

# Mt. Shasta City Council Regular City Council Meeting Agenda

Mt. Shasta Community Center, 629 Alder Street  
Monday, August 22, 2016; 5:30 p.m.

“Our mission is to maintain the character of our “small town” community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence.”

Page	Item	STANDING AGENDA ITEMS
	1.	Call to Order and Flag Salute
	2.	Roll call
	3.	Special Presentations & Announcements: D&S Canine Solutions – Dan Bell, Certified Trainer
	4.	<p><b>Public Comment:</b> Welcome to our City Council meeting. The Council invites the public to address the Council on matters on the Consent Agenda and matters not listed on the agenda that are within the Council’s subject matter jurisdiction. If the Public wishes to comment on matters that are on the agenda, the Council will request comment when the matter is heard. The Council reserves the right to limit public comment on matters that are outside its subject matter jurisdiction.</p> <p>The City Council may regulate the total amount of time on particular issues and for speakers (typically 3 minutes). The Council may place additional time limits on comments, to ensure members of the public have an opportunity to speak and the Council is able to complete its business. A group may be asked to choose a spokesperson to address the Council on a subject matter, or the Council may limit the number of persons addressing the Council whenever a group of persons wishes to address the council on the same subject matter. Speakers may not cede their time to another.</p> <p>The Mayor manages the City Council meeting with a commitment to effective engagement while maintaining a positive, respectful decorum. The Mayor will typically start the Public Comment period sharing the following reminders relating decorum and Brown Act compliance efforts:</p> <ul style="list-style-type: none"> <li>✓ This is the time for the public to address the Council on matters on the Consent Agenda or matters NOT on the Council Agenda. This will be a comment period only. If the public wishes a response they may provide their contact information to the Deputy City Clerk.</li> <li>✓ The Mayor will recognize each speaker in an orderly fashion. Most often, the Mayor will call the speakers whom have signed in first and shall then call for those who would like to address the Council but whom did not sign in by inviting them to come to the front of the room and wait to be recognized to speak. Once the speaker is recognized, the speaker will address the Council only and shall provide comment from the public microphone. Public Comment will typically not be taken from any person shouting from the audience.</li> <li>✓ No heckling or shouting from the audience at a speaker shall be permitted.</li> <li>✓ The City Council may ask “clarifying” questions only. Due to equity and Brown Act concerns, the Council will avoid engaging in dialogue or debate.</li> <li>✓ If there is an item of great community significance/interest and is within the Council’s subject matter jurisdiction, the Council may request the item be agendized for further consideration at a subsequent Council meeting.</li> </ul>

	5. Meeting Recess (As Necessary)
	6. Council and Staff Comments
	<b>CITY COUNCIL BUSINESS</b>
Page	<p>7. Consent Agenda - The City Manager recommends approval of the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.</p> <ul style="list-style-type: none"> <li>a. Approval of Minutes: August 8, 2016 Regular City Council Meeting</li> <li>b. Acceptance of Brown Act Committee Minutes: Community Economic Development Activities Committee (CEDAC) June 14, 2016 Minutes, Beautification Committee (BC) July 13, 2016 Minutes.</li> <li>c. Approval of Disbursements: Accounts Payable, 8/4/16 and 8/8/16; Total Gross Payroll and Taxes: For Period Ending 7/31/16 (Finance Director)</li> <li>d. Monthly Financial/Investment Report (Finance Director)</li> <li>e. Surplus Equipment, CCR-16-36</li> </ul>
Page	<p>8. Siskiyou Opportunity Center - Recycling  <u>Background:</u> Traditionally Siskiyou Opportunity Center has previously been able to recover the cost of sorting and transportation through the sale of the recycled material, but this is no longer the case; the market for the resale of recycled material is nonexistent. This coupled with the restructuring of how client training/work is paid though the State has meant that the Center can no longer provide recycling service unless Cities, including Mt. Shasta, pay for that service.  <u>Report By:</u> Muriel Howarth-Terrell, Finance Director  <u>Recommended Council Action:</u> Staff recommends approval of payment for the additional costs for recycling until we can develop new charges for refuse collection for both residential and businesses and bring a new agreement between the City of Mt. Shasta and the Siskiyou Opportunity Center.</p>
Page	<p>9. Smith Sanitation – Refuse Removal During Transfer Station Closure  <u>Background:</u> The Black Butte Transfer Station had a fire on February 13, 2016 that closed the facility for commercial refuse removal until July 7, 2016. Smith Sanitation Inc. is contracted to collect the City’s residents refuse and dispose of the refuse at the Black Butte Transfer Station. We recognized that there would be additional costs associated with this unfortunate event.  <u>Report By:</u> Muriel Howarth-Terrell, Finance Director  <u>Recommended Council Action:</u> Staff recommends approval of payment for the additional costs for refuse removal during the closure of the Black Butte Transfer Station Closure.</p>
Page	<p>10. Broadband Update  <u>Background:</u> This is a review of a proposal to the Cities of Weed, Mt. Shasta, and Dunsmuir for a business plan and options.  <u>Report By:</u> Jeffrey Collings, Mayor  <u>Recommended Council Action:</u> Approve payment of \$33,333.34 to Columbia Telecommunications Corporation</p>

Page	<p>11. Council Approval of Sewer and Water Rate Study Consultant Agreement  <u>Background:</u> The City is in need of a comprehensive water and sewer rate study to establish a fair apportionment of costs to its customers. The City advertised a Request for Qualifications from June 15, 2016 through July 15, 2016. Four Statements of Qualifications were received.  <u>Report By:</u> Rod Bryan, Public Works Director  <u>Recommended Council Action:</u> Staff requests the City Council adopt the proposed Resolution authorizing the City Manager to enter into a Professional Services Agreement between the City of Mt. Shasta and PACE Engineering, Inc. for the purpose of providing a Utility Rate Study.</p>
	CITY COUNCIL/STAFF REPORTING PERIOD
	12. Council Reports on Attendance at Appointed/Outside Meetings
	<p>13. Future Agenda Items (Appearing on the agenda within 60-90 days):</p> <ul style="list-style-type: none"> <li>a. Annual Audit of City Finances – 9/12/16</li> <li>b. Adopt Landing Development Plan Resolution – 9/12/16</li> <li>c. Awarding Construction Contract for STIP Funded Guardrail Project – 9/12/16</li> <li>d. Cannabis Dispensary Ordinance – 9/26/16</li> <li>e. Noise Element for the General Plan – 10/24/16</li> <li>f. Smoking Limitations – 10/24/16</li> <li>g. Possible Downtown Traffic Flow Changes/Request for Qualifications (RFQ) – 10/24/16</li> <li>h. Landing Costs for Future Discussion with the County – 10/24/16</li> <li>i. Review of CCO-98-05, Extraction and Exportation of Groundwater – 11/14/16</li> <li>j. Orchard Property Annexation – 11/14/16</li> <li>k. Crystal Geyser Industrial User Permit – TBD, Pending County CEQA</li> </ul>
	14. Closed Session: Closed Session: Public Employment, City Manager – Pursuant to Government Code §54957
	<p>15. Adjourn</p> <p>Availability of Public Records: All public records related to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at City Hall located at 305 North Mt. Shasta Blvd., Mt. Shasta, CA at the same time the public records are distributed or made available to the members of the legislative body. Agenda related writings or documents provided to a majority of the legislative body after distribution of the Agenda packet will be available for public review within a separate binder at City Hall at the same time as they are made available to the members of the legislative body.</p> <p>The City of Mt. Shasta does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or provision of services. In compliance with the Americans with Disabilities Act, persons requiring accommodations for a disability at a public meeting should notify the City Clerk or Deputy City Clerk at least 48 hours prior to the meeting at (530) 926-7510 in order to allow the City sufficient time to make reasonable arrangements to accommodate participation in this meeting.</p>

**Mt. Shasta City Council Regular City Council Meeting DRAFT Minutes**

Mt. Shasta Community Center, 629 Alder Street  
August 8, 2016; 5:30 p.m.

“Our mission is to maintain the character of our “small town” community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence.”

**STANDING AGENDA ITEMS**

**1. Call to Order and Flag Salute:** At the hour of 5:32 p.m. Mayor Jeffrey Collings called the meeting to order and led the audience in the Pledge of Allegiance.

**2. Roll Call:** Council Members Present: Morter, Burns, Stearns, Mayor Collings. Councilmember Harkness arrived at 5:34 p.m.  
Council Members Absent:

**3. Special Presentations & Announcements:** Public Outreach Regarding The Landing – Juliana Lucchesi, City Planner. Review of previous Development Plan, clarifying questions from Council.

**4. Public Comment:**

Marilyn Taylor – Comments regarding development at The Landing.

Melinda Willey – Comments regarding previous Development Plan for The Landing.

Ron Burch – Comments expressing appreciation for Mayor and Councilmembers, suggestions regarding use for The Landing.

**5. Council and Staff Comments:**

Tim Stearns, Councilmember – Comments regarding Economic Development Council meeting and The Landing use.

Mike Burns Sr., Councilmember – Comments regarding article in Western Cities magazine.

Geoff Harkness, Councilmember – Comments encouraging citizens to file for City Council. Question regarding escrow accounts in regards to Crystal Geysers.

Muriel Howarth-Terrell, Finance Director – Comments explaining escrow account is in the development process.

Kathy Morter, Councilmember – Comments regarding fuel-loading on Landing property, site visit to be done by Cal-Fire Forester in the future.

Parish Cross, Acting City Manager/Police Chief – Coffee with Council, Candidate Filing Period.

**CITY COUNCIL BUSINESS**

**6. Consent Agenda:**

**COUNCIL ACTION:** Approved the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.

a. Approval of Minutes: July 25, 2016

b. Approval of Disbursements: Accounts Payable, 7/19/16 and 7/27/16; Total Gross Payroll and Taxes: For Period Ending 7/17/16 (Finance Director)

c. Dispatch Records Job Description, CCR-16-35

**COUNCIL ACTION:** Approve item ‘a’ as read

MOTION TO APPROVE: Councilmember Harkness

SECOND: Councilmember Burns

AYES: 4

NOES: 0

ABSENT: 0

ABSTAIN: 1 Councilmember Stearns (Absent from the July 25, 2016 meeting)

COUNCIL ACTION: Approve items 'b' and 'c', including Resolution CCR-16-35 by title only

MOTION TO APPROVE: Councilmember Harkness

SECOND: Councilmember Stearns

AYES: 5

NOES: 0

ABSENT: 0

ABSTAIN: 0

**7. Transient Occupancy Taxes for Fiscal Year 2015-2016**

Muriel Howarth-Terrell, Finance Director – Review of TOT increase.

Clarifying questions from Council.

COUNCIL ACTION: None, informational report only.

**8. Siskiyou Opportunity Center – Recycling**

Muriel Howarth-Terrell – Review of background, Opportunity Center cost of recycling. Recommendation that Council explore ways to recover costs while covering the cost in the meantime.

Clarifying questions from Council, discussion.

COUNCIL ACTION: Continue the item to the August 22, 2016 Regular City Council Meeting, appoint Mayor Collings and Councilmember Harkness to a subcommittee with the Finance Director to look at issues and alternative outcomes, and to report back at the August 22 meeting.

MOTION TO APPROVE: Councilmember Stearns

SECOND: Councilmember Burns

AYES: 5

NOES: 0

ABSENT: 0

ABSTAIN: 0

**9. Smith Sanitation – Refuse Removal During Transfer Station Closure**

Muriel Howarth-Terrell, Finance Director – Review of background, increased cost from February 2016 to July 2016. Comments stating exploring possible reimbursement from transfer station insurance.

Clarifying questions and Council discussion.

COUNCIL ACTION: Table the item to the next Regular City Council Meeting, request the opinion of the City Attorney.

MOTION TO APPROVE: Councilmember Stearns

SECOND: Councilmember Morter

AYES: 5

NOES: 0

ABSENT: 0

ABSTAIN: 0

**10. Meeting Recess: 7:20 p.m. – 7:30 p.m.**

**11. Renegotiation with County Re: Transient Occupancy Tax and The Landing**

Parish Cross, Acting City Manager/Chief of Police – Review of background and agreement, suggest to revisit.

Tim Stearns, Councilmember – Comments regarding development of The Landing and cost to the City in previous years.

<p>Clarifying questions and discussion.</p> <p><b>COUNCIL ACTION:</b> Staff directed to meet with Supervisor Ed Valenzuela and Siskiyou Economic Development Council Director Tonya Dowse to discuss the item. Finance Director to report costs to the City to-date in regards to The Landing in six to eight weeks for Council action.</p>
<p style="text-align: center;"><b>CITY COUNCIL/STAFF REPORTING PERIOD</b></p>
<p><b>12. Council Reports on Attendance at Appointed/Outside Meetings:</b></p> <p><u>Kathy Morter, Councilmember</u> – Team Shasta future meeting with the Ford Family Foundation.</p> <p><u>Mike Burns Sr., Councilmember</u> – Local Transportation Commission meeting, future vacancy.</p> <p><u>Tim Stearns, Councilmember</u> – Start-Up Weekend Meeting.</p> <p><u>Geoff Harkness, Councilmember</u> – Integrated Regional Water Management (IRWM) Grant Program guidelines.</p>
<p><b>13. Future Agenda Items (Appearing on the agenda within 60-90 days):</b></p> <p><b>COUNCIL ACTION:</b> Reviewed Items a through k. Items regarding Recycling and Sanitation added for the 8/22/16 meeting agenda. Resolution to adopt The Landing Development Plan as-is with option to revise in the future added to 9/12/16 agenda.</p> <ul style="list-style-type: none"><li>a. Surplus Equipment – 8/22/16</li><li>b. Council Approval of Sewer and Water Rate Study Consultant Agreement – 8/22/16</li><li>c. Broadband Update – 9/12/16 (Mayor Collings)</li><li>d. Annual Audit of City Finances – 9/12/16</li><li>e. Cannabis Dispensary Ordinance – 9/26/16</li><li>f. Noise Element for General Plan – 10/24/16</li><li>g. Smoking Limitations – 10/24/16</li><li>h. Possible Downtown Traffic Flow Changes/Request for Qualifications (RFQ) – 10/24/16</li><li>i. Review of CCO-98-05, Extraction and Exportation of Groundwater – 11/14/16</li><li>j. Orchard Property Annexation – 11/14/16</li><li>k. Crystal Geyser Industrial User Permit – TBD, Pending County CEQA</li></ul>
<p><b>14. Closed Session:</b> Council adjourned to Closed Session at 8:10 p.m. and reconvened at 9:50 p.m.</p> <p><b>COUNCIL ACTION:</b> No reportable action.</p>
<p><b>15. Adjourn:</b> There being no further business, the meeting was adjourned at 9:50 p.m.</p>
<p><b>Respectfully Submitted by:</b> Kathryn M. Wilson, Administrative Assistant/Deputy City Clerk</p>

**Mt. Shasta CEDAC Regular Meeting Minutes**

**Police Station**

**June 14, 2016**

**Approved as Submitted**

“Our mission is to maintain the character of our “small town” community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence.”

<b>Item</b>
1. Call to Order: At the hour of 2:32PM, Mark Clure called the meeting to order.
2. Roll Call: Members Present: Jim Mullins, Mark Clure, Tessa Montgomery, Nancy Swift, Bethany Mueller, Obie Hamrich, Tonya Dowse, Seata Madison Council Members Tim Stearns and Geoff Harkness. City Planner Juliana Members Absent: Josephine Wyatt Guest: Nathan Johnson, Pamela Nerona, Amy Lanier
3. Public Comment: None
4. Consent Agenda:  a. Approval of Minutes:  Committee Action: Approve Regular CEDAC Meeting 4/12/2016 Motion to Approve: Jim Mullins Second: Nancy Swift Ayes: All Noes: None Abstain: None
5. Follow up of Proposal by Pusher, Inc. -Nathan Johnson gave a presentation of possible options provided by Pusher, Inc. The City of Mt. Shasta will have a clear idea of a budget in the next several weeks and will make a decision at that time.
6. Bloggers to advertise Mt. Shasta: Tessa Montgomery -Tessa will contact to bloggers to visit and review Mt. Shasta.
7. Follow-up Report on Buying an Advertisement: Jim and guest Amy Lanier -Amy and Jim discussed the advertising opportunities for ‘On-target’ and ‘Re-target’ for advertising Mt. Shasta via online marketing. Jim discussed a golf show called ‘Driven’ that wants to do a 30 minute episode dedicated to Mt. Shasta area for \$3,500 with 4 ad spaces. Action: Amy will generate a 90 day proposal to present at the next meeting

Committee Action: CEDAC recommends the City pursue Driven and On Target marketing: \$1500 for Target and \$3500 for Driven  
Motion to Approve: Nancy Swift  
Second: Tessa Montgomery  
Ayes: All  
Noes: None  
Abstain: None

**8.** Report on Local Investment Strategies: Tonya Dowse  
-Tonya provided feedback on her brewery research. If there is a need felt by the group, Tonya will develop a strategy for localizing a brewery. Tonya will invite Mark with 3 Core to join the next meeting.

**9.** Business Walk:  
-We will plan the day at the next meeting.

**10.** Member Comments:  
-Members gave their respective updates

**11.** Future Agenda Items:  
-Items 5-9 will be future agenda items

**12.** Adjourn: There being no further business, the meeting was adjourned at 4:30PM. Respectfully  
Submitted by: Tessa Montgomery and Bethany Mueller

# MT. SHASTA BEAUTIFICATION COMMITTEE REGULAR MEETING MINUTES

Lalo's Restaurant

520 N. Mt. Shasta Blvd., Mt. Shasta, CA.

July 13, 2016

APPROVED

Pre- meeting: Lorie shared that in 1996 when past member, Jack Moore, left the committee he gave her several boxes of logo T-shirts. Lorie re-discovered them recently and asked members for suggestions for how they can best be distributed. She estimates there might be 50 shirts. Members will consider the best use and share in the near future.

## 1. Call to order - 4:10

Members Present - Lorie, Pam, Penny, Terez, Leslie, and Jacquie

2. **Public Comments** - Pam noted that the S. Mt. Shasta monument sign is not lighted. She noted this about 10:00 one evening while returning home. Lorie said to call Rod about this outage.

## 3. Regular Meeting -

Minutes from last meeting, June 8 - motion to approve by Penny, Jacquie 2nd. Approved.

### **Agenda Items-**

Item #8 - Parker Plaza - Jacquie reported 2 large shade trees were planted last Friday. They'll also provide Fall color. The mature trees were bought with funds from private donations collected for Parker Plaza. Jacquie estimates the fund still has about \$500 remaining. Like other areas of the Plaza, irrigation is being handled by the maintenance company. Jacquie added that when Rod saw the mature tree size he said the new trees are in line with what he wants for future street tree replacement. Members noted they see more people using and honoring the intent of Parker Plaza, and that the stone table moved to City Hall is being used more in that location.

Item #9 - Solar lighting on Lake street sign. Lorie spoke to Mary Hickey and Mary is researching a solar light with enough lumens to be effective. Jacquie suggested researching Costco's inventory of solar lighting and battery backup units, and locally Wholesale solar. Lorie will investigate to see if Wholesale Solar might want to participate in some manner.

Item #10 - Library planting maintenance. Terry Thompson and Lorie are still trying to schedule a discussion time. Penny noted there is new library management ( a woman named Courtney is in charge of new library management). Local taxing has created ample funds in the library budget. A member shared the funds are in the \$300K range. Penny's believes that since the funds came from Mt. Shasta citizens, the money should be spent in the City. Pam said she thought the main

library grounds were not well kept, except areas tended by BC work efforts. Mention was made of some historical trees transplanted there from an original ranch in Mt Shasta. Lorie hopes to see landscaping against the library building. Lorie will press to get a meeting with Terry Thompson to get feedback and goals of the new management. Penny mentioned that the Friends of the Library Committee have many issues they're considering and may not know that BC has been servicing the landscaping. Discuss on the August agenda

Item #11 - Public Art - BC members had no update but believes DTEC, or a sub-committee, is discussing murals and public art.

Item #12 - Gift Catalogue - BC members reviewed that in 2001, there was a preliminary concept and plan for a Mt. Shasta gift catalogue marketing memorial gifts like - trees, benches, and municipal objects with dedication plaques. Terez thought it was proposed as a tab or note on the City website. A rough prototype was designed, i.e. the Mt. Runners dedication bricks at City Hall, but no subsequent action occurred. BC members stated that any revival of a catalogue can't be run by BC. Lorie recalls people who in the past bought trees or some granite markers that she assisted. BC members likes the idea of reviving a gift/memorial catalogue, but agreed the management would need a point person to coordinate. Penny recalls that plaques were sadly stolen on some of the earlier installations. Lorie asks for serious consideration of the gift catalogue and how it might be best managed. BC could organize a plan for gifts and memorials that would enhance the City, but some non- BC citizen would be needed to handle ordering, delivery, and accounting.

Penny's comment about past vandalism sparked a reminder from Lorie that while she and her husband were re-planting this year at the City Hall area, a bag of landscape bark she left there overnight was taken. Jacquie mentioned the thief of an unplanted maple tree from Parker Plaza.

Item #13 - August Meeting - Terez recommends Fall work dates be discussed at the next meeting. Additionally, she asked for feedback on the 31 hanging flower baskets. Some are struggling and Lorie can replace some with the extra's she is reviving at her home. Jacquie believes this basket order was not colorful enough, and thinks the baskets fade into the background. Any future baskets need to consider the competing surroundings and need to be larger. The current baskets are appealing from the sidewalks but are not noticeable when driving. Members recommended that future baskets have more trailing plants for drama. There has been a learning curve regarding hanging baskets - future baskets will be more successful, prominent, and easier to maintain.

Future Agenda - Pam noted Rod is getting BC a list of City properties for long-term planning.

Adjourned - 5:18

**City Council Agenda Item # 7c**  
Staff Report

**Meeting Date:** August 22, 2016  
**To:** Mayor and City Council  
**From:** Muriel Howarth Terrell, Finance Director  
**Subject:** Approval of Warrants and Payroll

	Regular
x	Consent
	Closed
	Presentation

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**Recommendation:**

Staff requests the Mayor and City Council Approve warrants paid including payroll benefits and withholding, and payroll distribution, in the amount of \$181,960.70.

**Background & Summary:**

Approval of Check Numbers 38439-38495	\$ 110,641.16
Total Payroll Distribution	\$ 50,963.25
Total Payroll Taxes	<u>\$ 20,356.29</u>
	\$ 181,960.70

**Financial Impact:**

Expenditures are consistent with the Budget that the City Council has adopted.

**Compliance with 2014-17 City Council Strategic Plan:**

The City Council’s leadership efforts to ensure adherence to the best possible financial practices and overall transparency falls under Strategic Focus IV – Grow Mt. Shasta Pride and Quality and the Municipal Responsibilities of Progressive Leadership and Financial Health and Economic Opportunity.

**Attachments:**

- 1.) Check Registers – 8/04/16, 8/08/16
- 2.) ACH Payroll Distribution – 8/4/16
- 3.) EFTPS Reports – 8/9/16



Check Register Report

2016-17

Date: 08/04/2016

Time: 12:32 pm

Page: 1

City of Mt. Shasta

BANK: TRI COUNTIES BANK

Check Number	Check Date	Status	Void/Stop Date	Vendor Number	Vendor Name	Check Description	Amount
<b>TRI COUNTIES BANK Checks</b>							
38446	08/04/2016	Printed		11130	BASIC FENCING	Fence around food truck area	3,483.95
38447	08/04/2016	Printed		11140	BASIC LABORATORY INC.	Water testing	264.00
38448	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 925	3,487.67
38449	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 926	958.68
38450	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 927	3,919.98
38451	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 27429	1,754.91
38452	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 25861	1,366.84
38453	08/04/2016	Printed		12185	CALIFORNIA P.E.R.S.	08/04/16 Rate Plan 25862	410.54
38454	08/04/2016	Printed		28790	CALPERS 457 PLAN	08/04/16 457 SIP Deductions	841.00
38455	08/04/2016	Printed		12640	COLONIAL LIFE & ACCIDENT INSUR	Aug 16 Life/Accident Insurance	546.60
38456	08/04/2016	Printed		12880	D-BEST JANITORIAL	Jul 16 cleaning services	550.00
38457	08/04/2016	Printed		13064	DE LAGE LANDEN	08/15/16-11/14/16 copier maint	1,155.33
38458	08/04/2016	Printed		13071	DELTA HEALTH SYSTEMS	Aug 16 Health Insurance	19,615.00
38459	08/04/2016	Printed		13199	DIGITAL PATH INC	Aug 16 WWTP Internet service	99.95
38460	08/04/2016	Printed		22063	KEITH MCKINLEY	Jul 16 Planning Services	480.00
38461	08/04/2016	Printed		22066	MCLANE MAINTENANCE	Jul 16 Hanging Baskets Water	2,070.00
38462	08/04/2016	Printed		22098	MOORE'S GRAVEL INC	Chips for chip sealing	7,716.95
38463	08/04/2016	Printed		22302	MT SHASTA IT SERVICES	Jul 16 IT Services	2,500.00
38464	08/04/2016	Printed		15240	NATIONWIDE RETIREMENT SOLUTION	08/04/16 457 SIP Deductions	2,066.00
38465	08/04/2016	Printed		23054	NORTHSTAR CHEMICAL INC	WWTP chemicals	16,018.20
38466	08/04/2016	Printed		24033	OREILLY AUTOMOTIVE INC	PD vehicle parts	17.22
38467	08/04/2016	Printed		27063	REDDING FREIGHTLINER	Parts - PW #12 new sand truck	51.98
38468	08/04/2016	Printed		28268	DANIELLE ROSE	Jul 16 website maintenance	244.00
38469	08/04/2016	Printed		28120	SHASTA AUTO SUPPLY	Jul 16 equipment parts	2,009.57
38470	08/04/2016	Printed		28255	SIERRA CHEMICAL COMPANY	WWTP container refund	764.81
38471	08/04/2016	Printed		28372	SISKIYOU COUNTY ECONOMIC	Aug 16 Econ Dev Partners	2,083.33
38472	08/04/2016	Printed		28380	SISKIYOU COUNTY PUBLIC HEALTH	Hep Twin Rx - D Torres	82.00
38473	08/04/2016	Printed		22220	SISKIYOU MASONIC TEMPLE BOARD	Jul 16 building rental	675.00
38474	08/04/2016	Printed		28594	SMITH BUILDING SERVICES LLC	Jul 16 Building Insp. Services	2,500.00
38475	08/04/2016	Printed		28595	JOHN SMITH SANITATION INC	Jul 16 extra garbage pickups	431.75
38476	08/04/2016	Printed		28600	SNOWCREST INC	Aug 16 Library internet	59.87
38477	08/04/2016	Printed		32060	SOLANOS INC	Jul 16 misc supplies	1,723.41
38478	08/04/2016	Printed		28815	STERLING HEALTH ADMINISTRATION	08/04/16 HSA Deductions	870.00
38479	08/04/2016	Printed		28810	STRAWBERRY VALLEY UPHOLSTERY	Deposit for PW #2 seat	100.00
38480	08/04/2016	Printed		29148	DAVID TORRES	Reimburse for safety shirts	138.79
38481	08/04/2016	Printed		30004	U.S. BANK EQUIPMENT FINANCE	Jul 16 PD copier maintenance	84.75
38482	08/04/2016	Printed		32140	WESTERN BUSINESS PRODUCTS	May 16 - Jul 16 extra copies	807.80
<b>Total Checks: 37</b>						<b>Checks Total (excluding void checks):</b>	<b>81,949.88</b>
<b>Total Payments: 37</b>						<b>Bank Total (excluding void checks):</b>	<b>81,949.88</b>
<b>Total Payments: 37</b>						<b>Grand Total (excluding void checks):</b>	<b>81,949.88</b>

Check Register Report

Date: 08/08/2016

Time: 3:11 pm

Page: 1

City of Mt. Shasta

BANK: TRI COUNTIES BANK

Check Number	Check Date	Status	Void/Stop Date	Vendor Number	Vendor Name	Check Description	Amount
<b>TRI COUNTIES BANK Checks</b>							
38483	08/08/2016	Printed		25050	AT&T	Jul 16 CLETS phone	1,186.94
38484	08/08/2016	Printed		11140	BASIC LABORATORY INC.	WWTP Lab services	2,039.40
38485	08/08/2016	Printed		11340	BROOKS COMPLETE AUTO REPAIR	Mount/Balance Durango tires	38.23
38486	08/08/2016	Printed		12200	CALIFORNIA SAFETY COMPANY	Aug 16 WWTP alarm service	171.50
38487	08/08/2016	Printed		14060	EMPLOYMENT DEVELOPMENT DEPT.	UI through 6/30/16	1,644.00
38488	08/08/2016	Printed		21155	LITHIA MOTORS	FD 1651 parts	522.25
38489	08/08/2016	Printed		22240	MT. SHASTA ELECTRIC INC	LED repair Lake/RR	92.44
38490	08/08/2016	Printed		11243	GERARD PELLETIER TRANSFER	Jul 16 tipping fees	12,896.53
38491	08/08/2016	Printed		28680	SPORTSMEN'S DEN INC	Name Plate Emily Acord	18.32
38492	08/08/2016	Printed		28800	STATE WATER RESOURCES	WWTP Grade II exam fee	180.00
38493	08/08/2016	Printed		29169	STATEWIDE TRAFFIC SAFETY & ADMINISTRATION	Stop/Slow paddle	202.57
38494	08/08/2016	Printed		28815	STERLING HEALTH	08/04/16 HSA Deductions	770.00
38495	08/08/2016	Printed		30069	US BANK CORPORATE PAYMENT SYS	Jul 16 Cal Card charges	5,929.02
<b>Total Checks: 13</b>						<b>Checks Total (excluding void checks):</b>	<b>25,691.20</b>
<b>Total Payments: 13</b>						<b>Bank Total (excluding void checks):</b>	<b>25,691.20</b>
<b>Total Payments: 13</b>						<b>Grand Total (excluding void checks):</b>	<b>25,691.20</b>



## Approval History

Select the appropriate criteria for the approvals you want to see and click Submit. When approvals display, click a batch ID for more detail.

