, venue in state trial courts shall lie exclusively in the County of Riverside, California. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, in Riverside.

SECTION 31. ATTORNEYS FEES, COSTS AND EXPENSES.

In the event litigation or other proceeding is required to enforce or interpret any provision of this Agreement, the prevailing Party in such litigation or other proceeding shall be entitled to an award of reasonable attorney's fees, costs and expenses, in addition to any other relief to which it may be entitled.

SECTION 32. ENTIRE AGREEMENT.

This Agreement, including the attached Exhibits "A" through "C", is the entire, complete, final and exclusive expression of the Parties with respect to the matters addressed therein and supersedes all other agreements or understandings, whether oral or written, or entered into between Service Provider and City prior to the execution of this Agreement. No statements, representations or other agreements, whether oral or written, made by any Party which are not embodied herein shall be valid and binding.

SECTION 33. SEVERABILITY.

If any term, condition or covenant of this Agreement is declared or determined by any court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and the Agreement shall be read and construed without the invalid, void or unenforceable provision(s).

SECTION 34. CONFLICTING TERMS.

Except as otherwise stated herein, if the terms of this Agreement conflict with the terms of any Exhibit hereto, or with the terms of any document incorporated by reference into this Agreement, the terms of this Agreement shall control.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date and year first-above written.

CITY OF HEMET

Gary Thornhill
Interim City Manager

ATTEST:

Sarah McComas
City Clerk

APPROVED AS TO FORM

Eric S. Vail
City Attorney

NEW TURTLE ISLAND

By: _____
Patrick Piatt
Owner

NOTE: SERVICE PROVIDER'S SIGNATURES SHALL BE DULY NOTARIZED, AND APPROPRIATE ATTESTATIONS SHALL BE INCLUDED AS MAY BE REQUIRED BY THE BYLAWS, ARTICLES OF INCORPORATION, OR OTHER RULES OR REGULATIONS APPLICABLE TO SERVICE PROVIDER'S BUSINESS ENTITY.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ALL-PURPOSE ACKNOWLEDGMENT NOTARY FOR CALIFORNIA

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE)
COUNTY OF RIVERSIDE)

On _____, 2015, before me, _____,
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")

personally appeared _____,
Name of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though this section is optional, completing this information can deter alternation of the document or fraudulent reattachment of this form to an unintended document.

CAPACIT(IES) CLAIMED BY SIGNER(S)

DESCRIPTION OF ATTACHED DOCUMENT

Signer's Name: _____

- Individual
Corporate Officer

Title(s)

Title or Type of Document

- Partner(s)
Limited
General

Number Of Pages

- Attorney-In-Fact
Trustee(s)
Guardian/Conservator
Other: _____

Date Of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

EXHIBIT "A"
SCOPE OF SERVICES

I. Service Provider will perform the following Services:

Activity A: Program Administration

1. Prepare HCD annual & quarterly reports, certifications, and other documents required by HOME & CalHOME.
2. Prepare Environmental compliance (NEPA) documents.
3. Provide necessary certifications and documents to meet the Set-up/Completion and Disbursement Conditions identified in the Standard Agreement.

Activity B: Program Implementation – Owner Occupied Rehabilitation (OOR)

1. Applicant Eligibility: Determine whether the owner's financial status, property location and condition warrant processing.
2. Loan Origination and Processing: Perform all processing functions including, but not limited to, the following:
 - a. Creating the File: The file will contain all items accompanying the loan application. The file will meet applicable HCD requirements regarding maintenance of documentation for monitoring/audit purposes.
 - b. Credit Report: Order a credit report to determine whether the applicant meets State and City's underwriting criteria.
 - c. Verifications: Mail the appropriate 3rd party and mortgage verification forms. A computerized tickler system will assure that the forms are monitored closely and sent back in a timely manner.
 - d. Underwriting: Obtain a title search through HCD for mobile homes and/or an appraisal of the value to determine the loan amount and to determine after rehabilitation value.
3. Preparation of work write-up/cost estimate: Inspect the unit and determine what repairs are required (health and safety concerns, code violations, etc.). HCD requires that there be at least one code violation in each home we rehabilitate.
 - a. Compare Homeowners requested rehabilitation work to the HHA's list of eligible repair items.
 - b. The Homeowner will participate in the initial and final walk-through.
 - c. Provide before and after photographs of each item listed. Each photograph will be provided in the project file.
 - d. Prepare work a write-up, which accurately describes the existing, conditions, necessary repairs and improvements.

- e. Prepare a cost estimate for each project file.
4. Contractor Selection: The Homeowner will select the qualified contractor(s). Contractor qualifications shall be reviewed, such as proper business license, contractor license(s), insurances and non-debarment information. The selected contractor's proposed bid will be reviewed for cost reasonableness.
5. Loan Document Preparation: Prepare all of the necessary documents so that the City's deferred loan is recorded. Such documents shall include, but not be limited to: Promissory Note, Statement of Lien, and Truth-in-Lending Disclosure.
6. Loan Approval and Closing: Service Provider shall package all financial and construction documents. Service Provider will also conduct a loan closing process with the unit owner.
7. Construction Management:
 - a. Preconstruction Conference: At or about the loan closing, review all projected work with the unit owner and the selected contractor.
 - b. Monitor Construction: Monitor construction for compliance with the construction contract and program requirements. Assure that all work is professional and includes the proper materials.
 - c. Progress and Final Inspections: Recommend payments to the contractor minus any retention requirement. All "progress payment forms" shall be executed by the unit owner and the selected contractor (with City authorization).
 - d. Monthly Construction Status Reporting: Every month a project status report shall be supplied to City staff.

II. As part of the Services, Service Provider will prepare and deliver the following tangible work products to the City:

- A. Work Write- ups
- B. Cost Estimates
- C. Before and After Photographs
- D. Project Loan Files

III. During performance of the Services, Service Provider will keep the City apprised of the status of performance by delivering the following status reports:

- A. Monthly Invoices

IV. The tangible work products and status reports will be delivered to the City pursuant to the following schedule:

- A. On-going monthly reporting, until finalization of each project

V. Service Provider will utilize the following personnel to accomplish the Services:

- A. Patrick Piatt, Principal Consultant & Construction Manager
- B. Genevieve Herzog, Program Manager

VI. Service Provider will utilize the following subcontractors to accomplish the Services:

- A. None

**EXHIBIT "B"
COMPENSATION**

I. Service Provider shall use the following rates of pay in the performance of the Services for each stage of the project:

A. <u>Program Administration</u>	<u>\$150/ Unit Cost</u>
B1. <u>Applicant Eligibility</u>	<u>\$200/ Unit Cost</u>
B2. <u>Loan Origination & Processing</u>	<u>\$150/ Unit Cost</u>
B3. <u>Inspection/Scope of Work</u>	<u>\$550/ Unit Cost</u>
B4. <u>Contractor Selection</u>	<u>\$150/ Unit Cost</u>
B5. <u>Loan Document Preparation</u>	<u>\$150/ Unit Cost</u>
B6. <u>Loan Approval & Closing</u>	<u>\$250/ Unit Cost</u>
B7. <u>Construction Management</u>	<u>\$750/ Unit Cost</u>
<u>Total Project Costs (A & B Inclusive)</u>	<u>\$2,350/ Entire Project</u>

II. Service Provider may utilize sub-contractors as indicated in this Agreement. The hourly rate for any subcontractor is not to exceed \$ N/A per hour without written authorization from the City Manager or his designee.

III. The City will compensate Service Provider for the services performed upon submission of a valid invoice. Each invoice is to include:

- A. Each project in progress (identified separately).
- B. Line items for all personnel describing the work performed and the number of hours worked on each project.
- C. Project Status updates - with the stage of each project identified under unit cost of invoice.

IV. The total compensation for the Services shall not exceed \$40,000 (\$2,350/per project), as provided in Section 4 "Compensation and Method of Payment" of this Agreement.

EXHIBIT "C" INSURANCE

A. Insurance Requirements. Service Provider shall provide and maintain insurance, acceptable to the City, in full force and effect throughout the term of this Agreement, against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Services by Service Provider, its agents, representatives or employees. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

Service Provider shall provide the following scope and limits of insurance:

1. Minimum Scope of Insurance. Coverage shall be at least as broad as:

(1) Commercial General Liability. Insurance Services Office form Commercial General Liability coverage (Occurrence Form CG 0001).

(2) Automobile. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, including code 1 "any auto" and endorsement CA 0025, or equivalent forms subject to the written approval of the City.

(3) Workers' Compensation. Workers' Compensation insurance as required by the Labor Code of State of California covering all persons providing Services on behalf of the Service Provider and all risks to such persons under this Agreement.

(4) Professional Liability. Professional liability insurance appropriate to the Service Provider's profession. This coverage may be written on a "claims made" basis, and must include coverage for contractual liability. The professional liability insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of or related to Services performed under this Agreement. The insurance must be maintained for at least three (3) consecutive years following the completion of Service Provider's services or the termination of this Agreement. During this additional three (3) year period, Service Provider shall annually and upon request of the City submit written evidence of this continuous coverage.

2. Minimum Limits of Insurance. Service Provider shall maintain limits of insurance no less than:

(1) Commercial General Liability. \$1,000,000 general aggregate for bodily injury, personal injury and property damage.

(2) Automobile. \$1,000,000 per accident for bodily injury and property damage. A combined single limit policy with aggregate limits in an amount of not less than \$2,000,000 shall be considered equivalent to the said required minimum limits set forth above.

(3) Workers' Compensation. Workers' Compensation as required by the Labor Code of the State of California of not less than \$1,000,000 per occurrence.

(4) Professional Liability. \$1,000,000 per occurrence.

B. Other Provisions. Insurance policies required by this Agreement shall contain the following provisions:

1. All Policies. Each insurance policy required by this Agreement shall be endorsed and state the coverage shall not be suspended, voided, cancelled by the insurer or either Party to this Agreement, reduced in coverage or in limits except after 30 days' prior written notice by certified mail, return receipt requested, has been given to City.

2. Commercial General Liability and Automobile Liability Coverages.

(1) City, and its respective elected and appointed officers, officials, and employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities Service Provider performs; products and completed operations of Service Provider; premises owned, occupied or used by Service Provider; or automobiles owned, leased, hired or borrowed by Service Provider. The coverage shall contain no special limitations on the scope of protection afforded to City, and their respective elected and appointed officers, officials, or employees.

(2) Service Provider's insurance coverage shall be primary insurance with respect to City, and its respective elected and appointed, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by City, and its respective elected and appointed officers, officials, employees or volunteers, shall apply in excess of, and not contribute with, Service Provider's insurance.

(3) Service Provider's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(4) Any failure to comply with the reporting or other provisions of the insurance policies, including breaches of warranties, shall not affect coverage

provided to City, and its respective elected and appointed officers, officials, employees or volunteers.

3. Workers' Compensation Coverage. Unless the City Manager otherwise agrees in writing, the insurer shall agree to waive all rights of subrogation against City, and its respective elected and appointed officers, officials, employees and agents for losses arising from work performed by Service Provider.

C. Other Requirements. Service Provider agrees to deposit with City, at or before the effective date of this Agreement, certificates of insurance necessary to satisfy City that the insurance provisions of this contract have been complied with. The City may require that Service Provider furnish City with copies of original endorsements effecting coverage required by this Exhibit "C". The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. City reserves the right to inspect complete, certified copies of all required insurance policies, at any time.

1. Service Provider shall furnish certificates and endorsements from each sub-contractor identical to those Service Provider provides.

2. Any deductibles or self-insured retentions must be declared to and approved by City. At the option of City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City or its respective elected or appointed officers, officials, employees and volunteers, or the Service Provider shall procure a bond guaranteeing payment of losses and related investigations, claim administration, defense expenses and claims.

3. The procuring of such required policy or policies of insurance shall not be construed to limit Service Provider's liability hereunder nor to fulfill the indemnification provisions and requirements of this Agreement.



Staff Report

TO: Honorable Mayor and Members of the Hemet City Council

FROM: Gary Thornhill, Interim City Manager *GT*
 Kristen Jensen, Public Works Director *KJ*

DATE: September 8, 2015

RE: Third Amendment to Exclusive Franchise Agreement for Comprehensive Refuse Services with CR&R Incorporated

RECOMMENDED ACTION:

It is respectfully recommended that the City Council:

- 1.) Approve the Third Amendment to Exclusive Franchise Agreement for Comprehensive Refuse Services with CR&R Incorporated ("Third Amendment"); and,
- 2.) Authorize the Interim City Manager to execute the Third Amendment; and,

BACKGROUND:

In October, 2011, the City and CR&R Incorporated ("CR&R") entered into an Exclusive Franchise Agreement ("Agreement") for Comprehensive Refuse Services. These services include the collection, transport, recycling and disposal of residential and commercial solid waste. From time to time the agreement may be amended to reflect changes in legislation related to solid waste, or changes in service provisions. Two Agreement amendments have been previously approved. The First Amendment addressed operational and administrative process items that surfaced after the initial transition period from City operated to CR&R services. The Second Amendment addressed provisions of mandatory refuse services and collection of delinquent service charges.

The proposed Third Amendment addresses the implementation of an Organic Waste Recycling Program required for compliance with Assembly Bill 1826 (AB1826). This bill requires commercial customers that generate certain volumes of solid and organic waste to arrange for recycling services *specifically for* organic waste. The legislation takes a phased approach to mandating organic waste recycling by annually incorporating a progressively larger portion of the commercial and multi-family residential customer base beginning April, 2016 through January 2020. In order to meet these phased mandates, jurisdictions are required to have an organic waste recycling program in place as of January 1, 2016.

Currently, the Agreement includes collection of green waste as organic waste to be recycled. Through the existing program, green waste collected may be delivered as alternative daily cover to landfills or transported to agricultural properties and used as non-composted organic land cover and be accounted for as "recycled" tonnage. 100% of the green waste collected in the City in 2104 was used in land application.

Recently, countywide concerns have surfaced about the environmental impacts of non-composted organic material being used in land applications. Issues such as vector control, water quality impacts, and air quality impacts, have put in question the sustainability of land application

as a disposal option. Due to these concerns, local jurisdictions face a very real possibility that land application may be prohibited in the next few years, which will result in a huge demand for alternative green waste recycling options. Adding to the challenge, beginning January 1, 2020, Assembly Bill 1594 will no longer allow green waste used as alternative daily cover at landfills to constitute diversion as a recycled material.

AB 1826 is anticipated to be the first of a number of laws addressing requirements for organic waste recycling. In order to meet the need for organic waste recycling processing now and in the future, CR&R invested in the construction of an Anaerobic Digester (AD) Facility. Through CR&R's AD facility the City is able to take advantage of expanding organic waste recycling to meet State Law compliance. An added benefit of the facility is the option it provides the City to begin organic waste collection from Single Family Dwelling (SFD) customers ahead of State mandates. This facility provides an environmentally conscience process for handling organic waste diversion, recycling, and material reuse. With Council approval, organic waste materials generated by City of Hemet solid waste customers may be processed at this facility in early 2016.

In 2014 the City of Hemet generated 7,743 tons of green waste. This tonnage accounts for a major portion of the recycling tonnage used to remain compliant with State Assembly Bill 939, which requires a 50% diversion of waste from landfills as compared to landfilled waste totals in calendar year 1990. Although green waste tonnage is produced by commercial, multi-family, and single family residential customers, residential customers generate over 6,030 tons annually. This accounts for 78% of annual green waste generation in the City.

ANALYSIS:

Approval of the Third Amendment would bring the definition of Organic Waste in the Agreement in line with State Law to also include food waste and soiled paper waste that is mixed in with food waste. Organic waste recycling services, as currently defined in the Agreement, include only the collection and processing of green waste. The inclusion of food scrap in organic waste recycling requires a new approach to processing the organic material, which the AD facility provides.

Approval of the proposed amendment will also authorize implementation of a SFD Food Waste Collection Service program ahead of State mandates, by taking advantage of the AD facility operations now. To implement this program, CR&R will request that food scraps be placed with green waste in existing green waste collection carts for organic recycling collection. In order to facilitate transport of food scraps to the cart, CR&R will deliver each residential customer one free Kitchen Food Scrap Pail, upon the customer's request. Additional pails will be available for purchase from CR&R for a one-time fee of \$7.00 each.

It is in the best interest of the City and CR&R to implement SFD Organic Waste Recycling ahead of State mandates for a number of reasons. It allows our customers to participate in the program at lower rates as early adopters in the first phase of the AD project. CR&R obtained grant funding to offset a sizable portion of construction costs for the first phase of the four phase facility. Early adopters reap the benefit of the grant offset. Early adoption of the SFD program also provides opportunity for the City and CR&R to develop programs and educate customers to have best practices in place for SFD organic recycling now, easing the goal of meeting mandated compliance in the future.

Finally, the Third Amendment incorporates rate updates to cover operation costs of the AD facility. SFD customers would be charged a monthly, per home rate of \$1.98. For customers that remit payment on a per ton basis (some commercial/industrial) the amendment eliminates the

existing Green Waste Processing Fee and updates the existing Organic Waste Processing Fee to an amount of \$72.50 per ton, which incorporates costs formerly related to strictly green waste processing. Implementation of the Organic Waste Recycling Program and associated rates will be implemented at the time CR&R's Anaerobic Digester facility has been placed in operation, and organic waste is processed at the facility. CR&R anticipates processing to begin in the first quarter of 2016.

Staff recommends that the City Council approve the proposed Third Amendment to ensure compliance with AB1826, establish early adoption of SFD Organic Waste Recycling, and incorporate updated rates for recovery of costs related to the AD facility and the Organic Waste Recycling Program. Upon approval staff will prepare the appropriate ordinance for Council review and consideration of approval.

FISCAL IMPACT:

No General Fund impacts. Costs related to Organic Waste Recycling will be billed and collected by CR&R through established billing methods.

Respectfully submitted,



Kristen Jensen
Public Works Director

Approved as to form:



Eric S. Vail
City Attorney

Fiscal Review:



Jessica Hurst
Deputy City Manager

Attachment(s):

Third Amendment to Exclusive Franchise Agreement for Comprehensive Refuse Services

**THIRD AMENDMENT TO
Exclusive Franchise Agreement for
Comprehensive Refuse Services**

by and between

the

CITY OF HEMET

and

CR&R INCORPORATED

Dated September____, 2015

THIRD AMENDMENT TO [INSERT TITLE OF ORIGINAL AGREEMENT]

This Third Amendment to the Exclusive Franchise Agreement for Comprehensive Refuse Service ("**Third Amendment**"), which is dated for reference as indicated on the cover page, is hereby entered into by and between the CITY OF HEMET, a California general law city ("**City**"), and CR&R Incorporated, a California corporation ("**Contractor**"), as follows:

RECITALS

- A. City and Contractor entered in that Exclusive Franchise Agreement for Comprehensive Refuse Services, dated October 11, 2011 as approved by City Resolution No. 4458 ("**Agreement**"). The Agreement provides that Contractor will provide comprehensive refuse services to, and within, the City of Hemet under an exclusive franchise, for which Contractor will pay City certain compensation. Through the implementation of the Agreement to date, the City and Contractor have identified specific amendments to certain provisions of the Agreement related to operational and administrative processes, which have been outlined in the Third Amendment and Second Amendment previously agreed to by City and Contractor.
- B. City and Contractor have identified additional operational amendments necessary to further compliance with Assembly Bill 1826 ("AB1826"), approved by the State in September 2014, which establishes organic waste recycling program requirements for solid waste customers and public entities. Effective January 1, 2016, jurisdictions must have in place an organic waste recycling program that meets the requirements of AB1826.
- C. This Third Amendment amends Section 4 (Definitions), Section 7 (SFD Collection Services), and Exhibit 2 (Maximum Permissible Rates) to provide that definitions in the Agreement are consistent with definitions sited in State Law, residential program changes are identified, and new rates are established to recover operational costs necessary to support Organic Waste Recycling Program implementation. This amendment also replaces and updates approved disposal facilities outline in the Agreement.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the parties do hereby enter into this Third Amendment which modifies and amends the Agreement as follows:

1. **PURPOSE.** The purpose of this Third Amendment is to comply with the requirement of Assembly Bill 1826 that the City adopt an organic waste and recycling program by January 2016. CR&R, as City's sole refuse franchisee, shall develop the City's Organic Waste and Recycle Program, and provide should services reasonably necessary to implement the Program by January 1, 2016.

2. **AMENDMENT.** The Agreement is hereby modified and amended as follows:

2.1 **Section 4– Item FF.** Item FF of Section 4 of the Agreement is hereby amended as follows:

FF. “Organic Waste” means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, compostables and soiled paper waste that is mixed in with food waste.

2.2 **Subparagraph 5 of Sub-Section H of Section 7.** Subparagraph 5 of Sub-Section H of Section 7 of the Agreement is hereby amended as follows:

5. SFD Food Waste Collection Service. At such time as State Law mandates a separate residential Food Waste Recycling Program, or at such time as CR&R’s Anaerobic Digester is operational, Contractor shall implement an Organic Waste Recycling Program for SFD. At the start of the program, Contractor shall make available Kitchen Food Waste Pails, upon individual customer request, to SFD service recipients. The first Food Waste Pail will be delivered at no cost and additional Food Waste Pails, above and beyond the first pail, will be charged rates as outlined in Exhibit 2.

2.3 **Exhibit 2 – Maximum Permissible Rates.** Sections A and D of Exhibit 2 of the Agreement is hereby amended as follows:

A. Residential Cart Collection Service / Special Charges Residential

Addition of Rates:

Monthly Residential Organic Waste Processing Fee	\$1.98/home
Additional Kitchen Food Waste Pail (after first pail)	\$ 7.00/each

D. Disposal and Processing Tipping Fees

Deletion of Fees:

“Green Waste Processing” Fee

Amend Fee:

Organic Waste Processing Fee \$72.50/ton

2.4 **Exhibit 4 – Approved Facilities.** Exhibit 4 of the Agreement is hereby amended as follows:

Deletion of facility:

California Bio Mass (Out of Business)

Addition of Facility:

CR&R Anaerobic Digester, 1706 Goetz Road, Perris CA 92570

3. GENERAL PROVISIONS.

3.1 **Remainder Unchanged.** Except as specifically modified and amended in this Third Amendment, the Agreement remains in full force and effect and binding upon the parties.

