

**CITY OF UKIAH
CITY COUNCIL AGENDA
Regular Meeting
CIVIC CENTER COUNCIL CHAMBERS
300 Seminary Avenue
Ukiah, CA 95482
October 5, 2016
6:00 p.m.**

1. ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. PROCLAMATIONS/INTRODUCTIONS/PRESENTATIONS

- a. Proclamation for Make A Difference Day, October 22, 2016.
- b. Status Report, Discussion and Possible Action Regarding the Ukiah Valley Sanitation District's Litigation Against the City of Ukiah Related to the Operation of the Sanitary Sewer System.

4. PETITIONS AND COMMUNICATIONS

5. APPROVAL OF MINUTES

- a. Minutes of September 21, 2016, a Regular Meeting.

6. RIGHT TO APPEAL DECISION

Persons who are dissatisfied with a decision of the City Council may have the right to a review of that decision by a court. The City has adopted Section 1094.6 of the California Code of Civil Procedure, which generally limits to ninety days (90) the time within which the decision of the City Boards and Agencies may be judicially challenged.

7. CONSENT CALENDAR

The following items listed are considered routine and will be enacted by a single motion and roll call vote by the City Council. Items may be removed from the Consent Calendar upon request of a Councilmember or a citizen in which event the item will be considered at the completion of all other items on the agenda. The motion by the City Council on the Consent Calendar will approve and make findings in accordance with Administrative Staff and/or Planning Commission recommendations.

- a. Consideration and Possible Adoption of Resolution Establishing a Uniform Process of Minute Taking and Meeting Recordation for All City Boards and Commissions.
- b. Authorize Reactivation of the Associate Planner Position.
- c. Authorization for the City Manager to Accept Mitigation Funding from Pacific Gas & Electric for the Community Pipeline Safety Initiative, and Approve Corresponding Budget Amendment(s).
- d. Approval of Updated 2016 Council Special Assignment List Showing Reassignments to the Economic Development & Financing Corporation (EDFC) and the Mendocino Transit Authority (MTA) Board of Directors.

- e. Authorize the City Manager to Negotiate and Execute Agreement(s) with the Ukiah Valley Medical Center and Special Ice Rentals LLC for an Outdoor Holiday Ice Rink.
- f. Report of Emergency Repair of Jet A Fuel Pump and Filter Skid for the Bulk Storage Tank in the Amount of \$15,905, and Approve Corresponding Budget Amendment.

8. AUDIENCE COMMENTS ON NON-AGENDA ITEMS

The City Council welcomes input from the audience. If there is a matter of business on the agenda that you are interested in, you may address the Council when this matter is considered. If you wish to speak on a matter that is not on this agenda, you may do so at this time. In order for everyone to be heard, please limit your comments to three (3) minutes per person and not more than ten (10) minutes per subject. The Brown Act regulations do not allow action to be taken on audience comments in which the subject is not listed on the agenda.

9. COUNCIL REPORTS

10. CITY MANAGER/CITY CLERK REPORTS

11. PUBLIC HEARINGS (6:15 PM)

12. UNFINISHED BUSINESS

- a. Discussion and Possible Action Regarding a Council Position on Measure AF, the Mendocino Heritage Act.
- b. Approve Plans and Specifications for North State Street Intersection - Low Gap Road / Brush Street Storm Drain and Signalization Improvements, Specification No. 16-06 and Direct Staff to Advertise for Bids.

13. NEW BUSINESS

- a. Approval of Contract with SHN Consulting Engineers and Geologists, Inc. for the Pressure Zone 2 South Reservoir Rehabilitation/Replacement Project in the Amount of \$84,472.
- b. Consider Appointment of Ad Hoc Committee for Litigation Entitled, "County of Mendocino v. Solid Wastes Systems" – Case No. SCUk-CVG-11-59459.

14. CLOSED SESSION – Closed Session may be held at any time during the meeting.

- a. **Conference with Legal Counsel – Anticipated Litigation**
Significant exposure to litigation pursuant to Cal. Gov't Code Section 54956.9(d)(2) Number of potential cases (1) (Landfill)
- b. **Conference with Legal Counsel – Existing Litigation**
(Cal. Gov't Code Section 54956.9(d)(1))
Name of case: City of Ukiah v. Questex, LTD, et al, Mendocino County Superior Court, Case No. SCUk- CVPT-15-66036

c. **Conference with Legal Counsel – Existing Litigation**

(Government Code Section 54956.9(d)(1))

Name of case: *Ukiah Valley Sanitation District v. City of Ukiah*, Sonoma County Superior Court, Case No. SCV 256737

d. **Conference with Legal Counsel – Existing Litigation**

(Cal. Gov't Code Section 54956.9(d)(1))

Name of case: County of Mendocino v. Solid Waste System, Inc. et al., Mendocino County Superior Court, Case No. SCU-K-CVG-11-59459

e. **Conference with Legal Counsel – Existing Litigation**

(Cal. Gov't Code Section 54956.9(d)(1))

Name of case: *Ukiah Citizens for Safety First v. City of Ukiah*, Mendocino County Superior Court, Case No. SCU-K-CVPT 14-63579

15. ADJOURNMENT

Please be advised that the City needs to be notified 72 hours in advance of a meeting if any specific accommodations or interpreter services are needed in order for you to attend. The City complies with ADA requirements and will attempt to reasonably accommodate individuals with disabilities upon request. Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available for public inspection at the front counter at the Ukiah Civic Center, 300 Seminary Avenue, Ukiah, CA 95482, during normal business hours, Monday through Friday, 8:00 am to 5:00 pm.

I hereby certify under penalty of perjury under the laws of the State of California that the foregoing agenda was posted on the bulletin board at the main entrance of the City of Ukiah City Hall, located at 300 Seminary Avenue, Ukiah, California, not less than 72 hours prior to the meeting set forth on this agenda.

Dated this 30th day of September, 2016.

Kristine Lawler, City Clerk



ITEM NO.: 3a

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: PROCLAMATION FOR MAKE A DIFFERENCE DAY, OCTOBER 22, 2016**Summary:** Council to issue a proclamation for Make A Difference Day, October 22, 2016.