<b>Type:</b>	<b>Originator:</b>	<b>Approver:</b>
All	All	All
<b>From Initiated Date:</b>	<b>To Initiated Date:</b>	
7/29/2016	8/3/2016	
		<input type="button" value="Submit"/>

Type	ID	Name	Initiated Date	Effective Date	Approval Expiration Date	Approval Action Date	Originator	Approver	Transfer From	Transfer To	Action	Amount
ACH PPD Credits (PPD, PPD+)	<a href="#">159309</a>		8/3/2016	8/4/2016	8/3/2016	8/3/2016	Polk, Jodi	Howarth Terrell, Muriel	City of Mt Shasta		Approved	\$50,963.25

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FEDERAL PAYROLL TAX PAYMENT (EFTPS-941)

PAYROLL PERIOD ENDING: 07/31/16  
 PAYROLL DATE: 08/04/16

ACCOUNT NAME:	ACCT.#	AMOUNT
SOCIAL SECURITY	11-000-2110	\$9,237.78
MEDICARE	11-000-2110	\$2,160.44
FED. WITHHOLDING	11-000-2120	\$6,632.94
TOTAL DEPOSIT:		\$18,031.16

EFTPS CONFIRMATION NO: 85710205

EFTPS BANK DEBIT DATE: 8/9/2016

APPROVED:

STATE PAYROLL TAX PAYMENT (EDD)

PAYROLL PERIOD ENDING: 07/31/16  
 PAYROLL DATE: 08/04/16

ACCOUNT NAME:	ACCT.#	AMOUNT
STATE WITHHOLDING	11-000-2130	\$1,679.40
STATE DISABILITY INS	11-000-2140	\$435.27
TOTAL DEPOSIT:		\$2,114.67

EDD CONFIRMATION # (STATE): 175719

EDD CONFIRMATION # (SDI): 175741

EDD BANK DEBIT DATE: 8/9/2016

APPROVED:

STATE DISBURSEMENT UNIT - CHILD SUPPORT

PAYROLL PERIOD ENDING: 07/31/16  
 PAYROLL DATE: 08/04/16

PARTICIPANT NUMBER	CASE NUMBER	AMOUNT
930000056061	0930073919-01	\$210.46

TOTAL DEPOSIT: \$210.46

SDU CONFIRMATION # :

SDU BANK DEBIT DATE: 8/8/2016

APPROVED:

**City Council Agenda Item # 7d**  
Staff Report

**Meeting Date:** August 22, 2016  
**To:** Mayor and City Council  
**From:** Muriel Howarth Terrell, Director of Finance  
**Subject:** Monthly Investment and Financial Report for the Period Ending July 31, 2016

	Regular
<b>x</b>	Consent
	Closed
	Presentation

**Recommendation:**

Staff respectfully requests the City Council review the provided information regarding the City's investments.

**Background & Summary:**

As of July 30, 2016 the combined funds the City of Mt. Shasta had invested in the Local Agency Investment Fund (L.A.I.F.) totaled \$2,312,768.99. The July 2016 LAIF statement is attached along with the performance data for the month of July. Most surplus funds over which the City has control are currently invested in LAIF. The balance of the City's cash funds are held in the pooled checking account with Tri Counties Bank and the CDBG Fund CD's held at Scott Valley Bank and with ProEquities.

Current investment rates are:

L.A.I.F.	July 31, 2016	0.588%
CD's-1Year	July 31, 2016	0.20%
Treasury Note – 3 month	July 31, 2016	0.26%
Treasury Note – 2 Yr.	July 31, 2016	0.66%
Treasury Note – 5 Yr.	July 31, 2016	1.03%
Treasury Note – 10 Yr.	July 31, 2016	1.45%
Treasury Note – 30 Yr.	July 31, 2016	2.18%

Bloomberg as reported by Chandler Asset Management

**Local Rates:**

Tri Counties Bank	July 31, 2016	CD 1 year	0.20%
Scott Valley Bank	July 31, 2016	CD 1 year	0.25%

The LAIF average increased slightly last month, other rates across most of the Treasury yield curve increased with the exception of the 30 year notes. We continue to anticipate the LAIF

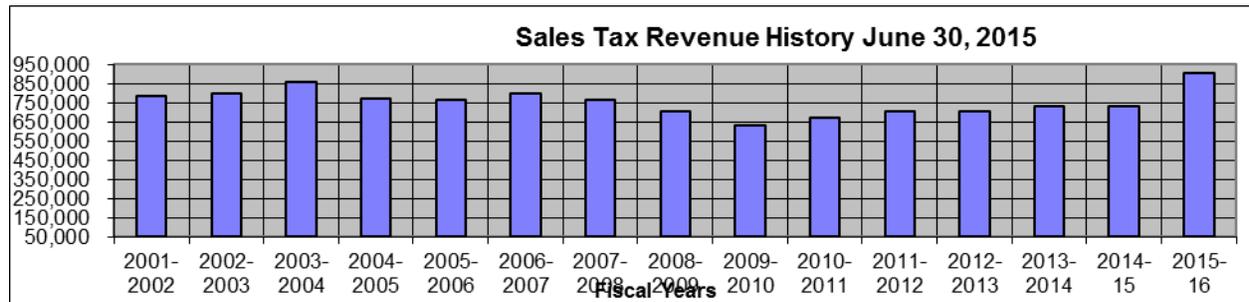
rate staying in a narrow range around .50% The LAIF yield is lower than the 2 Yr. Note. Short term CD rates are no better than the LAIF rate and longer term notes may offer better yields it does not give us the liquidity we need. The LAIF rate remains the best available rate that meets the City’s requirement for liquidity and safety.

**Revenues:**

**Property Tax Revenue:** The City received \$483,840 through June 2016 which is what was anticipated for the fiscal year.

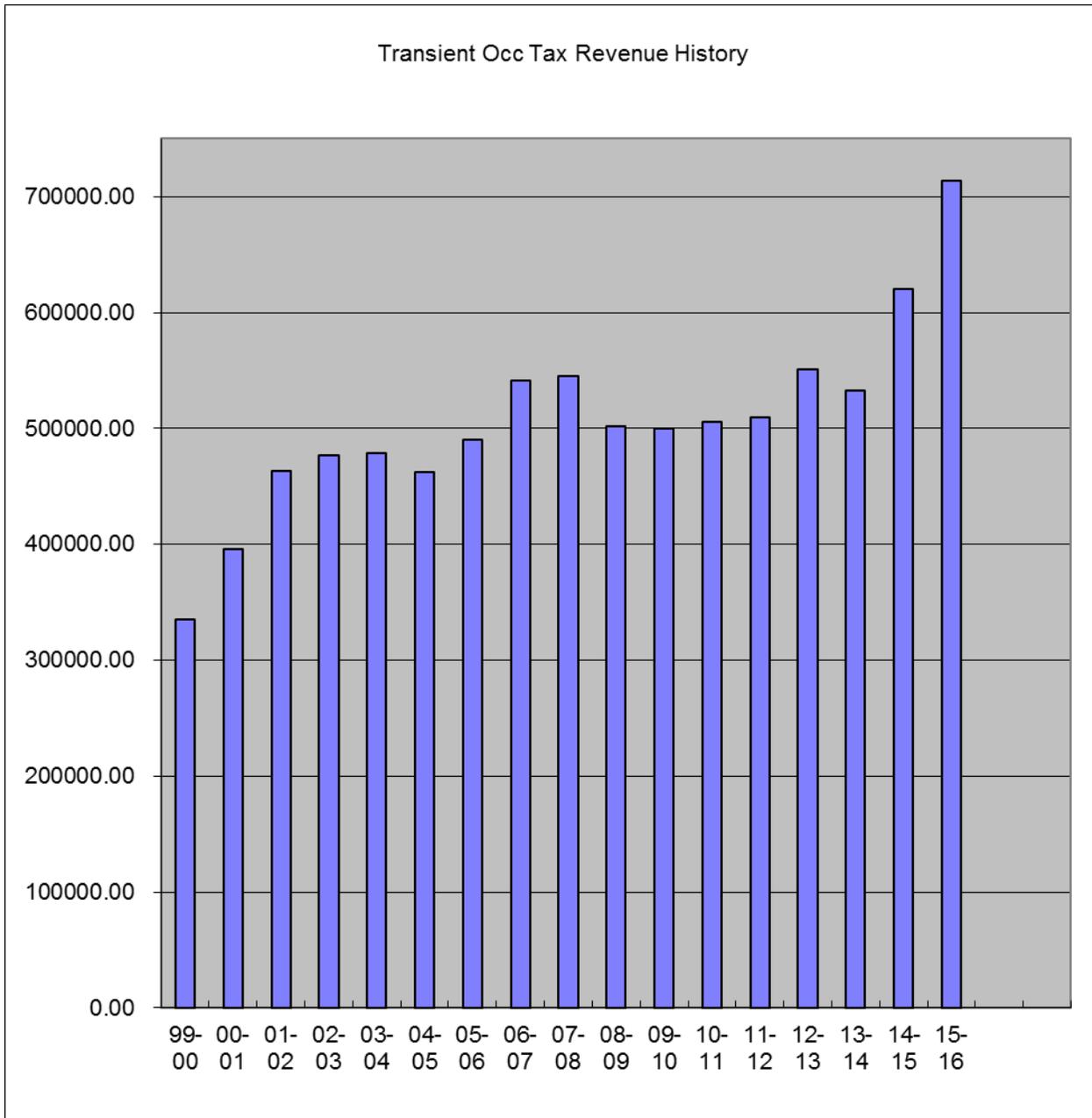
**Sales Tax Revenue:**

The sales tax revenue through the end of the fourth quarter of 2015/16 was \$903,169 which is \$167,943 more than the total collections through the same quarter last year. The chart below illustrates the trend of sales tax revenue for the 4th quarter in the last few years. This increase was offset with a decline of \$168,000 of the In-Lieu Tax as the removal of the “Triple Flip” occurred.



**Transient Occupancy Tax:**

The collection of the fourth quarter TOT came in above what was anticipated. The total TOT collected equaled \$713,000 which is \$93,000 more than the previous fiscal year. The chart on the next page represents the 4th quarter TOT over the last few years.



**Financial Impact:**

The investments are in compliance with the City’s investment policy and provide for meeting the City’s cash flow needs for the next month and 6 month periods.

**Compliance with 2014-17 City Council Strategic Plan:**

The City Council’s leadership efforts to ensure adherence to the best possible financial practices and overall transparency falls under Strategic Focus IV – Grow Mt. Shasta Pride and Quality and the Municipal Responsibilities of Progressive Leadership and Financial Health and Economic Opportunity.

**Attachments:**

- LAIF Monthly Statement
- LAIF Performance Report
- LAIF Monthly Balances
- Chandler Asset Management August 2016 Newsletter

# BOND MARKET REVIEW

A MONTHLY REVIEW OF  
FIXED INCOME MARKETS



## WHAT'S INSIDE

Market Summary ..... 1  
Yield Curve  
Current Yields

Economic Round-Up ..... 2  
Credit Spreads  
Economic Indicators

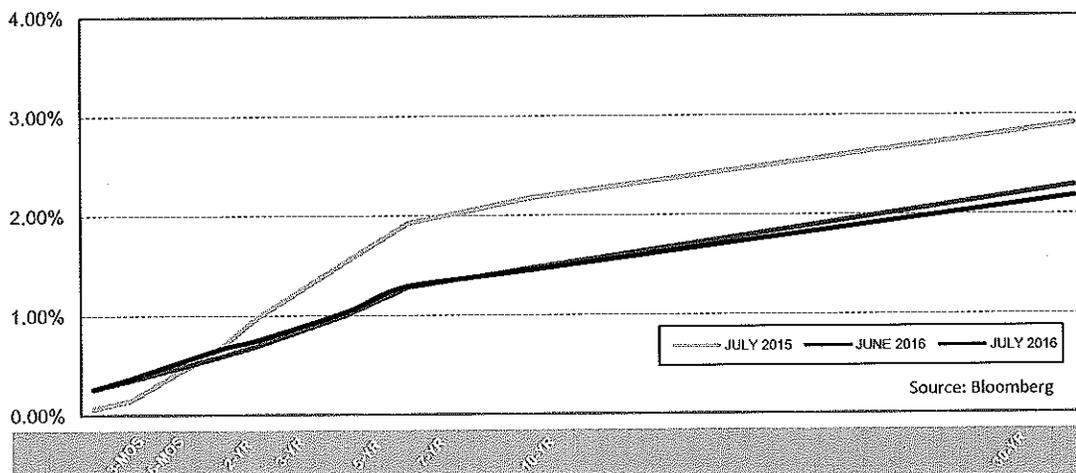
## Market Summary

The Federal Open Market Committee (FOMC) voted to keep the fed funds rate unchanged at a range of 0.25%-0.50% in July. There was one dissenting vote by Esther George who favored a 25 basis point rate hike. The tone of the July FOMC statement was more upbeat than the June statement, noting that the labor market strengthened and economic activity expanded moderately in the latest period. The July statement also indicated that “near-term risks to the economic outlook have diminished.” Although there was no change to the Fed’s forward guidance, the tone of the July statement suggested that the Fed is leaving the door open for a rate hike before year-end. However, we believe the Fed has good reason to remain cautious. The long-term implications of Brexit remain unknown, and even the near-term impacts have yet to be reflected in economic data. Meanwhile, geopolitical tensions are rising, oil prices remain volatile, US GDP growth is trending below 2%, other global central banks remain highly accommodative, and sovereign bond yields in Germany and Japan remain negative. Labor market conditions are healthy but inflation remains below target. While the potential for a rate hike before year-end remains on the table, we believe the Fed has little near-term incentive to change policy.

Arguably, domestic economic data has remained favorable despite a challenging global economic environment. Most notably, the labor market continues to show strength. The unemployment rate was unchanged at a low level of 4.9% in July and wage growth continued to increase. Meanwhile, consumer confidence remains strong and consumer spending has recently improved. Housing trends are favorable even though home price appreciation has softened. Manufacturing trends have also improved. Second quarter 2016 GDP grew 1.2%, following growth of 0.8% in the first quarter. The consensus forecast calls for GDP growth of 2.2% in the third and fourth quarters.

In July, the 2-year Treasury yield increased seven basis points and the 10-year Treasury yield was relatively unchanged (down about two basis points). Negative interest rates abroad, investors’ hunt for yield, and a global flight to quality continue to fuel demand for longer-term Treasury securities.

### THE TREASURY YIELD CURVE FLATTENED SLIGHTLY



In July the Treasury yield curve flattened slightly. The flattening is more pronounced on a year-over-year basis. Negative interest rates in Germany and Japan, investors’ hunt for yield, and a global flight to quality continue to fuel demand for US Treasury securities. Elevated market volatility, the potential for a further slowdown in global economic growth, and highly accommodative monetary policies by other global central banks will likely continue to influence rates.

TREASURY YIELDS	7/31/2016	6/30/2016	CHANGE
3 Month	0.26	0.26	0.00
2 Year	0.66	0.58	0.08
3 Year	0.75	0.69	0.06
5 Year	1.03	1.00	0.03
7 Year	1.29	1.28	0.01
10 Year	1.45	1.47	(0.02)
30 Year	2.18	2.29	(0.11)

Source: Bloomberg

Since 1988, Chandler Asset Management has specialized in the management of fixed income portfolios. Chandler’s mission is to provide fully customizable, client-centered portfolio management that preserves principal, manages risk and generates income in our clients’ portfolios.

# Economic Roundup

## Consumer Prices

The Consumer Price Index (CPI) was up just 1.0% year-over-year in June, unchanged from May. Core CPI (CPI less food and energy) was up 2.3% year-over-year in June, vs. 2.2% in May. The Personal Consumption Expenditures (PCE) index was up 0.9% year-over-year in June, unchanged from May. Core PCE (excluding food and energy) was also unchanged in June, up 1.6% year-over-year. Although Core CPI is trending above 2.0%, the Fed's primary inflation gauge is PCE which remains below the Fed's 2.0% target.

## Retail Sales

Retail sales rose 2.7% in June on a year-over-year basis, following a 2.2% increase in May. Retail sales were up 0.6% month-over-month, well above expectations. Excluding autos and gas, retail sales were up 0.7% month-over-month, vs. expectations of 0.3%.

## Labor Market

Nonfarm payrolls were much stronger than expected in July, up 255,000 versus the consensus forecast of 180,000. May and June payrolls were also revised up by a total of 18,000. On a trailing 3-month basis, payrolls increased by an average of 190,000 per month, which is in line with the trailing 6-month average of 189,000. The unemployment rate was unchanged at 4.9% in July, while the participation rate inched up to 62.8% from 62.7%. However, a broader measure of unemployment called the U-6, which includes those who are marginally attached to the labor force and employed part time for economic reasons, inched back up 9.7% from 9.6%. Wages rose 0.3% in July, following a 0.1% increase in June. On a year-over-year basis, wages were up 2.6% in July, which was unchanged from June.

## Housing Starts

Total housing starts rose 4.8% on a month-over-month basis in June. Single-family starts rose 4.4% in June while multi-family starts rose 5.4%. Housing starts tend to be volatile on a month-to-month basis and the data is subject to revision but the underlying trend remains favorable.

## Credit Spreads Widened in July

CREDIT SPREADS	Spread to Treasuries (%)	One Month Ago (%)	Change (%)
3-month top-rated commercial paper	0.34	0.29	0.05
2-year A corporate note	0.52	0.59	(0.07)
5-year A corporate note	0.71	0.80	(0.09)
5-year Agency note	0.16	0.19	(0.03)

Source: Bloomberg

Data as of 7/31/2016

## Economic Data Points to Slow Growth

ECONOMIC INDICATOR	Current Release	Prior Release	One Year Ago
Trade Balance	(44.5) \$Bln JUN 16	(41.0) \$Bln MAY 16	(43.0) \$Bln JUN 15
GDP	1.2% JUN 16	0.8% MAR 16	2.6% JUN 15
Unemployment Rate	4.9% JUL 16	4.9% JUN 16	5.3% JUL 15
Prime Rate	3.5% JUL 16	3.5% JUN 16	3.25% JUL 15
CRB Index	181.01 JUL 16	192.57 JUN 16	202.57 JUL 15
Oil (West Texas Int.)	\$41.60 JUL 16	\$48.33 JUN 16	\$47.12 JUL 15
Consumer Price Index (y/o/y)	1.0% JUN 16	1.0% MAY 16	0.1% JUN 15
Producer Price Index (y/o/y)	(2.0%) JUN 16	(2.3%) MAY 16	(2.6%) JUN 15
Dollar/EURO	1.12 JUL 16	1.11 JUN 16	1.10 JUL 15

Source: Bloomberg

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**JOHN CHIANG  
TREASURER  
STATE OF CALIFORNIA**



**PMIA Performance Report**

Date	Daily Yield*	Quarter to Date Yield	Average Maturity (in days)
07/28/16	0.60	0.59	169
07/29/16	0.60	0.59	169
07/30/16	0.60	0.59	169
07/31/16	0.60	0.59	169
08/01/16	0.60	0.59	170
08/02/16	0.60	0.59	168
08/03/16	0.60	0.59	167
08/04/16	0.60	0.59	166
08/05/16	0.60	0.59	166
08/06/16	0.60	0.59	166
08/07/16	0.60	0.59	166
08/08/16	0.60	0.59	166
08/09/16	0.61	0.59	168
08/10/16	0.61	0.59	168

\*Daily yield does not reflect capital gains or losses

**LAIF Performance Report**

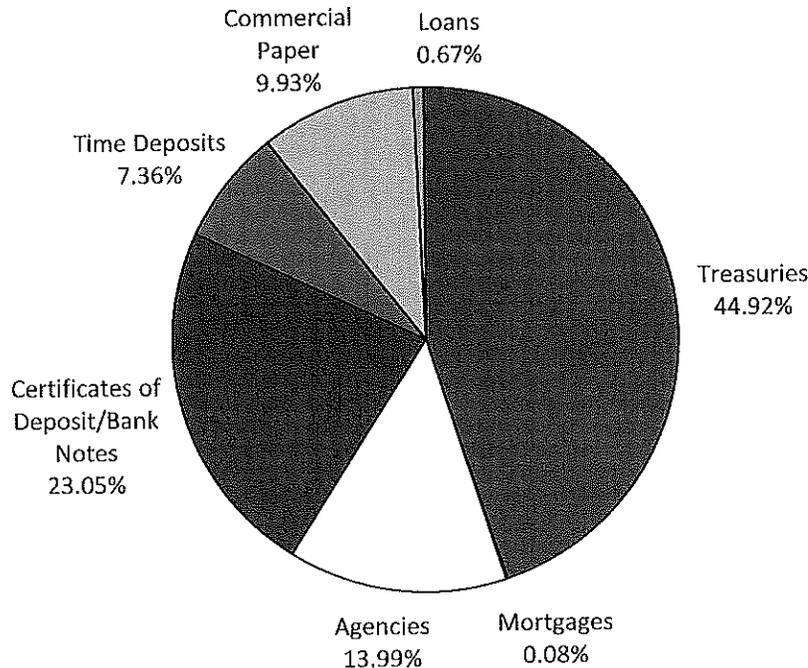
**Quarter Ending 06/30/16**

Apportionment Rate: 0.55%  
 Earnings Ratio: 0.00001495296852820  
 Fair Value Factor: 1.000621222  
 Daily: 0.58%  
 Quarter to Date: 0.55%  
 Average Life: 167

**PMIA Average Monthly Effective Yields**

**Jul 2016 0.588%**  
**Jun 2016 0.576%**  
 May 2016 0.552%

**Pooled Money Investment Account  
Portfolio Composition  
06/30/16  
\$75.4 billion**



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

[www.treasurer.ca.gov/pmia-laif/laif.asp](http://www.treasurer.ca.gov/pmia-laif/laif.asp)  
August 16, 2016

CITY OF MT SHASTA

DIRECTOR OF FINANCE  
305 NORTH MT SHASTA BLVD  
MT SHASTA, CA 96067

PMIA Average Monthly Yields

Account Number:  
98-47-572

Tran Type Definitions

July 2016 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Authorized Caller	Amount
7/15/2016	7/14/2016	QRD	1508535	SYSTEM	2,945.19

Account Summary

Total Deposit:	2,945.19	Beginning Balance:	2,309,823.80
Total Withdrawal:	0.00	Ending Balance:	2,312,768.99

**City Council Agenda Item # 7e**  
Staff Report

**Meeting Date:** August 22, 2016  
**To:** Mayor and City Council  
**From:** Parish D. Cross, Acting City Manager  
**Subject:** Declaration of Surplus Equipment

	Regular
X	Consent
	Closed
	Presentation

---

**Recommendation:**

Staff respectfully requests the City Council Adopt Resolution CCR-16-36 A Resolution of the City Council of the City of Mt. Shasta Declaring Certain Vehicles and Equipment as Surplus Property, and Authorizing Disposal.

**Background & Summary:**

Staff has met on several different occasions and has identified and put together a list of equipment that is no longer necessary for City operations and should be declared surplus for the purpose of disposal. Such equipment will be sold at auction to recover whatever remaining value it has, and the proceeds placed in the City's reserve fund.

Equipment Surplus List:

1. 2005 F550 4X4 Ford Min Pumper. Vin# 1FDAW57P46EA78775 License # CA 1208897
2. 2005 Dodge 2500 4X4 Chief Vehicle. Vin# 1D7KS28D46J14246 License # CA 1178363
3. 2007 Ford F250 Super Duty Vin# 1FTSW21Y58EC93805 License # CA 1272156
4. Dell PowerEdge 2900 Server Model ECM01 Serial # GG8NQG1 MFG. Date 063008

**Attachments:**

Proposed Resolution with Attachment

**RESOLUTION NO. CCR-16-36**

**A RESOLUTION OF THE CITY COUNCIL  
OF THE CITY OF MT. SHASTA  
DECLARING CERTAIN VEHICLES AND EQUIPMENT  
AS SURPLUS PROPERTY AND AUTHORIZING DISPOSAL**

**WHEREAS**, the Department Directors of the City of Mt. Shasta have identified certain City-owned vehicles and equipment that are no longer necessary to the City's operations, and are taking up storage space; and

**WHEREAS**, the City has the power under Section 37350 of the Government Code to dispose of property for the common benefit; and

**WHEREAS**, the City Council finds that the realization of the salvage value of property that is no longer necessary for operational needs, so that it might be applied to acquisition of new equipment would be of benefit to the City and its citizens; and

**WHEREAS**, the City Council finds that the declaration of excess personal property as surplus and the conduct of a public auction is an acceptable means to ensure that the City does not make a gift of public funds in the disposal of such property.

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Mt. Shasta as follows:

1. The personal property described on the attached Exhibit "A" is determined to be excess to the City's operational needs and is authorized for disposal by means of a public auction.
2. The net proceeds of the auction will be transferred to the Equipment Replacement Reserve Fund for the acquisition of future equipment needs of the City as determined by Council.

The foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Mt. Shasta on the 22th day of August, 2016 by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

DATED: August 22, 2016

CITY OF MT. SHASTA

ATTEST:

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Jeffrey Collings, Mayor

---

Kathryn M. Wilson, Deputy City Clerk

Exhibit “A”

## **Surplus Property List**

1. 2005 F550 4X4 Ford Min Pumper. Vin# 1FDAW57P46EA78775 License # CA 1208897
2. 2005 Dodge 2500 4X4 Chief Vehicle. Vin# 1D7KS28D46J14246 License # CA 1178363
3. 2007 Ford F250 Super Duty Vin# 1FTSW21Y58EC93805 License # CA 1272156
4. Dell PowerEdge 2900 Server Model ECM01 Serial # GG8NQG1 MFG. Date 063008

**City Council Agenda Item #8**  
Staff Report

**Meeting Date:** August 22, 2016  
**To:** Mayor and City Council  
**From:** **Muriel Terrell, Finance Director**  
**Subject:** Siskiyou Opportunity Center – Recycling

<b>X</b>	Regular
	Consent
	Closed
	Presentation

---

**Recommendation:**

Staff recommends approval of payment for the additional costs for recycling until we can develop new charges for refuse collection for both residential and businesses and bring a new agreement between the City of Mt. Shasta and the Siskiyou Opportunity Center.

**Background & Summary:**

The Siskiyou Opportunity Center has provided recycling services either by drop off, bins or blue bags since 1990. The recycling world has changed significantly over the years through legislative, societal and environmental changes and concerns. So too has the way in which recycling is collected and processed. Now our efforts are in divided into two areas. One, we have state mandated local business pick up, provided weekly, and two we have a residential blue bag program for pick up once monthly.

Traditionally Siskiyou Opportunity Center has previously been able to recover the cost of sorting and transportation through the sale of the recycled material and though the training fees paid by the State for the Center’s client population. This is no longer the case; the market for the resale of recycled material is nonexistent. This coupled with the restructuring of how client training/work is paid though the State has meant that the Center can no longer provide recycling service unless Cities, including Mt. Shasta, pays for that service.

The cost for the blue bag program is estimated at approximately \$1,300 per month. The cost for mandated business pickup is approximately \$1,565 per month. This is a total of \$2,865 per month. We currently pay \$825 per month to the Center. This is an increase of approximately \$2,040 per month.