3.2 **Integration.** This Third Amendment consists of pages 1 through 4 inclusive, which constitute the entire understanding and agreement of the parties and supersedes all negotiations or previous agreements between the parties with respect to all or any part of the transaction discussed in this Third Amendment.

3.3 **Effective Date.** This Third Amendment shall not become effective until the date it has been formally approved by the City Council and executed by the appropriate authorities of the City and Consultant.

3.4 **Applicable Law.** The laws of the State of California shall govern the interpretation and enforcement of this Third Amendment.

3.5 **References.** All references to the Agreement include all their respective terms and provisions. All defined terms utilized in this Third Amendment have the same meaning as provided in the Agreement, unless expressly stated to the contrary in this Third Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment to the Agreement on the date and year third written above.

CITY:

THE CITY OF HEMET

By: _____
Gary Thornhill, Interim City Manager

ATTEST:

Sarah McComas, City Clerk

APPROVED AS TO FORM

Eric S. Vail, City Attorney

CONTRACTOR:

CR&R INCORPORATED

By: _____

Name: David Ronnenberg

Title: Chief Operations Officer

By: _____

Name: Joyce Amato

Title: Chief Financial Officer



Staff Report

TO: Honorable Mayor and Members of the Hemet City Council

FROM: Gary Thornhill, Interim City Manager *GT*

DATE: September 8, 2015

RE: Retiree Medical Benefit Incentive Program

RECOMMENDATION:

That the City Council approve Resolution No. 15-043 authorizing an incentive payment program through September 30, 2015 for retirees enrolled in the Aetna Managed Choice and Traditional Choice Plans and authorize the City Manager to implement an orderly wind-down and termination of these two plans by September 1, 2016.

BACKGROUND:

The City of Hemet has adopted various retiree medical policies between 1990 and 2015, in order to provide health insurance coverage to qualifying employees upon their retirement from the City. There are currently 239 retirees and their families receiving these benefits through nine health insurance plans.

In recent years the costs of two of the health insurance plans offered to retirees, Aetna Managed Choice and Aetna Traditional Choice (MC/TC) have increased 73% since 2011 to \$41,951.04 for the 2015/16 plan year. Additionally, in 2018, these plans will be subject to a 40% excise tax (Cadillac Tax) on amounts exceeding thresholds established by the Patient Protection and Affordable Care Act or 2010 (PPACA). At the current premium rates for the MC/TC plans, the Cadillac Tax will exceed \$750,000, bringing the estimated total cost of providing these plans to \$4.2 million in 2018.

The City of Hemet has suffered a structural deficit in its General Fund for seven (7) years since the economic downturn reduced revenues by approximately 25%. Coupled with rising costs, it is anticipated the General Fund reserves will be depleted within three (3) years. Analysis of cost factors contributing to the structural deficit have identified the MC/TC plans to be unsustainable as a part of the retiree health insurance benefit.

In an attempt to effect an orderly wind-down of the Aetna Managed Choice and Aetna Traditional Choice plans, the City Manager's Office has developed an incentive plan to move retirees off of the MC/TC plans while preserving their earned benefit. The plan includes the following provisions:

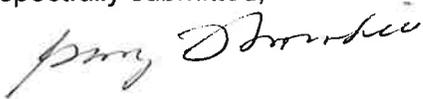
- \$5,000 incentive to retirees who move off the MC/TC plans by September 30, 2015
- Identify alternative health insurance plans that will provide retirees comparable coverage
- Provide for a cash-in-lieu option of up to \$1,028 per month for retirees to seek their own health insurance plan
- Provide for a lump-sum cash-out payment option

Additionally, the Aetna Managed Choice and Aetna Traditional Choice plans will be discontinued as of the 2016/17 plan year which begins September 1, 2016.

FISCAL IMPACT:

The City of Hemet will save tens of millions of dollars over the life of the retiree medical benefits program. Fiscal year 2015/16 savings are anticipated to be \$700,000 to \$1.2 million, depending on the options for comparable coverage selected by retirees.

Respectfully submitted,



Gary Thornhill
Interim City Manager

Legal Review



Eric S. Vail
City Attorney

Fiscal Review



Jessica A. Hurst
Deputy City Manager/Admin Svcs



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**CITY OF HEMET
Hemet, California
RESOLUTION NO. 15-043**

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**A RESOLUTION OF THE CITY COUNCIL OF THE CITY
OF HEMET, CALIFORNIA, AUTHORIZING AN INCENTIVE
PAYMENT PROGRAM OF LIMITED DURATION FOR CITY
OF HEMET RETIREES ENROLLED IN THE AETNA
MANAGED CHOICE OR TRADITIONAL CHOICE PLANS**

WHEREAS, between 1990 and 2015, the City of Hemet has adopted various retiree medical policies, including the Retirement Benefits Policy adopted July 24, 1990 (referred to as the 1990 Policy), Resolution 3209 (1996), Resolution 3317 (1997), and Resolution 3349 (1998), as was amended most recently in 2014 (collectively the “Retiree Medical Policies”) and,

WHEREAS, the intent of the Retiree Medical Policies was to provide health insurance coverage to qualifying Hemet employees upon reaching normal retirement age (50 for Public Safety employees and 55 for other Employees), having the requisite years of service with the City, and retirement from the City of Hemet and,

WHEREAS, numerous City employees have retired and enjoyed the benefits of the health insurance provided by the City under the Retiree Medical Policies, and the City continues to carry a pool of 239 retirees; and,

WHEREAS, the City currently offers nine different health insurance plans for retirees, the Aetna Managed Choice Plan and the Aetna Traditional Choice Plan (collectively the MC Plan), the Aetna Full Network HMO Plan, the Aetna Basic Network HMO Plan, the Kaiser HMO Plan, and Medicare plans which include the Aetna Medicare HMO Plan, the Aetna Medicare PPO-ESA Plan, Supplemental Plan “F”, and

1 the Kaiser Senior Advantage Plan. For certain City retirees, the City also provides
2 coverage under a Retiree Supplemental Medical Benefits Plan (GAP Plan); and,

3 **WHEREAS**, the current total annual cost to the City of providing retiree health
4 plans is \$4,159,700 and,

5 **WHEREAS**, the overall per capita cost of the City providing retiree medical
6 insurance is \$17,405 per City retiree, but the per capita cost of the City providing the
7 MC Plan is \$41,951 per City retiree enrolled in the MC Plan; and,

8 **WHEREAS**, the cost of providing the MC Plan to City retirees is expected to
9 increase by approximately 40% over the next year which will raise the total cost of the
10 MC Plan to \$3,523,884 per year and the per capita cost to \$58,731 per City retiree
11 enrolled on the MC Plan; and,

12 **WHEREAS**, under the provisions of the Patient Protection and Affordable Care
13 Act of 2010 (PPACA), the MC Plan is considered to be a high cost health plan which will
14 subject the City to a 40% excise tax (commonly called the Cadillac Tax) on the portion
15 of group health insurance premiums that exceed \$10,200 per year for single coverage
16 and \$27,500 for family coverage. If the City is required to pay this penalty, the total cost
17 of health insurance coverage for retirees paid by the City will exceed \$5,921,550 by
18 2018; and,

19 **WHEREAS**, with the imposition of the PPACA excise tax, the cost of just
20 providing the MC Plan will become \$4,273,438 annually or \$71,224 per retiree receiving
21 the benefit; and,

22 **WHEREAS**, the City has suffered a structural deficit in its General Fund for
23 seven (7) consecutive years and will deplete its General Fund reserve within three (3)
24 years if it does not reduce expenditures; and,

25 **WHEREAS**, given the already high per capita expense of the MC Plan, the
26 impending increase in premium rates, and the impending PPACA excise tax on the MC
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1 Plan, it is no longer financially feasible for the City to continue to offer the MC plan for
2 City retirees; and,

3 **WHEREAS**, the City Council desires to wind down and terminate the MC Plan in
4 an orderly manner allowing the City to work with affected retirees to provide them with
5 comparable coverage and a reasonable period of time to transition to new health
6 insurance coverage; and,

7 **WHEREAS**, for retirees age 65 or over, the most comparable alternative
8 coverage maintained by the City is coverage under Medicare Part A and B along with
9 enrollment in a Medicare plan.

10 **NOW, THEREFORE, the City Council of the City of Hemet does hereby resolve:**

11 1. To authorize the City Manager and his or her designees to effect an
12 orderly wind down of the Aetna Managed Choice Plan and the Aetna Traditional Choice
13 Plan by September 1, 2016, and to develop and implement alternative health insurance
14 plans (medical, dental and vision) that will provide affected retirees with reasonably
15 comparable coverage or alternative cash in lieu options, which may include a single
16 lump sum cash-out payment for retirees or their spouses or dependents, as determined
17 to be necessary and cost effective by the City Manager on a case by case basis. The
18 City Manager will report to the City Council on the alternative comparable health
19 insurance plan options for affected retirees within the next ninety (90) days; and,

20 2. To authorize the City Manager and his or her designees to offer a
21 monetary incentive payment (Incentive Payment) to City retirees enrolled in the MC
22 Plan as of the date of this Resolution to facilitate transition to comparable coverage or
23 alternative cash in lieu or lump sum cash payouts as follows:

24 (a) Expiration. Authority to offer and implement the monetary incentives set
25 forth in this section 2 will expire at 5:00 p.m. on Monday, September 28, 2015;

26 (b) Medicare Eligible Retirees. City retirees who are age 65 or older, or who
27 will turn 65 before September 30, 2015, and are enrolled in the MC Plan, may receive a
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1 one-time Incentive Payment of \$5,000 if they change coverage to and enroll in Medicare
2 (and the City's Medicare Plans if eligible) by September 30, 2015, and otherwise satisfy
3 the requirements of this Section 2; and,

4 (c) Non-Medicare Eligible Retirees. City retirees who are not 65 and will not
5 turn 65 before September 30, 2015, and are enrolled in the MC Plan, may receive a
6 one-time Incentive Payment of \$5,000 if they change coverage to and enroll in an Aetna
7 HMO or Kaiser HMO plan offered by the City, or elect a cash in lieu payment by
8 September 30, 2015, or are determined to be eligible for a lump sum cash out by the
9 City Manager, and otherwise satisfy the requirements of this Resolution; and,

10 (d) Retiree Spouses / Domestic Partners. City retirees desiring to receive an
11 Incentive Payment who have a spouse or registered domestic partner covered by the
12 MC Plan must change coverage for their spouse or registered domestic partner and
13 enroll them in Medicare, if they are age 65 or older, or the Aetna HMO or Kaiser HMO, if
14 they are not age 65 or older, by September 30, 2015. No additional Incentive Payment
15 is available for spouses or registered domestic partners. The spouses or registered
16 domestic partner of a deceased City retiree who is enrolled in the MC Plan and is not
17 age 65 or older may elect the cash in lieu payment by satisfying the requirements set
18 forth in this Resolution.

19 (e) Other Dependents. City retirees desiring to receive an Incentive Payment
20 who have other dependents covered by the MC plan must change coverage for their
21 dependents and/or enroll them in the Aetna HMO or Kaiser HMO by September 30,
22 2015. No additional Incentive Payment is available for dependents. Dependents of a
23 deceased City retiree and deceased spouse, who are enrolled in the MC Plan, and who
24 are not age 26 or older, may elect the cash in lieu payment by satisfying the
25 requirements set forth in this resolution.

26 (f) Cash In Lieu Payment. City retirees enrolled in the MC Plan who are not
27 65 and will not turn 65 by September 30, 2015 may elect to receive a cash in lieu
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1 payment instead of medical benefits and receive a fixed monthly stipend of \$1,028 for
2 the same duration as their City provided insurance would remain in effect. Persons
3 making this election shall not thereafter enroll in City provided retiree health insurance.
4 The payment shall be in lieu of any other obligation the City may have to provide the
5 retiree, his or her spouse or registered domestic partner, or his or her dependents, with
6 any retiree health insurance (inclusive of dental and vision coverage).

7 (g) Other Requirements. City retirees (or the surviving primary insured)
8 enrolled in the MC Plan desiring to receive an Incentive Payment must satisfy the
9 following notification and processing requirements:

10 (1) Diligently complete and submit to the City all health insurance
11 documents required by the City or by the Social Security Administration to cause them
12 to be enrolled in Medicare, the Aetna HMO or Kaiser HMO, as the case may be, by
13 September 28, 2015.

14 (2) Sign and deliver to the City a waiver and release documents, in a
15 form determined acceptable by the City Manager, waiving the retiree's (or the surviving
16 primary insured's) right to coverage under the MC Plan, agreeing to accept coverage
17 under the alternative plan or waiving coverage altogether and accepting a cash in lieu
18 stipend, and releasing and holding the City harmless from any claims or liabilities arising
19 from such change or waiver of coverage.

20 (h) Implementation and Administration. The City Council hereby authorizes
21 the City Manager to take such actions as are reasonably necessary to implement and
22 administer the Incentive Payment Program, to make reasonable clarifications,
23 elaborations, and applications of the Incentive Payment Program, as may be reasonably
24 required, and to effectuate payments to qualifying retirees satisfying the requirements of
25 the Incentive Payment Program set forth herein. The City Manager is not authorized to
26 increase the amount of the Incentive Payments or the cash in lieu payment. The City
27 Manager is authorized to make reasonable expenditures to qualify a person, who is age

1 65 or older for Medicare, if they are not already eligible. The City Manager is authorized
2 to offer and implement a single lump sum cash-out payment for City retirees (or the
3 surviving primary insured(s)) in lieu of City provided health insurance coverage, as
4 determined to be necessary and cost effective by the City Manager on a case by case
5 basis.

6 (i) Reservation of Rights. The City Council hereby reserves its rights to
7 extend and/or modify this Incentive Payment program, as the Council may from time to
8 time determine to be in the best interests of the City.

9 (j) No Changes to Retiree Medical Policies. Nothing in this Incentive Policy
10 is intended to, or shall be deemed to, create a vested right in any City retiree or
11 employee for the benefits temporarily offered under this policy, and this policy does not
12 amend or change any of the terms or conditions of the Retiree Medical Policies.

13
14 **PASSED, APPROVED, AND ADOPTED** this 8th day of September, 2015.

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17 _____
Linda Krupa, Mayor

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19 ATTEST:

APPROVED AS TO FORM:

20
21 _____
Sarah McComas, City Clerk

22 _____
Eric S. Vail, City Attorney

1 **State of California**)
2 **County of Riverside**)
3 **City of Hemet**)

4 I, Sarah McComas, City Clerk of the City of Hemet, do hereby certify that the foregoing
5 Resolution is the actual Resolution adopted by the City Council of the City of Hemet and
6 was passed at a regular meeting of the City Council on the day of ____, 2015 by the
7 following vote:

8 **AYES:**

9 **NOES:**

10 **ABSTAIN:**

11 **ABSENT:**

12
13
14 Sarah McComas, City Clerk



Staff Report

TO: Honorable Mayor and Members of the City Council

FROM: Gary Thornhill, Interim City Manager 
Deanna Elliano, Director of Community Development 

DATE: September 8, 2015

RE: **MUNICIPAL CODE AMENDMENT (MCA) NO. 15-003**: A city-initiated ordinance amending Chapter 14 of the Hemet Municipal Code to establish expedited permitting procedures for Small Residential Rooftop Solar Systems, as mandated by State Assembly Bill No. 2188.

RECOMMENDED ACTION:

That the City Council:

*Introduce by title only, and waive further reading of **Ordinance Bill No. 15-046** approving Municipal Code Amendment No. 15-003 to establish expedited permitting procedures for small residential rooftop solar systems.*

BACKGROUND:

Assembly Bill 2188, known as the Expedited Solar Permitting Act, was signed into law in September, 2014. The legislation affirms that it is the policy of the State to promote and encourage the installation and use of solar energy systems by limiting obstacles to their use and by minimizing the permitting costs of such systems. AB 2188 modified several sections of the California Government Code that regulate how local jurisdictions review, permit, and inspect small residential rooftop solar systems; in order to create a standardized, expedited, permitting process throughout the state.

As amended by AB 2188, the California Government Code requires that:

- On or before September 30, 2015, every city and county must adopt an ordinance that creates an expedited, streamlined permitting process for "small residential rooftop solar energy systems".
- The expedited permitting process must substantially conform to the recommendations, including the checklists and standard plans, contained in the current version of the *California Solar Permitting Guidebook* adopted by the Governor's Office of Planning and Research.
- The permit application requirements and checklists must be available on the internet, and must be able to be submitted electronically to the jurisdiction.
- Plan check, permit and inspection fees cannot exceed \$500 dollars and the plan review and inspection process shall be expedited, except for certain specified circumstances.

Pursuant to State law, the ordinance and the expedited permitting process only applies to small residential rooftop solar systems. An "eligibility checklist" shall be included in the permitting information available on the local jurisdiction's website to allow homeowners and contractors to determine if a proposed system qualifies for the expedited process. A "small residential rooftop solar system" is defined as one that meets all of the following criteria:

- The system is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal
- The system is installed on the rooftop of a single family or duplex residential dwelling
- The system does not exceed the maximum building height allowed in the zone, as determined by the local jurisdiction
- The system conforms to all applicable State fire, building, and electrical codes, and other building codes as may be adopted by the jurisdiction

ANALYSIS:

The recommended ordinance (included as Attachment No. 1) satisfies the mandate of AB 2188 and amended Section 65850.5 of the California Government Code. The ordinance is consistent with the state's model ordinance, although staff has modified the ordinance to be more applicable to the City of Hemet. Attachment No. 2 to this report contains the required application and eligibility checklists, the standard plans for the various solar systems, and the inspection checklists, as required by the legislation. All of the forms and checklists will be available on the City's website and will be put into use on or before September 30, 2015.

The City of Hemet Building Division already complies with many aspects of the streamlined permitting process for small residential rooftop solar energy systems required by this ordinance. Specifically, the City of Hemet has already consolidated Building and Fire plan review of solar permit applications, created plan check and inspection guidelines, and utilizes a consolidated inspection process for small residential rooftop systems, all in conformance with the California Solar Permitting Guidebook recommendations. In addition, the permitting of small residential rooftop solar systems is currently expedited by reviewing and issuing most permits over the counter, and inspections are generally performed within one business day of the request for inspection. The Building Division has received numerous positive comments from residential solar contractors and companies regarding the ease and efficiency of our solar permitting process.

ENVIRONMENTAL DETERMINATION:

The proposed ordinance is not subject to CEQA review as it is determined to be exempt pursuant to Section 15061(b)(3) of the CEQA Guidelines, which provides that CEQA only applies to projects which have the potential for causing a significant effect on the environment. In addition, State law (SB 226) has previously established that certain rooftop solar systems are specifically exempt from CEQA review. The proposed ordinance involves updates to existing regulations as mandated by the California Government Code. Therefore, it can be seen with certainty that the proposed ordinance will have no significant effect on the environment.

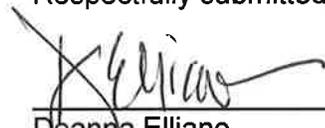
FISCAL IMPACT:

Because AB 2188 imposes new requirements and duties upon local government, it is considered to be a state mandated local program. However, the legislature has determined that

no reimbursement is required to be provided to local jurisdictions by the state for implementation of the program because cities have the ability to levy fees to cover the cost of the service. AB 2188 also states that any jurisdiction that fails to comply with the requirements of the Act may not be eligible to receive funds from a state-sponsored grant or loan program for solar energy.

The city's costs to implement the proposed ordinance will be recovered through the building permit fees for the solar systems. The City of Hemet has offered low-cost, expedited solar photovoltaic (PV) permits for residential rooftop systems since the adoption of the current user fee ordinance, in which the fees were determined based on actual building staff time spent on the project. With the anticipated adoption of the updated fees in September or October of this year, the expedited permit and inspection fee for small rooftop solar systems will be \$282.00, well below the maximum fee of \$500.00 allowed by state law for this type of system.

Respectfully submitted,



Deanna Elliano
Community Development Director

ATTACHMENTS:

1. Proposed Ordinance Bill No. 15-046
2. Residential Rooftop Solar Systems Permitting and Inspection Checklists

Attachment No. 1



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**CITY OF HEMET
Hemet, California
ORDINANCE BILL NO. 15-046**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF HEMET CALIFORNIA ADDING ARTICLE XII TO CHAPTER 14 (BUILDINGS AND BUILDING REGULATIONS) OF THE HEMET MUNICIPAL CODE TO PROVIDE AN EXPEDITED PERMITTING PROCESS FOR SMALL RESIDENTIAL ROOFTOP SOLAR SYSTEMS

WHEREAS, AB 2188 (Expedited Solar Permitting Act), was adopted in 2014 by the California State Legislature and requires each city or county to adopt an ordinance that creates an expedited, streamlined permitting process for small residential rooftop solar energy systems by September 30, 2015; and

WHEREAS, Subsection (a) of Section 65850.5 of the California Government Code (AB 2188 – Expedited Solar Permitting Act) provides that it is the policy of the State to promote and encourage the installation and use of solar energy systems by limiting obstacles to their use and by minimizing the permitting costs of such systems; and

WHEREAS, the ordinance must substantially conform with the recommendations set forth in the California Solar Permitting Guidebook, including a checklist of all requirements for permit application and inspection; and

WHEREAS, the City Council recognizes that rooftop solar energy provides reliable energy and pricing for its residents and businesses; and

WHEREAS, the City Council of the City of Hemet finds that it is in the interest of the health, welfare and safety of the public to provide an expedited permitting process to assure the effective deployment of solar technology for residential rooftop installations.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF HEMET DOES HEREBY ORDAIN AS FOLLOWS:

1 **SECTION 1: ADDITION OF ARTICLE XII TO CHAPTER 14 OF THE HEMET**
2 **MUNICIPAL CODE**

3 A new Article XII is hereby added to Chapter 14 (Buildings and Building
4 Regulations) of the Hemet Municipal Code to read as follows:

5 **ARTICLE XII – SMALL RESIDENTIAL ROOFTOP MOUNTED SOLAR SYSTEMS**

6 **Sec. 14-520 – Purpose and Intent**

7 The purpose of this Article is to adopt an expedited, streamlined solar permitting process
8 that complies with Government Code Section 65850.5 to achieve timely issuance and
9 installations of small residential rooftop solar energy systems. This Article encourages
10 the use of solar systems by removing unreasonable barriers, minimizing costs to
11 property owners and the City, and expands the ability of property owners to install solar
12 energy systems; while allowing the City to protect the public health and safety of its
13 citizens.