Background and Discussion: The City of Ukiah takes this time to recognize October 22, 2016, as Make A Difference Day. For twenty-five (25) years, volunteers across the nation have united with a common mission to improve the lives of others. The nationwide undertaking includes revitalizing community centers, rehabilitating parks, improving low-income homes, creating community art projects, mentoring, serving meals, developing community gardens and much more.

North Coast Opportunities, Volunteer Network will organize approximately forty (40) volunteers to beautify Todd Grove Park. Volunteers will help beautify the park by spreading mulch, pulling weeds and other various necessary work needed to keep our park clean and safe.

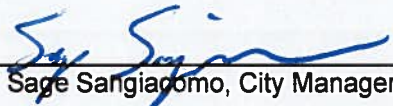
North Coast Opportunities, Volunteer Network's Make A Difference Day goal is to bring people together to help solve a community problem, and provide an opportunity for people to volunteer. Encouraging communities to come together and Make a Difference.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Issue a proclamation for Make A Difference Day, October 22, 2016.**ALTERNATIVES:** N/A

Citizens advised: N/A
Requested by: Sage Sangiacomo, City Manager
Contact/Prepared by: Tami Bartolomei, Director of Community Services
Coordinated with: Ashley Cocco, Deputy City Clerk
Presenter: Tami Bartolomei, Director of Community Services
Attachment: 1. Proclamation

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____**RECORDS APPROVED:** ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____*Note: Please write Agreement No. in upper right corner of agreement when drafted.*

Approved: 
Sage Sangiacomo, City Manager

PROCLAMATION

OF THE
UKIAH CITY COUNCIL

Recognition of Make A Difference Day October 22, 2016

WHEREAS, Make A Difference Day is an annual event that Points of Light organizes throughout our Nation; and

WHEREAS, for more than two decades, Make A Difference Day has been celebrated annually on the fourth Saturday in October and connects people with opportunities to serve, increases the strength of communities and promotes civic engagement; and

WHEREAS, on October 22, 2016, volunteers from across the country will unite for Make A Difference Day, one of the largest annual single-days of service nationwide; and since 1992, volunteers and communities have come together on Make A Difference Day with a single purpose: to improve the lives of others; and

WHEREAS, North Coast Opportunities, Volunteer Network, with staff and many volunteers in Ukiah and the surrounding area, has solicited and accepted the City of Ukiah's application as one of the Make A Difference Day sites, requiring forty (40) volunteers; and

WHEREAS, approximately forty volunteers from surrounding neighborhoods including local dignitaries, and children will work together to beautify Todd Grove Park; and

WHEREAS, the City of Ukiah has been a strong partner in volunteer events by supporting community service events and by encouraging City staff to become involved as well; and

WHEREAS, the City of Ukiah wishes to recognize and support the spirit of community service; and by coming together to address the problems we all face, we are building a stronger more vibrant community;

NOW, THEREFORE, BE IT RESOLVED, that I, Stephen G. Scalmanini, Mayor, with my fellow Ukiah City Council members Jim O. Brown, Kevin Doble, Maureen Mulheren, and Douglas F. Crane do hereby proclaim October 22, 2016, the Make A Difference Day.

Signed and sealed, this 5th day of October, in the year Two Thousand Sixteen.

Stephen G. Scalmanini, Mayor



ITEM NO.: 3b

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: STATUS REPORT, DISCUSSION AND POSSIBLE ACTION REGARDING THE UKIAH VALLEY SANITATION DISTRICT'S LITIGATION AGAINST THE CITY OF UKIAH RELATED TO THE OPERATION OF THE SANITARY SEWER SYSTEM

Summary: Staff will provide the latest status report on the Ukiah Valley Sanitation District's Litigation against the City of Ukiah related to the operation of the sanitary sewer system.

Background: In September 2013, the Ukiah Valley Sanitation District (UVSD) filed a claim for damages with the City, and one month later filed its lawsuit. In its lawsuit, the District seeks damages for alleged breaches of the various agreements between the City and the District related to the operation of the sanitary sewer system, starting with the original 1955 agreement.

This lawsuit will have significant adverse financial impacts to both agencies, as well as the ratepayers and the community, and the City is seeking an alternative to litigation to resolve this dispute. Attached is the letter that was sent on September 14, 2016, by the City Council to the District Board, formally requesting that the District drop the lawsuit (Attachment #1), as well as an informational piece that details the background/impacts (Attachment #2).

On September 21, 2016, the City Council received a presentation (Attachment #3) from staff that explained the relationship between the two agencies and provided responses to some of the most frequently asked questions about this matter to better inform the public about the consequences of this litigation. This information along with a video link to the September 21st presentation/discussion are accessible at <http://www.cityofukiah.com/projects/uvsd-vs-cou/>. The UVSD submitted a letter on September 20, 2016, which is included as Attachment #4 for reference.

The City of Ukiah continues to request the District consider a change in process outside of litigation to resolve the dispute and restore a working relationship, recognizing there is simply too much at stake for the ratepayers, system operations, and the community.

Continued on Page 2

RECOMMENDED ACTION(S): Receive status report. If desired, discuss and provide direction to Staff and/or consider any action(s) related to the matter.

ALTERNATIVES: N/A

Citizens advised: N/A
Requested by: City Council (Councilmembers Crane and Doble)
Prepared by: Sage Sangiacomo, City Manager and Sean White, Director of Water and Sewer
Coordinated with: David Rapport, City Attorney and Tim Eriksen, Director of Public Works
Presenters: Sage Sangiacomo, City Manager
Attachments:
1. Letter to UVSD Board, September 14, 2016
2. Points of interest regarding UVSD vs. City of Ukiah
3. City PowerPoint Presentation from September 21, 2016
4. UVSD Letter dated September 20, 2016

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted..

Approved: 
Sage Sangiacomo, City Manager

At the conclusion of the September 21st discussion, the Council directed the City Manager to contact the UVSD District Manager to explore possible alternatives. In addition, Council requested an update be provided at the next City Council meeting.

Discussion: Staff will provide the latest status report on the Ukiah Valley Sanitation District's Litigation against the City of Ukiah related to the operation of the sanitary sewer system.