We will need to explore other options for how recycling is handled in our City as well as in our region. We hope to explore what those options are and how together we can meet State goals for recycling and cost of meeting those mandates.

**Fiscal Impact:**

A new cost structure for Refuse Collection will need to be developed through a Proposition 218 process. This will take some time to develop. Our surrounding Cities are in the same

predicament and have agreed to continue to pay for recycling until they too can do the 218 process.

**Strategic Goals:**

We would like to stress the importance to continue to have a recycling program that meets the requirements that the State of California has imposed but also know that recycling is the right thing to do for our community and society in general.

**City Council Agenda Item #9**  
Staff Report

**Meeting Date:** August 22, 2016

**To:** Mayor and City Council

**From:** **Muriel Terrell, Finance Director**

**Subject:** Smith Sanitation – Refuse Removal during Transfer Station Closure

<b>X</b>	Regular
	Consent
	Closed
	Presentation

---

**Recommendation:**

Staff recommends approval of payment for the additional costs for refuse removal during the closure of the Black Butte Transfer Station Closure.

**Background & Summary:**

The Black Butte Transfer Station had a fire on February 13, 2016 that closed the facility for commercial refuse removal until July 7, 2016. Smith Sanitation Inc. is contracted to collect the City's residents refuse and dispose of the refuse at the Black Butte Transfer Station. We recognized that there would be additional costs associated with this unfortunate event. The cost associated with this event amounted to \$577.93 per day. The total cost will be approximately \$51,500.00.

The City will be requesting reimbursement for this additional cost through the Black Butte Transfer Station's insurance.

June 15, 2016

Mr. Jeffrey Collings  
Mayor, City of Mt. Shasta  
Mr. Ken Palfini  
Mayor, City of Weed  
Mr. Josh Spurlock  
Mayor, City of Dunsmuir

Via email for distribution: [jcollings@mtshastaca.gov](mailto:jcollings@mtshastaca.gov)

Re: *Proposal to develop broadband strategic and business plan*

Dear Mr. Collings, Mr. Palfini, and Mr. Spurlock:

CTC Technology & Energy (CTC) is pleased to provide this proposal to develop a broadband strategic plan and business plan for the cities of Mt. Shasta, Weed, and Dunsmuir. We believe that your interest in working together will create not only project efficiencies, but also greater scale to attract potential private partner interest.

Since 1983, we have provided independent technical and business planning guidance to hundreds of local governments nationwide—including the cities of Santa Cruz, San Francisco, Seattle, and Westminster, Maryland, as well as the Town of Holly Springs, North Carolina.

Over the past two decades, our staff has undertaken feasibility analysis on public sector broadband for more than 50 cities, towns, and counties. Many of our engagements have focused on public sector strategies to build or expand infrastructure; enhance the availability of high-bandwidth services; increase broadband competition; and promote economic development.

We are experts at investigating public sector broadband options. Among our current clients are the cities of Boulder, Colorado and Palo Alto, California; we are conducting a range of fiber feasibility studies, market analyses, engineering, business modeling, and stakeholder engagement tasks for each.

In addition to our work directly with clients, we are also nationally recognized for our leadership in developing best practices for enabling public sector broadband initiatives, including public-private partnerships. For example:

- CTC principals Joanne Hovis and Andrew Afflerbach authored “Gigabit Communities,” an independent white paper on municipal gigabit-facilitation strategies commissioned by Google.<sup>1</sup> (Google has stated that the recommendations we developed in our white paper formed the basis for the Google Fiber City Checklist.) We have also authored fiber development guides for the New America Foundation, Utilities Telecom Council, and Tennessee Valley Public Power Association.<sup>2</sup>

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<sup>1</sup> [www.Gigabit-Communities.com](http://www.Gigabit-Communities.com)

<sup>2</sup> [www.CTCnet.us/library](http://www.CTCnet.us/library)

- Ms. Hovis recently authored “The Emerging World of Broadband Public–Private Partnerships: A Business Strategy and Legal Guide” (published by the Benton Foundation).<sup>3</sup>
- Ms. Hovis played a key role in helping the Cities of Urbana and Champaign and the University of Illinois identify and negotiate with a private partner that will finance and operate an FTTP expansion of the coalition’s middle-mile network; commenting on the partnership, FCC Chairman Wheeler said that it “provides a valuable model for communities and companies throughout the country and a demonstration of the creativity that is stimulated when localities are free to work with the private sector to improve broadband offerings.”<sup>4</sup>
- We are the lead business and technical consultant to the Commonwealth of Kentucky in its partnership strategy and negotiations with Macquarie Capital—an agreement that, to our knowledge, represents the largest broadband public–private partnership in the United States.
- Ms. Hovis and our other senior staff are currently assisting a range of other public entities in developing innovative public–private partnerships, including the City of Boston and New York State.

CTC’s reputation rests on our track record of providing independent, objective, and unbiased guidance. We are proudly conservative in our approach and specialize in quantifying and explaining risk. We do not hide the challenges of municipal fiber networks; rather we explain those challenges and assist communities to develop strategies and tactics to mitigate risk and build toward the future.

*We are appropriately suspicious of so-called “partnerships” that entail public risk and private benefit. We focus on identifying funding opportunities and developing business models that achieve community purposes while appropriately allocating risk among the public and private entities.*

*We are also true believers in public sector fiber initiatives.* The President cited our study on public broadband options in his report on the benefits of municipal broadband projects.<sup>5</sup>

Please do not hesitate to contact me if I can provide additional information about CTC. We look forward to the opportunity to work with the Cities.

Best Regards,



Joanne S. Hovis, President

[jhovis@ctcnet.us](mailto:jhovis@ctcnet.us) | 301.933.1488

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<sup>3</sup> <https://www.benton.org/sites/default/files/partnerships.pdf>

<sup>4</sup> <http://www.fcc.gov/document/fcc-chairman-tom-wheeler-stmt-uc2b-and-itv-3-gigabit-announcement>

<sup>5</sup> [http://www.whitehouse.gov/sites/default/files/docs/community-based\\_broadband\\_report\\_by\\_executive\\_office\\_of\\_the\\_president.pdf](http://www.whitehouse.gov/sites/default/files/docs/community-based_broadband_report_by_executive_office_of_the_president.pdf)

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## 1. CTC's Experience and References

### About CTC

CTC is an established, woman-owned consulting firm that offers a unique combination of qualifications and capabilities in broadband financial analysis, business planning, engineering, and network strategic planning. Founded in 1983, we have extensive experience providing independent financial, strategic, and technical, guidance for public and non-profit communications networks, including those of state and local governments, non-profit consortia, universities, and municipal utilities.

**CTC has deep experience with the financial and technical aspects of municipal-owned fiber networks.** We have advised more than 100 communities, including the cities of Seattle, San Francisco, and Portland, Oregon, regarding the feasibility of building fiber, and have supported the government of New Zealand on the design of its nationwide open access FTTP broadband network.

We have advised jurisdictions of all sizes, from the very small (Lake City, CO; Sturgis, MI) to the very large (Los Angeles, District of Columbia, Seattle City Light), regarding business planning and operations of fiber networks. Our staff of experienced financial analysts, business strategists, and engineers has analyzed both proposed fiber projects and ongoing operations; identified business hurdles and opportunities; and prepared well-documented financial projections to support decision-makers.

CTC has written requests for proposal (RFP), requests for information (RFI), invitations to bid, bills of materials (BOM), and other procurement documents for clients ranging from state entities to regional consortia and municipal utilities. We have also supported many clients in the analysis and evaluation of responses to procurement documents, and have negotiated subsequent contracts with and on behalf of clients for a range of projects.

Our analysts are also experienced with developing marketing and operations plans for public fiber networks, and with assisting clients to understand and market to potential customer segments, to plan appropriate products and services, and to price those products and services.

**We have a robust roster of national and international clients**, and our workload reflects that success. As we have proven over the past three decades, however, we are adept at managing our clients' needs and our staffing levels. We have a proven track record of completing projects on time, regardless of the size or complexity of the tasks at hand—or the time zone in which the projects are located. We commit to providing an exceptional level of service and to meeting your timeline.

**We pride ourselves on our research and analysis, and our ability to translate complex technical issues into clear, concise, and actionable reports.** For example, CTC principals Joanne Hovis and Andrew Afflerbach recently authored "Gigabit Communities," an independent white paper on gigabit-facilitation

*We are in an industry that is changing by the day with respect to regulatory frameworks, technology, and potential business models. What distinguishes CTC is that we are engaging those issues every day, developing new strategies for leveraging public sector investment to enable sustainable last-mile connectivity.*

strategies ([www.Gigabit-Communities.com](http://www.Gigabit-Communities.com)) commissioned by Google.<sup>6</sup> Ms. Hovis and Dr. Afflerbach also co-authored, with the New America Foundation’s Open Technology Institute, a report on local broadband networks: “The Art of the Possible: An Overview of Public Broadband Options” (<http://www.ctcnet.us/publications/the-art-of-possible-an-overview-of-public-broadband-options/>). That study was recently cited in President Obama’s report on municipal fiber networks, “Community-based Broadband Solutions: The Benefits Competition and Choice for Community Development and High Speed Internet Access.”<sup>7</sup>

*Our philosophy has always been one that emphasizes both self-reliance in the public sector, and the potential benefits of governmental provisioning of services to meet local needs. Our reputation rests on our track record of providing independent guidance.*

**Our reputation rests on our track record of providing independent guidance.** For three decades, we have served the public sector in evaluating its broadband deployment efforts and in bringing an independent, sometimes critical, eye to communications efforts. We are not affiliated with equipment manufacturers or cable operators. To ensure that we can provide independent guidance, we have, as a policy, no financial stake in the strategies you choose. Unlike some consultants, *we do not have a hidden agenda to become an operator of your network.*

In addition to our strategic, business, and technical planning of FTTP networks for cities such as San Francisco and Seattle, CTC recently helped to negotiate public-private FTTP partnerships for two municipal networks—one owned by the City of Westminster, Maryland; the other owned by the cities of Champaign and Urbana, Illinois.

**Our philosophy has always been one that emphasizes both self-reliance in the public sector, and the potential benefits of governmental provisioning of services to meet local needs.** We are also keenly aware of the potential that robust broadband infrastructure has to aid local economic development.

**We have helped dozens of cities nationwide to evaluate and build the business case for municipal broadband networks.** And we have often focused on fiber optics as a state-of-the-art technology that can meet current and future needs in a variety of environments. That said, our success as broadband consultants comes down to the fact that we do not minimize our assessment of costs or risks; nor do we make unreasonable assumptions about revenue factors such as take rates and service fees. If there is a reasonable business case for a City-owned broadband utility, we will help make it. But if the numbers do not add up, we will explain why they do not—and then work tirelessly to identify other options for meeting Mt. Shasta’s broadband goals.

**We are in an industry that is changing by the day with respect to regulatory frameworks, technology, and potential business models. What distinguishes CTC is that we are engaging those issues every day, developing new strategies for leveraging public sector investment to enable sustainable last-mile connectivity.** We are true believers in the potential benefits of FTTP, including in rural areas, but follow a conservative philosophy around public risk; we think it is extremely important that our clients understand the challenges related to such initiatives.

<sup>6</sup> While this work was commissioned and supported by Google, CTC’s analysis was entirely independent and focused on promoting city needs, rather than those of Google or any other network deployer.

<sup>7</sup> [http://www.whitehouse.gov/sites/default/files/docs/community-based\\_broadband\\_report\\_by\\_executive\\_office\\_of\\_the\\_president.pdf](http://www.whitehouse.gov/sites/default/files/docs/community-based_broadband_report_by_executive_office_of_the_president.pdf)

## Representative Past Projects

As the examples below illustrate, we offer demonstrated experience and qualifications in the areas of network strategic planning, financial analysis, and business planning. These are just a few of the hundreds of client projects CTC has successfully completed over the past 32 years.

**City of Albuquerque, New Mexico:** CTC developed a strategy for connecting the City's key stakeholders and locations with a network that will have the most impact on its economic development and digital inclusion goals. CTC surveyed candidate network routes and developed a system-level design and pricing estimates for the construction and operation of fiber infrastructure. Our strategic design maximized potential economic development, minimized budgeting risks, and positioned the City for future network expansion. CTC then prepared the technical portions of an RFP for the City's procurement process to identify an expert partner for the proposed fiber and wireless construction.

**Arlington County, Virginia:** CTC currently is designing and managing the construction of ConnectArlington, the last-mile fiber network that will connect approximately 80 of the County's government buildings, schools, and public safety facilities. CTC staff members, including an on-site project manager, are overseeing every aspect of the project, from network mapping to construction supervision and acceptance.

CTC has also developed the business plan and strategy for the County's dark fiber leasing initiative, and is currently preparing an RFP for the County's use in selecting a fiber broker. This third-party broker innovation is the first of its kind among public entities in the United States.

Additionally, CTC staff are providing critical input into the design and testing for other phases of the County's self-managed fiber construction project, which will ultimately have close to 60 miles of backbone fiber.

**City of Atlanta:** CTC currently is advising the City on strategic and tactical approaches it can take to plan, build, and operate its own fiber network to cost-effectively serve its internal needs, promote private sector broadband investment, and enable competition in the City's residential and business broadband markets. We are assisting the City in its discussions with Google Fiber and other telecommunications providers about options for joint build and partnership, and providing technical due diligence for the City.

**Village of Bald Head Island, North Carolina:** CTC has supported the Village on a range of feasibility analysis, strategic planning, and business planning tasks related to meeting its broadband needs. We currently are conducting public-private partnership planning with the Village.

**City of Boston:** In an ongoing engagement, CTC is analyzing the City's strategic options for deploying fiber optics to connect public schools throughout the City. CTC's business analysts and engineers reviewed the engineering that the City had already completed; the stakeholders' previously identified needs and concerns; the extent of existing City infrastructure assets; and the general scope of the fiber network envisioned by the City. We are now exploring a wide range of public and public-private options for maximizing the benefits of the City's planned investment to get direct fiber connectivity to selected schools.

**City of Culver City, California:** CTC developed a high-level network strategy, design, and business model framework to support Culver City's planning of a fiber optic backbone and fiber optic connections to key

economic development sites. The proposed strategy is designed to ensure that broadband infrastructure in Culver City evolves over time to meet the needs of its businesses, and public institutions.

Over the course of this project, CTC met with key city staff to review economic development objectives; reviewed the potential to leverage existing fiber and conduit assets in serving the city's identified target areas; facilitated discussions with business stakeholders and other community representatives to understand their perceptions regarding availability, reliability, and affordability of broadband services; researched the region's available services and costs; prepared a preliminary fiber network design to provide redundant connectivity in the city's target areas; developed a business model framework to guide the city's decision-making.

**State of Delaware:** CTC has provided communications engineering consulting services to the State Department of Transportation for almost 20 years. Most recently, our engineers and business analysts wrote the statewide master plan for deploying an integrated broadband fiber and microwave network.

**District of Columbia:** CTC performed a business case and technology analysis for DC-Net, a fiber optic telecommunications network that provides voice and data services for the District of Columbia government. The network consists of resilient, interconnected fiber optic rings that will eventually connect more than 400 government buildings in the District, including Police Department, Emergency Management Agency, and Fire Department radio towers.

CTC's independent assessment analyzed public safety, government, and educational uses of the network. The project tasks included asset mapping and network description; cost comparison to leased/managed services; functional and technical comparison between dark fiber and alternatives; leveraging the ability to resell to other entities; identifying support mechanisms; and determining recommended business practices.

CTC serves in an ongoing role as strategic fiber advisor to the City, and is leading the technical team conducting FirstNet planning for the District.

**EAGLE-Net:** CTC reviewed the business plan and financial models of EAGLE-Net, an intergovernmental network organization serving more than 170 communities across Colorado. We analyzed the cost assumptions and projections, and proposed refinements as merited by economic changes in the service area and local market. We proposed a pricing structure for service to anchor tenants and suggested potential future network opportunities and appropriate strategies to capture additional users, both last-mile providers and anchor institutions. We prepared marketing and sales plans designed to realize revenues necessary to sustain the EAGLE-Net enterprise in the future.

**Town of Holly Springs, North Carolina:** CTC conducted a broadband needs assessment and developed a strategic approach and return on investment (ROI) analysis for the town's proposed fiber network implementation. Our team of project managers, outside plant engineers, and network engineers then designed and oversaw implementation of a middle-mile fiber network serving the town's community anchor institutions (e.g., schools and libraries) and major economic development partners. The first sites on the 19-mile network went live in June 2014.

As in our engagement with the City of Westminster, we also assisted the town in identifying a private partner to assume operating risk in providing services to the public. Ting Internet will build an FTTP network using the town's backbone infrastructure; the town announced its public-private partnership in

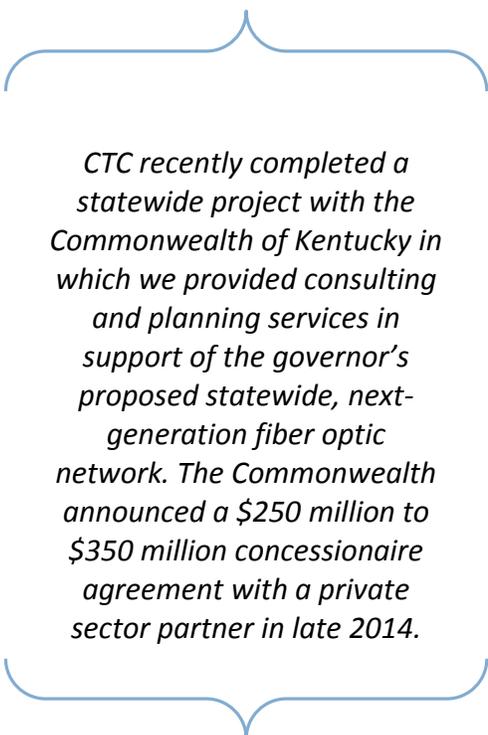
2015. For more details, see CTC's website: <http://www.ctcnet.us/blog/ctc-helps-position-holly-springs-nc-to-attract-big-private-fiber-investment-through-smart-infrastructure-planning-and-best-business-practices/>

**Kansas Statewide Broadband Initiative:** CTC supported the Kansas Statewide Broadband Initiative (KSBI), a program of the Kansas Department of Commerce, in a major analysis of broadband availability and usage across the state. The scope of work included a broadband needs assessment of schools, libraries, and hospitals, completed in 2013, and two additional reports on the broadband market in the residential and commercial sectors. All three reports were delivered to the state legislature.

**Commonwealth of Kentucky:** CTC recently completed a statewide project with the Commonwealth of Kentucky in which we provided consulting and planning services in support of the governor's proposed statewide, next-generation fiber optic network.

CTC engineers performed a technical assessment of the state's current network plans, developed a strategy for fiber construction, and provided detailed guidance on network operations. Our business analysts assessed the state's current network financial models, refined projections, and collaborated on the development of a sustainable governance and business model.

CTC also developed an RFI to identify potential fiber collaborators for the Commonwealth. The RFI attracted responses from more than a dozen candidates—including service providers, technology companies, equity partners, and concessionaires—and made it possible for the CTC team to refine the Commonwealth's business model and develop an RFP that more closely fit the business model and the firms' capabilities. The Commonwealth announced a \$250 million to \$350 million concessionaire agreement with a private sector partner in December.



*CTC recently completed a statewide project with the Commonwealth of Kentucky in which we provided consulting and planning services in support of the governor's proposed statewide, next-generation fiber optic network. The Commonwealth announced a \$250 million to \$350 million concessionaire agreement with a private sector partner in late 2014.*

**Keystone Initiative for Network Based Education and Research (KINBER):** CTC provided KINBER, a statewide fiber optic network in Pennsylvania and recipient of a \$99.6 million federal grant, with extensive support in developing their business model and pricing schedule. Our team conducted interviews with KINBER project stakeholders to assess the statewide market for networking services. We combined this information with our existing, in-depth knowledge of public sector networking initiatives, markets, and pricing schedules. We then presented different business model scenarios based on varying take rates of the networking services offered. We gave preliminary marketing advice and conducted initial outreach on behalf of KINBER to potential new members. CTC also prepared engineering advice for how to cost-effectively provide networking services.

**City of Lawrence, Kansas:** CTC evaluated the state of broadband in Lawrence and proposed strategies for expanding network infrastructure to serve homes, businesses, and the public sector. In our project report, "Enhancing Broadband in Lawrence: A Range of Strategic Options," we identified ways in which Lawrence can maximize its current assets to encourage future technology development. It analyzes the existing

communications environment in Lawrence and provides recommendations with respect to various options to leverage the City's existing fiber optic infrastructure. (That report is available on our website: <http://www.ctcnet.us/wp-content/uploads/2014/01/LawrenceBroadbandReport.pdf>.) Following up on that engagement, we also recently evaluated issues and concerns for the City's consideration as it evaluates whether to require open access on privately funded fiber in the City.

**Maryland Inter-County Broadband Network (ICBN):** CTC was the lead engineer for the development of the ICBN project, a \$72 million sub-grantee of the One Maryland Broadband Network (see below). We designed and engineered ICBN fiber routes for four large counties. In addition, a CTC Principal Engineer served as Portfolio Manager for the project across nine counties. He was the lead technical consultant overseeing the grant funds to build 800 miles of fiber optics and connect approximately 650 community anchor institutions.

**Commonwealth of Massachusetts:** CTC President Joanne Hovis advises the Massachusetts Technology Cooperative on a wide range of broadband issues, including last-mile network deployment, business planning, and managing statewide stakeholder relationships.

**National Capital Region (NCR) Interoperability Program:** CTC provided the concept, engineering design, and project management for the National Capital Region Interconnection Network—a 120-mile public safety network interconnecting 19 fiber-optic based government networks in the greater Washington, D.C. region. This network was conceived as a backbone for interoperable communications that could take advantage of existing fiber infrastructures the governments already controlled.

**State of New Mexico:** CTC wrote a guidebook for New Mexico's local governments to lead them through the business, financial, and strategic planning necessary to implement city- or county-owned broadband networks. We are currently engaged in developing a statewide strategic plan for deployment and adoption of broadband in the State, as well as in preparation of regional implementation plans.

**State of New York:** CTC currently is designing New York State's public-private partnership model—a key element in Governor Cuomo's \$500 million "Broadband for All" initiative, which aims to deliver 100 Mbps services to every home and business in the state.

**Government of New Zealand (Crown Fibre Holdings):** CTC developed a reference architecture and technical guidelines for the New Zealand government's open access Ultra-Fast Broadband initiative. The project included establishing requirements for vendors bidding on the design, construction, and operation of a planned nationwide fiber network that will connect at least 75 percent of the country's population.

**One Maryland Broadband Network (OMBN):** Working closely with the Maryland Department of Information Technology (DoIT), CTC provided strategic guidance and was the lead engineering and business planning consultant in conjunction with the development of OMBN's successful \$115 million federal grant application. Our services included network architecture, plant engineering, and detailed project preparation, with a focus on expanding the state's existing fiber optic network to reach underserved areas and achieve other program goals. CTC also provided extensive business planning, business modeling, and pro forma preparation.

**City of Palo Alto:** CTC engineers currently are supporting the City in developing a "dig once" ordinance and related processes.

In two parallel projects in 2015, CTC developed both a fiber-to-the-premises (FTTP) master plan and a wireless network plan for the City of Palo Alto. In the FTTP engagement, we worked with the City's Information Technology and Utilities departments to research and prepare a strategic plan that outlines the feasibility of expanding the City's existing fiber system to provide citywide FTTP. In the wireless engagement, conducted a system-level requirements analysis and a needs assessment, and recommending wireless technologies, network designs, and business models.

CTC previously provided strategic guidance and advice to the City on expanding its dark fiber network to create opportunities for enhanced municipal and commercial services. We assessed how to leverage existing infrastructure to promote commercial wireless broadband deployment and improve municipal Smart Grid and public safety technologies. We also prepared a framework for establishing a public-private partnership to encourage greater infrastructure deployment.

**City of Raleigh:** CTC recently completed a project with the City of Raleigh to develop a roadmap for meeting the City's future networking needs. CTC engineers performed a technical assessment of the City's network plans, developed a strategy for fiber construction, and providing detailed guidance on middle-mile network operations. Our business analysts assessed the City's current network financial models, refined those projections, and created a sustainable business model that will enable the city to capitalize on excess fiber to create revenue and other community benefits. CTC also supported the city on the completion of its Google Fiber Checklist.

**City and County of San Francisco:** CTC currently is developing technical specifications for a municipal "dig once" policy to facilitate the cost-effective expansion of broadband infrastructure throughout the city.

We previously prepared a series of path-breaking analyses of the feasibility of the City building and operating a fiber-to-the-premises (FTTP) network—including a system design and detailed analysis of candidate architectures and open access models. The project also included analysis of multiple business models and business recommendations customized for San Francisco's unique circumstances.

CTC also provided ongoing consulting and strategic guidance with respect to an FTTP pilot and related technology projects, and helped the City with business planning, financial analysis, and engineering design to support its preparation of an extensive application for federal grant funding. The market research analysis provided measurements to predict emission reductions and other ancillary benefits of facilitating work-at-home initiatives through an FTTP implementation.

**City of Seattle / Seattle City Light:** CTC currently is supporting the city with business, technical, and strategic guidance as it explores options for FTTP network deployment in light of the changing national marketplace and emergence of new business models.

This engagements follows on multiple significant projects we have completed with the city and its electric utility over the past six years. CTC has previously performed market research and developed a feasibility study, a business case analysis, and an "off-the-balance-sheet" benefits analysis for a proposed fiber network.

The first study, "FTTP Municipal Broadband Risks and Benefits Evaluation," included an internal needs analysis, market research of both residential and business customers; an assessment of competing services and technologies; and an evaluation of the business case and business risks.

Following on that report, CTC researched and wrote an “FTTP Benefits Evaluation,” which explored the benefits of FTTP beyond the traditional balance sheet, including cost avoidance, monetary savings, and environmental impact. Notably, this report was one of the first of its kind to qualify and quantify (where possible) community-wide benefits of ubiquitous broadband connectivity such as enabling increased telecommuting, reductions in greenhouse gas emissions, and positive impacts on vulnerable populations such as the elderly and low-income residents.

In the third phase of this project, CTC advised the Mayor of Seattle regarding the U.S. communications market and business planning strategies for a citywide fiber enterprise. CTC led and facilitated a business planning working group comprised of the Mayor’s senior staff, the directors of the City’s electric and water/sewer utilities, and the City’s Chief Technology Officer.

**Cities of Urbana and Champaign / University of Illinois:** CTC has been the strategic and business planning consultant to Urbana, Champaign, and the University of Illinois for more than five years—since the coalition first conceived of constructing a middle-mile fiber network to connect community anchor institutions. We prepared the network’s successful federal Environmental Assessment, which enabled construction to begin. Following construction of the federally funded middle-mile project, we wrote a request for information (RFI) to enable the cities and the university to identify a private partner that would finance and operate an FTTx expansion of the network to serve 100 percent of the community. We evaluated potential partners’ proposals, then helped to negotiate with two partners to reduce the community’s risks and ensure that a partnership will achieve the coalition’s policy goals for economic development and digital inclusion.

As a result of the coalition’s final partnership—which Telecompetitor has called “a particularly good deal for the community”<sup>8</sup>—UC2B has secured an open access Gigabit FTTx network buildout that will protect its public policy interest by providing the same opportunity for access to the entire community. In return, UC2B’s partner—the ISP and network operator iTV3—gets value through access to UC2B’s existing middle-mile infrastructure (which it will operate) and the foundation of a significant last-mile consumer network.

Commenting on the partnership, FCC Chairman Wheeler said that it “provides a valuable model for communities and companies throughout the country and a demonstration of the creativity that is stimulated when localities are free to work with the private sector to improve broadband offerings.”<sup>9</sup>

**City of Vallejo, California:** CTC recently was awarded a contract by the City to develop a fiber optic master plan to guide the feasibility, long-term planning, budgeting and implementation of a municipal broadband network. In our technical analysis and planning, we will conduct a detailed investigation of the City’s existing conduit. And in our business planning tasks, we will focus on serving commercial customers—and on a model that will be self-funding over time.

**City of Westminster, Maryland:** CTC prepared a fiber feasibility study and business case for the City of Westminster in 2012 and 2013. Our report, which focused on maximizing available backbone network connectivity, included a technical design and cost estimates for two last-mile FTTP pilot projects (one focused on residential customers, one focused on businesses).

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<sup>8</sup> <http://www.telecompetitor.com/urbana-champaign-gigabit-network-will-open-access/>

<sup>9</sup> <http://www.fcc.gov/document/fcc-chairman-tom-wheeler-stmt-uc2b-and-itv-3-gigabit-announcement>

Following the City's decision to move forward with the pilot projects, CTC is currently providing support on a range of fiber infrastructure engineering, network design, construction oversight, and quality assurance tasks.