14 **Sec. 14-521 – Definitions**

- 15 **A. Association** means a nonprofit corporation or unincorporated association
16 created for the purpose of managing a common interest development.
- 17 **B. Electronic Plan Review** means the utilization of email for permit application
18 and plan submittal.
- 19 **C. Solar Energy System** means either of the following:
- 20 i. Any solar collector or other solar energy device whose primary
21 purpose is to provide for the collection, storage, and distribution of solar
22 energy for space heating, space cooling, electric generation, or water
23 heating.
 - 24 ii. Any structural design feature of a building, whose primary purpose
25 is to provide for the collection, storage, and distribution of solar energy for
26 electricity generation, space heating or cooling, or for water heating.
- 27 **D. Small Residential Rooftop Solar Energy System** means all of the following:
- 28 i. A solar energy system that is no larger than 10 kilowatts alternating
current nameplate rating or 30 kilowatts thermal.
 - ii. A solar energy system that conforms to all applicable state fire,
structural, electrical, and other building codes as adopted or amended by
the City of Hemet and all State and City health and safety standards.
 - iii. A solar energy system that is installed on the roof of a single or
duplex family dwelling.

1 iv. A solar panel or module array that does not exceed the maximum
2 legal building height for single family residential structures as defined by
3 the City of Hemet.

3 **Sec. 14-522 – Applicability**

4 This Article applies to the permitting of all small residential rooftop solar energy systems
5 in the City of Hemet. Small residential rooftop solar energy systems legally established
6 or permitted prior to the effective date of this Ordinance are not subject to the
7 requirements of this Ordinance unless physical modifications or alterations are
8 undertaken that materially change the size, type, or components of a small rooftop
9 energy system in such a way as to require new permitting.

10 **Sec. 14.523 – Solar Energy System Requirements**

- 11 a) All solar energy systems shall meet applicable health and safety standards
12 and requirements imposed by the state and the City of Hemet.
- 13 b) Solar energy systems for heating water in single-family residences and for
14 heating water in commercial or swimming pool applications shall be
15 certified by an accredited listing agency as defined by the California
16 Plumbing and Mechanical Code.
- 17 c) Solar energy systems for producing electricity shall meet all applicable
18 safety and performance standards established by the California Electrical
19 Code, the Institute of Electrical and Electronics Engineers, and accredited
20 testing laboratories and, where applicable, rules of the Public Utilities
21 Commission regarding safety and reliability.

21 **Sec. 14.524 – Application Process**

- 22 a) All documents required for the submission of an expedited solar energy
23 system application shall be made available on the City of Hemet’s Website.
- 24 b) Applications for small residential rooftop solar energy system permits, and
25 any supporting documents, may be submitted electronically by email. The
26 technology to accept electronic signature is not currently available at the
27 City, therefore, until which time the City is able to accept electronic
28 signature, the permittee will be required to provide the signature in person,
 upon permit issuance.

- 1 c) The City of Hemet’s Building Division shall adopt a standard plan and
2 checklist of all requirements with which small residential rooftop solar
3 energy systems shall comply to be eligible for expedited review.
- 4 d) The small residential rooftop solar system permit process, standard
5 plan(s), and checklist(s) shall substantially conform to recommendations
6 for expedited permitting, including the checklist and standard plans
7 contained in the most current version of the *California Solar Permitting
8 Guidebook* adopted by the Governor’s Office of Planning and Research.
- 9 e) All permit and inspection fees prescribed for the permitting of small
10 residential rooftop solar energy system must comply with Government
11 Code Section 65850.55, Government Code Section 66015, Government
12 Code Section 66016, and State Health and Safety Code Section 17951.

13 **Sec. 14.525 – Expedited Permit Review and Inspection Requirements**

- 14 a. An application that meets the requirements of the application checklist
15 prepared by the Building Division pursuant to section 14.524(d) of this
16 code shall be deemed complete. Upon receipt of an incomplete
17 application, the Building Division shall issue a written correction notice
18 detailing all deficiencies in the application and any additional information
19 required to be eligible for expedited permit issuance. This notice may
20 include a printed document or “red line corrections” on the submitted plans.
- 21 b. Prior to submitting an application, the applicant shall verify and document
22 on the plans and the forms provided by the Building Division that the roof
23 structure is adequate to support the solar system, and can transfer all wind,
24 seismic, dead and live loads associated with the system to the building
25 foundation; and that the electrical system, including the existing line, load,
26 ground and bonding wires, and electrical panels are adequately sized to
27 safely carry all existing loads in addition to the new photovoltaic electrical
28 loads for the system.
- c. Upon determination by the Building Division that the application and
supporting documentation is complete and meeting the requirements of the
checklist, the building official shall administratively approve the application

1 and issue all required permits or authorizations within one business day for
2 over the counter applications, and within three business days for electronic
3 application submittals. Such approval does not authorize an applicant to
4 connect the small residential rooftop energy system to the local utility
5 provider's electricity grid. The applicant is responsible for obtaining such
6 approval or permission from the local utility provider.

- 7 d. The Building Official shall require an applicant to apply for an
8 Administrative Use Permit if the official finds, based on substantial
9 evidence, that the solar energy system could have a specific, adverse
10 impact, as that phrase is defined in Government Code section 65850.5,
11 upon the public health and safety. Such decisions may be appealed to the
12 City of Hemet Planning Commission.
- 13 e. If an Administrative Use Permit is required, the building official may deny
14 an application for the use permit if the official makes written findings based
15 upon substantive evidence in the record that the proposed installation
16 would have a specific, adverse impact upon public health or safety and
17 there is no feasible method to satisfactorily mitigate or avoid the adverse
18 impact, as that phrase is defined in Government Code section 65850.5.
19 Such findings shall include the basis for the rejection of the potential
20 feasible alternative for preventing the adverse impact. Such decisions may
21 be appealed to the City of Hemet Planning Commission.
- 22 f. Any condition imposed on the application shall be designed to mitigate the
23 specific adverse impact upon health and safety at the lowest possible cost.
- 24 g. The City shall not condition approval of the permit on the approval of an
25 Association, as defined in Section 4080 of the Civil Code.
- 26 h. Only one inspection shall be required and performed by the Building
27 Division for small residential rooftop solar energy systems that are eligible
28 for expedited review.
- i. The inspection shall be done in a timely manner and include consolidated
inspections. An inspection will be scheduled within two business days of
the inspection request.
- j. If a small residential rooftop solar energy system fails inspection, a

1 subsequent inspection is authorized but need not conform to the
2 requirements of this Article.

3 **SECTION 2: CEQA FINDINGS.**

4 The City has analyzed this proposed ordinance and has determined that it is
5 exempt from the California Environmental Quality Act ("CEQA") under section
6 15061(b)(3) of the CEQA Guidelines, which provides that CEQA only applies to projects
7 that have the potential for causing a significant effect on the environment. The proposed
8 text changes involves updates and revisons to existing regulations, and will not result in
9 any physical change to the environment. Therefore, it can be seen with certainty that
10 there is no possibility that this Ordinance may have a significant adverse effect on the
11 environment, and therefore the adoption of this Ordinance is exempt from CEQA
12 pursuant to Section 15061(b)(3) of the CEQA Guidelines.

13 **SECTION 3: SEVERABILITY.**

14 If any section, subsection, subdivision, sentence, clause, phrase, or portion of this
15 Ordinance is, for any reason, held to be invalid or unconstitutional by the decision of any
16 court of competent jurisdiction, such decision shall not affect the validity of the remaining
17 portions of this Ordinance. The City Council hereby declares that it would have adopted
18 this Ordinance, and each section, subsection, subdivision, sentence, clause, phrase, or
19 portion thereof, irrespective of the fact that any one or more sections, subsections,
20 subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or
21 unconstitutional.

22 **SECTION 4: EFFECTIVE DATE.**

23 This Ordinance shall take effect thirty (30) days from its passage by the City
24 Council of the City of Hemet.

25 **SECTION 5: PUBLICATION.**

26 The City Clerk is authorized and directed to cause this Ordinance to be published
27 within fifteen (15) days after its passage in a newspaper of general circulation and
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circulated within the City in accordance with Government Code Section 36933(a) or, to cause this Ordinance to be published in the manner required by law using the alternative summary and pasting procedure authorized under Government Code Section 39633(c).

INTRODUCED at the regular meeting of Hemet City Council on the 8th day of September, 2015.

APPROVED AND ADOPTED this ____day of September, 2015.

Linda Krupa, Mayor

ATTEST:

APPROVED AS TO FORM:

Sarah McComas, City Clerk

Eric S. Vail, City Attorney

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State of California)
County of Riverside)
City of Hemet)

I, Sarah McComas, City Clerk of the City of Hemet, do hereby certify that the foregoing Ordinance was introduced and first read on the 8th day of September, 2015, and had its second reading at the regular meeting of the Hemet City Council on the ___ day of September, 2015, and was passed by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Sarah McComas, City Clerk

Attachment No. 2



Streamline Solar-Photovoltaic Submittal Requirements Bulletin – For Roof-Mounted Solar Photovoltaic Installations 10 kW or Less in One- and Two-Family Dwellings

This information bulletin is published to guide applicants through a streamlined permitting process for solar photovoltaic (PV) projects 10 kW in size or smaller. This bulletin provides information about submittal requirements for plan review, required fees and inspections.

1. Approval Requirements

The following permits are required to install a solar PV system with a maximum power output of 10 kW or less:

- a) Solar Photovoltaic Install Permit.

Planning review is not required for solar PV installations of this size.

Fire Department approval is not required for solar PV installations of this size.

Systems requiring the upgrade of an existing electrical panel will require a separate permit and fee.

2. Submittal Requirements

- Completed permit application form. This permit application form can be downloaded <http://www.cityofhemet.org/DocumentCenter/Home/View/78>.
- Demonstrate compliance with the Eligibility Checklist For Expedited Permitting (Streamline Solar Form 2). This document and criteria can be downloaded at www.cityofhemet.org.
- A completed Solar PV Standard Plan. For Microinverter and ACM Systems, complete Streamline Solar Form 4 and for Central/String Inverter Systems complete Streamline Solar Form 3. Both standard plans may be used for proposed solar installations 10 kW in size or smaller and can be downloaded www.cityofhemet.org.
- A roof plan showing roof layout, PV panels and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, PV system fire classification and the locations of all required labels and markings. These documents are included in the Solar PV Standard Plans referenced above. Examples of clear path access pathways are available in the State Fire Marshal Solar PV Installation Guide. <http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf>.
- Completed Expedited Structural Criteria along with required documentation. Structural Criteria can be found on Streamline Solar Form 5 and downloaded at www.cityofhemet.org.

3. Plan Review

Permit applications can be submitted to City of Hemet Building Division in person, via email or by mail at 445 E. Florida Ave.; Hemet, CA.

4. Fees

\$274.28 Permit Fee; Plus State and City Mandated Fees

5. Inspections

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by contacting City of Hemet, Building Division by telephone at (951) 765-2428. Inspection requests received are typically scheduled for the next business day. If next business day is not available, inspection should happen within a five-day window.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

The inspection checklist, [Streamline Solar Form 5](#), available on our City website at www.cityofhemet.org provides an overview of common points of inspection that the applicant should be prepared to show compliance. If not available, common checks include the following.

- Number of PV modules and model number match plans and specification sheets number match plans and specification sheets.
- Array conductors and components are installed in a neat and workman-like manner.
- PV array is properly grounded.
- Electrical boxes are accessible and connections are suitable for environment.
- Array is fastened and sealed according to attachment detail.
- Conductors ratings and sizes match plans.
- Appropriate signs are property constructed, installed and displayed, including the following.
 - Sign identifying PV power source system attributes at DC disconnect
 - Sign identifying AC point of connection
 - Sign identifying switch for alternative power system
- Equipment ratings are consistent with application and installed signs on the installation, including the following.
 - Inverter has a rating as high as max voltage on PV power source sign.
 - DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as max voltage on sign.
 - Switches and OCPDs are installed according to the manufacturer's specifications (i.e., many 600VDC switches require passing through the switch poles twice in a specific way).
 - 600VDC switches require passing through the switch poles twice in a specific way).
 - Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
 - OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on sign and is no larger than the maximum OCPD on the inverter listing label.
 - Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.

6. Departmental Contact Information

For additional information regarding this permit process, please consult our departmental website at www.cityofhemet.org or contact the City of Hemet Building Division at 951-765-2475.



Streamline Solar-Photovoltaic Eligibility Checklist for Expedited Permitting Process For One- and Two-Family Dwellings (Streamline Solar Form 2)

GENERAL REQUIREMENTS

- A. System size is 10 kW AC CEC rating or less Y N
- B. The solar array is roof-mounted on one- or two-family dwelling or accessory structure Y N
- C. The solar panel/module arrays will not exceed the maximum legal building height of 35' Y N
- D. Solar system is utility interactive and without battery storage Y N
- E. Permit application is completed and attached Y N

ELECTRICAL REQUIREMENTS

- No more than four photovoltaic module strings are connected to each Maximum PowerPoint Tracking (MPPT) input where source circuit fusing is included in the inverter Y N
- 1) No more than two strings per MPPT input where source circuit fusing is not included Y N
- 2) Fuses (if needed) are rated to the series fuse rating of the PV module Y N
- 3) No more than one noninverter-integrated DC combiner is utilized per inverter Y N
- A. For central inverter systems: No more than two inverters are utilized Y N
- B. The PV system is interconnected to a single-phase AC service panel of nominal 120/220 Vac with a bus bar rating of 225 A or less Y N
- C. The PV system is connected to the load side of the utility distribution equipment Y N
- D. A Solar PV Standard Plan and supporting documentation is completed and attached Y N

STRUCTURAL REQUIREMENTS

- A. A completed Structural Criteria and supporting documentation is attached Y N

FIRE SAFETY REQUIREMENTS

- A. Clear access pathways provided Y N
- B. Fire classification solar system is provided Y N
- C. All required markings and labels are provided Y N
- D. A diagram of the roof layout of all panels, modules, clear access pathways and approximate locations of electrical disconnecting means and roof access points is completed and attached Y N

Notes:

1. These criteria are intended for expedited solar permitting process.
2. If any items are checked NO, revise design to fit within Eligibility Checklist, otherwise permit application may go through standard process.



Streamline Solar-Photovoltaic Solar PV Standard Plan – Simplified Central/String Inverter Systems for One- and Two-Family Dwellings (Streamline Solar Form 3)

SCOPE: Use this plan ONLY for utility-interactive central/string inverter systems not exceeding a system AC inverter output rating of 10kW on the roof of a one- or two-family dwelling or accessory structure. The photovoltaic system must interconnect to the load side of a single-phase AC service panel of nominal 120/240Vac with a bus bar rating of 225A or less. This plan is not intended for bipolar systems, hybrid systems or systems that utilize storage batteries, charge controllers, trackers, more than two inverters or more than one DC combiner (noninverter-integrated) per inverter. Systems must be in compliance with current California Building Standards Codes and local amendments of the authority having jurisdiction (AHJ). Other Articles of the California Electrical Code (CEC) shall apply as specified in 690.3.

MANUFACTURER'S SPECIFICATION SHEETS MUST BE PROVIDED and information provided in this document must be highlighted for proposed inverter, modules, combiner/junction boxes and racking systems. Installation instructions for bonding and grounding equipment shall be provided, and local AHJs may require additional details. Listed and labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling (CEC 110.3). Equipment intended for use with PV system shall be identified and listed for the application (CEC 690.4[D]).

Job Address: _____ Permit #: _____

Contractor/ Engineer Name: _____ License # and Class: _____

Signature: _____ Date: _____ Phone Number: _____

Total # of Inverters installed: _____ (If more than one inverter, complete and attach the "Supplemental Calculation Sheets" and the "Load Center Calculations" if a new load center is to be used.)

Inverter 1 AC Output Power Rating: _____ Watts

Inverter 2 AC Output Power Rating (if applicable): _____ Watts

Combined Inverter Output Power Rating: _____ ≤ 10,000 Watts

Location Ambient Temperatures (Check box next to which lowest expected temperature is used):

- 1) Lowest expected ambient temperature for the location (T_L) = **Between -1 to -5 °C**
 Lowest expected ambient temperature for the location (T_L) = **Between -6 to -10 °C**
 Average ambient high temperature (T_H) = 47 °C
 Note: For a lower T_L or a higher T_H , use the Comprehensive Standard Plan

DC Information:

Module Manufacturer: _____		Model: _____
2) Module V_{oc} (from module nameplate): _____ Volts	3) Module I_{sc} (from module nameplate): _____ Amps	
4) Module DC output power under standard test conditions (STC) = _____ Watts (STC)		

5) DC Module Layout

Identify each source circuit (string) for inverter 1 shown on the roof plan with a Tag (e.g., A, B ,C...)	Number of modules per source circuit for inverter 1	Identify, by tag, which source circuits on the roof are to be paralleled (if none, put N/A)
		Combiner 1:
		Combiner 2:
Total number of source circuits for inverter 1:		

6) Are DC/DC Converters used? Yes No If No, skip to STEP 7. If Yes, enter info below.

DC/DC Converter Model #: _____ DC/DC Converter Max DC Input Voltage: _____ Volts
 Max DC Output Current: _____ Amps Max DC Output Voltage: _____ Volts
 Max # of DC/DC Converters in an Input Circuit: _____ DC/DC Converter Max DC Input Power: _____ Watts

7) Max. System DC Voltage – Use A1 or A2 for systems without DC/DC converters, and B1 or B2 with DC/DC converters.

A1. Module V_{oc} (STEP 2) = _____ x # in series (STEP 5) _____ x 1.12 (If $-1 \leq T_L \leq -5^\circ C$, STEP 1) = _____ V

A2. Module V_{oc} (STEP 2) = _____ x # in series (STEP 5) _____ x 1.14 (If $-6 \leq T_L \leq -10^\circ C$, STEP 1) = _____ V

Table 1. Maximum Number of PV Modules in Series Based on Module Rated VOC for 600 Vdc Rated Equipment (CEC 690.7)

Max. Rated Module VOC (*1.12) (Volts)	29.76	31.51	33.48	35.71	38.27	41.21	44.64	48.70	53.57	59.52	66.96	76.53	89.29
Max. Rated Module VOC (*1.14) (Volts)	29.24	30.96	32.89	35.09	37.59	40.49	43.86	47.85	52.63	58.48	65.79	75.19	87.72
Max # of Modules for 600 Vdc	18	17	16	15	14	13	12	11	10	9	8	7	6

Use for DC/DC converters. The value calculated below must be less than DC/DC converter max DC input voltage (STEP #6).

B1. Module V_{oc} (STEP 2) _____ x # of modules per converter (STEP 6) _____ x 1.12 (If $-1 \leq T_L \leq -5^\circ C$, STEP 1) = _____ V

B2. Module V_{oc} (STEP 2) _____ x # of modules per converter (STEP 6) _____ x 1.14 (If $-6 \leq T_L \leq -10^\circ C$, STEP 1) = _____ V

Table 2. Largest Module VOC for Single-Module DC/DC Converter Configurations (With 80V AFC Cap) (CEC 690.7 and 690.11)

Max. Rated Module VOC (*1.12) (Volts)	30.4	33.0	35.7	38.4	41.1	43.8	46.4	49.1	51.8	54.5	57.1	59.8	62.5	65.2	67.9	70.5
Max. Rated Module VOC (*1.14) (Volts)	29.8	32.5	35.1	37.7	40.4	43.0	45.6	48.2	50.9	53.5	56.1	58.8	61.4	64.0	66.7	69.3
DC/DC Converter Max DC Input (STEP #6) (Volts)	34	37	40	43	46	49	52	55	58	61	64	67	70	73	76	79

8) Maximum System DC Voltage from DC/DC Converters to Inverter – Only required if Yes in STEP 6

Maximum System DC Voltage = _____ Volts

9) Maximum Source Circuit Current

Is Module I_{sc} below 9.6 Amps (STEP 3)? Yes No (if No, use Comprehensive Standard Plan)

10) Sizing Source Circuit Conductors

Source Circuit Conductor Size = Min. #10 AWG copper conductor, 90°C wet (USE-2, PV Wire, XHHW-2, THWN-2, RHW-2)

For up to 8 conductors in roof-mounted conduit exposed to sunlight at least ½" from the roof covering (CEC 310)

Note: For over 8 conductors in the conduit or mounting height of lower than ½" from the roof, use Comprehensive Plan.

11) Are PV source circuits combined prior to the inverter?)? Yes No

If No, use Single Line Diagram 1 with Single Line Diagram 3 and proceed to STEP 13.

If Yes, use Single Line Diagram 2 with Single Line Diagram 4 and proceed to STEP 12.

Is source circuit OCPD required? Yes No

Source circuit OCPD size (if needed): 15 Amps

12) Sizing PV Output Circuit Conductors – If a combiner box will NOT be used from [STEP 11],

Output Circuit Conductor Size = Min. #6 AWG copper conductor

13) Inverter DC Disconnect

Does the inverter have an integrated DC disconnect? Yes No If yes, proceed to STEP 14.