The Council may elect to discuss the matter further and, if desired, provide direction to Staff and/or consider any related action(s). As part of this agenda item, the Council does not intend to consult with legal counsel regarding the litigation itself and does not intend to waive evidentiary privileges for attorney-client communication or attorney work product.



September 14, 2016

Chairman Ronco and Board Members
Board of Directors
Ukiah Valley Sanitation District
151 Laws Ave.
Ukiah, CA 95482

SENT BY EMAIL AND REGULAR U.S. MAIL

Re: UVSD v. City of Ukiah

Dear Chairman Ronco and Board Members:

The lawsuit filed by the District against the City is having immediate and serious adverse consequences affecting the sewer system and the ratepayers in the City and the District. As you know, the City was recently awarded \$25,564,000 from the Clean Water State Revolving Loan Fund (CWSRF) and \$9,996,000 in grants from the Water Recycling Funding Program (WRFP) to construct Phases I – III of the Recycled Water Project. In addition, the City is in the process of applying for up to an additional \$13,000,000 from the CWSRF and \$7,000,000 from the WRFP for the final phase.

For a phone call on April 18, 2016, between the City Attorney and Sergio Rudin, staff attorney with the Office of Chief Counsel, State Water Resources Control Board, Mr. Rudin sent the City Attorney a copy of the standard legal opinion that will be required before the Department of Water Resources will enter a loan agreement with the City. That opinion requires the City's legal counsel to state that "...there is no...suit...pending or threatened against or affecting the City's...wastewater system or the assets, properties or operations of the City relating to its...wastewater system which, if determined adversely to the City or its interests would result in any material change in the assets or financial condition of the City, the City's...wastewater system or the financial condition thereof." In a telephone conference call among City staff and officials in the Department of Water Resources on June 28, 2016, the Department staff raised the issue of the District's lawsuit and specifically advised City staff that the pendency of the lawsuit and the possibility of the District rescinding the Financing Agreement between the City and the District will prevent the Department from entering any loan agreements with the City. The City was advised that these funds will no longer be reserved for the City if the lawsuit is still pending and unresolved at the end of this year.

This project is not a frivolous "feel-good" environmental program; it is, by far, the most cost-effective alternative to the State's stricter regulations on discharging to the Russian River. If we lose the loans and grants for the recycled water system, the City and District will need to upgrade the plant to comply with the new standards. Staff estimates compliance with current regulatory requirements will cost up to \$30,000,000 in the short term, and will likely increase over time with escalating regulatory requirements if discharge to the river continues. It is important to note the treatment plant was modified less than a decade ago at a cost of \$75,000,000 and is already "out of compliance" due to new regulatory requirements that did not exist until after the upgrade project was under construction in 2006. In addition, it is highly likely that no discharge whatsoever into the river will be allowed in the foreseeable

future. These inevitable mandates will result in additional future costs that could be avoided by developing a recycling system now.

Councilmembers have discussed the consequences of losing this funding with District board members in the past and we have also discussed the other financial impacts of this litigation on both the City and the District.

To avoid these serious adverse financial impacts, the City proposes that the District dismiss its lawsuit and that the City and District devote their time, money and resources to solving the costly issues confronting the sewer system and improving their working relationship. The City Council and staff have been frustrated by the unresolved conflict between the City and the District, but also recognize that the current District Board feels strongly about its grievances. There are new faces at the City, including four new City Council members, a new City Manager, new Director of Water and Sewer and a new Finance Director who are prepared to address the District's concerns with an open mind, a commitment to honest and transparent communication and a desire to establish a productive long-term working relationship with the District. The City is prepared to engage in serious negotiations to address the District's concerns as long as the District Board is prepared to likewise negotiate in good faith and seriously consider the City's concerns.

If necessary, the parties could agree on terms that would allow the District to refile its law suit in the future without prejudice, if the parties fail to reach agreement. As the last year has made clear, however, the parties cannot conduct this expensive, disruptive and time consuming litigation and at the same time work to resolve their disagreements, and the pending lawsuit has and threatens to further cost the ratepayers in the District and the City millions of dollars which will ultimately increase their rates for sewer service.

Very truly yours,


Stephen G. Scalmanini, Mayor


Jim O. Brown, Vice Mayor


Douglas F. Crane, Councilmember


Kevin Doble, Councilmember


Maureen Mulheren, Councilmember

cc: City Manager
District General Manager



Frequently Asked Questions:

Ukiah Valley Sanitation District vs. City of Ukiah

Why are there two government agencies for one wastewater treatment plant and collection system?

Since 1897, the City of Ukiah has operated the municipal wastewater system. The system has expanded as demand and regulation necessitated collection and treatment upgrades. In 1950's, the Ukiah Valley Sanitation District was formed by the County to work in conjunction with the City of Ukiah to leverage the City's existing system to serve the area outside the city limits and eliminate the need for duplicated facilities.

In 1955, the City and the District entered the first agreement under which the City agreed to build a new sewer plant to serve the City and the District. The District agreed to construct a trunk sewer line from the treatment plant to serve both City and District territory. The City agreed to operate and maintain the sewer plant, the trunk sewer and the pipelines and pump stations which collect sewage in the City and the District and transport it to the sewer plant for treatment. The agreement had a term of 40 years.



The original 1955 agreement was amended four times between 1955 and 1985. In 1995 the City and the District entered a new 30 year agreement, which has been amended twice. In 2006, the City and the District entered a Financing Agreement which set out the terms under which the City and the District would share the cost of repaying \$75 Million the City borrowed to rebuild the sewage treatment plant. That money came from bonds issued for the City by the Association of Bay Area Governments.

For roughly 60 years, the City has provided reliable sewer service to both City and District customers. Through a series of participation agreements, the Ukiah Valley Sanitation District utilizes City of Ukiah staff and resources for engineering, compliance, maintenance, administration and operation of the collection system and Wastewater Treatment Plant (WWTP). Throughout this period, the system was operated as a single operation with ratepayers within the City and District paying the same price for all services.