We also assisted the city in identifying a private partner to assume operating risk in providing services to the public over the City's FTTP infrastructure; the city announced its public-private partnership in mid-January. For more details, see CTC's website: <http://www.ctcnet.us/blog/maryland-city-announces-groundbreaking-fiber-partnership-with-ting-internet/>.

## References

We invite you to contact the following references about the quality, independence, and timeliness of CTC's work. Many additional references are available on request.

### **City and County of San Francisco**

Mr. Brian Roberts

Senior Policy Analyst, Department of Telecommunications & Information Services  
(415) 581-4061, [brian.roberts@sfgov.org](mailto:brian.roberts@sfgov.org)

### **City of Seattle**

Mr. Tony Perez

Director, Office of Cable Communications  
(206) 386-0070, [Tony.Perez@Seattle.gov](mailto:Tony.Perez@Seattle.gov)

### **City of Palo Alto, California**

Mr. Jim Fleming

Management Specialist  
(650) 566-4586, [Jim.Fleming@CityofPaloAlto.org](mailto:Jim.Fleming@CityofPaloAlto.org)

### **Town of Holly Springs, North Carolina**

Mr. Jeff Wilson

IT Director  
(919) 567-4013, [jeff.wilson@hollyspringsnc.us](mailto:jeff.wilson@hollyspringsnc.us)

### **City of Westminster, Maryland**

Dr. Robert Wack

Common Council President  
(443) 340-3227, [rwack1@comcast.net](mailto:rwack1@comcast.net)

## 2. Project Team

Our primary team members for this project will be the following. Complete resumes for each staff member are attached in Appendix A below.

**Joanne Hovis, CTC's President and Director of Business Consulting**, will be the City's primary contact throughout the project, and will lead all strategic and business planning tasks. An attorney who has provided network business model analysis and recommendations for some of the largest public broadband networks in the country, she is a recognized authority on the broadband market and community broadband topics—and on the evolving role of government in the provision of communications services to the public. Ms. Hovis has extensive experience developing business case and business model scenarios for public sector broadband initiatives, and is also CEO of the Coalition for Local Internet Choice (<http://www.localnetchoice.org/>). Ms. Hovis leads the CTC team that advises the states of Kentucky, Massachusetts, New Mexico, and New York, the cities of San Francisco, Seattle, and Washington, D.C., and the statewide broadband networks in Colorado, Maryland, and Pennsylvania.

*Joanne Hovis is a recognized authority on municipal broadband business models. She leads the CTC team that advises the states of New Mexico, New York, Kentucky, and Massachusetts, the cities of San Francisco, Seattle, and Washington, D.C., and the statewide broadband networks in Colorado, Maryland, and Pennsylvania.*

**Andrew Afflerbach, Ph.D., P.E., CTC's Director of Engineering**, will oversee all technical research and analysis. A licensed Professional Engineer, Dr. Afflerbach has developed institutional networks for cities and counties, has overseen the build-out of last-mile fiber networks, and works extensively on regional fiber and wireless public safety networks. He is an experienced network planner who understands the business and financial implications of various network designs. He led the CTC team that developed a reference architecture and technical guidelines for the New Zealand government's open access FTTP initiative—a project that included establishing requirements for vendors bidding on the design, construction, and operation of a planned nationwide fiber network that will connect at least 75 percent of the country's population.

**Tom Asp, MBA, a CTC Principal Engineer and Analyst**, will lead all financial analysis tasks. He is regarded as one of the premier analysts in the United States in the field of municipal planning and deployment of broadband systems to meet economic development, digital inclusion, and other needs. Mr. Asp has more than 25 years of nationwide experience as an engineer and analyst in communications and public power systems. His experience includes telecommunication system design and evaluation of network feasibility. Mr. Asp has developed financial statements and prepared quantitative business plan analyses for numerous municipal and utility clients nationwide and is widely recognized as an expert in municipal broadband business and strategic planning. Mr. Asp has served as lead for more than 100 local government broadband projects during his career—both with CTC and, previously, as a partner at the public accounting firm Baker Tilley—and brings a wealth of practical fiber optic business planning experience to his projects.

**Matthew DeHaven, a CTC Principal Engineer**, is currently managing the deployment of an FTTP pilot initiative in Westminster, Maryland—the first step in what will become a public-private partnership with Ting Internet to provide service throughout the city. Over the past three years, he served as the Portfolio

Manager for the Maryland Inter-County Broadband Network (ICBN) project, overseeing \$72 million in grant funds to build 800 miles of fiber optics and connect approximately 650 community anchor institutions, including schools, libraries, government buildings, and public safety agencies.

**Charlie Hamm, a CTC GIS Specialist and Staff Engineer,** works with a range of geographic design programs—including AutoCAD, ESRI ArcGIS, Google Earth, Microsoft Streets and Trips, and Quantum GIS—to enable large-scale network design and construction projects, as well as to illustrate geographic data for feasibility studies. He creates databases and maps to support network route planning, utility pole attachment, and permit application processes.

**Marc Schulhof, a CTC Senior Analyst and Technical Writer,** has more than 20 years of experience in technical writing, financial journalism, and public and corporate communications. Prior to joining CTC, Marc was the worldwide editor-in-chief of CIO program websites at IBM.

**Eric Wirth, a CTC Senior Engineer,** specializes in the evaluation of telecommunications networks. For example, he designed and implemented a fiber optic network for Norwich (Connecticut) Public Utilities. The project consisted of developing detailed fiber optic route design and cost estimates, network electronic design, and cost estimates, and a request for proposals (RFP) for Norwich’s use in selecting a contractor to complete the installation.

### 3. Scope of Work

We understand that the cities of Mt. Shasta, Weed, and Dunsmuir (“the Cities”) seek to develop a strategic and business plan for the potential deployment of a fiber-to-the-premises (FTTP) network with a private partner.

We are proud of the strategic, technological, and business planning advice we have provided dozens of cities as they have explored the feasibility of implementing or expanding government-owned broadband utilities. Our success as consultants comes down to the fact that we do not minimize our assessment of costs or risks; nor do we make unreasonable assumptions about revenue factors.

We will be the Cities’ trusted adviser throughout this engagement, and will deliver an independent strategic and business plan that will guide the Cities’ future steps.

#### Task 1: Conduct On-Site Strategy Session

As a preliminary step, we will conduct a full-day, on-site strategy session. Our project team will meet with the Cities’ personnel to discuss project goals and objectives, review relevant maps and documents, establish project parameters, and address the project team’s primary questions and concerns.

The strategy session will enable us to understand the Cities’ long-term vision and expected timeline. We will also seek guidance on any potential hurdles or areas of concern, as well as insight into existing broadband service availability and the Cities’ knowledge of the incumbents’ plans for future expansion.

We also view the strategy session as an opportunity to present an overview of relevant case studies and best practices in public sector dark fiber, broadband, and FTTP; discuss funding and financing issues; and explain the evolution of public–private broadband partnerships and business models—a topic in which we offer unparalleled expertise.

Specific agenda items will include:

- Identify project stakeholders
- Review project vision, goals, and objectives
- Review project schedule, key milestones, and deliverables
- Review perceived project strengths and weakness from the Cities’ perspective
- Review Cities’ existing network infrastructure and planned upgrades
- Review potential funding opportunities and sources
- Explore public–private partnerships and other likely business models
- Discuss framework for implementation roadmap
- Discuss the potential impact of competition from incumbent operators and new technologies
- Identify target FTTP construction and service areas (with a focus on a phased implementation)

- Review potential users and markets for new and enhanced connectivity capabilities enabled by FTTP, including:
  - Telecommuters
  - Business segments (needs by type and size)
  - Cottage industries supported by economic development
  - Home use (personal and business)
  - Education (e.g., increased capabilities and access in students' homes)
  - Multi-dwelling units (collaboration and partnership opportunities)
  - Industrial and business parks
- Review project schedule, key milestones, and deliverables

### **Task 2: Prepare Competitive Assessment of Incumbent Services**

We will identify and analyze the services and prices offered by the Cities' current incumbent providers. This competitive assessment will inform our business planning tasks.

Please note that with some services, it is not possible for a provider to guarantee service availability at a given location due to circuit quality, circuit loading, and other attributes. These providers often depict availability as a probability of getting service in a given zone. The provider will identify the total number of circuits in a given zone, and the total potential number of circuits that might support the broadband offering. At times the provider will share this information, and other times they will not.

### **Task 3: Evaluate Community and City Needs**

To define and assess community broadband needs—including business, residential, and internal City needs—we will interview up to six key stakeholders or groups of stakeholders identified and invited by the Cities. We request that the Cities schedule the potential participants and provide sufficient meeting facilities; we anticipate conducting these meetings over the course of two days following our strategy session (Task 1).

During the interviews, we will be asking questions from a short survey/interview instrument to assist in guiding the discussions. The goal of the interactive discussions is to:

- Determine anticipated level of support from stakeholders
- Elicit and discuss stakeholder needs for services that can be offered over a broadband network
- Solicit feedback from stakeholders on policy, potential business models, and technology
- Receive feedback from stakeholders on any other aspects of the project

Interviews provide qualitative data that can assist in projecting future requirements and reactions to various "what if" scenarios.

We will summarize the results of each interview session in regard to participants' levels of support, their alignment with the Cities' vision, their drivers and motivations to participate, and their suggestions for policies, insights regarding business models, questions, and comments regarding technology. Discussion topics include, but are not limited to, the following:

- What types of connectivity and broadband services do the stakeholders currently use?
- What limitations do the stakeholders see in their current situation?
- What are their expectations for current and future high-speed needs, and how well does their current provider meet these needs?
- How aware are respondents of current high-speed options?
- What applications do the stakeholders currently use and plan to use in the future?

#### **Task 4: Develop High-Level Design and Cost Estimates for FTTP Network**

Based on the parameters established during our kick-off meeting, CTC engineers will develop a system-level design and high-level capital and operating cost estimates for the construction and operation of fiber infrastructure in the Cities. We will include in our design the technical elements that we deem necessary to achieve the Cities' goals, and will develop a preliminary timeline that estimates the Cities' potential time for construction and service implementation.

To survey candidate fiber routes and develop cost estimates, and to identify the most efficient and effective way to connect the Cities' existing infrastructure to these new routes, CTC engineers will perform onsite inspections of candidate fiber routing, including examination of any existing conduit and fiber resources. We will identify least-cost routing for a range of potential fiber topologies, and will consider construction and design practices to minimize overall cost, including planning construction in conjunction with capital improvements in the rights-of-way (e.g., road work, sidewalk replacement).

We will develop high-level cost estimates on a baseline set of fiber routes, and identify incremental costs for enhancing construction methodology to include additional conduit capacity and access points to facilitate reduced-cost construction for potential future expansion and site additions. We will also identify areas of risk and a likely range of costs and schedules.

To be clear, we will not be providing a blueprint-level network design. Rather, we will be providing a conceptual design, high-level maps, and a system-level overview of the potential infrastructure—which in turn will become a roadmap for future decisions, including detailed engineering and contracting with private sector service providers.

#### **Task 5: Develop Business Plan for Candidate Network**

As we have done for public sector broadband networks nationwide, we will develop pro forma data for the Cities' broadband network operations based on the system-level design and the cost estimates for expansion. This high-level financial model for the Cities' proposed fiber construction will take into account a range of likely costs, including:

- Financing
- Operations
- Fiber maintenance

We will outline operational attributes and processes including policies, staffing levels, maintenance agreements, and other considerations. Particular attention will be paid to back-office and other operating requirements, as well as working capital projections.

The model will include an overall analysis of viable potential services and will provide:

- Sensitivities of key assumptions including, but not limited to:
  - Customer segmentation
  - Market penetration
  - Pricing
  - Tiered revenue structures
  - Operating fees
  - System construction
  - Staffing levels
  
- Base, best, and worst-case analysis

The pro forma will follow accounting standards and will provide schedules that detail:

- Operating income and cash flow
- Net present value analysis
- Subscriber revenue by service
- Subscriber revenue by customer/customer class
- Debt service analysis
- Reserve fund requirements
- Uses and sources of funds
- Operating expenses
- Operational savings
- Depreciation summary
- Projected construction costs for network, hardware, buildings and other equipment
- Return on investment (ROI)

We will also prepare specific recommendations on market positioning, marketing strategies, and product/service development, including:

- Recommendations and analysis of the opportunities
  - Ascertain the telecom industry's plans to expand or upgrade, if any
  - Describe the current competitive dynamic within the telecom industry and its impact on the operations of the Cities' network
  - Describe availability gaps (geographic)
  - Identify affordability gaps (economic)
  - Identify performance gaps (bandwidth, other)
  
- Description of the potential benefits for economic development
  
- Description of the potential use and benefits of the Cities' network for public safety
  
- Estimates of anticipated subscriber take rates
  - What impact does pricing have?

- What are the perceived performance requirements? How do these fit with the capabilities of wireless?
- What are the attributes that will impact a given consumer's decision?

All of our assumptions and price sensitivities will be clearly stated and justified. This financial model will provide the Cities with an order-of-magnitude estimate of the overall project cost, and will support the implementation and funding roadmap by providing inputs for potential business models, funding options, and partnering opportunities.

### **Task 6: Examine Range of Network Business Models and Funding Mechanisms**

Our report will consider a range of business models and funding options that might support the Cities' next steps and inform an implementation roadmap. Our business models, which will focus on public-private partnerships, will reflect our understanding of the Cities' desired roles and risk tolerances.

#### **Business Models**

We will bring to this engagement our experience in identifying the challenges of municipal network expansion in general, and FTTP implementation in particular—and our realistic approach to assessing project risks. We will be very frank about the level of funding needed for various levels of network expansion, and about the trade-offs among risk, benefits, and network control in various partnership approaches.

Over the past 15 years, we have seen communities raise public expectations very high before clearly understanding the challenges of FTTP financial models. This can be very disappointing to the public and politically challenging in the event that it does not work out. We will help you moderate public expectations and bring a dose of reality to the plans.

Notably, we have singular experience in developing broadband public-private partnerships on behalf of public sector clients. CTC supported the Commonwealth of Kentucky in developing and negotiating its \$250 million to \$350 million P3 concessionaire agreement. For both the Town of Holly Springs, North Carolina, and the City of Westminster, Maryland, we assisted the municipal governments in identifying a private partner to assume operating risk in providing services to the public under two significantly different partnership models, each aligned with the unique needs of these communities. We have also provided broadband P3 strategic and technical consulting to the City of Santa Cruz, California, the Village of Bald Head Island, North Carolina, and other cities nationwide.

#### **Funding Mechanisms**

Public sector network expansions, especially FTTP initiatives, reflect both an ambitious vision and, often, a public commitment to financing broadband access for all citizens. Many municipalities have pursued grant funding, taken out bonds, or otherwise sought funding for construction of publicly owned fiber networks.

Our goal in this task is to help the Cities develop realistic approaches to funding and financing. Our report will examine other viable options. And we will focus on demonstrating the business case as a means of working with the State, local organizations, or private partners under a range of these models.

We will draw on our hands-on knowledge of broadband funding opportunities and our research capabilities in this area to identify and compile a detailed list of potential funding opportunities for the

Cities to consider. To the extent possible, we will “rank” these opportunities in terms of the likeliness that they for successful funding.

We note, too, that many municipalities have decided that the benefits of supporting an FTTN network outweigh the financial costs. Those jurisdictions have examined an FTTN network’s potential “benefits beyond the balance sheet” and determined that ubiquitous high-speed broadband has such value that it should be considered a public good, like water or electricity, and made available to all residents.

### **Task 7: Identify and Analyze Potential Partners**

CTC is closely connected to current efforts by many cities and counties to enlist private sector partners for broadband services. Three of our clients have successfully signed partnership agreements for FTTN expansion and service delivery; others are in the process of identifying a qualified partner. For each of these public sector network owners, we helped develop a request for information (RFI) and guide them through the process of evaluating the RFI responses and negotiating with the finalists. We have a strong sense of the types of partners to prioritize for potential discussions, and the type of benefits that might accrue to the community from a partnership.

Based on the Cities’ stated interest, CTC will assist the Cities with the following tasks:

- Performing a preliminary screen and identification of suitable potential partners, based on criteria developed together with the Cities.
- Identifying the respective roles for the Cities and a potential private sector partner.
- Developing the requirements for and writing an RFI or request for proposals (RFP) that, when published, will solicit responses from qualified potential partners.
- Identifying private sector partners. CTC will analyze responses that the Cities receive as a result of its RFI/RFP, and will prepare a memo that provides a detailed overview of the respondents, a recommended partner, and our rationale for the selection.

Following that, we would also be available to help with a range of other potential tasks, to be billed at our standard hourly rates. These tasks include, but are not limited to:

- Analysis of additional private partner proposals
- Support in negotiations with potential private partners
- Financial analysis of business elements of the potential partners’ proposals
- Analysis of the viability and track record of the potential partners
- Assistance with due diligence, including speaking with other communities that have worked with or negotiated with the potential partners
- Analysis and vetting of the viability of the partners’ proposed technologies

### **Task 8: Prepare Final Report and Present Recommendations**

Our final deliverable will be a comprehensive strategic and business plan, including a succinct summary that presents our key findings and recommendations. The report will include the results and our analysis of all of the assessments and research conducted throughout the project.

Our written report will include a clear and concise narrative supported by charts, tables, graphics, and maps. We will attribute and provide sourcing for our research. The study will include our analysis of several business models, as well as a high-level financial model and network design.

The report will present both an analysis of feasibility and, based on those findings, an action plan for next steps in terms of financing and an implementation timeline. As we noted above, we will not minimize our assessment of costs or risks; nor will we make unreasonable assumptions about revenue factors such as take rates and service fees.

Our strategic plan may thus include recommendations related to considering pilot projects, issuing a request for information (RFI) to identify potential partners, developing more detailed network designs and cost estimates, or other steps that we believe the Cities should consider.

We will provide the Cities' identified reviewers with an electronic draft of our report for initial review. We will incorporate the reviewers' feedback and edits within two weeks of receipt, and will deliver an electronic version of our final report. We will also conduct a presentation of the report and our recommendations via WebEx at a time to be selected with the Cities.

#### 4. Project Cost and Hourly Rates

CTC proposes to perform the tasks described in the scope of work above for a not-to-exceed cost of \$100,000, inclusive of all expenses including travel. This total cost, to be split among the three Cities, represents the significant project efficiencies created by performing these tasks simultaneously for all three cities (as compared to pursuing three separate engagements).

We will bill our work (as well as any additional work requested by the Cities, such as the potential follow-on support described in Task 7) at the following hourly rates:

<b>Labor Category</b>	<b>Rate</b>
Director of Business Consulting / Engineering	\$170
Principal Analyst / Engineer	\$160
Senior Project Analyst / Engineer	\$150
Senior Analyst / Engineer	\$140
Staff Analyst / Engineer	\$130
Communications / Engineer Aide	\$ 75

CTC's billing rates are inclusive of all routine expenses including administrative, accounting, and computer support, telephone calls, and photocopying. Non-routine expenses and long-distance travel are recovered at direct cost with no mark-up. Please note that CTC reserves the right to reallocate funds among task and staff categories so long as the total cost is not exceeded. Payment is due within thirty (30) days of invoice.

## Appendix A: Team Resumes

### Joanne S. Hovis, Esq. | President and Director of Business Consulting

Joanne Hovis is President of CTC. She is an attorney and business planner with a two-decade background in communications and broadband. Ms. Hovis is a recognized authority on the broadband market and community broadband topics—and on the evolving role of government in the provision of communications services to the public.

Ms. Hovis leads the CTC team that advises the states of New Mexico and Kansas; the cities of San Francisco, Washington, D.C., and Seattle; the American Recovery and Reinvestment Act (ARRA) funded UC2B (Champaign and Urbana, Illinois) and ICBN (central Maryland) networks; and the statewide broadband networks in Colorado, Maryland, and Pennsylvania. She advises the University of Illinois, Case Western Reserve University, and a number of other institutions regarding broadband planning.

Ms. Hovis also oversees all ongoing CTC research and analysis for local government clients and frequently provides business planning and analysis for communications networking initiatives such as San Francisco's planned fiber network and the public safety communications network currently under development in the Washington, D.C. metropolitan area. She also leads CTC's consulting on the federal E-Rate and Healthcare Connect Fund programs.

Ms. Hovis serves as Immediate Past President of the National Association of Telecommunications Officers and Advisors (NATOA), which represents local governments and promotes community interests in communications matters. She is a member of the boards of directors of the Benton Foundation, the Fiber to the Home Council, and OneCommunity, and is a charter member of the United States Unified Community Anchor Network (U.S. UCAN) project's Task Force on Community Anchor Network Economic Models. She is also CEO of the Coalition for Local Internet Choice (CLIC).

Ms. Hovis previously worked as an attorney with Jenner & Block in Chicago and Mintz, Levin, Cohn, Ferris, Glovsky, & Popeo PC in Washington, D.C. At those firms, she worked on complex communications and litigation projects for such clients as Salomon Brothers and AOL.

#### Business Planning and Feasibility Analysis

Ms. Hovis leads all of CTC's business planning efforts. She has spearheaded projects that explore a range of business models by which government clients can leverage their existing assets to build, expand, and incentivize broadband expansion. She is sought nationwide as an expert in municipal ownership and operational broadband business models, fiber and wireless markets, and public-private partnerships. Among the projects she has led are:

- **City of Seattle.** Ms. Hovis advised the Mayor of Seattle regarding the U.S. communications market and business planning strategies for a citywide enterprise. She reported the public subsidies a network would require, and delivered a full assessment of opportunities and risks. The report included internal needs analysis, statistically significant market research, an assessment of competing services and technologies, and an evaluation of the business case and financial risks. Ms. Hovis led further analysis of the benefits of FTTP beyond the traditional balance sheet. She led and facilitated a business planning working group comprised of the Mayor's senior staff, the directors of the city's two utilities (electric and water/sewer), and the city's CIO.

- Ms. Hovis advises the **State of New Mexico's Department of Information Technology** on broadband planning. She led a team of writers and analysts that produced a guidebook for New Mexico's local governments to guide them through the business, financial, and strategic planning necessary to implement city- or county-owned broadband networks. The book-length guidebook offers specific instructions for localities to research and document the telecommunications infrastructure in their communities, and discusses strategies for exploring public-private partnerships for broadband expansion.
- Ms. Hovis is working with the **State of Kansas Department of Commerce** on a large-scale needs assessment of the state's network infrastructure. She is conducting major market surveys among three core sectors across the state (residents, businesses, and community anchor institutions) to evaluate the current uses and needs of broadband infrastructure. She is also developing a strategy for the evolution of Kan-ed, the state-created broadband program that serves schools, hospitals, libraries, and higher education institutions.
- Ms. Hovis has advised officials in the **District of Columbia** government on a range of telecommunications and fiber-optic projects for almost a decade. She worked with the Office of the Chief Technology Officer (OCTO) to create a business plan and strategy for building a municipal fiber-optic network with a wireless overlay in the least-served wards of the city. She performed a business case and technology analysis (including five-year projections) for DC-Net, a fiber-optic telecommunications network that provides voice and data services for the District of Columbia. She analyzed governmental, educational, and public safety uses of the network. The project tasks included asset mapping and network description; developing a cost comparison to leased/managed services; identifying opportunities to resell to other entities; identifying support mechanisms; and determining recommended business practices. She performs an ongoing role as strategic fiber adviser to the Chief Technology Officer and the Director of DC-Net, and supports planning for the network's future—including expanding the network to a broader array of end users.
- Ms. Hovis advises the **Urbana-Champaign Big Broadband (UC2B) Coalition (University of Illinois and the cities of Champaign and Urbana)** on a wide range of business and strategic planning issues. She is currently evaluating the private sector bids to build out last-mile fiber connections in the cities. She took a leading role in preparing UC2B's successful application for a federal Broadband Technology Opportunities Program (BTOP) stimulus grant to support its proposed FTTP network.
- Ms. Hovis provided extensive business planning, market assessment, and strategic planning for the **City and County of San Francisco**. Ms. Hovis served as a key adviser to the city's Chief Information Officer. She conducted an independent evaluation of the feasibility of San Francisco constructing and operating a municipal FTTP network to serve businesses and residences. As a first step toward the FTTP network, she worked with the City to plan a migration of the leased telecommunications services connecting 250 government facilities to a City middle-mile fiber-optic network; she also supported the city's application for BTOP funding. She reviewed cost and pricing factors associated with using leased telecommunications services and circuits provided by private vendors, as compared with migration to government-owned fiber optics. She projected the return on investment and total cost of ownership (including a wide range of costs from deployment to staffing to maintenance to financing to cutover expenses). She evaluated potential efficiencies to be realized through in-house rather than outsourced provision of services and circuits.

#### Grant Planning & Management

Ms. Hovis' expertise includes the many funding opportunities available to local government broadband

planners through the federal government and other sources. She has guided clients through the grant process, from application writing to fund management.

Ms. Hovis' grant work has included:

- Supporting more than a dozen clients in securing American Recovery and Reinvestment Act (ARRA) funds through the Broadband Technology Opportunities Program (BTOP). Successful applicants included including the \$22.5 million Urbana-Champaign Big Broadband (UC2B) project, the \$115 million One Maryland Broadband Network (OMBN), the \$32.1 million OpenCape project in Cape Cod, and Washington, D.C.'s \$17.5 million Community Access Network (DC-CAN).
- Securing additional National Telecommunications & Information Administration (NTIA) funds from the **Public Safety Interoperable Communications (PSIC)** grant program on behalf of public health and public safety communications projects in the National Capital Region (NCR).
- Providing business case development and ongoing business planning support to significant **Urban Areas Security Initiative (UASI)** grant-funded projects in the NCR.

#### Speaking and Advocacy

Ms. Hovis is in wide demand as a speaker and expert source on broadband deployment issues. She has testified before the U.S. Congress on matters of broadband deployment and policy; has been interviewed by publications including *Business Week*, the *Washington Post*, and the *Baltimore Sun*; and has been featured on the C-SPAN show "The Communicators." She has provided expert presentations to the Federal Communications Commission, National League of Cities, the University of Illinois, Case Western Reserve University, the New America Foundation, and the Congressional Internet Caucus.

Ms. Hovis recently authored "The Emerging World of Broadband Public-Private Partnerships: A Business Strategy and Legal Guide" (published by the Benton Foundation). She is also author of "Gigabit Communities: Technical Strategies for Facilitating Public or Private Broadband Construction in Your Community"—an independent report sponsored by Google (available on CTC's website).

#### **EDUCATION**

**Juris Doctor, with honors**, University of Chicago Law School, 1994

**Bachelor of Arts, with distinction**, University of Wisconsin, Madison, 1990

#### **PROFESSIONAL CERTIFICATIONS/LICENSES**

Member of Illinois Bar Association, Member of District of Columbia Bar Association

#### **ORGANIZATIONS**

- Coalition for Local Internet Choice, CEO
- National Association of Telecommunications Officers and Advisors, Immediate Past President
- Benton Foundation, Director
- Fiber to the Home Council, Director
- OneCommunity, Director
- United States Unified Community Anchor Network, Task Force on Community Anchor Network Economic Models, Charter Member

#### **PRIOR TO COMING TO CTC IN 1997**

1996–1997 Litigation/Communications Attorney, Mintz, Levin, Cohn, Ferris, Glovsky, & Popeo P.C.

1994–1996 Litigation Attorney, Jenner & Block

## Andrew Afflerbach, Ph.D., P.E. | CEO and Director of Engineering

Dr. Andrew Afflerbach specializes in planning, design, and implementation of communications infrastructure and networks. His expertise includes emerging fiber and wireless technologies and state-of-the-art networking applications.

As Director of Engineering, he oversees all engineering work performed by CTC Technology & Energy. He is a licensed Professional Engineer in the Commonwealth of Virginia and the states of Delaware, Maryland, and Illinois.

Dr. Afflerbach has planned and overseen implementation of a wide variety of government and public safety networks, including the infrastructure of state and metropolitan area governments. He prepared extensive technical analyses for submission to the Federal Communications Commission (FCC) and policymakers on national fiber expansion to underserved schools and libraries, on due diligence for the IP transition of the telecommunications infrastructure, and on potential technical frameworks for wireless network neutrality. He also served as a senior adviser to Crown Fibre Holdings, the public entity that is directing New Zealand's national fiber-to-the-home project.