If no, the external DC disconnect to be installed is rated for _____ Amps (DC) and _____ Volts (DC)

14) Inverter information

Manufacturer: _____ Model: _____

Max. Continuous AC Output Current Rating: _____ Amps

Integrated DC Arc-Fault Circuit Protection? Yes No (If No is selected, Comprehensive Standard Plan)

Grounded or Ungrounded System: Grounded Ungrounded

AC Information:

15) Sizing Inverter Output Circuit Conductors and OCPD

Inverter Output OCPD rating = _____ Amps (Table 3)

Inverter Output Circuit Conductor Size = _____ AWG (Table 3)

Table 3. Minimum Inverter Output OCPD and Circuit Conductor Size

Inverter Continuous Output Current Rating (Amps) (STEP#14)	12	16	20	24	28	32	36	40	48
Minimum OCPD Size (Amps)	15	20	25	30	35	40	45	50	60
Minimum Conductor Size (AWG, 75°C, Copper)	14	12	10	10	8	8	6	6	6

Integrated DC Arc-Fault Circuit Protection? Yes No (If No is selected, Comprehensive Standard Plan)

Grounded or Ungrounded System? Grounded Ungrounded

16) Point of Connection to Utility

Only load side connections are permitted with this plan. Otherwise, use Comprehensive Standard Plan.

Is the PV OCPD positioned at the opposite end from input feeder location or main OCPD location? Yes No

If Yes, circle the Max Combined PV System OCPD(s) at 120% value as determined from STEP 15 (or STEP S20), bus bar Rating, and Main OCPD as shown in Table 4.

If No, circle the Max Combined PV System OCPD(s) at 100% value as determined from STEP 15 (or STEP S20), bus bar Rating, and Main OCPD as shown in Table 4.

Per 705.12(D)(2): [Inverter output OCPD size [STEP #15 or S20] + Main OCPD Size] ≤ [bus size × (100% or 120%)]

Table 4. Maximum Combined Supply OCPDs Based on Bus Bar Rating (Amps) per CEC 705.12(D)(2)

Bus bar Rating	100	125	125	200	200	200	225	225	225
Main OCPD	100	100	125	150	175	200	175	200	225
Max Combined PV System OCPD(s) at 120% of bus bar Rating	20	50	25	60*	60*	40	60*	60*	45
Max Combined PV System OCPD(s) at 100% of bus bar Rating	0	25	0	50	25	0	50	25	0

*This value has been lowered to 60 A from the calculated value to reflect 10kW AC size maximum.

Reduction of the main breaker is not permitted with this plan. Otherwise, use Comprehensive Standard Plan.

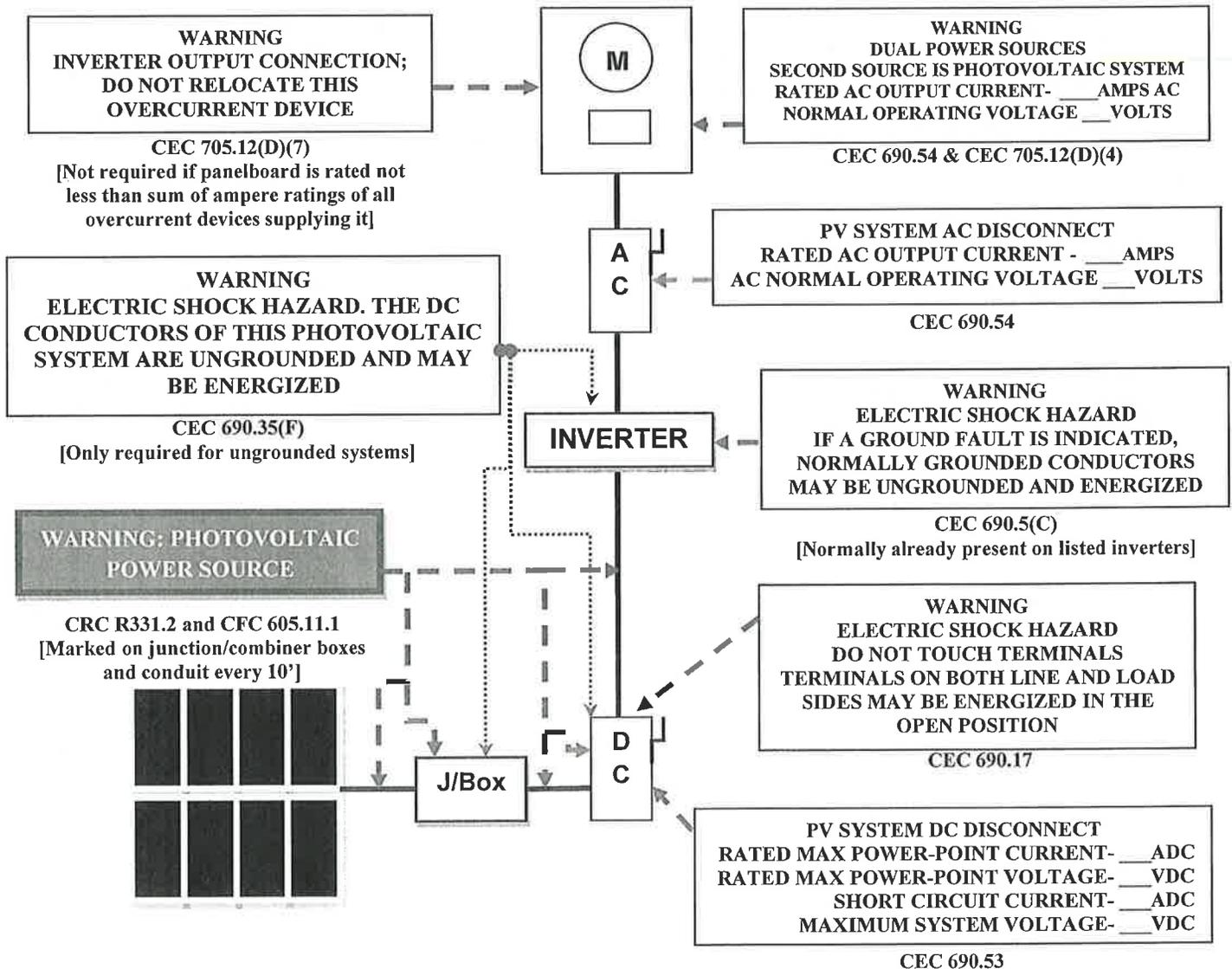
17 & 18 & 19) Labels and Grounding and Bonding

This content is covered by the labels on Page 4 and the Single Line Diagram(s). For background information, refer to the Comprehensive Standard Plan.

Solar PV Standard Plan – Simplified Central/String Inverter Systems for One- and Two-Family Dwellings

Markings

CEC Articles 690 and 705 and CRC Section R331 require the following labels or markings be installed at these components of the photovoltaic system:



Code Abbreviations:

- California Electrical Code (CEC)
- California Residential Code (CRC)
- California Fire Code (CFC)

Informational note: ANSI Z535.4 provides guidelines for the design of safety signs and labels for application to products. A phenolic plaque with contrasting colors between the text and background would meet the intent of the code for permanency. No type size is specified, but 20 point (3/8") should be considered the minimum.

CEC 705.12 requires a permanent plaque or directory denoting all electric power sources on or in the premises.

Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

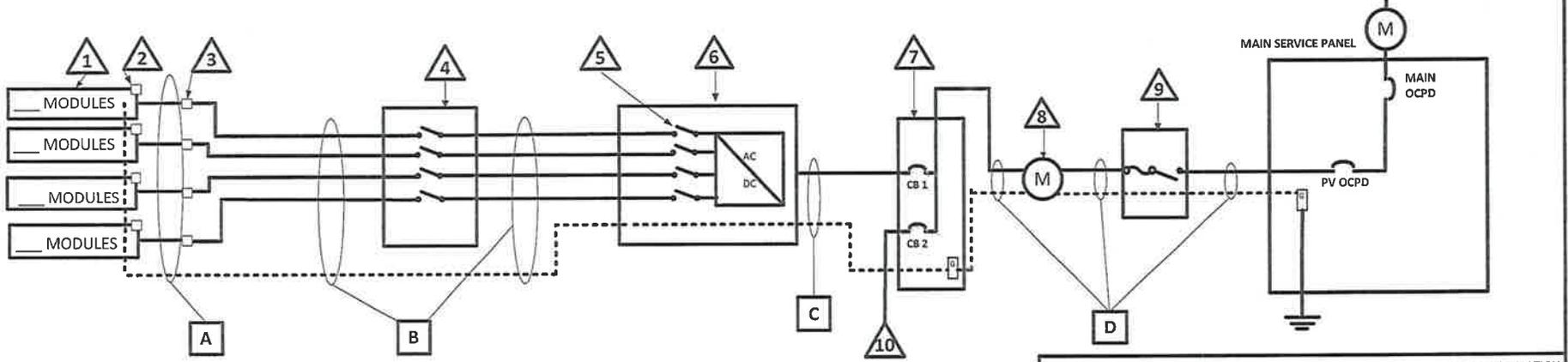
▲ TAG	DESCRIPTION
1	SOLAR PV MODULE / STRING
2	DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED)
3	SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO
4	SEPARATE DC DISCONNECT INSTALLED?: YES / NO
5	INTERNAL INVERTER DC DISCONNECT: YES / NO
6	CENTRAL INVERTER
7	LOAD CENTER INSTALLED?: YES / NO
8	PV PRODUCTION METER INSTALLED?: YES / NO
9	*SEPARATE AC DISCONNECT INSTALLED?: YES / NO
10	CONNECT TO INVERTER #2 (USE LINE DIAGRAM 2)

SINGLE-LINE DIAGRAM #1 – NO STRINGS COMBINED PRIOR TO INVERTER

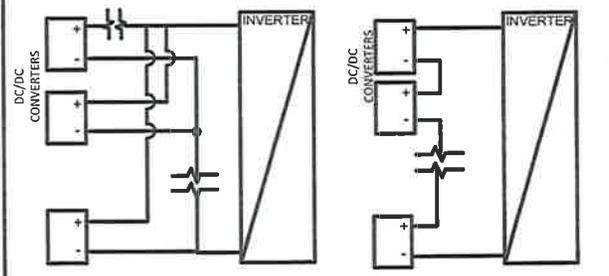
CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED: GROUNDED (INCLUDE GEC) UNGROUNDED

FOR UNGROUNDED SYSTEMS:
 - DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT
 - UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.

* Consult with your local AHJ and /or Utility



IF DC/DC CONVERTERS ARE USED, CHECK THE BOX BELOW THE CORRESPONDING CONFIGURATION



PARALLEL DC/DC CONVERTERS ON ONE SOURCE CIRCUIT (FIXED UNIT VOLTAGE DC/DC CONVERTERS)

DC/DC CONVERTERS ARE ALL RUN IN SERIES (FIXED SOURCE CIRCUIT VOLTAGE DC/DC CONVERTERS)

CONDUCTOR/CONDUIT SCHEDULE					
<input type="checkbox"/> TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/> EGC/GEC:				
B	EGC/GEC:				
C	EGC/GEC:				
D	EGC/GEC:				

ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE

Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

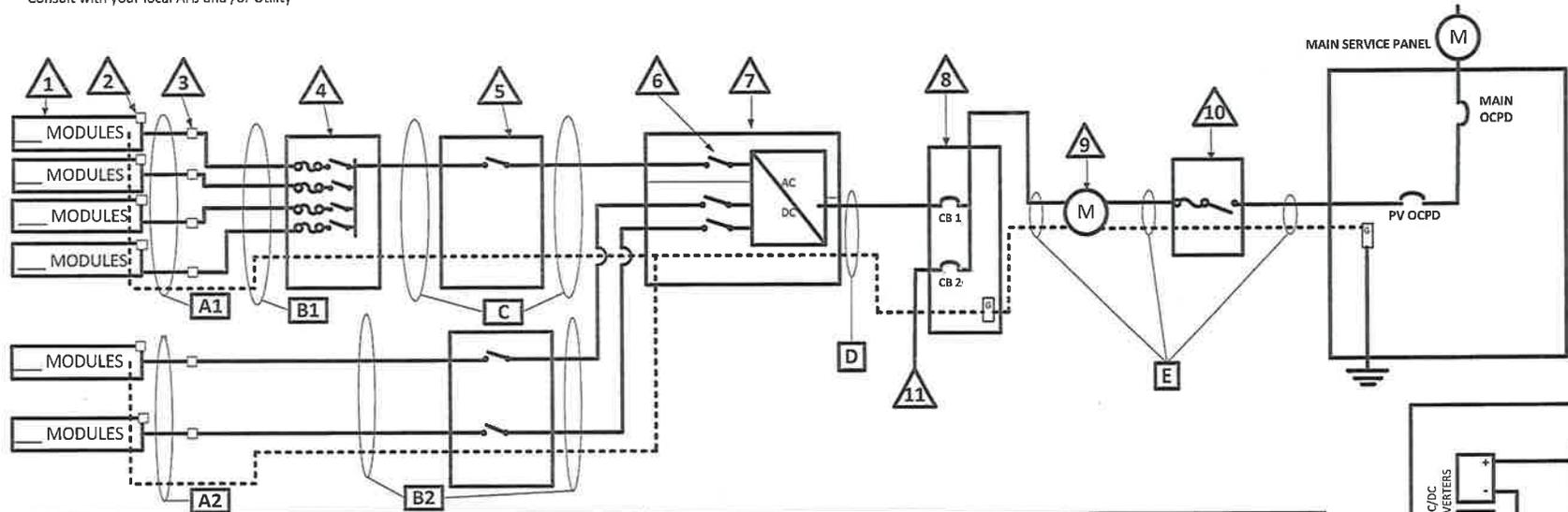
△TAG	DESCRIPTION
1	SOLAR PV MODULE / STRING
2	DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED)
3	SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO
4	COMBINER BOX (STEPS 11 & 12 REQUIRED)
5	SEPARATE DC DISCONNECT INSTALLED?: YES / NO
6	INTERNAL INVERTER DC DISCONNECT: YES / NO
7	CENTRAL INVERTER
8	LOAD CENTER INSTALLED?: YES / NO
9	PV PRODUCTION METER INSTALLED?: YES / NO
10	*SEPARATE AC DISCONNECT INSTALLED?: YES / NO
11	CONNECT TO INVERTER #2 (USE LINE DIAGRAM 4)

* Consult with your local AHJ and /or Utility

SINGLE-LINE DIAGRAM #2 – COMBINING STRINGS PRIOR TO INVERTER

CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED: GROUNDED (INCLUDE GEC) UNGROUNDED

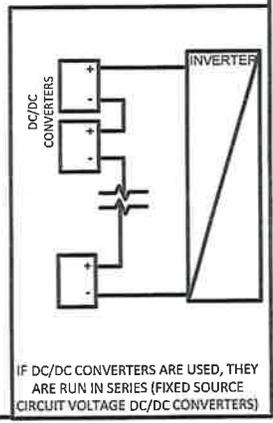
FOR UNGROUNDED SYSTEMS:
 - DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT
 - UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.



COMBINER CONDUCTOR/CONDUIT SCHEDULE					
□TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A1	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/>				
	EGC/GEC:				
B1					
	EGC/GEC:				
C					
	EGC/GEC:				
D					
	EGC/GEC:				
E					
	EGC/GEC:				

NON-COMBINED STRINGS CONDUCTOR/CONDUIT SCHEDULE (IF APPLICABLE)					
□TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A2	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/>				
	EGC/GEC:				
B2					
	EGC/GEC:				

ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE



Solar PV Standard Plan — Simplified
Central/String Inverter Systems for One- and Two-Family Dwellings
Supplemental Calculation Sheets for Inverter #2
(Only include if second inverter is used)

DC Information:

Module Manufacturer: _____		Model: _____
S2) Module V_{oc} (from module nameplate): _____ Volts	S3) Module I_{sc} (from module nameplate): _____ Amps	
S4) Module DC output power under standard test conditions (STC) = _____ Watts (STC)		
S5) DC Module Layout		
Identify each source circuit (string) for inverter 1 shown on the roof plan with a Tag (e.g., A, B, C ...)	Number of modules per source circuit for inverter 1	Identify, by tag, which source circuits on the roof are to be paralleled (if none, put N/A)
		Combiner 1:
		Combiner 2:
Total number of source circuits for inverter 1: _____		
S6) <u>Are DC/DC Converters used?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No		If No, skip to STEP#S7. If Yes, enter info below.
DC/DC Converter Model #: _____	DC/DC Converter Max DC Input Voltage: _____ Volts	
Max DC Output Current: _____ Amps	Max DC Output Voltage: _____ Volts	
Max # of DC/DC Converters in a source circuit: _____	DC/DC Converter Max DC Input Power: _____ Watts	

S7) Max. System DC Voltage – Use A1 or A2 for systems without DC/DC converters, and B1 or B2 with DC/DC converters.

- A1. Module V_{oc} (STEP S2) = _____ x # in series (STEP S5) _____ x 1.12 (If $-1 \leq T_L \leq -5^\circ\text{C}$, STEP S1) = _____ V
 A2. Module V_{oc} (STEP S2) = _____ x # in series (STEP S5) _____ x 1.14 (If $-6 \leq T_L \leq -10^\circ\text{C}$, STEP S1) = _____ V

Table 1. Maximum Number of PV Modules in Series Based on Module Rated VOC for 600 Vdc Rated Equipment (CEC 690.7)

Max. Rated Module VOC (*1.12) (Volts)	29.76	31.51	33.48	35.71	38.27	41.21	44.64	48.70	53.57	59.52	66.96	76.53	89.29
Max. Rated Module VOC (*1.14) (Volts)	29.24	30.96	32.89	35.09	37.59	40.49	43.86	47.85	52.63	58.48	65.79	75.19	87.72
Max # of Modules for 600 Vdc	18	17	16	15	14	13	12	11	10	9	8	7	6

Use for DC/DC converters. The value calculated below must be less than DC/DC converter max DC input voltage (STEP #S6).

- B1. Module V_{oc} (STEP#S2) _____ x # of modules per converter (STEP S6) _____ x 1.12 (If $-1 \leq T_L \leq -5^\circ\text{C}$, STEP S1) = _____ V
 B2. Module V_{oc} (STEP#S2) _____ x # of modules per converter (STEP S6) _____ x 1.14 (If $-6 \leq T_L \leq -10^\circ\text{C}$, STEP S1) = _____ V

Table 2. Largest Module VOC for Single-Module DC/DC Converter Configurations (With 80V AFCI Cap) (CEC 690.7 and 690.11)

Max. Rated Module VOC (*1.12) (Volts)	30.4	33.0	35.7	38.4	41.1	43.8	46.4	49.1	51.8	54.5	57.1	59.8	62.5	65.2	67.9	70.5
Max. Rated Module VOC (*1.14) (Volts)	29.8	32.5	35.1	37.7	40.4	43.0	45.6	48.2	50.9	53.5	56.1	58.8	61.4	64.0	66.7	69.3
DC/DC Converter Max DC Input (STEP #6) (Volts)	34	37	40	43	46	49	52	55	58	61	64	67	70	73	76	79

S8) Maximum System DC Voltage from DC/DC Converters to Inverter – Only required if Yes in STEP S6

Maximum System DC Voltage = _____ Volts

S9) Maximum Source Circuit Current

Is Module ISC below 9.6 Amps (STEP S3)? Yes No (if No, use Comprehensive Standard Plan)

S10) Sizing Source Circuit Conductors:

Source Circuit Conductor Size = Min. #10 AWG copper conductor, 90°C wet (USE-2, PV Wire, XHHW-2, THWN-2, RHW-2)

For up to 8 conductors in roof-mounted conduit exposed to sunlight at least ½" from the roof covering (CEC 310)

Note: For over 8 conductors in the conduit or mounting height of lower than ½" from the roof, use Comprehensive Plan.

S11) Are PV source circuits combined prior to the inverter? Yes No

If No, use Single Line Diagram 1 with Single Line Diagram 3 and proceed to STEP S13.

If Yes, use Single Line Diagram 2 with Single Line Diagram 4 and proceed to STEP S12.

Is source circuit OCPD required? Yes No

Source circuit OCPD size (if needed): 15 Amps

S12) Sizing PV Output Circuit Conductors – If a Combiner box will NOT be used from [STEP#S11],

Output Circuit Conductor Size = Min. #6 AWG copper conductor

S13) Inverter DC Disconnect

Does the inverter have an integrated DC disconnect? Yes No If yes, proceed to STEP S14.

If No, the external DC disconnect to be installed is rated for _____ Amps (DC) and _____ Volts (DC)

S14) Inverter information:

Manufacturer: _____ Model: _____

Max. Continuous AC Output Current Rating: _____ Amps

Integrated DC Arc-Fault Circuit Protection? Yes No (If No is selected, Comprehensive Standard Plan)

Grounded or Ungrounded System: GROUNDED UNGROUNDED

AC Information:

S15) Sizing Inverter Output Circuit Conductors and OCPD:

Inverter Output OCPD rating = _____ Amps (Table 3)

Inverter Output Circuit Conductor Size = _____ AWG (Table 3)

Table 3. Minimum Inverter Output OCPD and Circuit Conductor Size

Inverter Continuous Output Current Rating (Amps) (STEP 14)	12	16	20	24	28	32	36	40	48
Minimum OCPD Size (Amps)	15	20	25	30	35	40	45	50	60
Minimum Conductor Size (AWG, 75°C, Copper)	14	12	10	10	8	8	6	6	6

Load Center Calculations

(Omit if a load center will not be installed for PV OCPDs)

S20) Load Center Output:

Calculate the sum of the maximum AC outputs from each inverter.

Inverter #1 Max Continuous AC Output Current Rating[STEP S14] _____ × 1.25 = _____ Amps

Inverter #2 Max Continuous AC Output Current Rating[STEP S14] _____ × 1.25 = _____ Amps

Total inverter currents connected to load center (sum of above) = _____ Amps

Conductor Size: _____ AWG

Overcurrent Protection Device: _____ Amps

Load center bus bar rating: _____ Amps

The sum of the ampere ratings of overcurrent devices in circuits supplying power to a bus bar or conductor shall not exceed 120 percent of the rating of the bus bar or conductor.

Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

▲TAG	DESCRIPTION
1	SOLAR PV MODULE / STRING
2	DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED)
3	SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO
4	SEPARATE DC DISCONNECT INSTALLED?: YES / NO
5	INTERNAL INVERTER DC DISCONNECT: YES / NO
6	CENTRAL INVERTER
7	*SEPARATE AC DISCONNECT INSTALLED?: YES / NO
8	TO LOAD CENTER ON LINE DIAGRAM 1

* Consult with your local AHJ and /or Utility

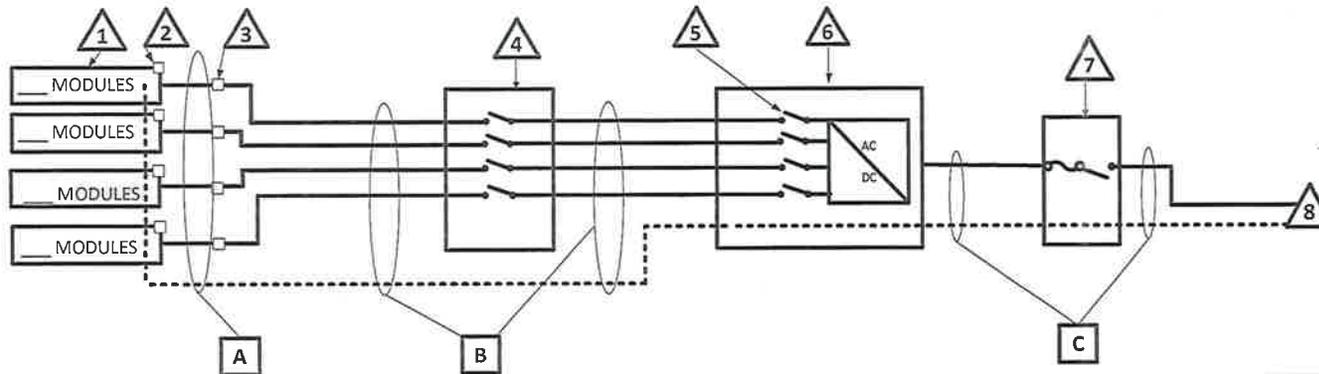
SINGLE-LINE DIAGRAM #3 – ADDITIONAL INVERTER FOR DIAGRAM #1

INVERTER # 2

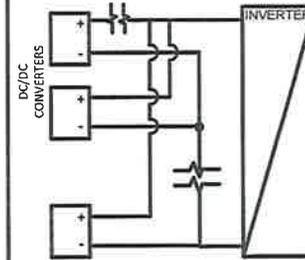
CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED: GROUNDED (INCLUDE GEC) UNGROUNDED

FOR UNGROUNDED SYSTEMS:

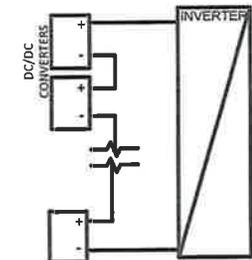
- DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT
- UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.



IF DC/DC CONVERTERS ARE USED, CHECK THE BOX BELOW THE CORRESPONDING CONFIGURATION



PARALLEL DC/DC CONVERTERS ON ONE SOURCE CIRCUIT (FIXED UNIT VOLTAGE DC/DC CONVERTERS)



DC/DC CONVERTERS ARE ALL RUN IN SERIES (FIXED SOURCE CIRCUIT VOLTAGE DC/DC CONVERTERS)

ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE

CONDUCTOR/CONDUIT SCHEDULE					
□ TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/>				
	EGC/EGC:				
B					
	EGC/EGC:				
C					
	EGC/EGC:				

Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

△ TAG	DESCRIPTION
1	SOLAR PV MODULE / STRING
2	DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED)
3	SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO
4	COMBINER BOX (STEPS 11 & 12 REQUIRED)
5	SEPARATE DC DISCONNECT INSTALLED?: YES / NO
6	INTERNAL INVERTER DC DISCONNECT: YES / NO
7	CENTRAL INVERTER
8	*SEPARATE AC DISCONNECT INSTALLED?: YES / NO
9	TO LOAD CENTER ON LINE DIAGRAM 3

* Consult with your local AHJ and /or Utility

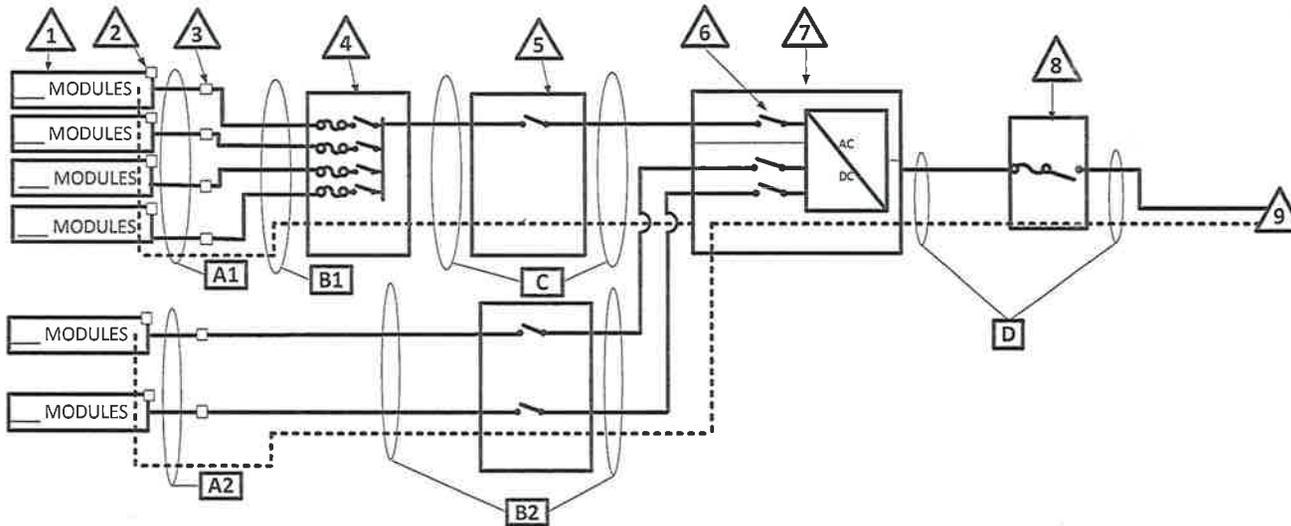
SINGLE-LINE DIAGRAM #4 – ADDITIONAL INVERTER FOR DIAGRAM #2

INVERTER # 2

CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED: GROUNDED (INCLUDE GEC) UNGROUNDED

FOR UNGROUNDED SYSTEMS:

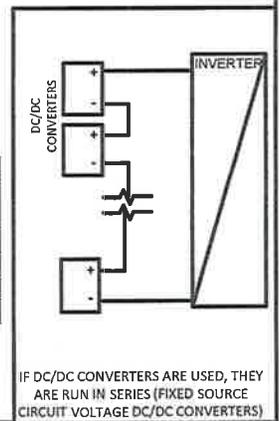
- DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT
- UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.



COMBINER CONDUCTOR/CONDUIT SCHEDULE					
□ TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A1	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/>				
	EGC/GEC:				
B1					
	EGC/GEC:				
C					
	EGC/GEC:				
D					
	EGC/GEC:				

NON-COMBINED STRINGS CONDUCTOR/CONDUIT SCHEDULE (IF APPLICABLE)					
□ TAG	DESCRIPTION AND CONDUCTOR TYPE	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
A2	USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/>				
	EGC/GEC:				
B2					
	EGC/GEC:				

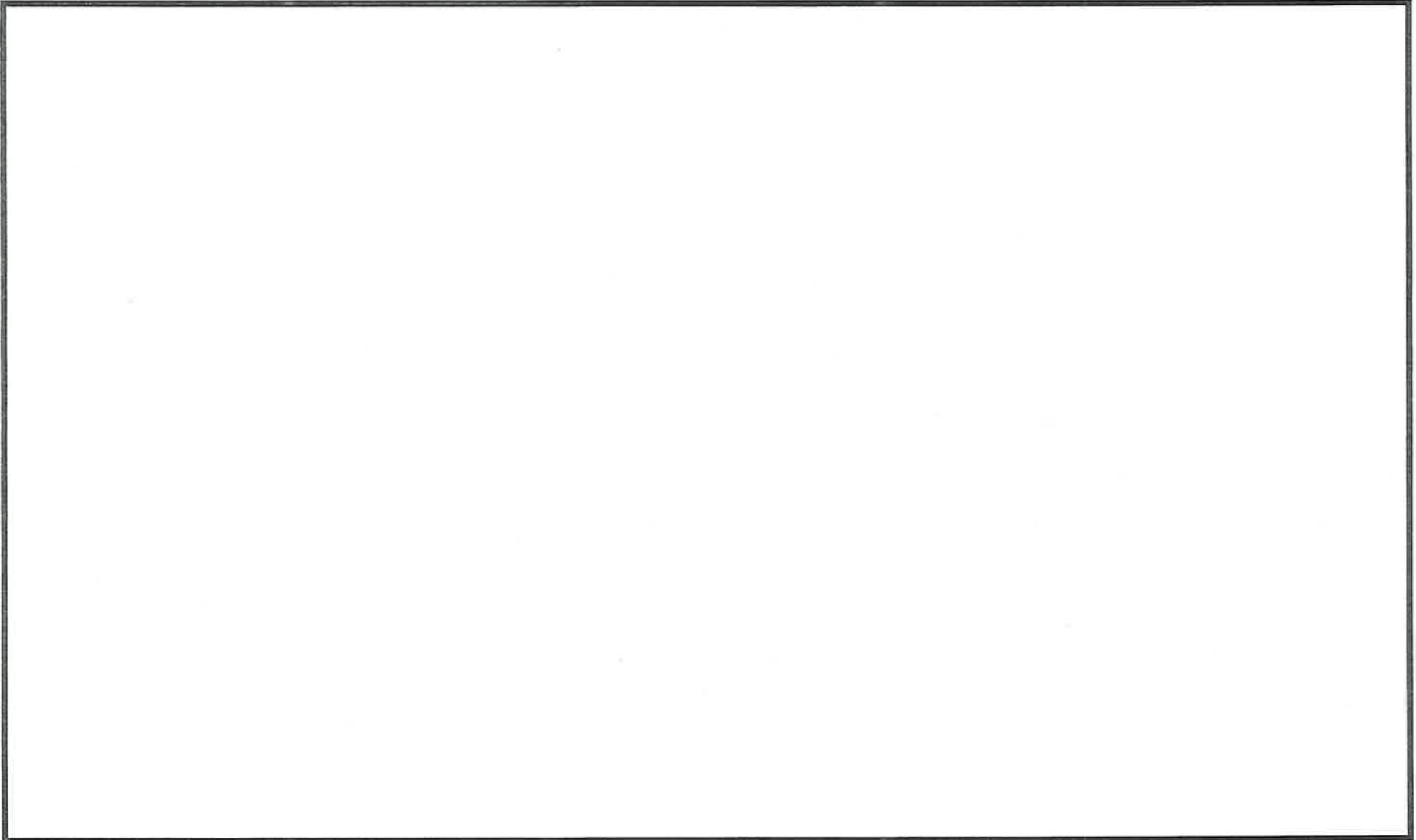
ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE



IF DC/DC CONVERTERS ARE USED, THEY ARE RUN IN SERIES (FIXED SOURCE CIRCUIT VOLTAGE DC/DC CONVERTERS)

SOLAR PV STANDAR PLAN

Roof Layout Diagram for One- and Two-Family Dwellings



Items required: roof layout of all panels, modules, clear access pathways and approximate locations of electrical disconnecting means and roof access points.



Streamline Solar-Photovoltaic Solar PV Standard Plan – Simplified Microinverter and ACM Systems for One- and Two-Family Dwellings (Streamline Solar Form 4)

SCOPE: Use this plan ONLY for systems using utility-interactive Microinverters or AC Modules (ACM) not exceeding a combined system AC inverter output rating of 10 kW, with a maximum of 3 branch circuits, one PV module per inverter and with PV module ISC maximum of 10-A DC, installed on a roof of a one- or two-family dwelling or accessory structure. The photovoltaic system must interconnect to a single-phase AC service panel of 120/240 Vac with service panel bus bar rating of 225 A or less. This plan is not intended for bipolar systems, hybrid systems or systems that utilize storage batteries, charge controllers or trackers. Systems must be in compliance with current California Building Standards Codes and local amendments of the authority having jurisdiction (AHJ). Other articles of the California Electrical Code (CEC) shall apply as specified in section 690.3.

MANUFACTURER'S SPECIFICATION SHEETS MUST BE PROVIDED and information provided in this document must be highlighted for proposed inverters, modules, combiner/junction boxes and racking systems. Installation instructions for bonding and grounding equipment shall be provided and local AHJs may require additional details. Listed and labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling (CEC 110.3). Equipment intended for use with PV system shall be identified and listed for the application CEC 690.4(D).

Applicant and Site Information

Job Address: _____ Permit #: _____
Contractor /Engineer Name: _____ License # and Class: _____
Signature: _____ Date: _____ Phone Number: _____

1. General Requirements and System Information

Microinverter

Number of PV modules installed: _____

Number of Microinverters installed: _____

AC Module (ACM)

Number of ACMs installed: _____

Note: Listed Alternating-Current Module (ACM) is defined in CEC 690.2 and installed per CEC 690.6

1.1 Number of Branch Circuits, 1, 2 or 3: _____

1.2 Actual number of Microinverters or ACMs per branch circuit: 1 _____ 2. _____ 3. _____

1.3 Total AC system power rating = (Total Number of Microinverters or ACMs) * (AC inverter power output)
= _____ Watts

1.4 Lowest expected ambient temperature for this plan in Table 1: For -1 to -5°C use 1.12 or for -6 to -10°C use 1.14 correction factors.

1.5 Average ambient high temperature for this plan: = +47°C

Note: For lower expected ambient or higher average ambient high temperatures, use Comprehensive Standard Plan.

2. Microinverter or ACM Information and Ratings

Microinverters with ungrounded DC inputs shall be installed in accordance with CEC 690.35.

Microinverter or ACM Manufacturer: _____

Model: _____

2.1 Rated (continuous) AC output power: _____ Watts

2.2 Nominal AC voltage rating: _____ Volts

2.3 Rated (continuous) AC output current: _____ Amps

If installing ACMs, skip [STEPS 2.4]

2.4 Maximum DC input voltage rating: _____ Volts (limited to 79 V, otherwise use the Comprehensive Standard Plan)

2.5 Maximum AC output overcurrent protection device (OCPD) _____ Amps

2.6 Maximum number of Microinverters or ACMs per branch circuit: _____

3. PV Module Information

(If installing ACMs, skip to [STEP 4])

PV Module Manufacturer: _____

Model: _____

Module DC output power under standard test conditions (STC) = _____ Watts

3.1 Module V_{oc} at STC (from module nameplate): _____ Volts

3.2 Module I_{sc} at STC (from module nameplate): _____ Amps

3.3 Adjusted PV Module DC voltage at minimum temperature = [Table 1] _____ [cannot exceed Step 2.4]

Table 1. Module V_{oc} at STC Based on Inverter Maximum DC Input Voltage Derived from CEC 690.7																
Microinverter Max. DC Input [STEP 2.4] (Volts)	34	37	40	43	46	49	52	55	58	61	64	67	70	73	76	79
Max. Module V_{OC} @ STC, 1.12 (-1 to -5°C) Correction Factor (Volts)	30.4	33.0	35.7	38.4	41.1	43.8	46.4	49.1	51.8	54.5	57.1	59.8	62.5	65.2	67.9	70.5
Max. Module V_{OC} @ STC, 1.14 (-6 to -10°C) Correction Factor (Volts)	29.8	32.5	35.1	37.7	40.4	43.0	45.6	48.2	50.9	53.5	56.1	58.8	61.4	64.0	66.7	69.3

4. Branch Circuit Output Information

Fill in [Table 3] to describe the branch circuit inverter output conductor and OCPD size. Use [Table 2] for determining the OCPD and Minimum Conductor size.

Table 2. Branch Circuit OCPD and Minimum Conductor Size ¹				
Circuit Current (Amps)	Circuit Power (Watts)	OCPD (Amps)	Minimum Conductor Size (AWG)	Minimum Metal Conduit Size for 6 Current Carrying Conductors
12	2880	15	12	¾"
16	3840	20	10	¾"
20	4800	25	8	1"
24	5760	30	8	1"

¹CEC 690.8 and 210.19 (A)(1) Factored in Table 2, Conductors are copper, insulation must be 90°C wet-rated. Table 2 values are based on maximum ambient temperature of 69°C, which includes 22°C adder, exposed to direct sunlight, mounted > 0.5 inches above rooftop, ≤ 6 current carrying conductors (3 circuits) in a circular raceway. Otherwise use Comprehensive Standard Plan.

Table 3. PV Array Configuration Summary			
	Branch 1	Branch 2	Branch 3
Number of Microinverters or ACMs [STEP 1]			
Selected Conductor Size [Error! Reference source not found.] (AWG)			
Selected Branch and Inverter Output OCPD [Error! Reference source not found.]			

5. Solar Load Center (if used)

5.1 Solar Load Center is to have a bus bar rating not less than 100 Amps. Otherwise use Comprehensive Standard Plan.

5.2 Circuit Power see [STEP 1] = _____ Watts

5.3 Circuit Current = (Circuit Power) / (AC voltage) = _____ Amps

Table 4. Solar Load Center and Total Inverter Output OCPD and Conductor Size**				
Circuit Current (Amps)	Circuit Power (Watts)	OCPD (Amps)	Minimum Conductor Size (AWG)	Minimum Metal Conduit Size
24	5760	30	10	½"
28	6720	35	8	¾"
32	7680	40	8	¾"
36	8640	45	8	¾"
40	9600	50	8	¾"
41.6	≤ 10000	60	6	¾"

**CEC 690.8 and 210.19 (A)(1) Factored in Table 4, Conductors are copper, insulation must be 90°C wet-rated. Table 4 values are based on maximum ambient temperature of 47°C (no rooftop temperature adder in this calculation), ≤ 3 current carrying conductors in a circular raceway. Otherwise use Comprehensive Standard Plan.

6. Point of Connection to Utility:

6.1 Load Side Connection only! Otherwise use the Comprehensive Standard Plan.

6.2 Is the PV OCPD positioned at the opposite end from input feeder location or main OCPD location?

Yes No (If No, then use 100% row in Table 5)

6.3 Per 705.12(D)(2): (Combined inverter output OCPD size + Main OCPD size) ≤ [bus bar size × (100% or 120%)]

Table 5. Maximum Combined Inverter Output Circuit OCPD										
Bus bar Size (Amps)	100	125	125	200	200	200	225	225	225	
Main OCPD (Amps)	100	100	125	150	175	200	175	200	225	
Maximum Combined Inverter OCPD with 120% of bus bar rating (Amps)	20	50	25	60†	60†	40	60†	60†	45	
Maximum Combined Inverter OCPD with 100% of bus bar rating (Amps)	0	25	0	50	25	0	50	25	0	

†This plan limits the maximum system size to less than 10 kW, therefore the OCPD size is limited to 60 A. Reduction of Main Breaker is not permitted with this plan.

7. Grounding and Bonding

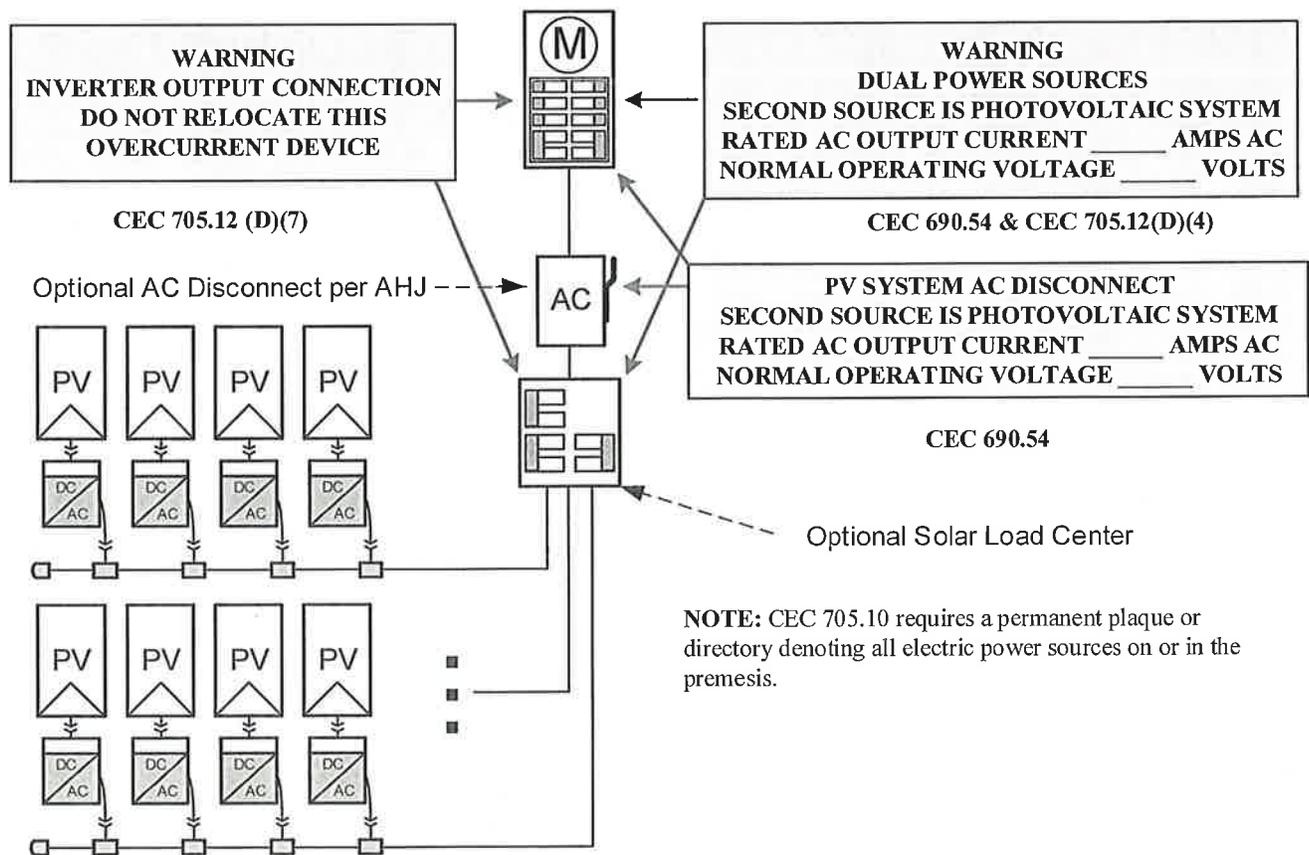
Check one of the boxes for whether system is grounded or ungrounded: Grounded Ungrounded

For Microinverters with a grounded DC input, systems must follow the requirements of GEC (CEC 690.47) and EGC (CEC 690.43).