The City is able to leverage administrative, labor, and equipment cost savings to the wastewater system fund by sharing costs with other city operations. For example, the City has a single billing and collections department that serves water, sewer, garbage collection and electric. In addition, the City has a consolidated field maintenance crew and fleet that serves both the water distribution system and wastewater collection system.

What is the governance structure for the agencies?

The City of Ukiah is governed by the City Council. The Ukiah Valley Sanitation District was originally governed by a three-member Board of Directors consisting of two members of the County's Board of Supervisors and one

member of the Ukiah City Council. In 2008, the District modified its governance structure to a directly elected five member Board of Directors. Since the change in governance and the original election for Directors, incumbents have run unopposed and new members have been appointed by the existing board to fill vacated seats without an election.

After 2008, the District began to adopt rates and connection fees that are different than the City's and has made a number of other decisions that will ultimately result in increased sewer rates for everyone with no compensating benefits to ratepayers in the City or the District.

How have operations changed at the District since the change in governance structure?

Since 2008, the District has increased its administrative costs from just under \$6,000 in 2008 to more than \$290,000 per year.

Additionally, the District has elected to impose different rates and connection fees than are charged by the City, to the detriment of business development and new housing.

For example, Branches Restaurant, located in the UVSD, paid \$75,537 to the District in sewer connection fees. Under the revised fee schedule, adopted in 2011, those fees would be \$196,700.

A dialysis clinic in the District paid \$67,983 in connection fees in 2010; under the new schedule, their fees would be \$105,170.

An expansion of Star's Restaurant was abandoned because of the increased fees. Their proposed banquet room, which did not include any new plumbing, would have triggered sewer connection fees of \$1,224 per seat.

Other new developments have also been abandoned because of the prohibitive fee structure. A new laundromat in the District, which would likely serve the lowest income population, would be required to pay \$24,540 per washing machine, versus \$2,500 in the City.

Without new connections, the existing ratepayers pay the burden of under-utilized capacity upgrades. Also, the application of different rates increases the costs of administration.

Why is the Ukiah Valley Sanitation District suing the City of Ukiah?

In September 2013, the District filed a claim for damages with the City and one month later filed its lawsuit in October 2013. In its lawsuit, the District seeks damages for alleged breaches of the various versions of the agreements between the City and the District, starting with the original 1955 agreement. The District alleges that the City overcharged the District under the 1966 amendment to the 1955 agreement. It claims that the City overcharged the District under the 1985 amendment to the 1955 agreement. It makes similar claims under the 1995 agreement and its two amendments. The District also seeks to get out of the Financing Agreement which obligates the District to pay its share of the cost to rebuild the sewer plant. Bonds were issued by ABAG in 2006 in reliance on that agreement. The bonds were insured and the insurance company likewise relied on the District's commitments in the Financing Agreement, when it insured the bonds in 2006. The bondholders relied on the District's commitment, when they purchased the bonds. The sewer plant reconstruction was completed in 2009, and, of course, serves both the City and the District.

The District's decision to allege contract breaches covering more than 50 years and multiple agreements, some of which expired 21 years ago, make the lawsuit a nightmare to litigate. The current City officials and staff believe



that the facts alleged by the District establish a course of dealing over many years between the City and the District's Board of Directors during which the District Board knew how the City was performing under the agreements, because the City provided that information through staff reports and appearances before the Board, the submission to and approval by the Board of annual budgets for the sewer system, annual audits of the City's financial statements and joint meetings of the Board and the City Council. However, reconstructing those interactions over this extended time period, challenges the memories of the participants who are still alive and who can be located and involves hundreds of thousands and perhaps millions of pages of documents and many others

that have been destroyed in the regular course of business or can't be located.

The City anticipates that if this case goes to trial, expensive accounting and engineering expert witnesses will express conflicting opinions as Monday night quarterbacks rehashing and characterizing the long and complicated history of City/District relations.

In addition, in its complaint, the District asks the court to turn over operation of the entire wastewater system, including the City's wastewater treatment plant, to the District to run, in spite of the fact that the City has been operating and maintaining the entire sewer system for nearly 120 years. The District has never operated a sewer system; nor does it have any of the equipment, field attendants, licensed plant operators, engineers or customer service staff necessary to do so. The District has not described to the City how it would take over these functions and perform them in compliance with the stringent and ever-changing regulations enforced by the North Coast Regional Water Quality Control Board. Furthermore, no allegations in the District's lawsuit address the City's actual operation of the sewer plant or the collection system or suggest that the City is not doing an effective job of operating the sewer system.

How much is the lawsuit costing the ratepayers?

The District's lawsuit will cost the District and the City millions of dollars in combined legal fees and related expenses. In the last three and a half years, the District has spent \$2,183,634 on litigation-related expenses with \$2,112,500 paid to the Law Offices of Duncan James through June 9, 2016. Recent monthly invoices from the law firm have exceeded \$80,000 per billing.

In the same period of time, the City has expended \$318,093 in defense of the lawsuit.

Unless the District drops the lawsuit, it will most likely drag on for a year or more with long-standing implications for the Ukiah Valley. Unfortunately, the cost of the lawsuit will be borne by the ratepayers, who will undoubtedly see significant increases on their monthly bills and/or a negative impact on services.

What else is at stake because of the lawsuit?

Interest rates are low and financial experts predict that they will be rising soon. It would be most prudent to take advantage of the current low interest rates and refinance the \$75 million in bonds that were issued to construct the new wastewater treatment plant in 2006. Refinancing would save up to an estimated \$7.48 million dollars (present day value). However, by filing this lawsuit, the District has effectively blocked any possibility of a refinance.

Additionally, in its lawsuit, the District is seeking to rescind the Financing Agreement by which the District agreed to pay its share of the debt service on the 2006 wastewater treatment plant bonds. In addition to the lost opportunity to refinance, the impact from seeking this remedy, even if it is ultimately denied, could be seriously damaging to both the District and the City's credit rating, thereby jeopardizing future projects for both agencies.

For example, the City was recently awarded \$25,564,000 from the Clean Water State Revolving Loan Fund (CWSRF) and \$9,996,000 in grants from the Water Recycling Funding Program (WRFPP) to construct Phases I – III of the Recycled Water Project. In addition, the City is in the process of applying for up to an additional \$13,000,000 from the CWSRF and \$7,000,000 from the WRFPP for the final phase.