### Broadband Planning and Engineering

Dr. Afflerbach has architected, designed, and overseen implementation of numerous broadband networks for local and state governments, including those of Washington, D.C.; Crown Fibre Holdings (Government of New Zealand); San Francisco; the Delaware Department of Transportation; the Maryland Transportation Authority; St. Louis Park, Minnesota; and many large counties. He oversaw the development of system level broadband designs and construction cost estimates for several cities including Seattle, Palo Alto, Madison, and Boulder, as well as for the states of Kentucky and Connecticut. He is overseeing the design of the city-built fiber-to-the-premises network in Westminster, Maryland.

### Advisory Services

Dr. Afflerbach advises a wide range of policy think tanks, U.S. federal agencies, and non-profits regarding the engineering issues underlying key communications issues. For example, he:

- Leads the technical team conducting FirstNet planning for the District of Columbia.
- Provided expert testimony to the U.S. Federal Communications Commission (FCC) in the matter of the preparation of the national broadband plan as a representative of the National Association of Counties (NACo) and the National Association of Telecommunications Officers & Advisors (NATOA).
- Served as expert advisor regarding broadband deployment to the U.S. Conference of Mayors, NACo, National League of Cities, Public Knowledge, New America Foundation Open Technology Institute, and NATOA in those organizations' filings before the FCC in the matter of determination of the deployment of a national, interoperable wireless network in the 700 MHz spectrum.
- In connection with the FCC's ongoing Open Internet proceeding, advised the New America Foundation regarding the technical pathways by which "any device" and "any application" regimes could be achieved in the wireless broadband arena as they have been in the wireline area.
- Provided expert technical witness reports for municipal parties in litigation regarding a large commercial carrier's failure to complete construction of a citywide fiber network in a major North American city.
- Provided expert technical advice on the 700 MHz broadband and AWS-3 proceedings at the FCC for the Public Interest Spectrum Coalition.

- Prepared technical reports and analysis regarding fiber construction for submittal to the FCC, in connection with preparation of the National Broadband Plan, by NATOA, the City and County of San Francisco, and the Schools, Health, and Libraries Coalition.
- Served as technical advisor to the Naval Exchange in its evaluation of vendors' broadband communications services on U.S. Navy bases worldwide.
- Advised the U.S. Internal Revenue Service regarding the history of broadband and cable deployment and related technical issues in that agency's evaluation of appropriate regulations for those industries.
- Advised, during the height of the broadband "open access" debate, a variety of public interest associations and communities, including the City of Los Angeles and Stanford University, regarding the technical means by which cable networks could be opened to competition.
- Advised the Stanford Law School Center for Internet and Society on the technical issues for their briefs in the *Brand X* Supreme Court appeal regarding cable broadband.
- Provided technical advice to numerous non-profits, associations, and agencies as diverse as the Center for Internet and Society at Stanford Law School; the Internal Revenue Service, the Alliance for Community Media, the William Penn Foundation, the Center for Digital Democracy, and the FCC's Local and State Government Advisory Board (LSGAC).
- Has been invited to speak about communications technologies before such organizations as the Public Technology Institute, American Association of Community Colleges, ICMA, ILCMA, and the Practicing Law Institute.

#### Public Safety Network Interoperability and Interconnection

Dr. Afflerbach served as lead engineer and technical architect for planning and development of NCRnet, a regional fiber-optic and microwave network that links public safety and emergency support users throughout the 19 jurisdictions of the National Capital Region (Washington, D.C. and surrounding jurisdictions), under a grant from the U.S. Department for Homeland Security's Urban Areas Safety Initiative. He wrote the initial feasibility studies that led to this regional network interconnection project.

#### Smart Grid

Dr. Afflerbach and the CTC team provided expert testimony and advisory services to the Public Service Commission of Maryland regarding Advanced Metering Infrastructure (AMI). CTC provided objective guidance to the staff as it evaluated AMI applications submitted by three of the state's investor-owned utilities (IOUs). This contract represented the first time the PSC staff had asked a consultant to advise them on technology—a reflection of the lack of standards in the Smart Grid arena.

#### Instruction/Expertise

Dr. Afflerbach has served as an instructor for the U.S. Federal Highway Association/National Highway Institute, the George Washington University Continuing Education Program, the University of Maryland Instructional TV Program, ITS America, Law Seminars International, and the COMNET Exposition.

#### **EMPLOYMENT HISTORY**

1995–Present	CEO/Director of Engineering, CTC Previous positions at CTC: Principal Engineer, Senior Scientist
1990–1996	Astronomer/Instructor/Researcher University of Wisconsin–Madison, NASA, and Swarthmore College

## **EDUCATION**

**Ph.D.**, Astronomy, University of Wisconsin–Madison, 1996

**Master of Science**, Astronomy, University of Wisconsin–Madison, 1993

**Bachelor of Arts**, Physics, Swarthmore College, 1991

## **PROFESSIONAL CERTIFICATIONS/LICENSES**

Professional Engineer, Commonwealth of Virginia and states of Delaware, Maryland, and Illinois

## **HONORS/ORGANIZATIONS**

- Association of Public-Safety Communications Officials (APCO)
- SAFECOM Emergency Response Committee
- Board of Visitors, University of Wisconsin Department of Astronomy
- National Association of Telecommunications Officers and Advisors (NATOA) Technology and Public Safety Committees
- Armed Forces Communications and Electronics Association (AFCEA)
- Society of Cable and Telecommunications Engineers (SCTE)
- Institute of Electrical and Electronic Engineers (IEEE)
- Charleston Defense Contractors Association (CDCA)
- NASA Graduate Fellow, 1993–1996. Research fellowship in astrophysics
- Elected Member, Sigma Xi Scientific Research Honor Society
- Eugene M. Lang Scholar, 1987–1991, Swarthmore College

## **SELECTED PUBLICATIONS, PRESENTATIONS, and COURSES**

- “LTE-U Interference in Unlicensed Spectrum: the Impact on Local Communities and Recommended Solutions,” prepared for WifiForward, Feb. 2016
- “Mobile Broadband Networks Can Manage Congestion While Abiding By Open Internet Principles,” prepared for the New America Foundation’s Open Technology Institute – Wireless Future Project, filed with the FCC, Nov. 2014
- “The State of the Art and Evolution of Cable Television and Broadband Technology,” prepared for Public Knowledge, filed with the FCC, Nov. 2014
- “A Model for Understanding the Cost to Connect Schools and Libraries with Fiber Optics,” prepared for the Schools, Health & Libraries Broadband Coalition, filed with the FCC, Oct. 2014
- “The Art of the Possible: An Overview of Public Broadband Options,” prepared jointly with the New America Foundation’s Open Technology Institute, May 2014
- “Understanding Broadband Performance Factors,” with Tom Asp, Broadband Communities magazine, March/April 2014
- “Engineering Analysis of Technical Issues Raised in the FCC’s Proceeding on Wireless Facilities Siting,” filed with the FCC (<http://apps.fcc.gov/ecfs/document/view?id=7521070994>), Feb. 2014
- “A Brief Assessment of Engineering Issues Related to Trial Testing for IP Transition,” prepared for Public Knowledge and sent to the FCC as part of its proceedings on Advancing Technology Transitions While Protecting Network Values, Jan. 2014
- “Gigabit Communities: Technical Strategies for Facilitating Public or Private Broadband Construction in Your Community,” prepared as a guide for local government leaders and planners (sponsored by Google), Jan. 2014

## Thomas J. Asp, BSEE, MBA | Principal Engineer and Analyst

### EXPERIENCE SUMMARY

Mr. Asp specializes in evaluating connectivity (voice, video, and data) options and recommending effective solutions for clients throughout the United States. He holds more than 25 years of experience as an engineer and analyst in communications and public power systems. His experience includes electric and telecommunication system design, network feasibility, evaluation of the financial impact of projects on operations, and provision of expert testimony.

Mr. Asp is recognized as an expert in evaluating and offering recommendations regarding municipal broadband communications systems. He has been actively involved with telecommunication market research and feasibility analysis for over a decade, both with CTC and previously as a partner at the public accounting firm of Virchow Krause (Baker Tilley). Mr. Asp also has significant experience in the communications industry working in the areas of cellular, cable TV, broadband, and mobile radio, including as a product manager in the Cellular Mobile Telephone, Automatic Meter Reading, and Distribution Automation industries.

#### Broadband Networks (Wired and Wireless)

Mr. Asp is regarded as one of the premiere analysts in the United States regarding municipal planning and deployment of broadband systems to meet economic development, digital inclusion, and other needs. He has assisted numerous local governments, municipal utilities, and municipal consortia to evaluate their communities' communications needs and determine the financial parameters and business case for meeting those needs.

In this area, Mr. Asp's experience includes preparing connectivity feasibility studies for municipal networks, including economic analysis, market assessment, technology review, vendor analysis, and business plan development. He has assisted numerous communities with evaluating the feasibility of advanced connectivity services alternatives including provider partnerships and city-owned networks. He has reviewed options under cable franchise agreement for municipal purchase and operation. Mr. Asp has reviewed offerings and operations of incumbent telecommunications providers and assisted in negotiations with incumbent telecommunications providers to enhance availability of existing services and to encourage new and innovative offerings.

Some select examples of his projects include:

- Provided Jackson (Tennessee) Energy Authority an independent evaluation of responses to JEA's 2010 request for proposals (RFP) soliciting vendors to provide wholesale voice services. With JEA staff input, he developed the evaluation system and scoring matrix to ensure a balanced approach that best met JEA's needs. Responses were evaluated on the basis of strategic fit, operational fit, reliability, and overall cost; recommended two respondents as finalists for further consideration by JEA; and assisted JEA in negotiating with those finalists. As a final step in the process, CTC presented to JEA management a written report recommending the "best-fit" vendor.
- Completed a business and technology plan for Los Angeles Department of Water and Power (LADWP) to determine the feasibility of expanding the connectivity services offered to the businesses and institutions over the Department's fiber network. Included in the analysis was a valuation of additional fiber routes that LADWP acquired from the City of Los Angeles.
- Served as a business consultant to the City and County of San Francisco. Investigated the feasibility of the city building and operating a fiber-to-the-premises (FTTP) network to every home and

business in San Francisco. The project included an analysis of multiple business models and business recommendations customized for San Francisco's unique circumstances.

- Developed a business case analysis for DC-Net, a District-owned and operated fiber optic telecommunications network that provides voice and data services. The network consists of resilient, interconnected fiber optic rings that connect more than 400 government buildings in the District, including Police Department, Emergency Management Agency, and Fire Department radio towers.
- Conducted a feasibility study, a business case analysis, and an "off-the-balance-sheet" benefits analysis for a fiber-optic network proposed by the mayor of the City of Seattle. The first study, FTTP Municipal Broadband Risks and Benefits Evaluation, sponsored by Seattle City Light, included the following elements:
  - Internal needs analysis
  - Market research of both residential and business
  - Assessment of competing services and technologies
  - Evaluation of the business case and business risks

Following on that report, Mr. Asp researched and wrote an FTTP Benefits Evaluation for the City, which explored the benefits of FTTP beyond the traditional balance sheet, including cost avoidance, monetary savings, and environmental impact.

- Performed an expert assessment of a business and marketing plan for Utah Telecommunication Open Infrastructure Agencies (UTOPIA's) open access FTTP network. The project included a strategy session with key stakeholders, collection of relevant background material, an analysis of UTOPIA market research and marketing models, and an independent evaluation of UTOPIA's business plan. Mr. Asp's work focused on improving the participating UTOPIA communities' ongoing cash flow and increasing participation of households and businesses in those communities.
- Prepared a fiber optic business plan for Richland Utilities, Washington to meet the needs of city facilities, the electric utility, schools, hospitals, banks, and other institutions. Work included preparation of various business models, review of operational requirements, and preparation of pro-forma financial statements.
- Provided extensive business planning assistance to the State of Maryland's One Maryland program, which lead to build an interconnected fiber-optic broadband network that reaches every county and city in Maryland and will provide backbone and middle-mile capacity for commercial carriers.
- Managed project assisting Bountiful City, UT with the development of a business plan for a citywide wireless network. This project included the review of a conceptual design, reviewing proposed business relationships and staffing, and conducting a cost-benefit analysis.
- Project manager in assisting Ames, IA with the review of existing architecture, development of a network design, and preparation of detailed cost estimates for the acquisition and installation of WiFi hot spots and supporting infrastructure. This project has now moved into implementation preparations.
- Led consulting team in investigating WiFi deployment models, development of a business plan (including market research and financial analysis), and development of a partnership RFP for St. Louis Park, MN. Mr. Asp assisted the city to pilot the network and then prepared specifications and bid documents to identify both integrators and operators for the network.
- Assisted the City of Tucson, AZ with a wireless feasibility study that included market research, competitive industry assessment, internal and external needs assessments, financial analysis, and the development of a business plan.

- Assisted in the implementation of an Institutional Fiber Network (I-Net) for Norwich (CT) Public Utilities. Project included development of a plan and strategy for the Fiber Optic Enterprise.

#### DA, AMR, SCADA

In the areas of Distribution Automation (DA), Supervisory Control and Data Acquisition (SCADA), mobile radio, and Advanced Metering Infrastructure (AMI), Mr. Asp has assisted municipal utilities and public power cooperatives with extensive evaluative and design services. Specifically, he has prepared evaluations and submitted recommendations on AMI alternatives and benefits. He has assessed existing and evolving technologies and services to support AMI and DA for electric utilities and has developed and directed demonstration plans to test technologies to support distribution automation -- including providing recommendations for establishing vendor alliances, performing research and designs networks to combine multi-utility communications, and outlining, evaluating, and recommending communication requirements and options for electric utility DA, SCADA, mobile radio, and AMI.

#### **TESTIMONY & VALUATION**

In addition to assisting over 80 communities and counties in evaluating financial opportunities to provide voice, data, and video services, Mr. Asp has provided financial and technical testimony and expert advice. Some examples include:

- Conducted an exhaustive business case analysis and prepared expert witness testimony on behalf of the City of Alameda in a federal court case involving the business practices, business results, and ultimate sale of its fiber optic enterprise. The testimony included a comparative analysis of business models employed by municipal fiber networks nationwide and a review and valuation of several recent cable business transactions.
- Maryland Public Service Commission regarding Baltimore Gas & Electric's application for deployment of AMI and smart grid technologies. Written and sworn testimony included an analysis of smart grid technologies, vendor development, and impact to rates.
- Pacific Gas & Electric regarding the financial and technical viability of the use of Broadband over Power line (BPL) for Automatic Meter Reading (AMR) and support of new business opportunities. Mr. Asp prepared a report in anticipation of being called to testify before the California PUC
- The City of Lebanon, OH in connection with a dispute over an Assessment of Infrastructure Connectivity Fee with home-builders and Time Warner Cable. The Assessment and disposition regarded the reasonableness of the connection fee assessed to each new home by the municipal telecom department
- The City of Marshal, MO in determination of the value of the incumbent cable television system owned and operated by Time Warner.

#### **EDUCATION**

**Bachelor of Science**, Electrical Engineering, North Dakota State University, 1979

**Master of Business Administration**, University of St. Thomas, St. Paul, 1989

## Matthew DeHaven | Principal Engineer and Project Manager

Matthew DeHaven specializes in wired and wireless communications and broadband telecommunications technology for public safety and other local government and institutional needs. He has over 13 years of extensive engineering experience designing, developing, installing, and overseeing integration of local and wide area networks for institutional, public safety, and Intelligent Transportation System (ITS) applications, video-networking solutions, and unified communications systems.

Mr. DeHaven has experience at many levels of network design, procurement, and implementation for high-capacity metropolitan-area networks to support converged video, voice, and data communications. He leads network designs and the preparation of specifications for competitive bid processes, serves as project manager overseeing implementation and testing for a wide range of government clients. Mr. DeHaven prepares designs and cost models to support decision-makers in the deployment of a range of data network technologies, traditional telephone systems, voice-over-IP (VoIP) networks, one-way video distribution, and two-way videoconferencing. His data network experience includes work with SONET, Ethernet, and ATM networks using a range of fiber optic, copper, and wireless technologies. He serves as CTC's lead engineer on numerous wide area network projects.

Among many other projects, he served as a one of the primary technical architects for the 19 jurisdiction fiber optic/microwave network currently deployed in the National Capital Region (NCRnet) to support public safety interoperable communications.

### Inter-County Broadband Network

Originally serving as part of the grant application development team that successfully led the State of Maryland to a \$115 million Broadband Technology Opportunities Program (BTOP) administered by the National Telecommunications and Information Administration (NTIA), Mr. DeHaven served as the Portfolio Manager for the One Maryland Inter-County Broadband Network BTOP grant project.

The ICBN is a nine-jurisdiction consortium in central Maryland led by Howard County, Maryland, and is a key sub-recipient of the State's grant award. Mr. DeHaven is the lead technical consultant overseeing the use of approximately \$72 million in grant funds to build over 800 miles of fiber optics and directly connect approximately 650 community anchor institutions, including schools, libraries, government buildings, community colleges, and public safety agencies. Mr. DeHaven was tasked with overseeing numerous engineering and construction contractors, as well as playing a key role in overall network design during this aggressive three-year endeavor that began in late 2010.

### Wireless Communications

Mr. DeHaven assesses clients' existing and projected wireless broadband needs and recommends potential strategies for using new technologies to enhance and improve network operations and services. Some select examples of his ongoing and past projects include:

- Engineering support of the ongoing deployment of a citywide 4.9 GHz public safety radio mesh network for the City of Port Angeles, WA. CTC conducted a needs assessment of the city's network and reviewed public safety mobile data communications considerations, which led to the development of network specifications and overseeing the procurement for the expansion of the city's fiber network and a citywide wireless network serving both public safety and public access needs.

- Provided an updated assessment and review to Cincinnati, OH of the city's current networks and recommended updates to the long-term strategic plan originally prepared in 2004. This project involves assessing and identifying new department and network application needs, assessing the current networks to meet identified needs, assessing emerging fiber and wireless technologies, recommending wireless strategies, and providing recommendations and strategies for meeting foreseeable needs.
- Developed a strategic plan for a wireless data network to meet public safety and local government needs in Seattle, WA. CTC previously conducted a feasibility study that identified these needs.
- Design of a broadband wireless network for Annapolis, MD that provides connectivity for a citywide video surveillance system. The network was designed to provide high-degrees of security and have substantial reserve capacity to support the addition of new video requirements, expand toll-quality IP-based voice and data services, and, potentially, provide backhaul for a future mobile wireless solution.
- Oversight of the design and implementation of a "wireless downtown" for Skokie, IL to enhance economic development and Internet accessibility for residents and visitors.
- Project oversight in developing an infrastructure plan to support the implementation of WiFi services throughout a downtown area targeted for economic development in Rockville, MD. The plan focuses on deploying a flexible architecture of physical support infrastructure to enable a wide range of wireless connectivity options for visitors, residents, and business tenants while maintaining the aesthetics of the development.
- Evaluation of bids from wireless service providers who responded to the city of Mesa, AZ's RFP. CTC also, in an earlier phase of the project, provided an assessment of WiFi technology and potential expansion of the fiber-optic infrastructure via mass wireless communications—potentially for an intelligent transportation system application and for free Internet access for citizens.
- Research on current and future wireless technologies and evaluation of the feasibility of implementing a secure public safety wireless network in Prince George's County, MD. Designed and implemented a pilot project to test the feasibility of a public safety network. A successful solution was deployed to enable Mobile Data Computers in emergency response vehicles to securely roam from a carrier CDMA network to private, County-operated WiFi hotspots.

#### Public Safety Networking

In addition to supporting the design and deployment of NCRnet, Mr. DeHaven is the lead engineer responsible for one of the key applications leveraging this regional network. Mr. DeHaven is responsible for the design, implementation, and ongoing operations of a regional videoconferencing network supporting Emergency Management among the 21 jurisdictions in the National Capital Region (DC, MD, VA). CTC developed the systems' designs and oversaw implementation under a grant from the Department of Homeland Security Urban Areas Security Initiative (UASI). This network now serves thousands of end users, integrated tightly with the ever growing videoconferencing and VoIP systems leveraged by these jurisdictions.

In Anne Arundel County, MD, Mr. DeHaven assisted with the deployment of traffic surveillance cameras. He provided analysis of candidate technical solutions for cameras using the County's high-speed fiber-optic I-Net to transport video and control signals, developed system specifications, and oversaw the implementation of the County's video surveillance capabilities.

Mr. DeHaven was also involved in the planning and implementation of a statewide network in Delaware for the purpose of providing traffic information and traffic control capabilities to transportation management facilities. Such a network allows remote control of traffic signal systems and variable message displays, while providing real-time traffic surveillance in the form of video images and microwave sensor data. He has developed expertise in the numerous forms of technology used in this type of project, ranging from fiber optics to wireless digital spread-spectrum communications.

Mr. DeHaven serves as CTC's lead engineer with respect to the Delaware Department of Transportation's Advanced Traffic Advisory Radio System, the first Advanced TARS system in the country. In that capacity, he is responsible for training and advising on-site staff, specifying and installing new equipment, and monitoring performance of the system.

#### Video and Broadcast Communications Engineering

Mr. DeHaven's experience includes the management, design, and procurement of video, voice, and data networks. Some select examples of his recent project work include:

- Analysis of the technical options to allow The Rockville Channel (Rockville, MD) to support live cablecasting from multiple facilities, including the implementation of an IP-based video and audio transmission system. He also managed the relocation of the master control and studio production systems for The Rockville Channel. CTC successfully executed the relocation during the tight window of opportunity between live production events, while making enhancements to system layout and cabling infrastructure and keeping the channel "on-air" during the process.
- Development and implementation of videoconferencing and teleconferencing tools for the 21 jurisdictions in the National Capital Region (DC, MD, VA) Emergency Operations Centers (EOCs) and Emergency Communications Centers (ECCs) over a state-of-the-art fiber-optic and microwave network.
- Preparation of system-level design recommendations and cost estimates for an extensive, countywide system to support interactive and on-demand video training communications for the Anne Arundel (MD) County Fire Department. CTC also developed the design for a video display system for the Fire Department's new dispatch center, intended to allow key sources of information to be prominently displayed throughout the facility.
- Preparation of system-level design recommendations and cost estimates for an extensive, citywide system to support interactive and on-demand video communications for training, emergency collaboration, and routine meetings between Mesa, AZ Fire Department personnel. CTC also integrated a pilot videoconferencing system to demonstrate certain capabilities of the system design.
- Development of a videoconferencing system for homeland security applications on behalf of Arlington County, VA—the site of the September 11, 2001 Pentagon attack. The system links numerous public safety and other government users and aims to ensure uninterrupted emergency communications in the event of a terrorist attack or natural disaster.

#### Instruction/Expertise

Mr. DeHaven led the CTC research team in preparing Web-based Intelligent Transportation System (ITS)-Communications courses on behalf of the University of Maryland Center for Advanced Transportation Technology. He has served as an online instructor for these courses for more than six years.

## **EDUCATION**

**Bachelor of Science**, Electrical Engineering, in progress, The Johns Hopkins University

## **PUBLICATIONS/COURSES**

- “What’s the Fuss About Fiber? A Comparative Analysis of Fiber and Copper Physical Media,” Journal of Municipal Telecommunications Policy, Spring 2009.
- “Deploying Public Safety Networks: Costs and Benefits – 4.9 GHz for Video Surveillance,” presented at annual SEATOA Conference, April 2008.
- “Busting the Technology Myths,” presented at NATOA Conference, October 2007.
- “WiFi and Beyond: Taming Technology for your Community,” presented at the annual TATOA Conference, August 2007.
- “Looking Beyond Traditional I-Nets: NSCC Case Study,” presented at the annual TATOA Conference, August 2007.
- “Magical Solutions for Public Safety Wireless,” presented to the National Association of Telecommunications Officers and Advisers, September 2006.
- “VoIP and Enhanced 911 Services: A Primer on the Technology and its Limitations,” Journal of Municipal Telecommunications Policy, Fall 2005.
- “IP Technologies: An Overview for Local Government,” presented at the annual NATOA Conference, September 2005.
- “Homeland Security Applications Over the I-Net,” NATOA Conference, 2002.

## Charlie Hamm | GIS Specialist and Staff Engineer

Charlie Hamm works with a range of geographic design programs—including AutoCAD, ESRI ArcGIS, Google Earth, Microsoft Streets and Trips, and Quantum GIS—to enable large-scale network design and construction projects, as well as to illustrate geographic data for feasibility studies. He creates databases and maps to support network route planning, utility pole attachment, and permit application processes.

### EXPERIENCE

#### **Columbia Telecommunications Corporation, GIS Specialist/Staff Engineer, 2011 – present**

Charlie researches, aggregates, and manipulates data to create maps essential to projects. His specific client engagements have included the following:

##### *Prince George's County, Maryland*

- Created GIS shapefiles to document the locations of cellular antennas within the county

##### *Inter-County Broadband Network (ICBN)*

Provided GIS map management and design for the ICBN, a sub-grantee of the State of Maryland's federally funded One Maryland Broadband Network (OMBN):

- Used Visio to generate splice matrices for the contractors connecting fibers in Prince George's, Montgomery, and Anne Arundel counties
- Created GIS maps based on data developed during the update to the project's Environmental Assessment
- Developed overview maps of the ICBN build for project managers
- For a related fiber-to-the-premises (FTTP) project in a portion of Anne Arundel County:
  - Entered field notes into GIS
  - Generated bills of materials (BOMs)
  - Applied for environmental, county, and state permits
  - Used Visio to generate splice matrices for contractors

##### *Garrett County, Maryland*

- Analyzed data on availability of broadband service to identify unserved areas
- Created shapefiles in ESRI ArcGIS for incorporation into the county's GIS database

##### *Arlington County, Virginia*

- Assist county and CTC engineers in creating system-level drawings of last-mile engineering for ConnectArlington, the county's municipal fiber network
- Oversee incorporation of countywide fiber optic design into county's GIS database

##### *Carroll County, Maryland and Spotsylvania County, Virginia*

- Analyzed residential cable service to determine compliance with the counties' franchise agreements and develop strategies for franchise renewal negotiations
- Converted Bentley data into GIS format for analysis of broadband service

##### *National Capital Region Interoperability Program*

- Create and update as-built documentation for the NCRnet fiber network in Visio
- Provide ongoing mapping support for expansion of NCRnet

- Acted as primary point of contact for the construction contractor that built a grant-funded Maryland Department of IT fiber link connecting two sites

*Northern Illinois University (NIU)*

- Geocoded survey results to generate GIS maps

*U.S. Postal Service (USPS)*

- Searched the National Broadband Map database to identify and analyze data related to broadband connectivity near postal facilities nationwide
- Manipulated CSV files for multiple states to create maps of broadband service availability based on the FCC's definition of underserved areas

*Anne Arundel County, Maryland*

- Performed OTDR and power meter testing for fiber acceptance

**James Madison University, Research Assistant, 2010**

- Created a GIS map of student enrollment for the campus

**Virginia Department of Game and Inland Fisheries, Extern, 2009**

- Measured and recorded fish data

**EDUCATION**

**James Madison University**

B.S., Geographic Science, 2011

- Dual concentration in Applied Geographic Information Science (AGIS) and Environmental Concentration, Sustainability and Development (ECSD)

**ESRI Training Courses**

- Learning ArcGIS Desktop, 2010
- Creating and Maintaining Metadata Using ArcGIS Desktop, 2010
- Cartographic Design Using ArcGIS 9, 2009

**Software Skills**

- AutoCAD, ESRI ArcGIS, Google Earth, GPS Pathfinder Office
- Microsoft Streets and Trips, Quantum GIS, Remote sensing software

## Marc Schulhof | Senior Analyst and Technical Writer

Marc Schulhof has more than 20 years of experience in technical writing, financial journalism, and public and corporate communications. Marc's excellent editorial skills and his extensive experience with analyzing IT and business topics have enabled him to play an integral role in supporting a range of research and writing projects, including:

- Master plans (business and engineering)
- Needs assessments
- Feasibility studies
- Survey instruments
- Expert witness testimony
- Federal grant applications
- Requests for proposal
- Requests for information
- Cellular tower siting reports
- Letters, press releases, and website content

Prior to joining CTC, Marc was the worldwide editor-in-chief of CIO program websites at IBM, where he established editorial direction for 36 country-specific CIO websites and worked with local editors to update each site's mix of multimedia content. He also wrote and edited feature articles and white papers on information technology and business topics.

Marc's experience includes his role as a global editor at PricewaterhouseCoopers Consulting, where he wrote and edited reports on a variety of technology and business topics, and served as editor of the PwC-sponsored *BusinessWeek Online Handheld Edition* daily news summary for mobile device users. Earlier in his career, as an associate editor at *Kiplinger's Personal Finance Magazine*, he researched, analyzed, and wrote about a range of complex financial issues.