For ACM systems and Microinverters with ungrounded a DC input follow the EGC requirements of (CEC 690.43).

8. Markings

Informational note: ANSI Z535.4 provides guidelines for the design of safety signs and labels for application to products. A phenolic plaque with contrasting colors between the text and background would meet the intent of the code for permanency. No type size is specified, but 20 point (3/8") should be considered the minimum.



Solar PV Standard Plan — Simplified Central/String Inverter Systems for One- and Two-Family Dwellings

9. Single-Inverter Line Diagram

Equipment Schedule	
△ TAG	DESCRIPTION: (Provide model # if provided)
1	Solar PV Module or ACM:
2	Microinverter (if not ACM):
3	Junction Box (es):
4	Solar Load Center, Yes / No:
5	Performance Meter Yes / No:
6	*Utility External Disconnect Switch Yes / No:
7	Main Electrical Service Panel

* Consult with your local AHJ and /or Utility

Single-Line Diagram for Microinverters or ACMs

Check a box for dc system grounding: Grounded, Ungrounded
 For ungrounded dc power systems, EGC is required
 For grounded dc power systems, GEC & EGC are required
 Refer to CEC 250.120 for EGC installation & Table 250.122 for sizing

Branch Circuit OCPDs (Table 3)

Branch 1 OCPD size _____
 Branch 2 OCPD size _____
 Branch 3 OCPD size _____
 Solar Load Center _____
 Busbar(Section 5) _____

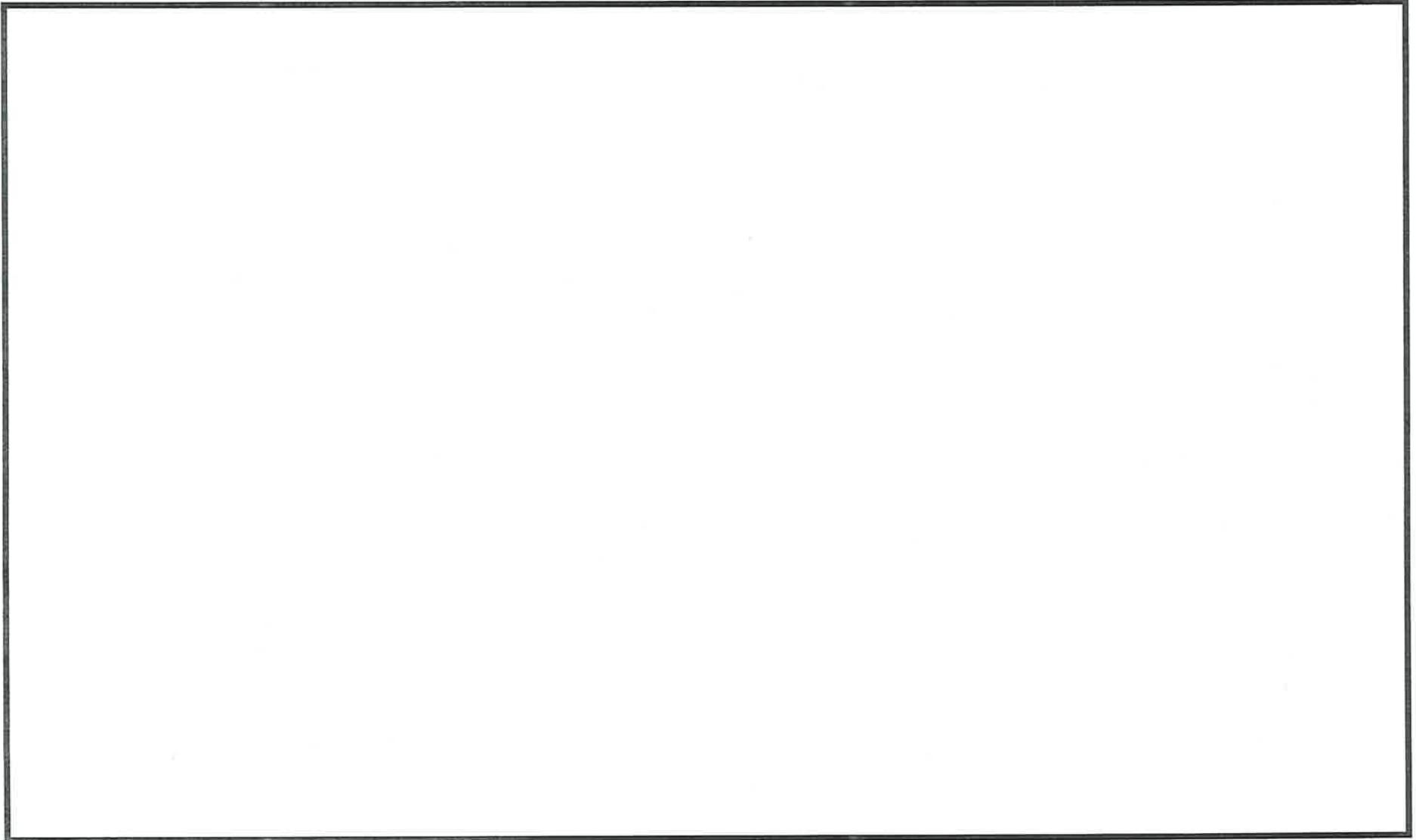
Main Service Panel OCPDs

Main OCPD size: (table 5) _____
 Combined Inverter Output OCPD: (Table 4) _____
 Main Service Panel Busbar: (Table 5) _____

Conductor, Cable and Conduit Schedule					
□ TAG	Description and Conductor Type: (Table 3)	Conductor Size	Number of Conductors	Conduit/ Conductor/ Cable Type	Conduit Size
A	Current-Carrying Conductors: (for each branch circuit)				
	EGC:				
	GEC (when required):				
B	Current-Carrying Conductors:				
	EGC:				
	GEC (when required):				

SOLAR PV STANDAR PLAN - SIMPLIFIED

**Microinverter and ACM Systems for One- and Two-Family Dwellings
ROOF LAYOUT PLAN**



Items required: roof layout of all panels, modules, clear access pathways and approximate locations of electrical disconnecting means and roof access points.



Streamline Solar-Photovoltaic Structural Criteria for Residential Rooftop Solar Energy Installations (Streamline Solar Form 5)

Use of this document

This toolkit document includes a one-page list of structural criteria for over-the-counter approval, as well as attached tables and figures that supplement the criteria and explain their use.

This document applies to flush-mounted solar arrays installed on the roofs of wood-framed one- and two family dwellings. “Flush-mounted” means the modules are installed parallel to, and relatively close to, the roof surface (see the “Solar Array Check” section of the Structural Criteria for specific qualifying requirements). This list is intended to be a simple pre-installation check to gain reasonable assurance that the design of the solar array complies with the structural provisions of the 2013 California Building Code (CBC) and 2013 California Residential Code (CRC). It is not intended to provide post-installation inspection criteria.

Regional and Site Assumptions

This document is based on the following regional and site assumptions:

- The dwelling is located in a ZERO snow load area (see Map 1).
- The dwelling is in Wind Exposure C (within 500 yards of large open fields or grasslands), the dwelling is:
 - in a standard 110 mph design wind speed region, and
 - not on a hill with a grade steeper than 5%.

Structural Technical Appendix

This toolkit document is supported by a Structural Technical Appendix that describes the technical analysis behind these criteria, which are based on structural engineering principles and the California Building and Residential Codes. The Technical Appendix also provides some additional guidance to address nonconforming items, such as when an anchor layout is not based on a solar support component manufacturer’s guidelines, or when a coastal site is located within 200 yards of the ocean (Exposure D).

http://www.opr.ca.gov/docs/Solar_Structural_Technical_Appendix.pdf

Probability of Code Compliance

The Structural Technical Appendix includes a section that examines the probabilities associated with the assumptions behind Table 1 that allows six feet cross-slope anchor spacing in some circumstances. That statistical analysis estimates that the probability of code noncompliance for six feet anchor spacing is only 2 in a thousand installations (0.2%). Note that probability of structural failure is orders of magnitude lower than the probability of code *noncompliance*.

STRUCTURAL CRITERIA FOR RESIDENTIAL FLUSH-MOUNTED SOLAR ARRAYS

1. ROOF CHECKS

A. Visual Review/Contractor's Site Audit of Existing Conditions:

- 1) Is the roof a single roof without a reroof overlay? Y N
- 2) Does the roof structure appear structurally sound, without signs of alterations or significant structural deterioration or sagging, as illustrated in Figure 1? Y N

B. Roof Structure Data:

- 1) Measured roof slope (e.g. 6:12): _____:12
- 2) Measured rafter spacing (center-to-center): _____ inch
- 3) Type of roof framing (rafter or manufactured truss): Rafter Truss
- 4) Measured rafter size (e.g. 13/4 x 33/4, not 2x4): _____ x _____ inch
- 5) Measured rafter horizontal span (see Figure 4): _____' - _____"ft-in
- 6) Horizontal rafter span per Table 2: _____' - _____"ft-in
- 7) Is measured horizontal rafter span less than Table 2 span? Y N Truss

2. SOLAR ARRAY CHECKS

A. Flush-mounted Solar Array:

- 1) Is the plane of the modules (panels) parallel to the plane of the roof? Y N
- 2) Is there a 2" to 10" gap between underside of module and the roof surface? Y N
- 3) Modules do not overhang any roof edges (ridges, hops, gable ends, eaves)? Y N

B. Do the modules plus support components weigh no more than:

4 psf for photovoltaic arrays or 5 psf for solar thermal arrays? Y N

C. Does the array cover no more than half of the total roof area (all roof planes)?

Y N

D. Are solar support component manufacturer's project-specific completed worksheets, tables with relevant cells circled, or web-based calculator results attached?

Y N

E. Is a roof plan of the module and anchor layout attached? (see Figure 2)

Y N

F. Downward Load Check (Anchor Layout Check):

1) Proposed anchor horizontal spacing (see Figure 2): _____' - _____"ft-in

2) Horizontal anchor spacing per Table 1: _____' - _____"ft-in

3) Is proposed anchor horizontal spacing less than Table 1 spacing? Y N

G. Wind Uplift Check (Anchor Fastener Check):

1) Anchor fastener data (see Figure 3):

a. Diameter of lag screw, hanger bolt or self-drilling screw: _____ inch

b. Embedment depth of rafter: _____ inch

c. Number of screws per anchor (typically one): _____

d. Are 5/16" diameter lag screws with 2.5" embedment into the rafter used, OR does the anchor fastener meet the manufacturer's guidelines? Y N

3. SUMMARY

A. All items above are checked YES. No additional calculations are required.

B. One or more items are checked NO. Attach project-specific drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer.

Job Address: _____ Permit #: _____
Contractor/Installer: _____ License # & Class: _____
Signature: _____ Date: _____ Phone #: _____

Table 1. Maximum Horizontal Anchor Spacing				
Roof Slope		Rafter Spacing		
		16" o.c.	24" o.c.	32" o.c.
Photovoltaic Arrays (4 psf max)				
Flat to 6:12	0° to 26°	5'-4"	6'-0"	5'-4"
7:12 to 12:12	27° to 45°	1'-4"	2'-0"	2'-8"
13:12 to 24:12	46° to 63°	1'-4"	2'-0"	2'-8"
Solar Thermal Arrays (5 psf max)				
Flat to 6:12	0° to 26°	4'-0"	4'-0"	5'-4"
7:12 to 12:12	27° to 45°	1'-4"	2'-0"	2'-8"
13:12 to 24:12	46° to 63°	Calc. Req'd	Calc. Req'd	Calc. Req'd

Solar support component manufacturer's guidelines may be relied upon to ensure the array above the roof is properly designed, but manufacturer's guidelines typically do NOT check to ensure that the roof itself can support the concentrated loads from the solar array. Table 1 assumes that the roof complied with the building code in effect at the time of construction, and places limits on anchor horizontal spacing to ensure that a roof structure is not overloaded under either downward loads or wind uplift loads. Note 4 below lists the basic assumptions upon which this table is based.

Table 1 Notes:

1. Anchors are also known as "stand-offs", "feet", "mounts" or "points of attachment". Horizontal anchor spacing is also known as "cross-slope" or "east-west" anchor spacing (see Figure 2).
2. If anchors are staggered from row-to-row going up the roof, the anchor spacing may be twice that shown above, but no greater than 6'-0".
3. For manufactured plated wood trusses at slopes of flat to 6:12, the horizontal anchor spacing shall not exceed 4'-0" and anchors in adjacent rows shall be staggered.
4. This table is based on the following assumptions:
 - The roof structure conformed to building code requirements at the time it was built.
 - The attached list of criteria are met.
 - Mean roof height is not greater than 40 feet.
 - Roof sheathing is at least 7/16" thick oriented strand board or plywood. 1x skip sheathing is acceptable.
 - If the dwelling is in Wind Exposure B (typical urban, suburban or wooded areas farther than 500 yards from large open fields), no more than one of the following conditions apply:
 - The dwelling is located in a special wind region with design wind speed between 115 and 130 mph per ASCE 7-10, or
 - The dwelling is located on the top half of a tall hill, provided average slope steeper is less than 15%.
 - If the dwelling is in Wind Exposure C (within 500 yards of large open fields or grasslands), all of the following conditions apply:
 - Design wind speed is 110 mph or less (not in a Special Wind Region), and
 - The dwelling is not located on the top half of a tall hill.
 - The solar array displaces roof live loads (temporary construction loads) that the roof was originally

- designed to carry.
- The Structural Technical Appendix provides additional information about analysis assumptions.

Table 2. Roof Rafter Maximum Horizontal Span (feet - inches) ¹								
Assumed Vintage	Nominal Size	Actual Size	Non-Tile Roof ²			Tile Roof ³		
			Rafter Spacing					
			16" o.c.	24" o.c.	32" o.c.	16" o.c.	24" o.c.	32" o.c.
Post-1960	2x4	1½"x3½"	9'-10"	8'-0"	6'-6"	8'-6"	6'-11"	5'-6"
	2x6	1½"x5½"	14'-4"	11'-9"	9'-6"	12'-5"	10'-2"	8'-0"
	2x8	1½"x7¼"	18'-2"	14'-10"	12'-0"	15'-9"	12'-10"	10'-3"
Pre-1960	2x4	1¾"x3¾"	11'-3"	9'-9"	7'-9"	10'-3"	8'-6"	6'-9"
	2x6	1¾"x5¾"	17'-0"	14'-0"	11'-3"	14'-9"	12'-0"	9'-9"
	2x8	1¾"x7¾"	22'-3"	18'-0"	14'-6"	19'-0"	15'-6"	12'-6"

Table 2 Notes:

1. See Figure 4 for definition of roof rafter maximum horizontal span.
2. "Non-tile Roof" = asphalt shingle, wood shingle & wood shake, with an assumed roof assembly weight of 10 psf.
3. "Tile Roof" = clay tile or cement tile, with an assumed roof assembly weight of 20psf
4. Unaltered manufactured plated-wood trusses may be assumed to be code compliant and meet intent of Table 2.
5. This table is based on the following assumptions:
 - Span/deflection ratio is equal to or greater than 180.
 - For post-1960 construction, wood species and grade is Douglas Fir-Larch No. 2.
 - For pre-1960 construction, wood species and grade is Douglas Fir-Larch No. 1.
 - Other wood species and/or grade are also acceptable if allowable bending stress is equal or greater to that listed above.

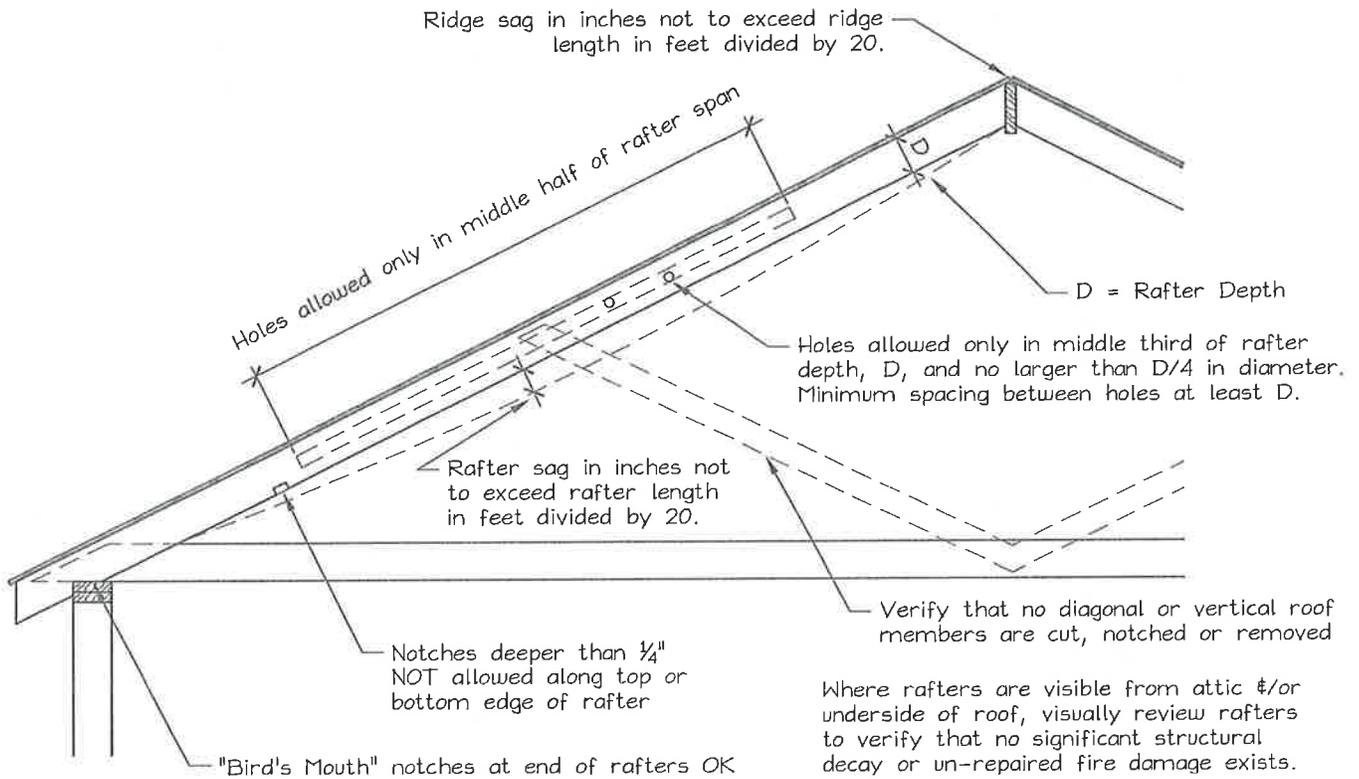


Figure 1. Roof Visual Structural Review (Contractor's Site Audit) of Existing Conditions.

The site auditor should verify the following:

6. No visually apparent disallowed rafter holes, notches and truss modifications as shown above.
7. No visually apparent structural decay or un-repaired fire damage.
8. Roof sag, measured in inches, is not more than the rafter or ridge beam length in feet divided by 20.

Rafters that fail the above criteria should not be used to support solar arrays unless they are first strengthened.

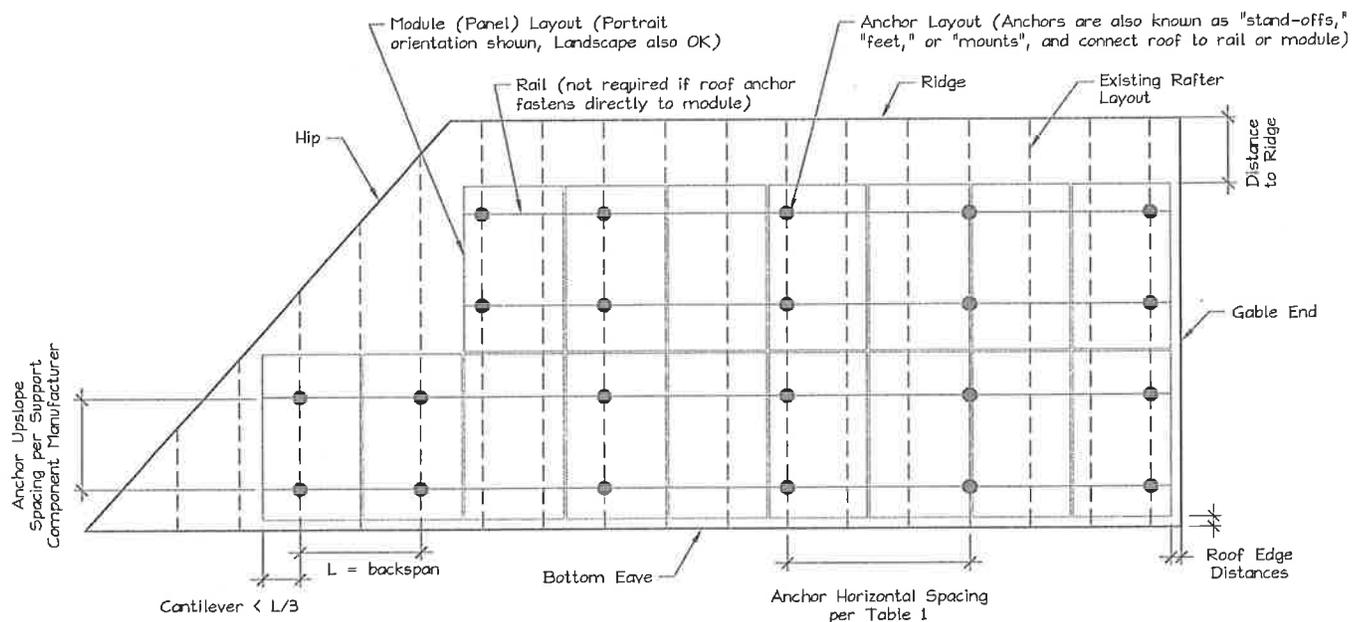


Figure 2. Sample Solar Panel Array and Anchor Layout Diagram (Roof Plan).