This project is not a frivolous “feel-good” environmental program, it is the most cost-effective alternative to the State's stricter regulations on discharging to the Russian River. However, the State of California has informed City staff that the recycled water project funding is in jeopardy because the state cannot enter a loan agreement with the City, while the District's lawsuit is pending.



If we lose the loans and grants for the recycled water system, the City and District will need to upgrade the plant to comply with the new standards. Staff estimates compliance with current regulatory requirements will cost up to \$30,000,000 in the short term, and will likely increase over time with escalating regulatory requirements if discharge continues. It is important to note the treatment plant was modified only a decade ago at a cost of \$75,000,000 and is already “out of compliance.” In addition, it is highly likely that no discharge whatsoever into the river will be allowed in the foreseeable future. These inevitable mandates will result in additional future costs that could be avoided by developing a recycling system now. This is why our neighbors to the south including Santa Rosa, Windsor, and Healdsburg have already developed recycling programs.

From a practical standpoint we have two choices: 1) spend millions to throw away a valuable resource, or 2) spend millions to put it to use in our own community.

Finally, the City has expensed a tremendous amount of staff resources responding to the District's Public Record Act (PRA) requests for information dating back to 1955. To date, the City has received 26 PRAs, some of which

include multiple demands on a single request. Some examples of these requests include every building permit issued by the City since 1955, payroll records and time cards for each employee whose time was charged to the sewer system from 1984-2016, and all correspondence that at any time refers or relates in any way to the sewer system. In a typical lawsuit, the discovery process is used to obtain documents and is overseen and controlled by the court to prevent burdensome or oppressive requests. However, because the City of Ukiah is a public agency, the District's attorneys have used the Public Records Act to obtain information, which does not require the District to justify its requests by showing how they are relevant to the issues in the case.

How does the City propose to resolve this matter?

The City proposes that the District dismiss its lawsuit and that the City and District devote their time, money and resources to solving the costly issues confronting the sewer system and improving their working relationship. The City Council and City staff have been frustrated by the unresolved conflict between the City and the District, but also recognize that the current District Board feels strongly about its grievances. The City is prepared to engage in serious negotiations to address the District's concerns as long as the District Board is prepared to likewise negotiate in good faith and seriously consider the City's concerns. If necessary, the parties could agree on terms that would allow the District to refile its lawsuit in the future, if the parties fail to reach agreement. As the last year has made clear, however, the parties cannot simultaneously conduct this litigation and work to resolve their disagreements, and the pending lawsuit has and threatens to further cost the ratepayers in the District and the City millions of dollars which will ultimately impact their rates for sewer service.

Summary

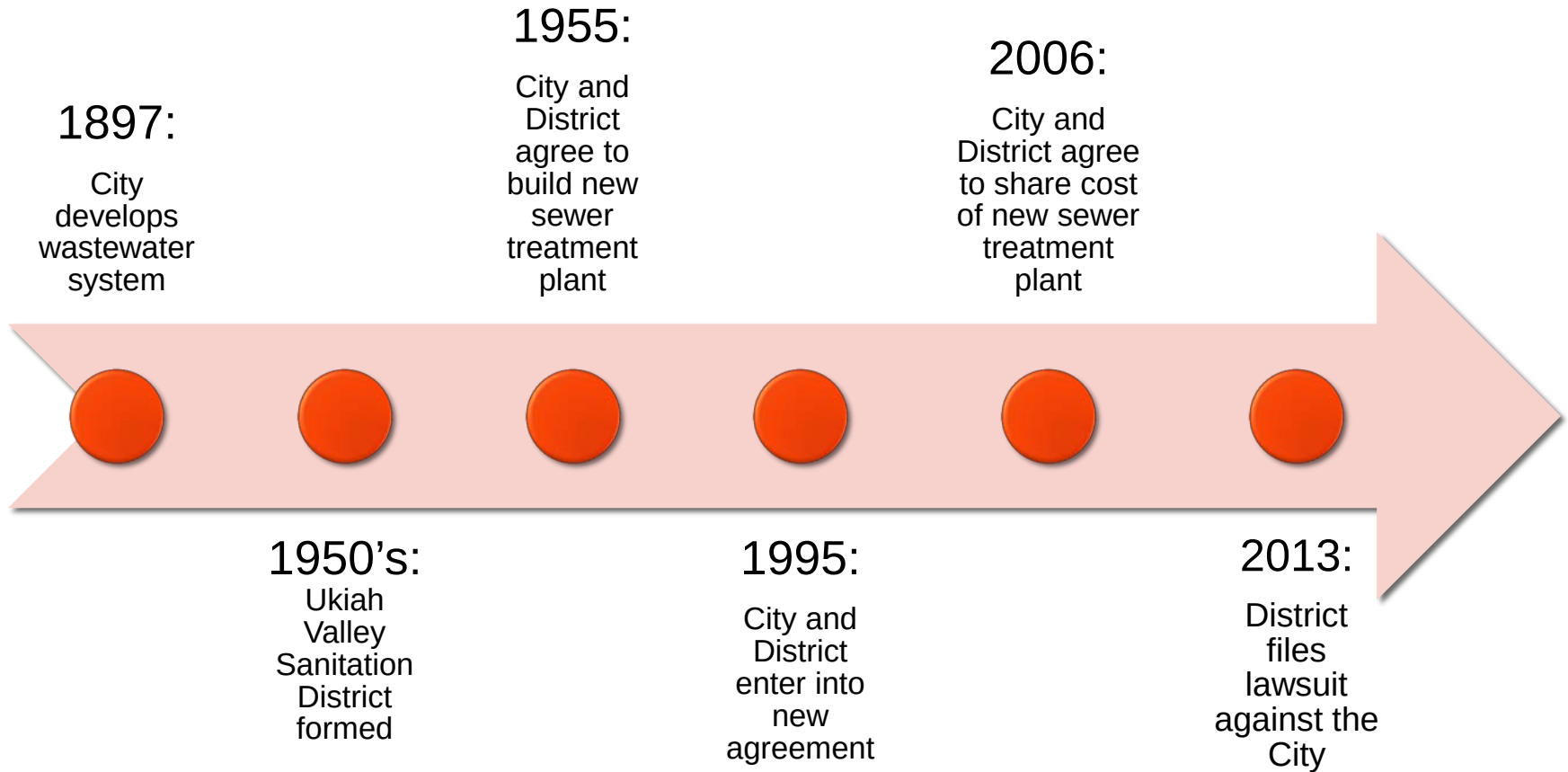
- The Ukiah Valley Sanitation District has no facility operators, maintenance staff, or billing and collection staff. All of these functions are handled by the City of Ukiah on behalf of the two agencies.
- The District and the City charged the same connection fees and rates to their customers until 2011, when the District adopted a new fee schedule. Connection fees in the District are often many times higher in the District than in the City, which has been a barrier to development.
- The District's administration costs have gone from \$6,000 to over \$290,000 per year.
- In the last three and a half years, the District has spent \$2,183,634 on litigation-related expenses with \$2,112,500 paid to the Law Offices of Duncan James through June 9, 2016. Recent monthly invoices from the law firm have exceeded \$80,000 per billing. In the same period of time, the City has expended \$318,093 in defense of the lawsuit.
- With today's low interest rates, the City and the District could save up to an estimated \$7.48 million dollars (present day value) by refinancing the \$75 million in bonds that were issued to construct the new wastewater treatment plant in 2006. However, by filing this lawsuit, the District has effectively blocked any possibility of a refinance.
- With the pending lawsuit from the District, the City stands to lose over \$35 million in funds for the recycled water project for Phases I-III and will not be eligible to apply for an additional \$20 million for Phase IV. If we lose the loans and grants for the recycled water system, the City and District will need to upgrade the plant to comply with the new standards. Staff estimates compliance with current regulatory requirements will cost up \$30 million in the short term, and will likely increase over time with escalating regulatory requirements if discharge continues.