Marc has also written and edited articles on a variety of topics for numerous non-profit organizations and associations, including the National Coalition for Cancer Survivorship and the American Society of Clinical Oncology.

### EDUCATION

**Bachelor of Science**, Journalism, Northwestern University

**Master of Science**, Journalism, Northwestern University

## Eric Wirth | Senior Project Engineer

### EXPERIENCE SUMMARY

Eric Wirth has more than nine years of communications engineering experience; he specializes in evaluating broadband (video, voice, and data) telecommunications networks, analyzing emerging broadband technologies, and designing broadband networks for institutional uses. In addition, Mr. Wirth is conducting extensive and ongoing research on applications for Internet Protocol (IP) technology, including video-over-IP (VoIP) for video transmission over wide area networks, video conferencing, and other communication applications for wide area networks.

#### Utility and Public Safety Fiber Optic Networking

Mr. Wirth's experience includes the design and implementation of a variety of fiber optic communications network. Some select examples of his work include:

- Design and pricing of fiber optic cable, electronics, and overall architecture of a survivable emergency communications system for Tennessee Valley Public Power Association (TVPPA) distributors. The design included MPLS and DWDM technology, and leveraged TVPPA and distributor fiber.
- Design and implementation of a fiber optic network for Norwich (Connecticut) Public Utilities. The project consisted of developing detailed fiber optic route design and cost estimates, network electronic design and cost estimates (including SCADA transportation), and a request for proposals (RFP) for Norwich's use in selecting a contractor to complete the installation. In addition to serving the utility's needs, the fiber optic network was designed to serve city, schools, and hospital users.
- Fiber optic network and electronics design, and RFP development, for the City of Dover, Delaware Electric Department. Mr. Wirth developed a fiber optic network design to provide additional redundancy and functionality for the existing city fiber optic network. In addition, he developed a network electronics design to leverage the new fiber optic communications links to increase the reliability of the city's network.
- Fiber optic network design and feasibility analysis for the City of Palo Alto, California. The City is examining several fiber optic construction projects to expand its existing fiber optic network to further meet the needs of the city and surrounding school districts, and to increase the footprint of its commercial fiber optic network. As a municipal electric, Palo Alto is exploring several options for fiber optic design.

#### Wireless Communications

Mr. Wirth has extensive experience working on numerous wireless networking projects, from analysis and feasibility to design and implementation. These networks range in scope from small hot spots to area-wide and regional networks. Some representative examples of his projects include:

- Designing and overseeing the implementation of a citywide broadband wireless network project that will provide integrated communications and interoperability among all local public safety entities in the City of Port Angeles, Washington. The high-capacity 4.9 GHz broadband wireless network provides public safety staff in the field with full and timely access to state, federal, and GIS databases, and will allow EMS responders to access medical databases and support on-site telemetry of patient status. A commercial "open access" multi-provider wireless access system was deployed as a public-private partnership with a local Internet service provider (ISP); it

provides citywide WiFi services in the 2.4 GHz band. The city and the local ISP partner have developed a subscription package that is attractive to a wide range of commercial, residential, and public sector users.

- Designing a cost-effective broadband wireless network for the City of Annapolis, Maryland. This network serves as a backbone to provide connectivity for a video surveillance system throughout downtown Annapolis. The network has the capacity to meet all current needs, provide 99.999 percent availability, and have substantial reserve capacity to support the addition of new video requirements, expanded IP-based voice and data services, and support backhaul for a potential mobile wireless solution.
- Acting as lead engineer for the design and implementation of a microwave network to enable communications between public health agencies in Maryland and the District of Columbia. The microwave project is designed to provide connectivity to area hospitals to ensure reliable communications and data sharing in the event of problems with the public communications infrastructure. In addition, the robust microwave connectivity allows for day-to-day data sharing, voice communications, and interoperable communications. This connectivity will provide the transport mechanism necessary for patient tracking and other information sharing platforms.

#### Public Safety Networking

Some representative examples of Mr. Wirth's projects include:

- Designed, implemented and tested a backhaul network for the Arlington County, Virginia public safety radio network. The backhaul network consists of SONET equipment over a county-owned fiber optic network that increases the reliability and availability of the public safety radio system.
- Lead engineer for the design and implementation of a 19-jurisdiction regional fiber optic public safety interconnection network in the National Capital Region (DC, MD, VA). NCRnet provides an interoperable, robust, and reliable fiber infrastructure to augment the communication capabilities of first responder communities in the NCR. These communities include local and regional law enforcement, fire, emergency management, transportation, and public health agencies.
- Performed radio frequency (RF) coverage analysis and prepared design recommendations for improving public safety radio coverage for Warren County, Pennsylvania. Included analysis of the county's existing public safety radio system and recommendations to improve coverage for both the county's public safety radio system and commercial cellular.
- Collaborated on the development of a master telecommunications plan for the Delaware Department of Transportation. The plan acts as a guide for the department to consolidate several disparate network environments into a unified communications network capable of supporting current and future transportation and public safety applications. Part of the plan involves developing a system-level design that incorporates fiber optics, microwave, and land-mobile radio. The plan requires coordination among a variety of state agencies to develop a network that meets the department's critical public safety requirements.

#### Video and Broadcast Communications Engineering

Mr. Wirth's experience includes the design and implementation of video, voice, and data networks. Some select examples of his work include:

- Designed and implemented a public, educational, and governmental (PEG) access and monitoring network for Montgomery County, Maryland. The network uses IP-based video encoders and the

County's state-of-the-art IT network to improve the quality and functionality of video transport throughout the county.

- Developed a design and integration solution for cablecast channels for Monterey County, California. Analyzed the existing audio-visual and broadcast systems and developed recommendations for future development. Designed an IP-based video server system capable of recording and airing live meetings and scheduling cable/broadcasts. Completed on-site integration, testing, and training on the video server system.
- Designed and implemented state-of-the-art videoconferencing and teleconferencing tools for the 19 jurisdictions in the National Capital Region Emergency Operations Centers (EOCs) and Emergency Communications Centers (ECCs). CTC developed the systems' designs and oversaw implementation to interconnect the EOCs and ECCs throughout the region, under a grant from the U.S. Department of Homeland Security Urban Areas Security Initiative (UASI).

#### **EDUCATION**

**Bachelor of Science**, Electrical Engineering, University of Virginia, School of Engineering and Applied Science, Charlottesville, Virginia, 2004.

#### **PRIOR TO COMING TO CTC IN 2004**

1998-2003, Technician, Schnabel Engineering, Inc., Baltimore, Maryland

**City Council Agenda Item # 11**  
Staff Report

**Meeting Date:** August 22, 2016  
**To:** Mayor and City Council  
**From:** Rod Bryan, Public Works Director  
**Subject:** Utility Rate Study

<b>X</b>	Regular
	Consent
	Closed
	Presentation

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**Recommendation:**

Staff requests the City Council adopt the proposed Resolution authorizing the City Manager to enter into a Professional Services Agreement between the City of Mt. Shasta and PACE Engineering, Inc. for the purpose of providing a Utility Rate Study.

**Background & Summary:**

The City is in need of a comprehensive water and sewer rate study to establish a fair apportionment of costs to its customers.

The City advertised a Request for Qualifications from June 15, 2016 through July 15, 2016. Four Statement of Qualifications were received.

A Consultant Selection Committee reviewed and ranked all SOQ's. The Committee selected PACE Engineering as the highest ranked Consultant to perform the work.

PACE's proposal was reviewed after the ranking and the attached Agreement, Scope of Work, and Cost Proposal was agreed upon. The final Not to Exceed (NTE) amount is \$73,372

Staff is recommending adoption of the proposed Resolution allowing PACE Engineering to perform the Utility Rate Study.

**Attachments:**

1. Proposed Resolution
2. Agreement

**RESOLUTION NO. CCR-16-37**

**A RESOLUTION OF THE CITY COUNCIL  
OF THE CITY OF MT. SHASTA APPROVING AN AGREEMENT BETWEEN THE CITY OF  
MT. SHASTA AND PACE ENGINEERING, INC.  
FOR PROFESSIONAL SERVICES TO PERFORM A UTILITY RATE STUDY**

**WHEREAS**, the City of Mt. Shasta has solicited for and received formal Statements of Qualifications from Engineering firms to provide engineering consultant services for the City of Mt. Shasta; and

**WHEREAS**, four Statement of Qualifications were received; and

**WHEREAS**, the Engineering firm of Pace Engineering, Inc. is selected as the best qualified to provide Utility Rate Study engineering services to the City of Mt. Shasta; and

**WHEREAS**, a Professional Services Agreement was negotiated; and

**WHEREAS**, staff is recommending the execution of the Agreement for Pace Engineering, Inc. to provide engineering consultant services to the City of Mt. Shasta to perform a Utility Rate Study.

**NOW, THEREFORE, BE IT RESOLVED THAT** the City Council of the City of Mt. Shasta hereby authorizes the City Manager to execute the Professional Services Agreement For Utility Rate Study Services Between The City of Mt. Shasta And Pace Engineering, Inc.

The foregoing resolution was passed and adopted this 22nd day of August, 2016 by the following vote:

**ROLL CALL VOTE**

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: August 22, 2016

CITY OF MT. SHASTA

\_\_\_\_\_  
Jeffrey Collings, Mayor

ATTEST:

\_\_\_\_\_  
Kathy Wilson, City Clerk

**CITY OF MT. SHASTA  
PROFESSIONAL SERVICES AGREEMENT FOR  
UTILITY RATE STUDY SERVICES**

THIS AGREEMENT made and entered into on the 22<sup>nd</sup> day of August, 2016, by and between the City of Mt. Shasta, hereinafter called "**City**", and PACE Engineering, hereinafter called "**Consultant**".

**RECITAL**

1. **Purpose**

This purpose of this Agreement is to allow the City to procure the services of an experienced professional firm to provide Utility Rate Study services, described as providing a comprehensive Water and Wastewater Utility Rate Study.

**TERMS AND CONDITIONS**

2. **Mission**

City hereby retains Consultant in the capacity as consultant to provide engineering consultation services to the City of Mt. Shasta to provide a comprehensive cost of service rate study for its Water and Wastewater Utility enterprise funds to classify and allocate capital investment costs, operating expenses, reserve requirements, and all other financial obligations by major functions, including incidental and related work..

3. **Duties of City**

A. City agrees to make available to Consultant relevant public records including current water and sewer rate structures and fees, previous Fiscal Year budgets, audited financial statements, water consumption data, and other file materials as may be needed for the Consultant to perform his duties and to cooperate in the collection of information which Consultant may request.

B. City shall promptly:

(1) notify Consultant of any defect in Consultant's performance; and

(2) review any documents submitted by Consultant for City's comment.

C. City acknowledges and agrees that Consultant has invested considerable time and money that would be difficult to quantify in the training and development of its employees. Therefore, City agrees to not hire, retain or contract with, any employee of Consultant who performs services for City

under this Agreement ("covered employee") for a period of one year from the date this Agreement is terminated or one year following the separation of a covered employee from the Consultant's employment.

Should the City desire to hire Consultant's employee as a fulltime employee of the City, the City shall submit a written request to Consultant, and will not hire the covered employee unless it receives the Consultant's written permission, which shall not be unreasonably withheld.

4. Term

This Agreement shall commence as of the date signed by the City unless another date is specified herein and shall remain in full force and effect until terminated as set forth below.

5. Scope of Work

It is necessary for the City from time to time to retain a consultant to perform engineering consulting services in review or preparation of projects proposed by applicants or the City itself. Consultant represents that they have the experience and expertise necessary to perform the work they accept. The scope of work and fees for each item shall be as set forth in **Exhibit A** attached hereto. Fees shall be charged in accordance with the Proposal as set forth in **Exhibit B**.

There will be no markup for overhead and profit for work done directly by Consultant. All meals, lodging, transportation expenses and incidental expenses shall be reimbursed at direct cost. Consultant shall be entitled to a ten percent administrative fee for services that have been subcontracted to a third party. Consultant shall not subcontract for services without first receiving the written approval of the City.

6. Key Personnel

This contract is awarded with the understanding that the Consultant will utilize the key personnel identified in the project proposal until completion of the work and that changes in key personnel will not be made without written approval of the City.

7. Compensation

During the term of this Agreement, City shall pay Consultant in accordance with invoice submitted by Consultant, on a monthly basis, and such invoices shall be paid within a reasonable time after said invoices are received by the City and approved by the City Manager. All charges shall be in accordance with the Consultant's proposal, attached as **Exhibit B**, and based on the percentage of project completed. The maximum compensation for services, including all Consultant's costs, under the terms of this Agreement, shall not exceed \$73,372.

Consultant agrees to testify at City's request if litigation is brought against City in connection with Consultant's work. Unless the action is brought by Consultant or is based upon Consultant's negligence, City will compensate Consultant for the testimony at Consultant's standard hourly rate.

8. Right to Audit

City or any of its duly authorized representatives shall have access to any books, documents, papers and records of Consultant and/or its subcontractors which are pertinent to the specific program hereunder for the purpose of making an audit, and examination, excerpts and transcriptions. All books, records and supporting detail shall be retained for a period of five (5) years after the expiration of the term of this Agreement, or any extension thereof, or for any longer period of time as required by law.

9. Audit Exceptions

Consultant agrees that in the event the program established hereunder is subjected to audit exceptions by appropriate audit agencies, it shall be responsible for complying with such exceptions and paying City the full amount of liability resulting from such audit exceptions.

10. Independent Contractor

Consultant shall perform the services as contained herein as an independent contractor and shall not be considered an agent or employee of City. This Agreement is by and between Consultant and City, and is not intended, and shall not be construed, to create the relationship of agent, servant, employee, partnership, joint venture, or association, between City and Consultant.

11. Successor and Assignment

The services as contained herein are to be rendered by Consultant whose name is as appears first above written and said Consultant shall not assign nor transfer any interest in this Agreement without the prior written consent of the City.

12. Dispute Resolution

a. Disputes Subject to Mediation and Arbitration: Except as otherwise provided in this contract, any dispute between the parties arising out of this Agreement or relating to the interpretation and enforcement of their rights and obligations under this Agreement shall be resolved solely by mediation and arbitration in accordance with the provisions of of this Agreement.

b. Initial Mediation: With respect to any dispute between the parties that is to be resolved by arbitration as provided in Paragraph 11(c), the parties shall attempt in good faith first to mediate such dispute and use their best efforts to reach agreement on the matters in dispute. Within 5 days of the request of any party, the requesting party shall attempt to employ the services of a third person mutually acceptable to the parties to conduct such mediation within 5 days of his appointment. If the parties are unable

to agree on such third person, or, if on completion of such mediation, the parties are unable to agree and settle the dispute, then the dispute shall be referred to arbitration in accordance with Paragraph 11(c).

c. Arbitration: Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, where the amount in controversy does not exceed \$50,000, shall be settled by arbitration in accordance with California Code of Civil Procedure section 1280 et seq., and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Notwithstanding this arbitration clause, any party to this agreement may seek interim equitable relief from a court in Siskiyou County. Any such arbitration shall be held and conducted in Siskiyou County, California, before one arbitrator, who shall be selected by mutual agreement of the parties; if agreement is not reached on the selection of an arbitrator within 15 days, then either party may petition the Siskiyou County Superior Court to appoint an arbitrator.

The provisions of the California statutes governing contract arbitration shall apply and govern such arbitration, subject, however, to the following:

(i) Any demand for arbitration shall be in writing and must be made within a reasonable time after the claim, dispute or other matter in question has arisen. In no event shall the demand for arbitration be made after the date that institution of legal or equitable proceedings based on such claim, dispute, or other matter would be barred by the applicable statute of limitations.

(ii) The arbitrator appointed must be a former or retired judge or attorney with at least 10 years experience in real property and commercial matters, or non-attorneys with like experience in the area of dispute.

(iii) Final decision by the arbitrator must be made within 90 days from the date the arbitration proceedings are initiated.

(iv) The prevailing party shall be awarded reasonable attorneys' fees, expert and non-expert witness costs and expenses, and other costs and expenses incurred in connection with the arbitration, unless the arbitrator for good cause determines otherwise.

(v) Costs and fees of the arbitrator shall be borne by the non-prevailing party, unless the arbitrator for good cause determines otherwise.

(vi) The award or decision of the arbitrator, which may include equitable relief, shall be final and judgment may be entered on it in accordance with applicable law in any court having jurisdiction over the matter.

(vii) The provisions of Title 9 of Part 3 of the California Code of Civil Procedure, including Section 1283.05, and successor statutes, permitting expanded discovery proceedings shall be applicable to all disputes which are arbitrated pursuant to this paragraph.

(viii) Notwithstanding the foregoing, if a written offer of compromise made by either party is not accepted by the other party within thirty (30) days after receipt and the party not accepting such offer fails to obtain a more favorable judgment, the non-accepting party shall not be entitled to recover its costs (as defined in CCP §1033.5) of suit and reasonable attorney's fees (even if it is the prevailing party) and shall be obligated to pay the costs of suit and reasonable attorney's fees incurred by the offering party after the date such written offer is made.

d. Large Amounts: Disputes involving amounts in excess of \$50,000 shall be resolved in such court as has proper jurisdiction.

e. Attorney's Fees: The prevailing party shall be awarded reasonable attorneys' fees, expert and non-expert witness costs and expenses, and other costs and expenses incurred in connection with the litigation, unless the Court for good cause determines otherwise.

13. Indemnification

The Consultant agrees, to the fullest extent permitted by law, to indemnify and hold harmless the City, its elected and appointed officials, officers, agents and employees (collectively, City) against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, to the extent caused by the Consultant's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the Consultant is legally liable.

The City agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Consultant, its officers, directors, employees, and subconsultants (collectively, Consultant) against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, to the extent caused by the City's negligent acts in connection with the Project.

Neither the City nor the Consultant shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

14. Insurance

Without limiting Consultant's indemnification of City, Consultant shall procure and maintain at all times during the life of this Agreement, a program of insurance against claims for injuries to person or damages to property which may arise from or in connect with performance of the work hereunder by Consultant, its officers, representatives, agents, or employees. Consultant acknowledges that Section 3700 of the California Labor Code requires all employers to be insured against liability for workers' compensation or undertake self insurance in accordance with the provisions of that Code Section. Further, prior to commencement of work pursuant to this Agreement, Consultant, including any subcontractor, shall obtain all insurance required hereunder from a company or

companies acceptable to the City's Risk Manager. For the purposes of the Insurance Section of this Agreement, City's Risk Manager shall mean City's Finance Director.

a. Minimum Limits on Insurance

Consultant shall maintain limits of no less than:

1. General Liability: \$1 Million per occurrence for bodily injury, personal injury and property damage for products/completed, operations and any other activities undertaken by Consultant pursuant to this Agreement.
2. Automobile Liability: \$1 Million per accident for bodily injury, death, and property damage insuring against liability arising out of the use of any vehicle.
3. Workers' Compensation insurance as required by the State of California.
4. Errors and Omissions Liability: \$1 Million aggregate / \$1 Million per claim.

Modifications to the above noted minimum insurance limits may only occur upon concurrence of both parties to this Agreement, confirmed in writing by Consultant and City's Risk Manager.

b. Other Insurance Provisions – Commercial General and Automotive Liability

The commercial general liability and automotive liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its elected and appointed officials, officers, agents and employees are to be covered as insured with respect to:
  - (i) liability arising out of work or operations performed by or on behalf of the Consultant; or
  - (ii) automobiles owned, leased, hired or borrowed by the Consultant.
2. For any claims related to Consultant's services rendered pursuant to this Agreement, the Consultant's insurance coverage shall be primary insurance as respects the city, its elected and appointed officials, officers, agents and employees. Any insurance or self-insurance maintained by the City, its elected and appointed officials, officers, agents and employees shall be excess of the Consultant's insurance and shall not contribute with it.
3. Each insurance policy required by the clause shall be endorsed to state that coverage shall not be reduced or canceled by either party, except after thirty (30) days' written notice by U.S.

mail, has been given to the City's Risk Manager.

c. Verification of Coverage

Consultant shall furnish the City's Risk Manager with original certificates and amendatory endorsements effecting coverage required by this clause.

d. Failure to Provide or Maintain Insurance

Failure on the part of the Consultant to procure or maintain required insurance shall constitute a material breach of this Agreement upon which the City may immediately terminate this Agreement.

15. Compliance with Laws

The parties agree to make every reasonable effort to be bound by applicable federal, state and local laws, regulations and directives as they pertain to the performance of this Agreement.

16. Non-Discrimination

In the fulfillment of the program established under this Agreement, either as to employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other terms of compensation, selection for training, including apprenticeship or participation in the program or the receiving of any benefits under the program, Consultant agrees not to discriminate nor to allow any subcontractor to discriminate on the basis or race, color, creed, religion, natural origin, ancestry, sex, age, marital status or physical disability.

17. Severability

In the event that any provisions herein contained is held to be invalid, void or illegal by any court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall in no way affect, impair or invalidate any other provision contained herein. If any such provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.

18. Interpretation

No provision of this Agreement is to be interpreted for or against either party because that party or that party's legal representative drafted such provision, but this Agreement is to be construed as if it were drafted by both parties hereto.

19. Waiver

No breach of any provision hereof can be waived unless in writing. Waiver of any one breach of any provision shall not be deemed to be a waiver of any other breach of the same of any other provision hereof.

20. Modifications

No waiver, modification or termination of this Agreement is valid unless made in writing. This Agreement may be extended and/or expanded by mutual

agreement, in the form of a written amendment signed by both parties, to include additional services that are outside the existing scope of work, attached as **Exhibit A**.

21. Work Product

All work product produced by Consultant under this Agreement will be the property of the City. It will be delivered to the City upon City's demand or at the completion of services. It will not be used by Consultant for purposes other than this Agreement without the written consent of the City. Consultant will not be held liable for any re-use of City-owned work product for a purpose other than this Agreement.

22. Termination

This Agreement may be terminated at any time by either party if there is a default of a material obligation which is not cured within thirty (30) days following notice from the non-defaulting party. Effective immediately and without any requirement of notice, either party may, at its option, terminate this Agreement and/or suspend its performance in the event that (1) the other party files a petition in bankruptcy, files a petition seeking any reorganization, arrangement, composition, or similar relief under any law regarding insolvency or relief for debtors, or makes an assignment for the benefit of creditors; (2) a receiver, trustee, or similar officer is appointed for the business or property of such party; (3) any involuntary petition or proceeding under bankruptcy or insolvency laws is instituted against such party and not stayed, enjoined, or discharged within sixty (60) days; (4) inability of Consultant to fulfill its responsibility due to disability or death; or (5) the other party adopts a resolution for discontinuance of its business or for dissolution. Except for a termination for cause, neither party shall be liable to the other or to any other persons for any loss or damage occasioned by the termination of this Agreement as provided herein.

Notwithstanding the foregoing, the Agreement may be terminated by either party by giving written notice at least thirty (30) days prior to the effective termination date in the written notice to the other party.

23. Notice

Notices, herein shall be presented in person, by certified or registered U.S. mail, or overnight courier service as follows:

To Consultant: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067  
Attn.: City Manager

Nothing in this paragraph shall be construed to prevent the giving of notice by personal service.

24. Conflict of Interest

Consultant understands that its professional responsibility is solely to CITY. Consultant represents that it presently has no interest and will not acquire any direct or indirect interest that would conflict with its performance under this Agreement. Consultant shall not in the performance under this Agreement employ a person having such an interest.

25. Entire Agreement

This Agreement with attachments constitutes the entire understanding and agreement of the parties, and supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the retention of Consultant by City and contains all the covenants and agreements between the parties with respect to such retention. Changes or amendments shall be made in writing and signed by the parties.

**CONSULTANT**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**ATTEST:**

By: \_\_\_\_\_

Kathy Wilson,  
City Clerk

**CITY OF MT. SHASTA**

By: \_\_\_\_\_

Title: City Manager

Dated: \_\_\_\_\_

# EXHIBIT “A”

## CITY OF MT. SHASTA SCOPE OF WORK RATE STUDIES FOR WATER & SEWER ENTERPRISE FUNDS

### SCOPE OF WORK

The City of Mt. Shasta desires to perform rate studies for both its water and sewer enterprise funds for the purpose of establishing a fair apportionment of costs to its customers. Below is a Scope of Work for performing a water and sewer rate study and includes six (6) workshops with a citizen’s committee consisting of two council members and up to three (3) citizens. Separate study reports will be prepared in order to satisfy anticipated funding requirements.

### **TASK 1 – GATHER INFORMATION AND KICK-OFF MEETING**

Review all background data including the following:

- City’s current water and sewer rate structures, development impact fees, and connection fees.
- Review FY 2014-15 & FY 2015-16 budgets, including any future budgets. Review actual versus budgeted numbers.
- Audited FY 2014-15 financial statement.
- One year water consumption, by customer.
- One year of sewer rates, by customer.

Consultant shall attend an initial project coordination meeting with City staff and Committee to outline the approach for completing this project, as well as the committee’s goals for the final rate study. At this meeting, discuss the ideas for funding future capital improvements through use of utility rates. For example, will the City desire to accumulate funds to perform improvements on their own or will there be allowances built into the rates to make debt service payments on future long-term loans to fund future improvements, or will there be a combination of both approaches.

### **TASK 2 – EVALUATE ENTERPRISE FUND FINANCIALS & BUDGETS**

Based on the past and future budgets, audited financials, and input from City staff and the committee, consultant shall prepare a spreadsheet summary of the City’s current financial position based on the City’s current rate structures, utility fees, operation expenses, capital costs, revenue streams, reserve funds, and billing systems.

## EXHIBIT “A”

### CITY OF MT. SHASTA SCOPE OF WORK RATE STUDIES FOR WATER & SEWER ENTERPRISE FUNDS

#### TASK 3 – EVALUATE CURRENT AND POTENTIAL WATER RATE STRUCTURES

The City has only had individual water meters since October 2015. Water consumption records from that time until Notice to Proceed will be provided for consultant’s use. Before the rate studies are completed, the City will have an entire year of water consumption data, which will be conveyed to the consultant. The Consultant shall utilize an entire year of water consumption data before finalizing the rate study recommendations. Using the City’s historical water consumption data, prepare up to three scenarios for future potential revenue accumulation based on water rate structures from similar facilities. Once these draft scenarios are completed, meet with City staff and the Committee to discuss and evaluate. The scenarios may be modified based on committee input, but the hope will be that collective agreement can be made on one or two scenarios to present in a public workshop.

Factors that will be considered in developing the rate structure scenarios are as follows:

- How much water and associated charges to include in the base water rate?
  - Consider impacts to low-use water customers if the base rate is too high.
  - Consider differences between residential and commercial customers.
- Evaluate impacts to revenue streams by modifying the base and variable tiered water rates.
- Consideration of a water rate base charge based on meter size, using a “meter capacity” or “meter cost” approach.
- Consideration of a consumption rate schedule that considers a “uniform” or “increasing” tiered rate structure.
- Implementation of a small set-up fee to cover City costs associated with a change of ownership or new service set-up.
- Provide comparison data of the City’s current and future water rates relative to similar agencies throughout northern California.
- Develop a financing plan to implement capital improvements within the water utility. The existing Master Plan will be used for this purpose, along with input from operations staff.
- Evaluate strategies for funding O&M, capital reserves, and debt service reserves.
- Evaluate the City’s growth projections and inflationary adjustments and recommend appropriate modifications.

The goal for this effort will be to work closely with staff and the Committee so the final study results are meaningful to the City.

#### TASK 4 – EVALUATE CURRENT AND POTENTIAL SEWER RATE STRUCTURES

Factors that shall be considered in evaluating existing and future user rates are as follows:

## EXHIBIT “A”

### CITY OF MT. SHASTA SCOPE OF WORK RATE STUDIES FOR WATER & SEWER ENTERPRISE FUNDS

- Single-family residences are typically assigned one household equivalent based on the flow from a typical household. Multi-family, commercial and industrial connections are charged based on wintertime water consumption – typically an average of the months, January, February and March. Wintertime water consumption is primarily limited to water which is discharged to the sewer. However, this varies between customers and needs to be evaluated on a case-by-case basis. Also, consideration should be made to the fluctuating occupancies of the City’s non-residential customer, i.e. lower hotel occupancy rates in the winter, etc.
- Implementation of a small set-up fee to cover City costs associated with a change of ownership or new service set-up.
- Provide comparison data of the City’s current and future sewer rates relative to similar agencies throughout northern California.
- Develop a financing plan to implement capital improvements within the wastewater utility.
- Evaluate strategies for funding O&M, capital reserves, and debt service reserves.
- Evaluate the City’s growth projections and inflationary adjustments and recommend appropriate modifications.

Similar to the water rates, the goal for this effort will be to work closely with staff and the Committee so the final study results are meaningful to the City.