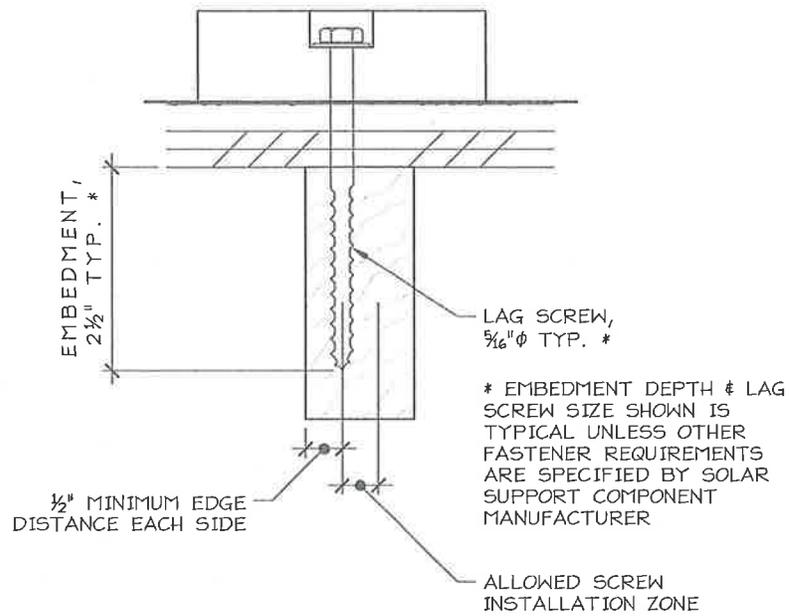


Figure 3. Typical Anchor with Lag Screw Attachment.

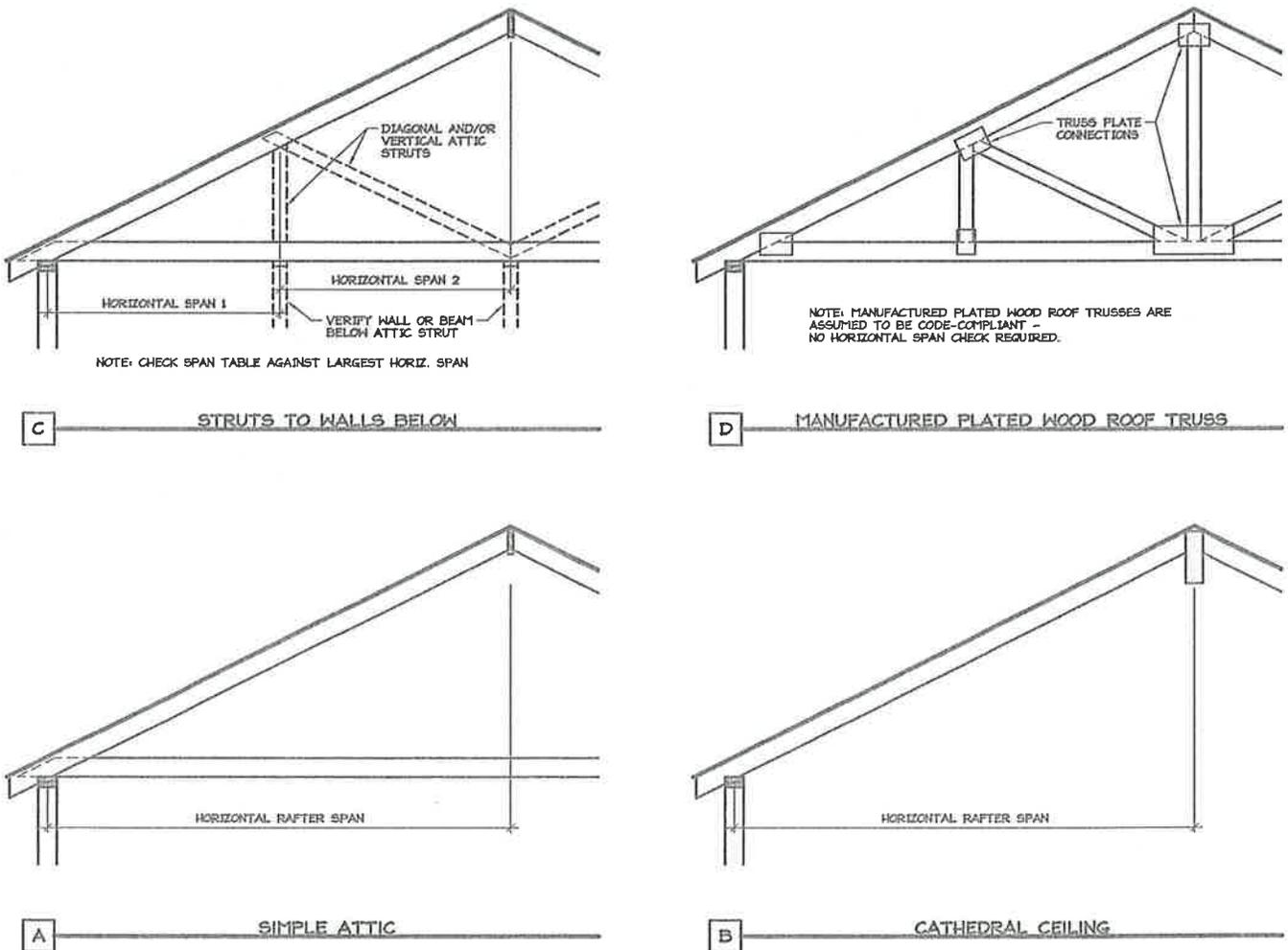


Figure 4. Definition of Rafter Horizontal Span.



Streamline Solar-Photovoltaic Structural Criteria for Residential Rooftop Solar Energy Installations (Streamline Solar Form 5)

Use of this document

This toolkit document includes a one-page list of structural criteria for over-the-counter approval, as well as attached tables and figures that supplement the criteria and explain their use.

This document applies to flush-mounted solar arrays installed on the roofs of wood-framed one- and two family dwellings. “Flush-mounted” means the modules are installed parallel to, and relatively close to, the roof surface (see the “Solar Array Check” section of the Structural Criteria for specific qualifying requirements). This list is intended to be a simple pre-installation check to gain reasonable assurance that the design of the solar array complies with the structural provisions of the 2013 California Building Code (CBC) and 2013 California Residential Code (CRC). It is not intended to provide post-installation inspection criteria.

Regional and Site Assumptions

This document is based on the following regional and site assumptions:

- The dwelling is located in a ZERO snow load area (see Map 1).
- The dwelling is in Wind Exposure C (within 500 yards of large open fields or grasslands), the dwelling is:
 - in a standard 110 mph design wind speed region, and
 - not on a hill with a grade steeper than 5%.

Structural Technical Appendix

This toolkit document is supported by a Structural Technical Appendix that describes the technical analysis behind these criteria, which are based on structural engineering principles and the California Building and Residential Codes. The Technical Appendix also provides some additional guidance to address nonconforming items, such as when an anchor layout is not based on a solar support component manufacturer’s guidelines, or when a coastal site is located within 200 yards of the ocean (Exposure D).

http://www.opr.ca.gov/docs/Solar_Structural_Technical_Appendix.pdf

Probability of Code Compliance

The Structural Technical Appendix includes a section that examines the probabilities associated with the assumptions behind Table 1 that allows six feet cross-slope anchor spacing in some circumstances. That statistical analysis estimates that the probability of code noncompliance for six feet anchor spacing is only 2 in a thousand installations (0.2%). Note that probability of structural failure is orders of magnitude lower than the probability of code *noncompliance*.

STRUCTURAL CRITERIA FOR RESIDENTIAL FLUSH-MOUNTED SOLAR ARRAYS

1. ROOF CHECKS

A. Visual Review/Contractor's Site Audit of Existing Conditions:

- 1) Is the roof a single roof without a reroof overlay? Y N
- 2) Does the roof structure appear structurally sound, without signs of alterations or significant structural deterioration or sagging, as illustrated in Figure 1? Y N

B. Roof Structure Data:

- 1) Measured roof slope (e.g. 6:12): _____:12
- 2) Measured rafter spacing (center-to-center): _____ inch
- 3) Type of roof framing (rafter or manufactured truss): Rafter Truss
- 4) Measured rafter size (e.g. 13/4 x 33/4, not 2x4): _____ x _____ inch
- 5) Measured rafter horizontal span (see Figure 4): _____' - _____"ft-in
- 6) Horizontal rafter span per Table 2: _____' - _____"ft-in
- 7) Is measured horizontal rafter span less than Table 2 span? Y N Truss

2. SOLAR ARRAY CHECKS

A. Flush-mounted Solar Array:

- 1) Is the plane of the modules (panels) parallel to the plane of the roof? Y N
- 2) Is there a 2" to 10" gap between underside of module and the roof surface? Y N
- 3) Modules do not overhang any roof edges (ridges, hops, gable ends, eaves)? Y N

B. Do the modules plus support components weigh no more than: 4 psf for photovoltaic arrays or 5 psf for solar thermal arrays?

Y N

C. Does the array cover no more than half of the total roof area (all roof planes)?

Y N

D. Are solar support component manufacturer's project-specific completed worksheets, tables with relevant cells circled, or web-based calculator results attached?

Y N

E. Is a roof plan of the module and anchor layout attached? (see Figure 2)

Y N

F. Downward Load Check (Anchor Layout Check):

1) Proposed anchor horizontal spacing (see Figure 2):

_____ ' - _____ "ft-in

2) Horizontal anchor spacing per Table 1:

_____ ' - _____ "ft-in

3) Is proposed anchor horizontal spacing less than Table 1 spacing?

Y N

G. Wind Uplift Check (Anchor Fastener Check):

1) Anchor fastener data (see Figure 3):

a. Diameter of lag screw, hanger bolt or self-drilling screw:

_____ inch

b. Embedment depth of rafter:

_____ inch

c. Number of screws per anchor (typically one):

d. Are 5/16" diameter lag screws with 2.5" embedment into the rafter used, OR does the anchor fastener meet the manufacturer's guidelines?

Y N

3. SUMMARY

A. All items above are checked YES. No additional calculations are required.

B. One or more items are checked NO. Attach project-specific drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer.

Job Address: _____ Permit #: _____

Contractor/Installer: _____ License # & Class: _____

Signature: _____ Date: _____ Phone #: _____

Table 1. Maximum Horizontal Anchor Spacing				
Roof Slope		Rafter Spacing		
		16" o.c.	24" o.c.	32" o.c.
Photovoltaic Arrays (4 psf max)				
Flat to 6:12	0° to 26°	5'-4"	6'-0"	5'-4"
7:12 to 12:12	27° to 45°	1'-4"	2'-0"	2'-8"
13:12 to 24:12	46° to 63°	1'-4"	2'-0"	2'-8"
Solar Thermal Arrays (5 psf max)				
Flat to 6:12	0° to 26°	4'-0"	4'-0"	5'-4"
7:12 to 12:12	27° to 45°	1'-4"	2'-0"	2'-8"
13:12 to 24:12	46° to 63°	Calc. Req'd	Calc. Req'd	Calc. Req'd

Solar support component manufacturer's guidelines may be relied upon to ensure the array above the roof is properly designed, but manufacturer's guidelines typically do NOT check to ensure that the roof itself can support the concentrated loads from the solar array. Table 1 assumes that the roof complied with the building code in effect at the time of construction, and places limits on anchor horizontal spacing to ensure that a roof structure is not overloaded under either downward loads or wind uplift loads. Note 4 below lists the basic assumptions upon which this table is based.

Table 1 Notes:

1. Anchors are also known as "stand-offs", "feet", "mounts" or "points of attachment". Horizontal anchor spacing is also known as "cross-slope" or "east-west" anchor spacing (see Figure 2).
2. If anchors are staggered from row-to-row going up the roof, the anchor spacing may be twice that shown above, but no greater than 6'-0".
3. For manufactured plated wood trusses at slopes of flat to 6:12, the horizontal anchor spacing shall not exceed 4'-0" and anchors in adjacent rows shall be staggered.
4. This table is based on the following assumptions:
 - The roof structure conformed to building code requirements at the time it was built.
 - The attached list of criteria are met.
 - Mean roof height is not greater than 40 feet.
 - Roof sheathing is at least 7/16" thick oriented strand board or plywood. 1x skip sheathing is acceptable.
 - If the dwelling is in Wind Exposure B (typical urban, suburban or wooded areas farther than 500 yards from large open fields), no more than one of the following conditions apply:
 - The dwelling is located in a special wind region with design wind speed between 115 and 130 mph per ASCE 7-10, or
 - The dwelling is located on the top half of a tall hill, provided average slope steeper is less than 15%.
 - If the dwelling is in Wind Exposure C (within 500 yards of large open fields or grasslands), all of the following conditions apply:
 - Design wind speed is 110 mph or less (not in a Special Wind Region), and
 - The dwelling is not located on the top half of a tall hill.
 - The solar array displaces roof live loads (temporary construction loads) that the roof was originally

- designed to carry.
- The Structural Technical Appendix provides additional information about analysis assumptions.

Table 2. Roof Rafter Maximum Horizontal Span (feet - inches) ¹								
Assumed Vintage	Nominal Size	Actual Size	Non-Tile Roof ²			Tile Roof ³		
			Rafter Spacing					
			16" o.c.	24" o.c.	32" o.c.	16" o.c.	24" o.c.	32" o.c.
Post-1960	2x4	1½"x3½"	9'-10"	8'-0"	6'-6"	8'-6"	6'-11"	5'-6"
	2x6	1½"x5½"	14'-4"	11'-9"	9'-6"	12'-5"	10'-2"	8'-0"
	2x8	1½"x7¼"	18'-2"	14'-10"	12'-0"	15'-9"	12'-10"	10'-3"
Pre-1960	2x4	1¾"x3¾"	11'-3"	9'-9"	7'-9"	10'-3"	8'-6"	6'-9"
	2x6	1¾"x5¾"	17'-0"	14'-0"	11'-3"	14'-9"	12'-0"	9'-9"
	2x8	1¾"x7¾"	22'-3"	18'-0"	14'-6"	19'-0"	15'-6"	12'-6"

Table 2 Notes:

1. See Figure 4 for definition of roof rafter maximum horizontal span.
2. "Non-tile Roof" = asphalt shingle, wood shingle & wood shake, with an assumed roof assembly weight of 10 psf.
3. "Tile Roof" = clay tile or cement tile, with an assumed roof assembly weight of 20psf
4. Unaltered manufactured plated-wood trusses may be assumed to be code compliant and meet intent of Table 2.
5. This table is based on the following assumptions:
 - Span/deflection ratio is equal to or greater than 180.
 - For post-1960 construction, wood species and grade is Douglas Fir-Larch No. 2.
 - For pre-1960 construction, wood species and grade is Douglas Fir-Larch No. 1.
 - Other wood species and/or grade are also acceptable if allowable bending stress is equal or greater to that listed above.

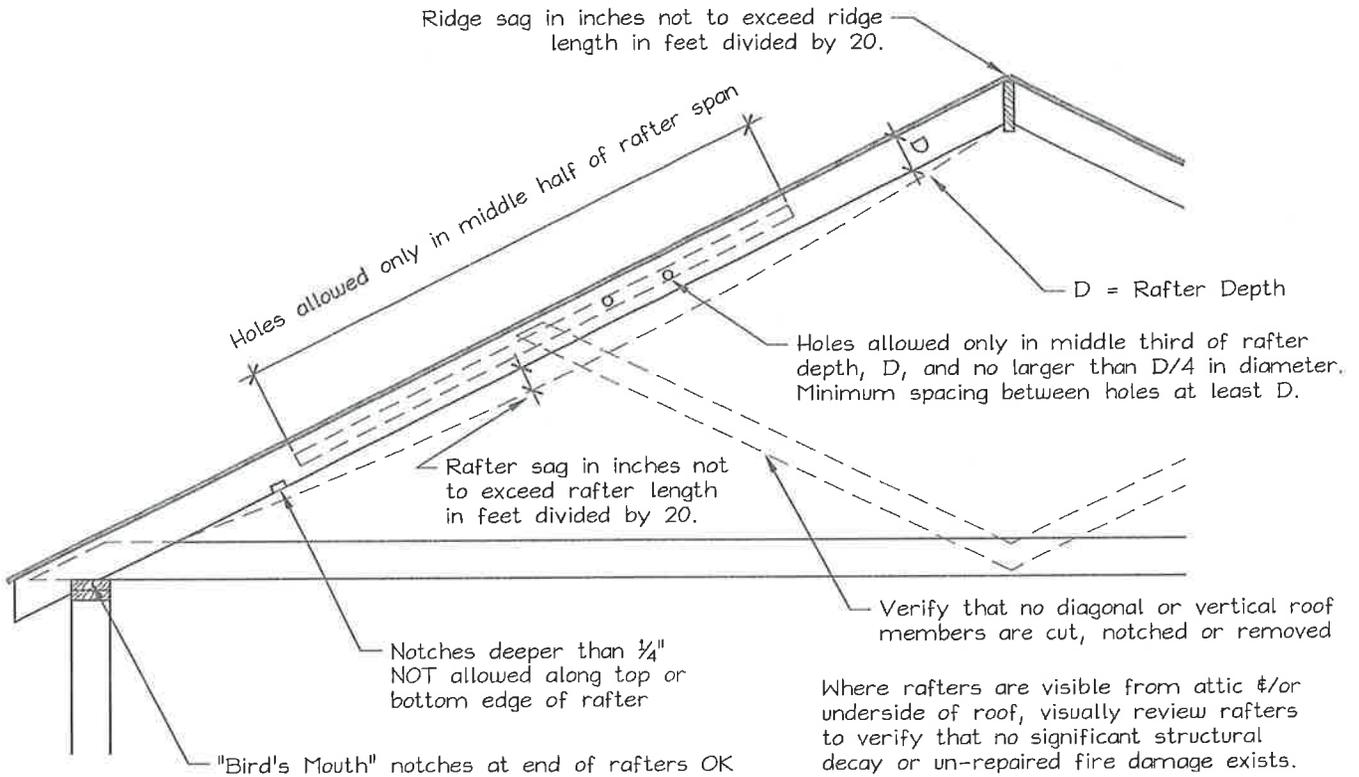


Figure 1. Roof Visual Structural Review (Contractor's Site Audit) of Existing Conditions.

The site auditor should verify the following:

6. No visually apparent disallowed rafter holes, notches and truss modifications as shown above.
7. No visually apparent structural decay or un-repaired fire damage.
8. Roof sag, measured in inches, is not more than the rafter or ridge beam length in feet divided by 20.

Rafters that fail the above criteria should not be used to support solar arrays unless they are first strengthened.

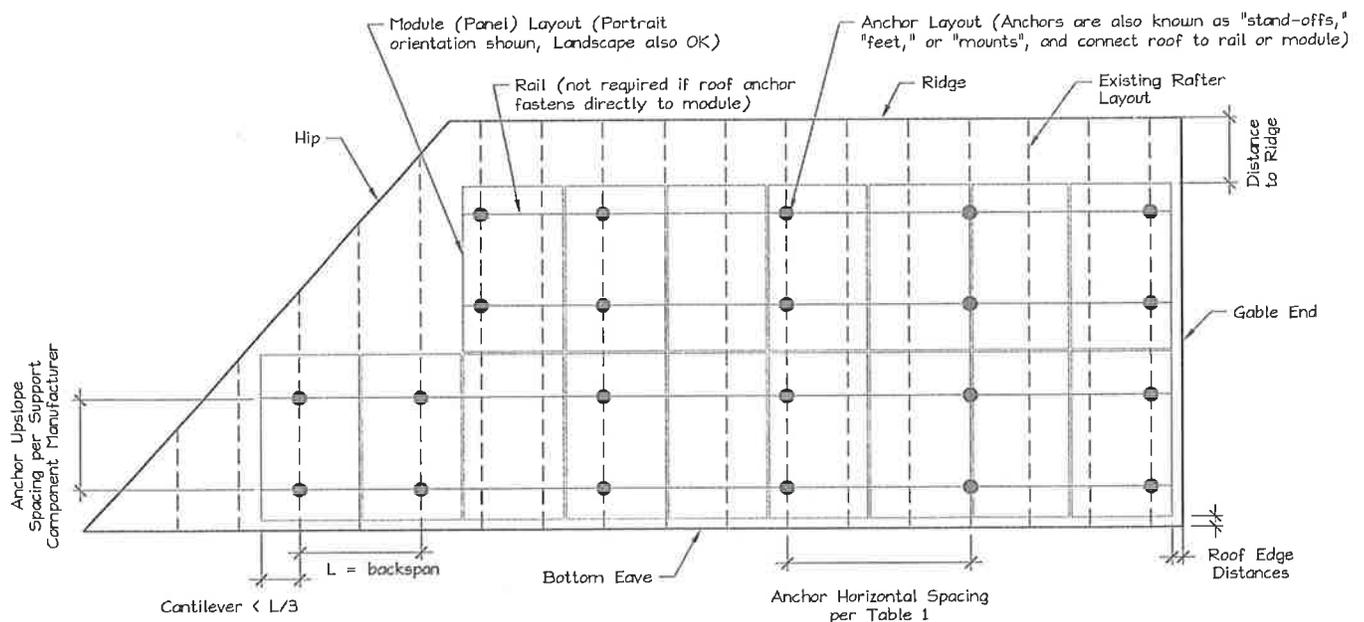


Figure 2. Sample Solar Panel Array and Anchor Layout Diagram (Roof Plan).