Additional background and support documents are available at: <https://cityofukiah.box.com/v/uvsdpointsofinterest>

UVSD vs. CITY OF UKIAH



Timeline



Why are there two government agencies for one sewer treatment plant and collection system?

- One treatment plant serves customers both inside and outside the city limits
- City Council / UVSD Board of Directors

Isn't there a duplication of services?

City

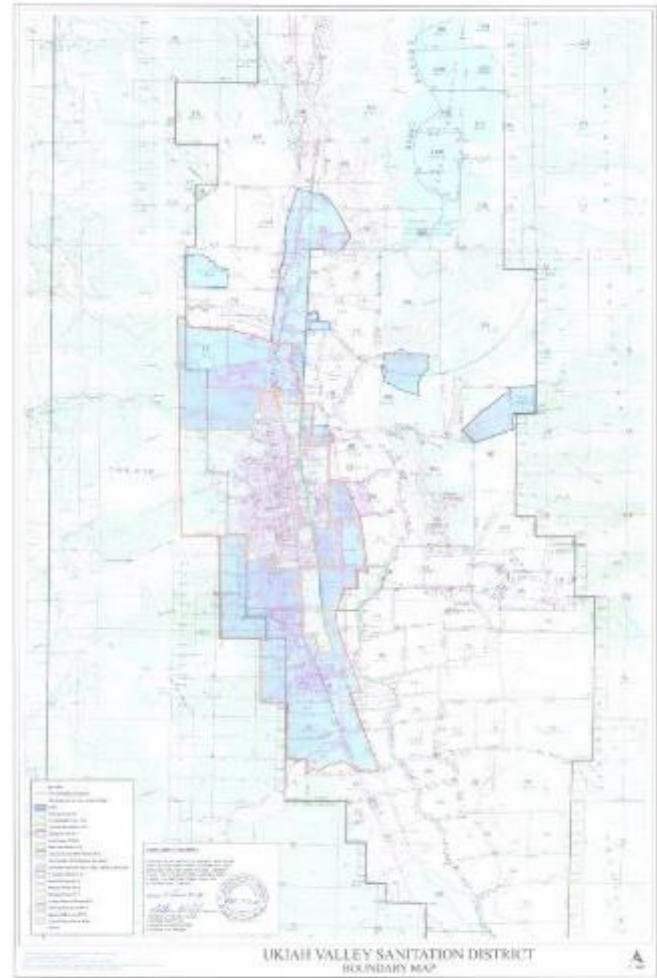
- Sewer Treatment Plant
- Operators
- Maintenance crews
- Equipment
- Billing
- Customer service
- Engineers
- Permitting
- 16 FTEs

UVSD

- Admin oversight
- 2 Part time staff

Do all the customers pay the same rates and fees?

- All customers paid the same from 1955 until 2011
- Some District customers live in the city limits (overlap area)



Why is the UVSD suing the City?

- The District claims that the City breached the various agreements over the last 50 years and owes the District millions of dollars.
- The District is asking that the City turn over operation of the entire wastewater system, including the treatment plant, to the District.
 - Result in duplicity
 - No staff to execute this demand

What is the cost ratepayers?

- \$2.1 million in legal fees paid to the Law Offices of Duncan James by the District
- \$318K in legal fees paid by the City
- \$7.5 million lost to inability to refinance bonds
- \$55 million in grants and low-interest loans for recycled water project
- \$30 million in additional infrastructure
- Rate increases in both the City and the District

What is the City asking for?

- Put the attorneys on hold and mediate with Staff and Board/Council members
- Work to resolve issues in an open, transparent manner instead of litigating behind closed doors
- If all attempts fail, the District can resume with suit later
- Litigation should be a last resort

What are the ratepayer benefits?