#### **TASK 5 – PUBLIC WORKSHOPS**

Consultant shall attend up to six (6) public workshops with the citizens’ Committee throughout development of the two studies. Consultant shall assist the City with preparing applicable agendas for each meeting. PowerPoint or other visual aid tools will be utilized during the workshops. The information will be presented in graphical, as well as tabular form to make it as clear as possible to the Committee and attendees. Public comment and suggestions will be taken and noted. Workshops will be scheduled at roughly one-month intervals or as the Committee deems necessary.

#### **TASK 6 – PREPARE DRAFT RATE STUDY**

Based on public comments and subsequent direction from City staff and the Committee, a written report for each utility shall be provided to the City for final comment. Ten (10) copies of each draft report will be submitted for review. Consultant shall incorporate comments in the draft and prepare a final report. The reports will generally contain the following elements:

# EXHIBIT “A”

## CITY OF MT. SHASTA SCOPE OF WORK RATE STUDIES FOR WATER & SEWER ENTERPRISE FUNDS

- Current and historical utility rates and expenditures
- Utility Rate Development
  - Revenue requirements
  - Cost of service analysis
  - Utility rate design
  - Multi-year financial plan guidelines
  - Proposed rates
  - Proposed non-rate related changes

### **TASK 7 – CITY COUNCIL PRESENTATION**

Present the Final Rate Studies to the City Council.

### **TASK 8 – DELIVERABLES**

Deliverables shall include the following:

Number of Copies

- |    |                            |         |
|----|----------------------------|---------|
| A. | Rate Study Reports - Draft | 10 each |
| B. | Rate Study Reports - Final | 20 each |

# STATEMENT OF QUALIFICATIONS

Prepared for the City of Mt. Shasta



PROFESSIONAL SERVICES FOR WATER  
AND SEWER RATE STUDIES

**PACE**  
ENGINEERING





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Complete engineering services with attention to individual client needs

July 15, 2016

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

**Subject:** Statement of Qualifications  
Professional Services for Water and Sewer Rate Studies

PACE Engineering is pleased to submit our Statement of Qualifications (SOQ) for your consideration for performing professional engineering services for water and sewer rate studies. We have an outstanding track record of providing similar services to communities throughout northern California. Our depth of experience, breadth of services, local expertise, and exceptional customer care differentiate PACE from other firms; we offer the best of a large firm with the personal touch of a small firm.

Acting as the City of Mt. Shasta's City Engineer since 2009 and providing engineering services to the City since 1978, we believe we offer the City the most qualified team to assist on these important studies. We have completed over 100 individual engineering projects for the City since 1978, including preparation of the City's most recent master sewer and water plans. In addition, we have or are currently working on multiple capital improvement projects and funding applications for making needed improvements to the City's water and sewer infrastructure.

Earlier this year, PACE completed water and sewer utility rate studies, including successful Proposition 218 proceedings, for the City of Dunsmuir. We are currently about 75% complete with water and sewer rate studies for the City of Weed, and are beginning our fourth water and sewer rate study updates for the City of Yreka later this summer. In addition, we have successfully completed multiple water and sewer rate studies and updates for the City of Shasta Lake between 2004 and 2013.

We have assembled a highly experienced, competent, and professional team. We look forward to extending our effective working relationship with the City of Mt. Shasta and are excited to help the City on these important projects.

Please do not hesitate to contact me if you have any questions pertaining to this SOQ.

Sincerely,

A handwritten signature in black ink that reads "Paul J. Reuter". The signature is written in a cursive, flowing style.

Paul J. Reuter, P.E.  
Managing Engineer

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*EXHIBIT A: FIRM CREDENTIALS*

*EXHIBIT B: CLIENT REFERENCES*

*EXHIBIT C: SCOPE/HOURS*

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*EXHIBIT E: PACE RESUMES*

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*EXHIBIT H: ENGINEERING LICENSE*

I. PROJECT UNDERSTANDING

PACE began providing engineering services for the City of Mt. Shasta in 1978 and became its City Engineer in 2009. We have acted as its City Engineer, continuously, since then. Since becoming City Engineer, PACE has assisted the City on numerous infrastructure improvement projects, including the recently completed IRWM-funded Water Meter Installation Project and Supply Line Replacement Project. Installation of the new water meters will allow the City to create a rate structure that allows the City to charge customers based on actual water usage. In addition, actual water consumption is typically used as a basis for establishing sewer rates.

PACE has also been working with the City on the State-Mandated Wastewater Treatment Plant Improvements, which will require a sizable rate increase in order to debt service proposed loan financing. Having prepared the Preliminary Engineering Report/Feasibility Study for the proposed alternative, we are already very familiar with the City's sewer enterprise fund and revenue needs. A portion of this planning effort requires a sewer rate analysis that, in a sense, is a cursory rate study. This work has already been completed.

A full rate study will incorporate all aspects of the enterprise funds, including:

- 1) Future growth projections
- 2) Other capital needs within the system
- 3) Operations and maintenance needs
- 4) Future grant funding opportunities
- 5) Financing impacts to rate payers
- 6) Other factors

*"The members of the Board of Directors of Bella Vista Water District express their sincere appreciation to PACE Engineering and their staff for the outstanding effort put forth on the Wintu Pump Station and Water Treatment Expansion Project, which was completed on schedule and on budget and brought this District into full compliance with the Surface Water Treatment Rule."*  
~Board of Directors,  
Bella Vista Water District

PACE is well versed in all of the public financing opportunities available to the City, including grant opportunities. We intend to utilize this knowledge during development of the rate study in order to minimize the amounts of future rate increases. Financing programs for which PACE has experience are noted below:

- USDA Rural Development
- Clean Water State Revolving Fund
- Drinking Water State Revolving Fund
- IRWM
- Propositions 1, 50, and 84

In recent years, many of our long-time clients have asked PACE to prepare water and wastewater utility rate studies. Since 2008, we have prepared original studies and updates for the Cities of Yreka, Dunsmuir, and Shasta Lake, as well as the Rio Alto and Burney Water Districts. We are currently finishing water and sewer rate studies for the City of Weed and beginning utility rate study updates for the City of Yreka.

Below is our proposed Scope of Work for performing water and sewer rate studies for the City of Mt. Shasta:

## **SCOPE OF WORK**

### **UTILITY RATE STUDIES**

The City of Mt. Shasta desires to perform a rate study of its water and sewer enterprise funds for the purpose of establishing a fair apportionment of costs to its customers to cover ongoing operation and maintenance of each utility. In addition, a rate structure will be evaluated to accumulate funds for replacement of deteriorated infrastructure or correcting existing deficiencies. Below is a Scope of Work for performing concurrent water and sewer rate studies and includes workshops with City staff, council members, and the community for use in establishing new water and sewer rate structures. As indicated in the Request for Qualifications, the Mt. Shasta City Council will form an ad hoc committee of two City Council members to work alongside City staff and assist with development of a new rate structure.

#### **TASK 1 – KICK-OFF MEETING AND GATHER INFORMATION**

Attend an initial project coordination meeting with City staff and Committee to outline the approach for completing this project, as well as the City's goals for the final rate study. Review all background data including the following:

- City's current water and sewer rate structures.
- Most recent adopted City Budget.
- Last three years of audited financial statements for each Enterprise Fund.
- Last year of water consumption data.

At this meeting, we will discuss the City's ideas for funding future capital improvements through use of water rates. For example, will the City desire to accumulate funds to perform improvements on their own, will there be allowances built into the rates to make debt service payments on future long-term loans to fund future improvements, or will there be a combination of both approaches?

#### **TASK 2 – EVALUATE WATER AND SEWER ENTERPRISE FUND FINANCIALS**

Based on the City budget, audited financials, and input from City staff, we will prepare a spreadsheet summary of the City's current financial position based on the City's current rate structure, utility fees, operation expenses, capital costs, revenue streams, reserve funds, and billing systems. This will be performed for both the water and sewer enterprise funds.

#### **TASK 3 – EVALUATE CURRENT AND POTENTIAL RATE STRUCTURES**

Using the City's recent water consumption data, prepare up to four scenarios for future potential revenue accumulation based on water rate structures from similar facilities. Once these draft scenarios are completed, meet with City staff and the Committee to

## PROJECT APPROACH

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discuss and evaluate. The scenarios may be modified based on City input, but the hope will be that collective agreement can be made on one or two scenarios to present in a public workshop.

Factors that will be considered in developing the rate structure scenarios are as follows:

### Water Rate Considerations

- How much water and associated charges to include in the base water rate?
  - Consider impacts to low-use water customers if the base rate is too high.
  - Consider differences between residential and commercial customers.
- Evaluate impacts to revenue streams by modifying the base and variable tiered water rates.
- Consideration of a water rate base charge based on meter size, i.e. hydraulic capacity versus meter cost.
- Implementation of a tiered rate structure that increases as additional water is consumed.
- Implementation of a small set-up fee to cover City costs associated with a change of ownership or new service set-up.
- Provide comparison data of the City's current and future water rates relative to similar agencies.
- Based on findings from the Master Water Plan, work with staff and the Committee to develop a preliminary financing plan for implementation of proposed capital projects.
- Evaluate strategies for funding O&M, capital, and debt service reserves.

Refer to the table on the next page for an example of a five-year water rate strategy based on the factors described above.

**PROJECT APPROACH**

	Estimated (FY 13-14)	Projected (FY 14-15)	Projected (FY 15-16)	Projected (FY 16-17)	Projected (FY 17-18)	Projected (FY 18-19)
<b>ASSUMPTIONS USED</b>						
Annual Increase in Water Use		0%	0%	0%	0%	0%
Annual Rate Increase		2.5%	2.5%	2.5%	2.5%	2.5%
<b>WATER RATES USED</b>						
5/8" Meter Monthly Service Charge	\$19.21	\$19.69	\$20.16	\$20.69	\$21.20	\$21.73
Lifeline Consumption Rate (1-1000 CF)	\$0.99	\$1.02	\$1.04	\$1.07	\$1.09	\$1.12
All Other Consumption Rate (1-1000 CF)	\$1.24	\$1.27	\$1.30	\$1.34	\$1.37	\$1.40
Consumption Rate (1001-5000 CF)	\$1.43	\$1.46	\$1.50	\$1.54	\$1.57	\$1.61
Excess Consumption Rate (over 5000CF)(see Note 1)	\$1.74	\$1.78	\$1.82	\$1.87	\$1.92	\$1.96
<b>BEGINNING FUNDS AVAILABLE BALANCE</b>						
	\$1,841,383	\$809,178	\$775,683	\$738,414	\$696,424	\$649,715
<b>REVENUES</b>						
Fixed Service Charges	\$1,014,480	\$1,040,000	\$1,066,000	\$1,093,000	\$1,120,000	\$1,148,000
Consumption Charges	\$1,430,049	\$1,468,000	\$1,502,650	\$1,540,218	\$1,578,722	\$1,618,190
Interest Earnings	\$15,000	\$10,000	\$10,000	\$10,000	\$9,000	\$10,000
Other Operation Income	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Transfer from PF&CC for debt service (see Note 2)	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenue</b>	<b>\$2,482,529</b>	<b>\$2,519,000</b>	<b>\$2,581,650</b>	<b>\$2,845,216</b>	<b>\$2,710,722</b>	<b>\$2,779,190</b>
<b>EXPENDITURES</b>						
Water Administration (see Note 3)	\$787,475	\$807,035	\$828,768	\$850,912	\$874,125	\$898,456
Water Distribution	\$562,011	\$578,061	\$590,463	\$605,224	\$620,355	\$635,684
Water Treatment	\$759,384	\$818,799	\$838,690	\$859,070	\$879,951	\$901,345
Transfer to Capital Improvements Fund (From Table 1)	\$1,345,864	\$350,000	\$261,000	\$372,000	\$383,000	\$394,000
<b>Total Expenditures</b>	<b>\$3,494,734</b>	<b>\$2,552,495</b>	<b>\$2,618,916</b>	<b>\$2,697,207</b>	<b>\$2,757,430</b>	<b>\$2,829,694</b>
<b>ENDING BALANCE/OPERATING RESERVE</b>						
	<b>\$809,178</b>	<b>\$775,683</b>	<b>\$738,414</b>	<b>\$696,424</b>	<b>\$649,715</b>	<b>\$609,241</b>
<b>YEAR END OPERATING RESERVE</b>						
	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>YEAR END CAPITAL PROJECT ALLOCATION</b>						
	<b>33%</b>	<b>30%</b>	<b>28%</b>	<b>25%</b>	<b>22%</b>	<b>20%</b>
Notes: 1. Only applies to 5/8-inch meters						
2. There has been no revenue generated from PF&CC.						
3. Excluding unfunded depreciation expense.						

EXAMPLE WATER RATE TABLE

Sewer Rate Considerations

- Use of wintertime or annual water consumption to determine non-residential sewer rates.
  - Consider seasonal variances in occupancy or patronage for businesses and hotels.
  - Impacts of landscaping water use.
- Rate change impacts to local businesses.
- Comparison of sewer rates with similar agencies.
- Funding capital improvements.
- Strategies for funding O&M, capital, and debt service reserves.

The goal for this effort will be to work closely with staff and the Committee so the final study results are meaningful to the City.

**TASK 4 – PRESENT DRAFT RATE STRUCTURES AT A PUBLIC WORKSHOP**

The purpose of a public workshop will be to present one or more proposed scenarios for new water and sewer rate structures in a public forum. The information will be presented in graphical, as well as tabular, form to make it as clear as possible to the public. Public comment and suggestions will be taken and noted. A subsequent meeting with City staff and the Committee will be held to discuss comments from the public and determine what modifications to the proposed rate structures should be made.

**PROJECT APPROACH**

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**TASK 5 – PREPARE DRAFT RATE STUDY**

Based on public comments and subsequent direction from City staff and the Committee, a written report of the proposed water and sewer rate study will be provided to the City for final comment. Ten (10) copies of the draft report will be submitted for review. We will then incorporate comments in the draft and prepare a final report.

**TASK 6 – CITY COUNCIL PRESENTATION**

Present the Final Water and Sewer Rate Study to the City Council at a scheduled workshop.

**TASK 7 – DELIVERABLES**

Deliverables shall include the following:	Number of Copies
A. Combined Rate Study Report - Draft	10
B. Combined Rate Study Report – Final	20

Refer to Exhibit C for a summarized scope of work and person-hour breakdown. PACE is prepared to begin work immediately on the subject project once authorized by the City of Mt. Shasta. See Exhibit F for our preliminary project schedule.

## II. QUALITY OF PAST PERFORMANCE ON SIMILAR PROJECTS

PACE has served numerous municipal clients on similar project throughout northern California since 1976. We have served the City of Mt. Shasta since 1978 and acted as the City Engineer continuously since 2009. Some of the more noteworthy water and wastewater projects we have completed for the City of Mt. Shasta since the mid-1990s include the following:

- 2015 State-Mandated Wastewater Treatment Plant Improvements:
  - Feasibility Study
  - Environmental
  - CWSRF Planning Grant
- 2015 Big Lakes Water Line Replacement Project
- 2014 Water Meter Installation Project
- 2014 Supply Line Replacement Project
- 2014 Water System SCADA and Telemetry Improvements
- 2013 EDA-Funded Wastewater System Improvements
- 2012 Tank Nos. 2,3, & 4 Repainting Project
- 2012 WWTP Chlorine/Sulfur Dioxide Analyzer Improvements
- 2010 Master Water Plan
- 2010 Old McCloud Road Sewer Replacement
- 2004 Roseburg Water and Sewer Design
- 2003 WWTP Engineering Assistance
- 2003 WWTP Capacity Evaluation
- 2002 Quail Hill Tank Painting
- 1999 Mt. Shasta Water System Telemetry Project
- 1998 Springhill Sewer & Water Project – Phase II
- 1998 Water Project PER
- 1991 Master Sewer Plan
- 1990 Pond Site Feasibility
- 1988 Water Main Replacement
- 1986 Master Water Plan
- 1978 Sewage Treatment Plant Construction

PACE has performed over 100 projects for the City of Mt. Shasta since 1978, including numerous projects acting as City Engineer.

Every project presents unique challenges pertaining to the proper balance between, 1) client desires and expectations, 2) available funding, and 3) satisfaction of regulatory requirements. PACE prides itself with our ability to work with all parties involved to deliver a project that meets all of these expectations. It starts with proactive project management and effective communication between parties.

## PROJECT APPROACH

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Following are noteworthy examples of water and/or sewer rate studies performed by PACE in recent years:

### UTILITY RATE STUDY EXPERIENCE

Historically, PACE had not performed many utility rate studies, in part because many agencies took it among themselves due to political reasons. Most agencies will agree that any modifications or increases to utility rates are often met with public resistance. In recent years, more agencies are soliciting professionals to become involved in establishing utility rates, in part because a key component of establishing rates has to do with future capital projects and funding needs that are established in master plans prepared by an engineering professional. Consequently, many of PACE's long-term clients have requested that we assist them in developing utility rates in recent years.

#### City of Weed

The City of Weed hired PACE in late 2015 to perform water and sewer rate studies for their enterprise funds. Both funds were operating in the "red." A citizens committee was formed, and at the time of this writing, we are preparing for our fifth (of six) public workshops. The City's prior utility rates were based on maximum occupancy rates for non-residential customers instead of actual water use. The new approach will be to utilize actual water consumption for both water and sewer.

#### City of Dunsmuir

The City of Dunsmuir is facing considerable expense replacing its aging water main network. Using input from a citizens committee and a number of public workshops, the City adopted a five-year water rate structure utilizing a combination of staged rate increases and anticipated grants that would allow them to replace nearly all of its old steel water lines within five or six years. A successful Proposition 218 process was conducted in early spring 2016.

#### City of Yreka

The City of Yreka approached PACE in 2008 to perform its first water and sewer utility rate study. At the time, the City was barely able to generate enough revenue to meet expenditures and faced considerable capital needs to make improvements to its water and sewer infrastructure. Similar to the City of Shasta Lake, PACE had recently completed water and sewer master plans for the City of Yreka. Adoption of the five-year rate increase proved a challenge for City staff and council. However, they persevered and during the subsequent five years, both water and sewer utilities were able to generate adequate revenue to establish modest operating reserves and fund needed capital improvements to both utilities.

In spring 2013, PACE completed an update to the City's 2008 study which recommended inflationary-level increases over the next five years in order to continue to provide healthy operating reserves and fund needed capital improvements. In the end, the City Council chose to delay any increases. This is why it will be very important for the City of Mt. Shasta to involve an ad hoc committee of the council throughout the process. Even by delaying the inflationary-level increases, the City's current rate structure is adequate to maintain healthy operating

## PROJECT APPROACH

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reserves and fund some capital improvements. The City of Yreka recently hired PACE to perform another update to their utility rates, which will kick off later this month.

### City of Shasta Lake

In 2004, PACE was approached by the City of Shasta Lake to prepare its first professional water and sewer rate study. At the time, the utility enterprises for both water and sewer were operating in the "red." Having recently completed master water and sewer plans for the City, PACE was well positioned to offer professional guidance in establishing a five-year rate structure. As a result of this effort, the City was able to move both enterprises into the "black" and establish reserves for O&M and capital projects. PACE performed an update to the original study in 2009 and in 2013. For the 2013 study, the City was able to initiate inflationary-level increases over the next five years and still fund established reserves and planned capital projects.

### Burney Water District

PACE assisted Burney Water District with development of its 2005 Water Capacity Charge. Prior to that time, the District's fee had not been updated since 1990. PACE completed water and sewer master plans for the District, each of which recommended numerous water and wastewater system improvements needed. In order to correct existing deficiencies, replace aging infrastructure and accommodate growth, immediate and near-term improvements are needed for both utilities. In order to fund these improvements, as well as develop adequate operating reserves, water and sewer rate studies were developed for the District by PACE.

Refer to Exhibit A for a summary of PACE's general engineering credentials and Exhibit B for a list of client references. We encourage the reader to contact some of these references to hear their satisfaction level with PACE. In addition, Table 1 contains a list of similar projects in which PACE performed similar services as being proposed in this Statement of Qualifications.

**PROJECT APPROACH**

**TABLE 1  
CITY OF MT. SHASTA  
WATER AND SEWER RATE STUDIES  
RELEVANT EXPERIENCE**

<b>PROJECT</b>	<b>YEAR COMPLETED</b>	<b>PACE PM</b>	<b>*FEE</b>	<b>CONTACT</b>
<b>City of Weed</b> Water and Sewer Utility Rate Studies	Expected Fall 2016	Paul Reuter	\$75,000 (both)	Ron Stock City Administrator 530-938-5020
<b>City of Dunsmuir</b> Water Utility Rate Study	Spring 2016	Paul Reuter	\$38,000 (water only)	Randy Johnsen Interim City Manager 530-235-4822
<b>City of Yreka</b> Water and Sewer Utility Rate Studies, including updates	Current ongoing, 2013, 2008	Paul Reuter (current, 2013)  Sam Smith (2008)	\$45,000 (both, updates)  \$35,120 (both, updates)  \$45,362 (both)	Steve Baker City Manager 530-841-2321
<b>City of Shasta Lake</b> Water and Sewer Utility Rate Studies, including updates	2014, 2009, 2004	Paul Reuter (2014, 2009)  Sam Smith (2004)	\$17,300 (both, updates)  \$12,000 (both, updates)  \$35,500 (both)	John Duckett City Manager 530-275-7427
<b>Burney Water District</b> Water and Sewer Utility Rate Studies	2014	Laurie McCollum	\$20,000 (both)	Willie Rodriguez District Manager 530-335-3582
<b>Rio Alto Water District</b> Water Utility Rate Study	2011	Laurie McCollum	\$25,000 (water only)	Martha Slack District Manager 530-347-3835

Note the disparity in fees between "new" studies and "updates" to previous studies. In addition, the fees for the City of Weed and the City of Dunsmuir reflect new studies and participation with a citizens committee via public workshops.

III. RESPONSIBLE PERSONNEL

PACE has been providing engineering services to the City of Mt. Shasta since 1978 and acting as its City Engineer since 2009. Currently, Paul Reuter and Jim Elkins share the City Engineer duties for Mt. Shasta, although Fred Lucero will be taking more of Jim's workload as he coasts into retirement. Mr. Reuter handles all issues related to water and sewer and Mr. Elkins all remaining duties. Mr. Reuter will manage PACE's efforts on the water and sewer rate studies. Mr. Reuter will be assisted by Grant Maxwell and others as needed. The approximate number of hours anticipated for each project team member is shown in Exhibit C.

**Paul Reuter, P.E. – Project Manager:**

Mr. Reuter is the Managing Engineer and President of PACE and will take on the overall project management responsibilities. Mr. Reuter is a registered professional engineer and holds a Master's degree in civil engineering (water and wastewater emphasis). He is also City Engineer for water and wastewater work for the Cities of Yreka, Mt. Shasta, Dunsmuir, and Weed. Having grown up in Weed, attending Weed schools including College of the Siskiyous, Mr. Reuter understands the financial challenges that small communities face. He also appreciates the community's concerns when it comes to implementing infrastructure improvements in small towns.

In addition to numerous projects acting as City Engineer, Mr. Reuter was project manager on the following projects for the City of Mt Shasta:

- 2016 Proposition 1 Storm Water Planning Grant Application
- 2016 DWSRF and CWSRF Planning Grant Applications
- EDA-Funded WWTP Improvements
- Supply Line Replacement Project
- Wastewater Treatment & Disposal Feasibility Study
- 2012 Tank Nos. 2,3, & 4 Repainting Project
- 2010 Master Water Plan
- 2007 Interceptor Replacement Project

*"Hi Paul (Reuter),  
Want you to know that I greatly appreciate working with you. You and your firm are very impressive. We are fortunate to have your capabilities and responsiveness.  
I have had the opportunity to work with a variety of engineering firms and PACE really does top notch work."  
~Paul Eckert, City Manager,  
City of Mt. Shasta*

Mr. Reuter has also performed project management duties on numerous other water and wastewater infrastructure projects for communities throughout northern California, including Cities of Yreka, Etna, Mt. Shasta, Weed, Dunsmuir, Shasta Lake, Redding, and Lakeport; Counties of Siskiyou, Shasta, and Lassen; Mountain Gate CSD, Centerville CSD, Quincy CSD, Fall River CSD, Tennant CSD, Bella Vista Water District, Rolling Hills Mutual Water Company in Yreka, and College of the Siskiyous.

He was also project manager for the City of Dunsmuir's 2016 Water Utility Rate Study Update; City of Weed's current Water And Sewer Rate Study; City of Yreka's previous Utility Rate Study and upcoming update; and City of Shasta Lake's 2014 Water and Wastewater Utility Rate Study Update.

## KEY PERSONNEL

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### **Grant Maxwell, P.E. – Project Engineer – Water and Sewer Rate Studies**

Mr. Maxwell is a registered professional engineer, has 8 years of experience with PACE, and is a stockholder in PACE's ownership structure. He has a master's degree in civil engineering with a water and wastewater emphasis and is responsible for leading a significant amount of PACE's effort on the City of Mt. Shasta's ongoing Wastewater Treatment and Effluent Disposal Feasibility Study. Mr. Maxwell was Project Engineer on the recently completed Supply Line Replacement Project for the City of Mt. Shasta and the author of the City's 2010 Master Water Plan. He has also assisted on most of the City's planning and infrastructure projects over the last five years. Mr. Maxwell has also assisted the City by sitting in on a number of hiring committees for filling key employment positions within the City's public works staff.

Mr. Maxwell played key roles in developing the water rate structure for the City of Dunsmuir and is currently assisting Mr. Reuter on the City of Weed water and sewer rate studies. He will also assist on the City of Yreka's upcoming water and sewer rate study update.

Refer to Exhibit D for an organizational chart for key PACE engineers that are available at all times throughout development of the rate studies. Key Project Team resumes are contained in Exhibit E.

**IV. KNOWLEDGE OF LOCAL PROJECT CONDITIONS AND PROJECT AREA**

As indicated earlier, PACE has been performing engineering services for the City of Mt. Shasta since 1978 and acting as City Engineer since 2009. Over the last 38 years PACE has been involved in most major water/sewer infrastructure project performed by the City of Mt. Shasta and many non-water/sewer infrastructure projects, having performed over 100 projects for the City. In addition, we have equally lengthy relationships with the Cities of Yreka, Weed, and Dunsmuir. Therefore, we believe we possess a comprehensive understanding of the social and economic issues being faced by communities in Siskiyou County, especially in southern Siskiyou County. PACE has subscribed to the Mt. Shasta Herald and Weed Press for the last 30+ years. Along with periodic discussions with City Staff, we are able to stay on top of local issues facing the south county.

Having grown up in Weed, attending Weed schools, including College of the Siskiyous, Paul Reuter has firsthand knowledge of the issues and concerns that affect the local community. Mr. Reuter worked in his parent's local businesses in Weed (Weed Auto Parts) and Dunsmuir (Dunsmuir Auto Parts) for a number of years growing up and appreciates the importance of small business for the long-term viability of small towns.

Having performed the City's most recent water and sewer master plans, PACE appreciates the need for water and sewer system infrastructure planning, and the importance of establishing an equitable rate structure that, 1) produces adequate revenue for day-to-day operations, and 2) provides a reasonable accumulation of funds to replace aging infrastructure. We have performed water and wastewater utility rate studies and subsequent updates for the Cities of Yreka, Weed, Dunsmuir, and Shasta Lake, as well as the Rio Alto and Burney Water Districts.

**V. FAMILIARITY WITH STATE AND LOCAL PROCEDURES**

Having acted as City Engineer for Mt. Shasta since 2009 and for the Cities of Weed and Dunsmuir since the late 1970s/early 1980s, we are very familiar with local policies and procedures in south Siskiyou County. Just as important, we are familiar with and appreciate the local cities' views on the importance of jobs and local commerce for sustenance of a viable community. At the same time, we appreciate the delicate balance between these views and the desire to protect local resources and the environment.

The most significant aspect of implementing new water and sewer rates is successful adoption of rates through Proposition 218. We have assisted a number of communities with successful adoption of Proposition 218. Most recently, the City of Dunsmuir had less than thirty protest votes against proposed water rates out of nearly 900 customers. We attribute this success to the number of public workshops conducted by the citizens committee throughout rate development.

The Proposition 218 process is a legal process; therefore, the City's legal counsel, John Kenny, would help prepare the property owner notifications and protest ballots, with PACE's assistance. Mr. Kenny prepared these documents for the City of Dunsmuir, leading to a successful adoption of their new water rates.