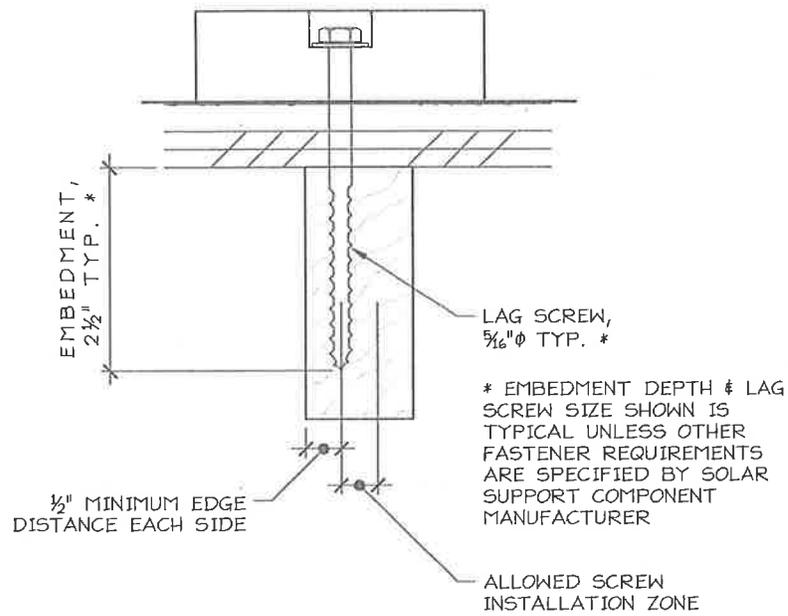


Figure 3. Typical Anchor with Lag Screw Attachment.

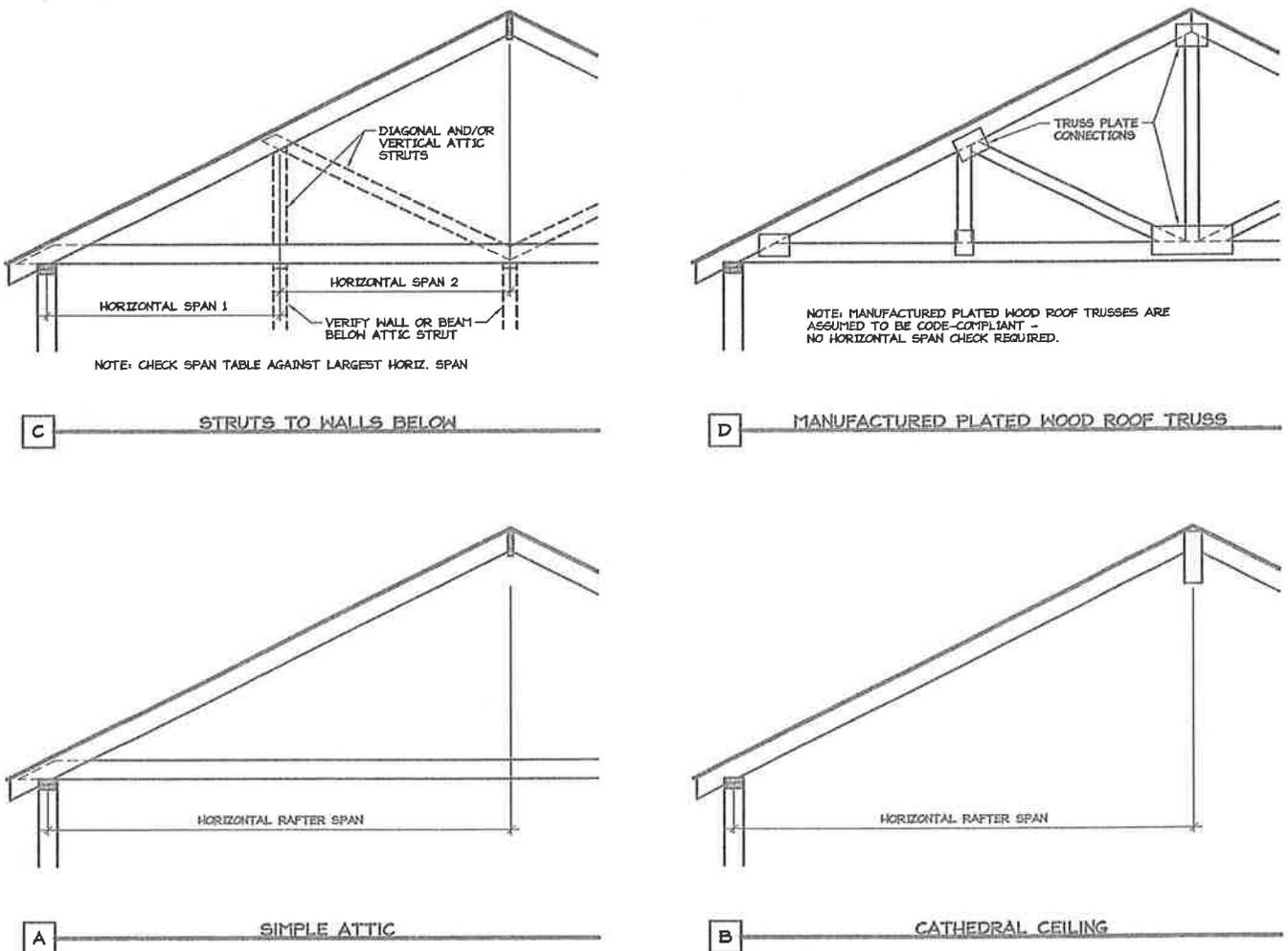


Figure 4. Definition of Rafter Horizontal Span.



Streamline Solar-Photovoltaic Inspection Guide for PV Systems in One- and Two- Family Dwellings (Streamline Solar Form 6)

This document has two sections. Neither section is all-inclusive as this document is simply a tool to aid the inspection process.

SECTION 1 – Field Inspection Guide: The purpose of this section is to give the field inspector a single-page reminder of the most important items in a field inspection.

SECTION 2 – Comprehensive Reference: This reference details items that may be relevant in the field inspection of rooftop PV systems that comply with the comprehensive or simplified versions of the “Solar PV Standard Plan.” Not all items outlined in this section are relevant to each PV system. This inspection reference details most of the issues that relate to the PV system during the inspection process.

All California Electrical Code (CEC), California Residential Code (CRC), California Building Code (CBC) and California Fire Code (CFC) references are to the 2013 versions unless otherwise noted.

SECTION 1: Field Inspection Guide for Rooftop Photovoltaic (PV) Systems Standard Plan

Make sure all PV system AC/DC disconnects and circuit breakers are in the open position and verify the following.

1. All work done in a neat and workmanlike manner (CEC 110.12).
2. PV module model number, quantity and location according to the approved plan.
3. Array mounting system and structural connections according to the approved plan.
4. Roof penetrations flashed/sealed according to the approved plan.
5. Array exposed conductors are properly secured, supported and routed to prevent physical damage.
6. Conduit installation according to CRC R331.3 and CEC 690.4(F).
7. Firefighter access according to approved plan.
8. Roof-mounted PV systems have the required fire classification (CBC 1505.9 or CRC R902.4).
9. Grounding/bonding of rack and modules according to the manufacturer's installation instructions that are approved and listed.
10. Equipment installed, listed and labeled according to the approved plan (e.g., PV modules, DC/DC converters, combiners, inverters, disconnects, load centers and electrical service equipment).
11. For grid-connected systems, inverter is marked "utility interactive."
12. For ungrounded inverters, installation complies with CEC 690.35 requirements.
13. Conductors, cables and conduit types, sizes and markings according to the approved plan.
14. Overcurrent devices are the type and size according to the approved plan.
15. Disconnects according to the approved plan and properly located as required by the CEC.
16. Inverter output circuit breaker is located at opposite end of bus from utility supply at load center and/or service panelboard (not required if the sum of the inverter and utility supply circuit breakers is less than or equal to the panelboard bus rating).
17. PV system markings, labels and signs according to the approved plan.
18. Connection of the PV system to the grounding electrode system according to the approved plan.
19. Access and working space for operation and maintenance of PV equipment such as inverters, disconnecting means and panelboards (not required for PV modules) (CEC 110.26).

SECTION 2: Comprehensive Inspection Reference

GENERAL

1. Module manufacturer, make, model and number of modules match the approved plans. (CBC 107.4)
2. DC PV modules are listed to UL 1703. Ac modules are listed to UL 1703 and UL 1741. (CEC 110.3, 690.4 & CBC 1509.7.4 & CRC R908.1.5)
3. Modules are attached to the mounting structure according to the manufacturer's instructions and the approved plans. (CEC 110.3[B], CBC 107.4 & CRC R908.1.4)
4. Roof penetrations/attachments are properly flashed. (CBC Chapter 15 & 2012 CRC Chapter 9)
5. Rooftop systems are designed in accordance with the CBC. (CBC 1509.7 & CRC R908.1)
6. Roof access points, paths and clearances need to comply with the CFC. (CFC 605.11.3.1 - 605.11.3.3.3, CRC R331.4.1 through R331.4.2.4)
7. PV installation shall comply with requirements of the standard plan.
8. PV system operating at 80 volts or greater shall be protected by a listed DC arc fault protection. (CEC 690.11)
9. All work done in a neat and workmanlike manner. (CEC 110.12)

ELECTRICAL REQUIREMENTS

PV Array Configuration

10. DC modules are properly marked and labeled. (CEC 110.3, 690.4[D] & 690.51)
11. AC modules are properly marked and labeled. (CEC 110.3, 690.4[D] & 690.52)
12. PV modules are in good condition (i.e., no broken glass or cells, no discoloration, frames not damaged, etc.). (CEC 110.12[B])
13. Residential one and two family dwelling limited to maximum PV system voltage of 600 volts. (CEC 690.7)

Bonding and grounding

14. A complete grounding electrode system is installed. (CEC 690.47[A] & [B])
15. Modules are bonded and grounded in accordance with the manufacturer's installation instructions, that are listed and approved, using the supplied hardware or listed equipment specified in the instructions and identified for the environment. (CEC 690.43 & 110.3[B])
16. Racking systems are bonded and grounded in accordance with the manufacturer's installation instructions, that are listed and approved, using the supplied hardware or listed equipment specified in the instructions and identified for the environment. (CEC 690.43 & 110.3[B])
17. Properly sized equipment grounding conductor is routed with the circuit conductors. (CEC 690.45, 250.134[B] & 300.3[B])
18. AC and DC grounding electrode conductors are properly connected as required by code. Separate electrodes, if used, are bonded together. (CEC 690.47, 250.50 & 250.58)

19. Bonding fittings are used on concentric/eccentric knockouts with metal conduits for circuits over 250 volts. (CEC 250.97) (see also exceptions 1 through 4)
20. Bonding fittings are used for ferrous metal conduits enclosing grounding electrode conductors. (CEC 250.64[E])

PV Source/output Circuit Conductor Management

21. Cables are secured by staples, cable ties, straps, hangers or similar fittings at intervals that do not exceed 4.5 feet. (CEC 334.30 & 338.12[A][3])
22. Cables are secured within 12 inches of each box, cabinet, conduit body or other termination. (CEC 334.30 & 338.12[A][3])
23. Cable closely follows the surface of the building finish or of the running boards. (CEC 690.4[F] & CFC 605.11.2 & CRC R331.3) NOTE: see Section 12 below for additional requirements on routing of conductors for fire fighter safety concerns.
24. Exposed single conductors, where subject to physical damage, are protected. (CEC 230.50[B] & 300.5[D])
25. Exposed single conductors used for ungrounded systems are listed and identified as "PV wire." (CEC 690.35[D][3]) For other conductor requirements for ungrounded systems, see CEC 690.35(D).

Conductors

26. Exposed single conductor wiring is a 90°C, wet rated and sunlight resistant type USE-2 or approved/listed PV wire. (CEC 690.31[B] & 110.2) If the wiring is in a conduit, it is 90°C, wet rated type RHW-2, THWN-2, or XHHW-2. (CEC 310.15)
27. Conductor insulation is rated at 90°C to allow for operation at 70°C+ near modules. (CEC 310.15)
28. Grounded conductor is identified white or gray. (CEC 200.6)
29. Open conductors are supported, secured and protected. (CEC 338.12[A][3] & 334.30)
30. Conductors are not in contact with the roof surface. (CEC 334.30)
31. DC conductors inside a building are in a metal raceway or MC metal-clad cable that complies with 250.118(10), or metal enclosures. (CEC 690.31[E])
32. DC wiring methods shall not be installed within 25cm (10") of the roof decking or sheathing except where directly below the roof surface covered by the PV modules and associated equipment. (CEC 690.31[E][1])
33. If more than one nominal voltage system conductor is installed in the raceway, permanent identification and labeling is required. (CEC 200.6[D] & 210.5[C])
34. For underground conductor installations, the burial depth is appropriate and warning tape is in place. (CEC 300.5[D][3] & Table 300.5)
35. Aluminum is not placed in direct contact with concrete. (CEC 250.120[B] & 110.11)
36. PV circuit and premises wiring is separated. (CEC 690.4[B])
37. PV system conductors shall be grouped and identified. (CEC 690.4[B])

Overcurrent Protection

38. Overcurrent protection devices (OCPD) in the DC circuits are listed for DC operation. (CEC 110.3[A], [B] & 690.9[D])
39. Overcurrent protection devices shall be provided per the approved plans. (CEC 690.9[A])
40. Combiner box is listed to UL 1741.
41. PV output OCPD is located at the opposite end of the bus from the feeder connection, unless otherwise approved. (CEC 705.12[D][7])

Electrical Connections

42. Crimp terminals are listed and installed using a listed tool specified for use in crimping those specific crimps. (CEC 110.3[B] & 110.14)
43. Pressure terminals are listed for the environment and tightened to manufacturer recommended torque specifications. (CEC 110.11, 110.3[B] & 110.14)
44. Connectors are listed for the voltage of the system and have appropriate temperature and ampere ratings. (CEC 110.3[B] & 110.14)
45. Twist-on wire connectors are listed for the environment (i.e., wet, damp, direct burial, etc.) and installed per manufacturer's instructions. (CEC 110.11, 110.3[B], 110.14 & 300.5[B])
46. Power distribution blocks are listed. (CEC 690.4 & 2011 NEC 314.28[E])
47. Terminals containing more than one conductor are listed for multiple conductors. (CEC 110.14[A] & 110.3[B])
48. Connectors and terminals used other than class B and C stranded conductors (fine stranded conductors) are listed and identified for use with specific conductor class or classes.. (CEC 110.14[A] & 110.3[B])
49. Connectors that are readily accessible and operating at over 30 volts require a tool for opening. (CEC 690.33[C])
50. All connectors are fully engages, tight and secure. (CEC 110.3[B] & 110.12)
51. Wiring and connections of inverters, PV source circuits, etc., and all interconnections are performed by qualified personnel. (CEC 690.4[E])

Disconnects

52. Disconnects used in DC circuits are listed for DC operation and located as allowed by the AHJ. (CEC 110.3)
53. Disconnects are installed for all current carrying conductors of the PV source. (CEC 690.13 - 690.14 & 690.35)
54. Disconnects are installed for the PV equipment. NOTE: For inverters and other equipment that are energized from more than one source, the disconnecting means must be grouped and identified per AHJ's requirements. (CEC 690.15)
55. Disconnects and overcurrent protection are installed for all ungrounded conductors in ungrounded PV power systems. (CEC 240.15 & 690.35)
56. Where connectors are used as disconnecting means, they shall be used in accordance with CEC 690.33.E (CEC 690.33.E & 690.17)

Inverters

57. Inverters are listed to UL 1741. (CEC 690.4[D]) NOTE: grid-tied system inverters need to be identified for use in interactive power systems.
58. Point of connection is at a dedicated breaker or disconnect. (CEC 705.12[D][1])
59. Where a back-fed breaker is used as a utility interconnection means, the breaker is not marked "line and load." (CEC 110.3[B], 705.12[D][5])
60. Listed AC and DC disconnects and overcurrent protection are grouped and identified. (CEC 690.15)
61. No multiwire branch circuits are installed where single 120-volt inverters are connected to 120/240-volt load centers. (CEC 690.10[C])
62. The barrier is reinstalled between the AC, DC wiring and communication wires. (CEC 110.3[B] & 110.27)

Signs and Labels

63. All interior and exterior DC conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects are marked. (CFC 605.11.1, CEC 690.31[E][3], CEC 690.31[E][4], 690.17 & 690.53 & CRC R331.2)
64. The markings on the conduits, raceways and cable assemblies are every 10 feet, within one foot of all turns or bends and within one foot above and below all penetrations of roof/ceiling assemblies, walls and barriers. (CFC 605.11.1.4, CRC R331.2.4, CEC 690.31[E][3] & CEC 690.31[E][4])
65. Marking is placed adjacent to the main service disconnect in a location clearly visible from where the disconnect is operated. (CFC 605.11.1.3 & CRC R331.2.3)
66. The markings say "WARNING: PHOTOVOLTAIC POWER SOURCE" and have 3/8-inch (9.5 mm) minimum-sized white letters on a red background. The signs are made of reflective weather resistant material. (CFC 605.11.1.1, 605.11.1.2 & CRC R331.2.1 - R331.2.2 & CEC 690.31[E][3] & 690.31[E][4])
67. Where PV circuits are embedded in built-up, laminate or membrane roofing materials in roof areas not covered by PV modules and associated equipment, the location of circuits shall be clearly marked. (CEC 690.4[F])
68. Required labels shall be permanent and suitable for the environment. The following labels are required as applicable.

Table 1 - Signage Requirements for PV systems

Code Section	Location of Label	Text
CEC 690.5(C)	Utility-interactive inverter & battery enclosure	WARNING: ELECTRIC SHOCK HAZARD IF A GROUND FAULT IS INDICATED, NORMALLY GROUNDED CONDUCTORS MAY BE UNGROUNDED AND ENERGIZED
CEC 690.35(F)	All enclosures with ungrounded circuits or devices which are energized and may be exposed during service	WARNING: ELECTRIC SHOCK HAZARD. THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED.
CEC 690.14(C)(1)	On the main service when DC wiring is run through the building and the DC disconnect is located other than at the main service	DC DISCONNECT IS LOCATED....
CEC 690.14(C)(2)	On the AC and DC disconnects	PHOTOVOLTAIC SYSTEM DISCONNECT
CEC 690.53	On the DC disconnects	OPERATING CURRENT ____ OPERATING VOLTAGE ____ MAXIMUM SYSTEM VOLTAGE ____ SHORT CIRCUIT CURRENT ____
CEC 690.54	At interactive points of interconnection, usually the main service	RATED AC OUTPUT CURRENT _____, AMPS NORMAL OPERATING AC VOLTAGE _____, VOLTS
CEC 690.56(B)/ 690.14(D)(4), 705.10 2011 CEC 690.4(H)	At the electrical service and at the PV inverter if not at the same location	A directory providing the location of the service disconnecting means and the photovoltaic system disconnecting means
CEC 690.17	On the DC disconnect and on any equipment that stays energized in the off position from the PV supply	WARNING! ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.
CEC 705.12 (D)(7)	Inverter output OCPD	WARNING: INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE.
CFC 605.11.1.4, CEC 690.31(E)(3), 690.31(E)(4), CRC R331.2.4	On conduit, raceways and enclosures, mark every 10 feet, at turns, above/below penetrations	WARNING: PHOTOVOLTAIC POWER SOURCE. <i>Note: This label shall have a red background with white lettering</i>

FIRE SAFETY REQUIREMENTS

1. Rooftop-mounted PV panels and modules have the proper fire classification rating. (CBC 1509.7.2 & CRC R908.1.2)
2. Conduit, wiring systems and raceways for photovoltaic circuits are located as close as possible to the ridge, hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. (CFC 605.11.2 & CRC R331.3)
3. Conduit runs between sub arrays and to DC combiner boxes are installed in a manner that minimizes total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. (CFC 605.11.2 & CRC R331.3)
4. DC Combiner Boxes are located so that conduit runs are minimized in the pathways between arrays. (CFC 605.11.2 & CRC 331.3)
5. DC wiring in enclosed spaces in buildings is installed in metallic conduit or raceways. Conduit runs along the bottom of load bearing members. (CFC 605.11.2 & CEC 690.4[F] & CRC R331.3)
6. All roofs have an access point that does not place ground ladders over openings such as windows or doors, are located at strong points of building construction, and in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs. (CFC 605.11.3.1 & CRC R331.3)
7. Roofs with slopes greater than 2:12 have solar panel layouts with access pathways that comply with approved roof plan that meet the following criteria: (some exceptions apply, see diagrams in the California Solar Permitting Guidebook)
 - A. Hip Roofs: Panels/modules are located so that there is a 3-foot wide clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. (CFC 605.11.3.2.1 & CRC R331.4.2.1)
 - B. Hips and Valleys: If panels/modules are placed on both sides of a hip or valley they are located no closer than 18 inches to a hip or valley. If the panels are located on only one side of a hip or valley that is of equal length, then the panels can be placed directly adjacent to the hip or valley. (CFC 605.11.3.2.3 & CRC R 331.4.2.3)
 - C. Single Ridges: Panels/modules are located so that there are two 3-foot wide access pathways from the eave to the ridge on each roof slope where there are panels/modules installed. (CFC 605.11.3.2.2 & CRC R331.4.2.2)
 - D. Ridges: Panels/modules are located no higher than 3 feet from the top of the ridge in order to allow for fire department smoke ventilation operations. (CFC605.11.3.2.4 & CRC R331.4.2.4)
 - E. Access pathways are located at a structurally sound location capable of supporting the load of fire fighters accessing the roof. (CFC 605.11.3.2.1 & CRC R331.4.2.1)

STRUCTURAL AND OTHER CODE REQUIREMENTS

List the structural requirements by the Authority Having Jurisdiction.