- Existing debt can be refinanced saving \$7.5 million
- Both agencies can benefit from \$55 million in grants and low-interest loans for the recycled water project
- Avoid \$30 million in infrastructure
- Millions in legal fees can be avoided
- Eliminate opportunity for creating duplicity

FRANK McMICHAEL
District Manager/Clerk

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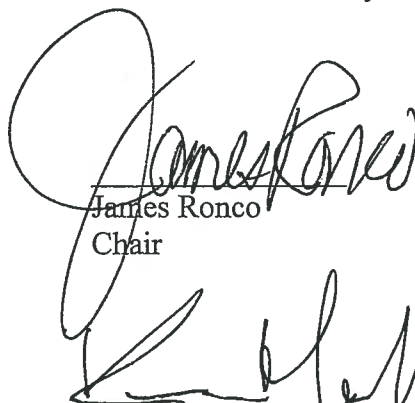
September 20, 2016

Honorable Mayor Stephen G. Scalmanini and
Council Members
City of Ukiah
300 Seminary Avenue,
Ukiah CA 95482

Re: *Ukiah Valley Sanitation District v. City of Ukiah*

Dear Honorable Mayor Scalmanini and Council Members:

In response to your correspondence to this board dated September 14, 2016, we have instructed our attorney to deliver to you the enclosed correspondence of date even herewith.

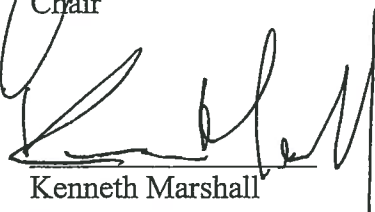


James Ronco
Chair



Robert Page
Vice Chair

ABSENT from meeting .
Theresa Mcnerlin
Director



Kenneth Marshall
Director



Travis Forrester
Director

ROBERT PAGE
DIRECTOR

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September 20, 2016

Honorable Mayor Stephen G. Scalmanini and
Council Members
City of Ukiah
300 Seminary Avenue,
Ukiah CA 95482

*Hand Delivered and
by email*

Re: *Ukiah Valley Sanitation District v. City of Ukiah*

Dear Honorable Mayor Scalmanini and Council Members:

Our apologies for the delay in responding to your letter dated September 14, 2016. The Ukiah Valley Sanitation District ("District") board needed to review and approve the mailing of this letter since it relates to pending litigation. Let me begin by noting that there is substantial background and other detail in this letter because the City of Ukiah ("City") has three (3) relatively new council members who may not be aware of critical details that impact the litigation.

Further, since the underlying issues in the lawsuit impact the so-called Purple Water project, it is our belief that the matter cannot be addressed properly absent reference to, and an understanding of, those underlying issues. The City requests the District dismiss the lawsuit, which, it should be noted, includes the City's *recent* counter-lawsuit against the District. The City states that the District's lawsuit should be dismissed because the state will not issue loans for the Purple Water project with that action pending. In this regard, I note that the request to dismiss the lawsuit so the state's concerns are alleviated, subject to the offered side agreement that would allow the District to simply re-file suit after the City receives loan funds, seems to me to border on fraud. In short, it would condone the City's misrepresentation to the state that a claim or lawsuit against the City does not exist. Consequently, the District will not participate in such activity, which would necessarily include substantial conditions, absent assurances from the state that it finds such conduct acceptable.

Background

The City and District operate as a joint venture of sorts. Under agreements in place for decades, the City owns the treatment facility and is for the most part charged with operating and maintaining the entire sewer system, including that portion of the system in the District's jurisdiction, which includes a portion of property within the City's city limits known as the Overlap Area.

Properties within both parties' jurisdictions place effluent, or waste, into the system, which requires treatment. One central design of the agreements was to allocate, or divide, the operating and maintenance costs for the sewer system between the parties. For simplicity, we'll

refer to that as O&M¹. Basically, the idea is that each party pay O&M in proportion to the amount of effluent that party's properties place into the system.

Determining the amount of effluent placed into the system is not an easy task. Of course, properties connected to the system discharge effluent into it. But, there are no (or very few) installed meters that calculate the discharge into the system from each property. Over time, the parties' agreements handled this issue differently.

Before 1985, the agreements were designed to allocate O&M based on the number of connections within each party's jurisdiction. In short, if a property was physically hooked into the system, it counted as one connection. Thus, if the District had 45% and the City 55% of the total connections, then O&M would be paid by each party corresponding to that percentage.²

Pretty simple. However, allocating O&M based on connections is problematic; it doesn't come close to measuring the amount of waste a property discharges into the system. For example, the amount of waste a 2 bedroom, 1 bath, house typically places into the system is quite different from the amount placed into the system by a restaurant (think: sinks, dishwashing, bathrooms, and numerous employees and patrons all using its facilities on a daily basis). The issue is exacerbated when considering differences in user type. A brewery, for instance, discharges a far greater amount of solids down its drains than does a typical single-family dwelling; thus, the brewery's discharge requires more treatment.

To address these problems, beginning in 1985 the City and District agreed to allocate O&M based on Equivalent Sewer Service Units ("ESSUs"), within each party's jurisdiction. (4th Supp. Agmt., 2/6/1985, pp. 1-2, § 1.) The concept was to establish a central standard by which all connected parcels, irrespective of type, could be fairly measured. Therefore, one ESSU was considered to be the equivalent amount of waste characteristically discharged by a single-family dwelling.

But, again, there are no meters currently installed to measure discharge. To handle that problem, formulas were developed (or, at least were supposed to be developed) to approximate a connected-user's discharge by reference to the amount of water--which is metered--consumed by a property.³ Since the concept was to measure this use by reference to a standard--a single-

¹ This more broadly includes "annual costs for treatment, including maintenance, operation, administration, repair and replacement, expansion, upgrading, debt service, insurance and financial services of the entire sewer system (treatment plant, trunk sewer, and collection system)." (Amend. 1 to Part. Agmt, p. 1, 2nd full ¶.) This language deviated somewhat between agreements. (See, 4th Supp. Agmt., 2/6/1985, p. 1, § 1; Part. Agmt., 7/19/1995, p. 1, § 1.)

² For the sake of practicality, the City projected each party's connections from 1967 through 1984. (3rd Supp. Agmt., 12/14/1966, p. 1, § 2.) The agreement provided that if the actual ratio deviated from the projected ratio by more than 10% in any given year, then the percentage allocation of O&M would be adjusted accordingly. (*Id.*, p. 2, § 2.) As discussed below, that didn't happen.