**VI. MISCELLANEOUS SOQ REQUIREMENTS**

Conflict of Interest

The PACE Board of Directors (Paul Reuter, Tom Warnock, Bob Harp, and Fred Lucero) have “no reportable interest” in the City of Mt. Shasta, including no investments or business positions in business entities, no real property, and no income sources that are located in or doing business in the City of Mt. Shasta. The same applies to all individuals on our proposed project team.

Insurance

A copy of PACE’s standard insurance certificate is attached in Exhibit G for reference and includes coverage for general liability, automobile liability, professional liability, and Worker’s Compensation liability insurance. Our standard coverage meets the requirements set forth in the City’s Request for Qualifications. Note that the \$2.0M umbrella (Excess Liability) policy is additive to the Professional Liability policy to obtain the \$4.0M annual aggregate coverage limit specified in the Request for Qualifications.

Prevailing Wage Acknowledgement

PACE acknowledges that certain wage classifications are subject to the higher of Davis-Bacon or State of California prevailing wage determinations. Engineering work is not subject to these requirements; however, all field survey work and construction observation services are subject to these requirements. PACE does not anticipate the need to pay prevailing wages on this project. However, if the need arises, we will pay employees in accordance with the most current prevailing wage requirements and prepare weekly certified payroll in accordance with the law.



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*EXHIBIT A*  
**FIRM CREDENTIALS**

**FIRM CREDENTIALS**

**Type of Firm:** PACE Engineering is a multi-discipline engineering firm that specializes in water and wastewater facilities, land development, structural, electrical, surveying and mapping, and other aspects of civil engineering projects. We offer a full range of services including master planning and feasibility studies; final design with associated special services; construction administration; and construction observation.

**Principal Stockholders:**

- Paul J. Reuter, President and Managing Engineer
- Fred Lucero, Secretary/CFO
- Bob Harp, Vice President
- Tom Warnock, Vice President
- Chris Abrahamsen
- John Brunemeier

**Staff Stockholders:**

- Caleb Bailey, Rick Bowser, Tony Bowser, Garrett Hattenhauer, Troy Jones, Keith Krantz, Karalee Layton, Eric Marshall, Grant Maxwell, Laurie McCollum, Seth Petrie, Ignacio Sanchez, Nathan Sellers, Steve Wilson, and Shawn Wade.

**Firm Established:** April 15, 1976

**Number of Full-Time Employees:** 45 total (23 professional, 5 administrative, and 17 technical).

**Professional Registrations:**

**California:**

- Civil ..... 15
- Structural ..... 3
- Land Surveying ..... 3
- Electrical.....4

**Nevada:**

- Structural.....1
- Electrical.....1

**Hawaii:**

- Electrical.....1

**Washington:**

- Electrical.....1

**Educational Degrees:**

- B.S. Engineering ..... 20
- M.S. Engineering ..... 5

**Professional Services Annual Dollar Volume:** Approximately \$8,000,000



*EXHIBIT B*

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**CLIENT REFERENCES**

## CLIENT REFERENCES

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As a firm, PACE has extensive experience in providing the personnel and services needed to complete major public works projects from the planning stage through construction and operation. We encourage you to contact some of our current and past clients with regard to their level of satisfaction with our work:

### City of Dunsmuir

Wastewater Collection and Treatment  
Randy Johnsen, Interim City Administrator  
530/235-4822 x 103  
Ron LaRue, WWTP Operator  
530/235-2325

### City of Yreka

Steve Baker, City Manager  
530/841-2321  
Matt Bray, Director of Public Works  
530/841-2319

### Shasta County Special Districts

Pat Minturn, Director of Public Works  
Al Cathey, Supervising Engineer  
530/225-5661

### City of Lakeport

Wastewater Collection, Treatment, and  
Effluent Disposal Project  
Mark Brannigan, Utilities Development  
Director  
707/263-5614 x 15

### Tehama County Sanitation District Mineral WWTP

Gary Antone, Director of Public Works  
530/385-1462 x 3005

### City of Mt. Shasta

Rod Bryan, Public Works Director  
530/926-7526

### Bella Vista Water District

Don Groundwater, District Engineer  
530/241-1085

### Rio Alto Water District

Martha Slack, General Manager  
530/347-3835

### Quincy Community Services District

Larry Sullivan, General Manager  
530/283-0836

### Centerville Community Services District

Chris Muehlbacher, District Manager  
530/246-0680

### City of Anderson

Jeff Kiser, City Manager  
530/378-6641

### City of Weed

Craig Sharp, Public Works Director  
530/938-5028



*EXHIBIT C*

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**SCOPE/HOURS**

**EXHIBIT C**  
**CITY OF MT. SHASTA**  
**WATER AND SEWER RATE STUDIES**  
**SCOPE OF WORK AND PERSON-HOUR BREAKDOWN**

WORK TASK	WORK HOURS		
	P. Reuter Project Mngr	G. Maxwell Staff Engr E-3	Office Staff
<b>1. KICK-OFF MEETING AND GATHER INFORMATION</b>			
a. Meeting with City staff & Committee	6	6	
b. Review & evaluate existing rate & fee structures	4	2	
c. Review City financial documents, including reserve accounts	8	4	
d. Review/evaluate operating costs for both Water and Sewer Funds	4	2	
e. Review city reserve account balances and evaluate future reserve account balance needs	4	2	
Subtotal	26	16	0
<b>2. EVALUATE WATER &amp; SEWER ENTERPRISE FUND FINANCIALS</b>			
a. Summarize current financial documents	4	2	
b. Prepare tabulation of City's current financial position	8	2	
Subtotal	12	4	0
<b>3. WATER CONSUMPTION DATA ANALYSIS</b>			
a. Prepare interactive spreadsheet of 12 months of monthly data for all services	4	24	
b. Develop water rate scenarios and macros	2	12	
c. Develop sewer rate scenarios and macros	2	12	
Subtotal	8	48	0
<b>4. EVALUATE CURRENT AND POTENTIAL UTILITY RATE STRUCTURES</b>			
a. Prepare recommendations/scenarios for base and tiered water rates	4	6	
b. Prepare recommendations/scenarios for sewer rates, including non-residential	4	6	
c. Compare water base rate differences for "hydraulic" vs. "meter cost" base rates	4	4	
d. Evaluate "uniform" and "increasing" block tiered water rate structure	4	4	
e. Evaluate need for water and sewer modification/stand-by fee	2	0	
f. Develop utility rate comparison data with other water agencies	2	4	
g. Evaluate options for funding future capital improvements for both enterprises	8	4	
h. Strategies for funding O&M, capital, and debt service reserves	8	4	
Subtotal	36	32	0
<b>5. PUBLIC WORKSHOPS WITH CITIZENS COMMITTEE</b>			
a. Preparation for attending up to six (6) public workshops	48	48	
b. Attend up to six (6) public workshops	24	24	
c. Attend subsequent workshop with City staff	6	6	
Subtotal	78	78	0
<b>6. PREPARE DRAFT RATE STUDY</b>			
a. Prepare draft report (10 copies to City and Committee)	24	48	24
Subtotal	24	48	24
<b>7. CITY COUNCIL PRESENTATION</b>			
a. Prepare for public presentation to City Council	8	8	
b. Attend presentation to City Council	6	6	
Subtotal	14	14	0
<b>8. ASSISTANCE WITH PROPOSITION 218 PROCEEDINGS</b>			
a. Assist City legal counsel with notification and protest ballot development	6	2	
b. Attend Proposition 218 protest hearing	6	6	
c. Provide 20 copies of final report	4	12	16
Subtotal	16	20	16
<b>TOTAL PERSON HOURS BY BY LABOR CLASS</b>	<b>214</b>	<b>260</b>	<b>40</b>
Regular City Council Meeting August 22, 2016		<b>TOTAL PERSON HOURS<sup>12</sup> 514</b>	

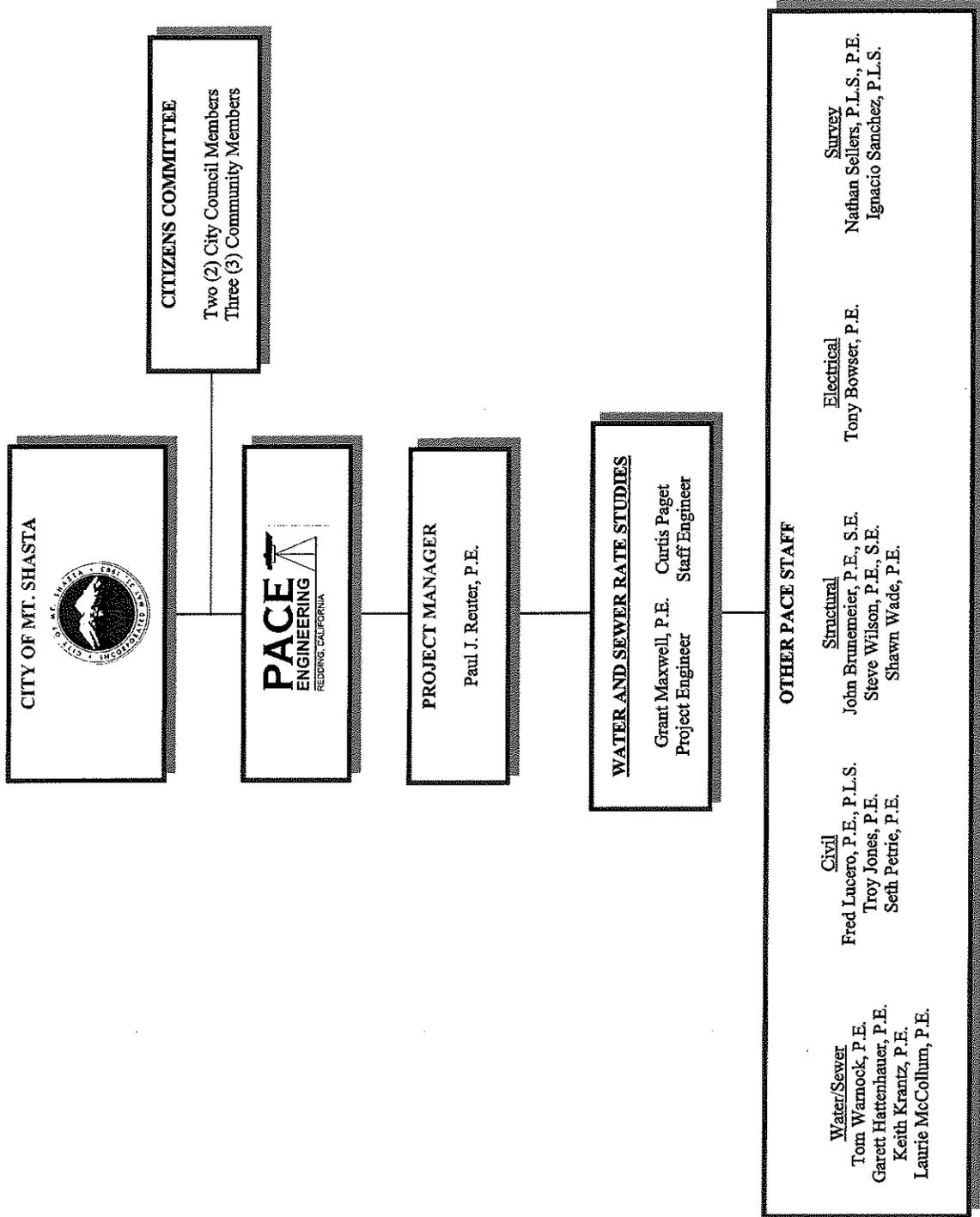


*EXHIBIT D*

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**ORGANIZATIONAL CHART**

# WATER AND SEWER RATE STUDIES ORGANIZATIONAL CHART

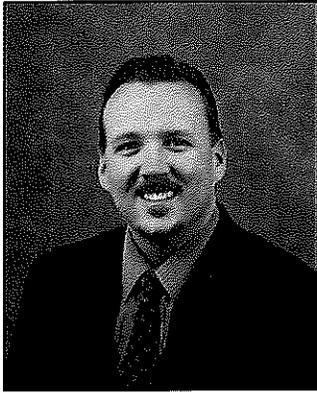




*EXHIBIT E*

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**PACE RESUMES**



## PAUL J. REUTER Managing Engineer

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### OVERVIEW

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Mr. Reuter has been a member of the PACE Engineering team since 1990. He is a principal stockholder and has well-rounded experience in the water and wastewater fields including:

- Water and Sewer System Planning, Design, and Construction Management
- Multi-disciplinary Design Team Management
- Project Feasibility Studies and Plans Required for State and Federal Funding Programs
- Master Water and Sewer Plans

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### KEY PROJECTS

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#### City of Shasta Lake Phase II Water Improvements

The \$5.3M project consisted of ~ 8,000 feet of 18- and 20-inch transmission pipeline as well as improvements to the Raw Water Pump Station and Water Treatment Plant to expand capacity by 50%.

#### City of Dunsmuir River Avenue and Siskiyou Avenue Sewer

The \$1.8M Rural Development-funded project consisted of eliminating an existing interceptor sewer, prone to plugging and overflows into the upper Sacramento River. The project consisted of constructing 3,000 feet of 6- and 8-inch gravity sewer, a new sewer lift station, and a suspended force main across the upper Sacramento River.

#### City of Weed Water Replacement

Mr. Reuter led the project which replaced ~29,000 feet of 2- through 12-inch water line, 15,000 feet of water service piping, and constructed a new 300,000-gallon welded steel storage tank.

Mr. Reuter has also provided project management services on the following projects:

- North Dunsmuir Reservoir, City of Dunsmuir
- Sewage Lift Station, College of the Siskiyous
- Water System Improvement, Mineral Water District
- LPG Tank Relocation, College of the Siskiyous
- 1998 Water Facility, City of Lakeport
- Jones Valley Water, Shasta County Service Area No. 6

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### ROLE

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Project Manager

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### EDUCATION

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MS, Civil Engineering, California State University, Sacramento, 1993

BS, Civil Engineering, University of California, Davis, 1992

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### PROFESSIONAL REGISTRATION

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California, Civil Engineer, 1997

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### MEMBERSHIPS

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American Society of Civil Engineers

American Public Works Association

Water Environmental Federation

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## **OTHER RELEVANT EXPERIENCE**

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### **Master Plan Development**

Mr. Reuter has provided project management on a number of water and sewer master plans for the Cities of Dunsmuir, Weed, and Etna, and assisted in development of master plans for Centerville Community Services District, Palo Cedro Community Services District, and City of Mt. Shasta.

### **Preliminary Engineering Reports and Feasibility Studies**

Mr. Reuter has been responsible for or assisted in the preparation of numerous preliminary engineering reports or feasibility studies to obtain project funding through USDA Rural Development, Infrastructure Bank, and Community Development Block Grants including: City of Shasta Lake Wastewater Recycle Study, Elk Trail Water System, Antelope Sewer System, Etna Sewer System Improvements, and River Avenue and Siskiyou Avenue Sewer Project.

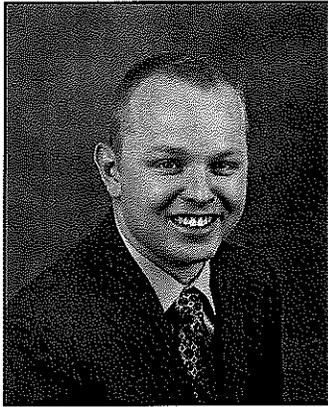
### **Design Engineer**

In addition to Mr. Reuter's projects acting as Project Manager or Project Engineer, he has been involved with design responsibilities on numerous water and wastewater facilities including:

- Quincy Community Services District Sewer Improvement Project
- City of Red Bluff Wastewater Reclamation Plant Expansion
- Trinity River Water Project for Weaverville Community Services District
- Mineral Sewage Disposal Project for Tehama County Sanitation District No. 1
- South Weed Infrastructure Improvements Project
- 1995 Water Project for Centerville Community Services District
- City of Dunsmuir Water Main Replacement Project
- Straight Stretch Sewer Project for Weaverville Sanitation District
- Las Flores Sewage Disposal Project for Gerber-Las Flores Community Services District

### **Construction Observation/Resident Engineer**

Mr. Reuter acted as resident construction observer for the Mineral Sewer Improvements Project for Tehama County Sanitation District No. 1; South Weed Infrastructure Improvements Project for the City of Weed; Wastewater Treatment and Reclamation Project for the City of Shasta Lake; and the Las Flores Sewage Disposal Project for Gerber/Las Flores CSD.



## GRANT A. G. MAXWELL

### Staff Engineer

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#### **ROLE**

Water and Wastewater Engineer

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#### **EDUCATION**

BS, Civil Engineering, California State University, Chico, 2007

MS, Environmental Engineering, California State University, Sacramento, 2014

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#### **PROFESSIONAL REGISTRATION**

California, Civil Engineer, 2011

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#### **MEMBERSHIPS**

American Public Works Association

American Society of Civil Engineers

California Water Environment Association

American Water Works Association

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#### **OVERVIEW**

Mr. Maxwell has been a member of the PACE Engineering team since 2008. He has experience in:

- Water and Sewer Modeling Software, including H<sub>2</sub>ONET, H<sub>2</sub>OMAP, and InfoWater
- AutoCAD Software, including Land Desktop, Architectural Desktop, and Map3D
- Arc GIS Software
- Compaction Testing
- Water Distribution, Sewage Collection System, Wastewater Treatment, and Water Treatment Design
- Land Surveying
- Construction Observation Experience for Water and Sewer Projects

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#### **KEY PROJECTS**

Mr. Maxwell has been involved with design responsibilities on the following PACE Engineering projects:

- City of Weed Boles Fire – Water System Repair and Compliance Upgrades
- County of Shasta Landfill Drainage Pump Station
- Susanville Sanitary District Filtration and UV Disinfection Project
- Shasta Community Services District SCSD & COR Intertie Pump Station
- City of Dunsmuir Wastewater Collection and Treatment Improvement Projects A & B
- City of Mt. Shasta Supply Line Replacement Project

Mr. Maxwell has been involved with construction observation duties on the following PACE Engineering projects:

- 2007 Interceptor Sewer Replacement Project
- Shasta Community Services District WTP Improvement Project
- Susanville Sanitary District Filtration and UV Disinfection Project
- City of Mt. Shasta Supply Line Replacement Project

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#### **EXPERIENCE PRIOR TO JOINING PACE ENGINEERING**

Prior to working for PACE, Mr. Maxwell was employed with Pilot Engineering, a civil engineering firm in San Bernardino, California, and Mendenhall Construction, a construction contractor in Red Bluff, California.



*EXHIBIT F*

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**PROJECT SCHEDULE**

# Mt Shasta SOQ-Water and Sewer Rate Studies

Regular City Council Meeting August 22, 2016

Task Name	Start Date	End Date	Duration	Q1	Q2	Q3	Q4												
1 Kick-off Meeting and Gather Information	09/15/16	09/29/16	11d																
Meeting with City Staff and Committee	09/15/16	09/15/16	0																
Review/evaluate existing financial/budget/rate data	09/15/16	09/29/16	11d																
2 Evaluate Water & Sewer Enterprise Fund Financials	09/30/16	10/28/16	20.5d																
Summarize current financial documents	09/30/16	10/27/16	20d																
Prepare tabulation of City's current financial position	10/28/16	10/28/16	4h																
3 Water Consumption Rate Analysis	09/30/16	11/18/16	36d																
Develop data spreadsheet	09/30/16	10/21/16	16d																
Develop Water and Sewer rate scenario macros	10/24/16	11/18/16	20d																
4 Evaluate Current and Potential Utility Rate Structures	11/21/16	01/06/17	35d																
Recommendations/scenarios for base and tiered water rates	11/21/16	12/02/16	10d																
Recommendations/scenarios for sewer rates/including non-residential	12/05/16	12/09/16	5d																
13 Evaluate "uniform" and "increasing" consumption blocks	12/12/16	12/16/16	5d																
Evaluate need for service modification/stand-by fees	12/19/16	12/23/16	5d																
14 Develop comparison rate database with other similar communities	12/19/16	12/23/16	5d																
15 Evaluate funding of capital improvements	11/21/16	01/06/17	36d																
Strategies for funding O&M, capital, and debt service reserves	11/21/16	01/06/17	36d																
16 Public Workshops with Citizen's Committee	09/15/16	02/23/17	115d																
Citizen's Committee Mtg No. 1	09/15/16	09/15/16	0																
Citizen's Committee Mtg No. 2	10/20/16	10/20/16	0																
Citizen's Committee Mtg No. 3	11/17/16	11/17/16	0																
Citizen's Committee Mtg No. 4	12/15/16	12/15/16	0																
Citizen's Committee Mtg No. 5	01/19/17	01/19/17	0																
Citizen's Committee Mtg No. 6	02/16/17	02/16/17	0																
Work shop with City Staff	02/23/17	02/23/17	0																
Prepare Draft Rate Study	12/15/16	02/23/17	51d																
Prepare draft report	12/15/16	02/23/17	51d																
City Council Presentation	02/23/17	03/13/17	12d																
Prepare for Council Presentation	02/23/17	03/06/17	8d																
Presentation to City Council	03/13/17	03/13/17	0																
Assistance with Proposition 218 Proceedings	03/13/17	12/31/17	210d																
Assistance with notifications/protest ballots	03/13/17	04/03/17	16d																
City Mail notifications and ballots	04/03/17	04/03/17	0																
Attend Proposition 218 Public Hearing	05/22/17	05/22/17	0																
Update Final Report	05/22/17	06/02/17	10d																
Submit Final Report	06/02/17	06/02/17	0																
End of 2017	12/31/17	12/31/17	0																



*EXHIBIT G*

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**PACE INSURANCE**

**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)  
6/30/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Dealey, Renton & Associates P. O. Box 12675 Oakland, CA 94604-2675 510 465-3090	<b>CONTACT NAME:</b> Nancy Ferrick	
	<b>PHONE (A/C, No, Ext):</b> 510 465-3090	<b>FAX (A/C, No):</b> 510 452-2193
<b>E-MAIL ADDRESS:</b> nferrick@dealeyrenton.com		
<b>INSURED</b> PACE Engineering, Inc. 1730 South Street Redding, CA 96001	<b>INSURER(S) AFFORDING COVERAGE</b>	
	<b>INSURER A:</b> Sentinel Insurance Co. LTD	<b>NAIC #</b> 11000
	<b>INSURER B:</b> American Automobile Ins. Co.	<b>21849</b>
	<b>INSURER C:</b> Berkley Insurance Company	<b>32603</b>
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	
<b>INSURER F:</b>		

**COVERAGES**                      **CERTIFICATE NUMBER:**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X	X	57SBALV0374	08/03/2015	08/03/2016	EACH OCCURRENCE \$2,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
A	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE			57SBALV0374	08/03/2015	08/03/2016	EACH OCCURRENCE \$3,000,000
	DED                  RETENTION \$						AGGREGATE \$3,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	WZP81033433	07/01/2016	07/01/2017	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Professional Liability			AEC900626600	08/03/2015	08/03/2016	\$2,000,000 per Claim \$2,000,000 Annl Aggr.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

General Liability Policy excludes claims arising out of the performance of professional services.

30 Days Notice of Cancellation (10 Days for Non-Payment of Premium).

This is an illustration of coverage for proposal purposes only. An actual certificate of insurance will be issued when contract is awarded.

<b>CERTIFICATE HOLDER</b>  ***SAMPLE***	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	<b>AUTHORIZED REPRESENTATIVE</b>  



*EXHIBIT H*

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**ENGINEERING LICENSE**



**BOARD FOR PROFESSIONAL ENGINEERS,  
LAND SURVEYORS, AND GEOLOGISTS**  
2535 CAPITOL OAKS DRIVE, SUITE 300, SACRAMENTO, CA 95833-2944  
(916) 263-2222 Toll Free: (866) 780-5370 www.bpelsg.ca.gov

*P. Reuter*  
*Expires 6/30/17*



**RENEWAL NOTICE FOR PROFESSIONAL LICENSE**

PART  
**1**

FILL IN THE FOLLOWING INFORMATION & RETAIN TOP PORTION FOR YOUR RECORDS. COMPLETE AND RETURN BOTTOM PORTION IN ENCLOSED ENVELOPE.  
**\*\*\*\*\* IMPORTANT \*\*\*\*\***  
DO NOT SEND CASH. SEND A CHECK OR MONEY ORDER MADE PAYABLE TO:  
DEPARTMENT OF CONSUMER AFFAIRS  
-OR- YOU CAN NOW PAY BY CREDIT CARD AT THE FOLLOWING LINK;  
[WWW.DCA.CA.GOV/WEBAPPS/BPELSG/RENEWAL.PHP](http://WWW.DCA.CA.GOV/WEBAPPS/BPELSG/RENEWAL.PHP)

RPRC  
03/07/13

TYPE	CERTIFICATE NO	CERTIFICATE EXPIRES	RENEWAL FEE PAID	DATE RENEWAL MAILED	YOUR CHECK NUMBER
C	56876	06/30/15	\$115.00	09/08/16	17193

INSTRUCTIONS FOR RENEWAL PLEASE READ CAREFULLY

04/18/15  
04/29/15

A license that is not renewed shall be deemed delinquent and subject to delinquent penalty fees and may require the surrender of the license.

Your license expires on the date printed above. RENEW EARLY TO AVOID PENALTY. A delinquent penalty fee is added for renewals postmarked after the 60-day grace period. The total delinquent renewal fee shown below should be mailed if this application is postmarked after the grace period.

AVOID LOSS OF YOUR LICENSE AS A PROFESSIONAL ENGINEER. LICENSES WHICH ARE NOT RENEWED WITHIN THREE YEARS AFTER EXPIRATION MAY NOT BE RENEWED, RESTORED, REINSTATED, OR REISSUED EXCEPT AS PROVIDED IN BUSINESS AND PROFESSIONS CODE, SECTIONS 6795 - 6796.5 (P.E.) AND 8803 (P.L.S.).

NAME CHANGE - If your name has been changed, print your new name on Part 3, Section E below. In addition, the Board requests that you submit verification of your name change (e.g., copy of marriage license, driver's license, court papers, etc.) with this renewal notice. After your name change request has been reviewed and processed, your renewal license will be issued in your new name.

ADDRESS CHANGE - Pursuant to Title 16, California Code of Regulations, Section 412 -- Each person holding a license issued by the Board under provisions the Professional Engineers Act or Professional Land Surveyor's Act shall file his/her address with the Board office. Within thirty (30) days after changing addresses, he/she shall notify the Board of such change. Print your new address on Part 3, Section E below.

RETIREMENT - If you wish to retire your license, and are eligible to do so. DO NOT SEND APPLICATION FEES WITH THIS NOTICE. Please contact the Board and request an application for the RETIRED STATUS of licensure. Information and the application form is also available on the Board website at www.bpelsg.ca.gov .

First Time Licensure - If you are newly licensed, your examination fee includes your licensure through the first renewal quarter after the date the Board approved the examination results. You must remit the full renewal fee on or before the date indicated on the front of this form. Once renewed, your license will be valid for an additional two (2) years. Your renewal month and day will always remain the same until you choose to retire your license.

**CONVICTION-**

If you have been convicted of a felony within the past two years you have an obligation to report this to the Board.

DETACH HERE & RETAIN PART 1 FOR YOUR RECORDS. ALLOW 6-8 WEEKS FOR PROCESSING YOUR RENEWAL. RETURN THIS FORM WITH ADDRESS IN PART 2 VISIBLE IN THE RETURN ENVELOPE WINDOW. BE SURE TO INCLUDE YOUR CHECK.

**PAID**  
Date: 5/8/16 Chk #: 17193  
Acct: 72400 115.00

PART  
**2**

STATE OF CALIFORNIA  
DEPARTMENT OF CONSUMER AFFAIRS  
P O BOX 942535  
SACRAMENTO CA 94258-0535

7500 C 56876

PART  
**3**

**CERTIFICATE RENEWAL APPLICATION  
CIVIL ENGINEER**

**RECEIVED**

BOARD FOR PROFESSIONAL ENGINEERS,  
LAND SURVEYORS, AND GEOLOGISTS

MAY 4 0 2015

**PACE Engineering**

CERTIFICATE NUMBER	CERTIFICATE EXPIRES	AMOUNT DUE NOW
C 56876	06/30/15	\$115.00

DELINQUENT FEE IF POSTMARKED AFTER 08/29/15  
**\$172.50**

**E. ONLY FILL IN IF A CHANGE IN NAME OR ADDRESS HAS OCCURRED. PRINT ANY CHANGES BELOW.**

FULL NAME (VERIFICATION OF NAME CHANGE REQUIRED) \_\_\_\_\_  
MAILING ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

ACTIVE  
PAUL JOSEPH REUTER  
1730 SOUTH ST  
REDDING CA 96001

ENTER YOUR PHONE NUMBER FOR REFERENCE  
PHONE NUMBER ( ) \_\_\_\_\_