³ Of course, not all water used by a property enters the sewer system. Again, these are approximations. But, that fact was considered and addressed. For example, property owners use metered water to irrigate. Irrigated water does not discharge from the property into the sewer system. Then again, property owners typically don't irrigate in the winter. Considering that, only metered water use during winter months is applied to determine a property's discharge.

family dwelling--it was necessary to establish the amount of water typically consumed by such a property. With some deviation, that amount was established at 250 gallons per day (GPD).

Of course, establishing that standard did not address the differences in type of user, and thus type of waste, discharged into the system. To address that issue, formulas were developed to equate the standard one ESSU with water consumption or some other methodology depending on the type of connected user (e.g. different methods are applied for restaurants as opposed to office buildings or light industrial).

Application - Expense & Revenue Allocation

Although technically a separate entity, until 2008/2009 the District's board was comprised of two (2) members of the Mendocino County Board of Supervisors, one of whom was always the supervisor of the district in which the City lies, plus one Ukiah City Council member. In fact, until about 2004, the District had no employees, and today the District only has a part-time manager and staff. Historically, there was little need for employees given the City's obligation to provide all system-related personnel. (See Supp. Agmt., 10/20/1958, p. 1, § 11.) This led to problems.

The City was and is responsible for actually operating the system and undertaking system maintenance and repair. (See, e.g., Part. Agmt., p. 2, § 9.) It was and is also charged with allocating system expenditures and, thus, determining the number of connections or ESSUs, as the case may be, within each party's jurisdictional boundaries. The City was and is also tasked with collecting revenue from all system ratepayers--both those within the City and those within District territory. As far back as 1958 the City agreed to "maintain complete records and account relating to [system] costs and expenditures...in connection with [the system] and of all sewer...revenues...." (Supp. Agmt., 10/20/1958, p. 2, § 18; see also, Part. Agmt., 7/19/1995, p. 3, § 13 [same].) Indeed, the City was and is still "the paying and receiving agent for all District operation and maintenance funds." (Part. Agmt., p. 1, § 1.)

In theory, payments by ratepayers within the City's jurisdiction (excluding the Over-lap area) are placed into one bucket (for simplicity, "City Bucket") and revenue sourced from the District's jurisdiction (including the Over-lap area) is placed into another bucket ("District Bucket"). From there, the City pays the entire sewer system's O&M based on the allocation that it determines.

However, as far back as 1966, the City did not properly count and adjust the number of *connections* within each party's jurisdiction. As noted in footnote two, in 1966 the City projected the proportionate number of connections for the years 1967 through 1984. The projections served as a baseline of sorts. If, in any given year, the actual number of connections deviated from those baseline projections by more than 10%, the City was required to adjust the allocation based on the number of *actual* connections. For eighteen (18) years (1967-1985) it didn't. Consequently, the District was overcharged.

Then, beginning in 1985, the City was responsible for allocating O&M based on *ESSUs*. This continued with the parties' 1995 Participation Agreement. Again, this annual allocation was based on the ratio of ESSUs each party had within its jurisdiction to the system-wide ESSU

count. That count was simply the ESSUs "on record as of March 31 each year." (4th Supp. Agmt., 2/6/1985, p. 2, § 1, last ¶; Part. Agmt., 7/19/1995, p. 1, § 1, last line.) As was its responsibility, the City kept and determined that record.

However, the City's reported ESSUs vary from its annual internal ESSU documentation, which shows the total of all ESSUs added to the system each year. It further differs from the actual ESSUs subscribed to a property in building permits. What's more, the City wrongly charged the District a variety of costs, ostensibly as O&M. By way of illustration, the City improperly charged the District for: depreciation on "District lines and equipment," as well as a City "utility plant charge"; and, a percentage of the City's "General Government Services." In short, the City treated District revenue as a slush fund to supplement its ever-growing institutional overhead.

As an aside, these issues must be addressed and corrected now. Not only has the District been damaged historically, but absent correction, the future harm, even in the near term, will be substantial. And, the proposed Purple Water project, discussed below, will only exacerbate the problem if these issues are left unabated.

The discussion above in this section relates mainly to system *expenses*. We now turn to *revenue*. Here, too, misallocations persist. Remember, the City is the collection agent for the District, and this is a relatively simple issue. The key inquiry is to simply determine the jurisdiction in which a given property is physically situated; revenue sourced from City properties should be placed in the City Bucket and revenue from District properties should be placed in the District Bucket. For whatever reason, that has not happened.

A couple examples illustrate the point. The Brookside Retirement Residences are located in the District's jurisdiction. Revenue generated from that property has been collected by the City in accordance with the agreements. However, that revenue has been placed in the City's Bucket. The City admitted the error and promised to correct it. (Newell (City) email, 11/23/2011). According to District records, it appears that didn't happen. Likewise, the City itself admitted that revenue from 44 District parcels were improperly deposited into the City Bucket. (UVSD Min., 6/19/2012, p. 2, middle.) Yet, despite all this and the District's requests to correct the problems, the City has refused to do so.

The District has been given no reason for the City's actions and, more importantly, refusal to correct the problems. Rather, the City is steadfastly silent and unwilling to act on the matter.

The Capacity and Rehabilitation / Upgrade Projects

By the early 2000's the existing treatment plant was dated and exceeded capacity. The City was under a moratorium because it exceeded plant capacity of 9,800 ESSUs. As a temporary fix, the City was allowed to implement a chemical enhancement program (CEPT) to treat effluent until the remodeled plant went on line. During that time, environmental laws tightened regarding allowable nitrate and ammonia levels present in treated water discharged by the plant into the Russian River. The parties entered an agreement to undertake a project to address these problems.

The 2004 agreement articulates two parts to the "Project": (1) the "Capacity Project"; and, (2) the "Upgrade/Rehabilitation Project". (Amend. 2 to Part. Agmt., 12/15/2004.) As the names imply, the Capacity Project was designed to increase the treatment plant capacity--the ability to treat additional waste--and the Upgrade Project was designed to upgrade and rehabilitate the existing plant. (*Id.*, p. 2, item 7.) The agreement also broke down responsibility for Project costs.

Regarding the Upgrade/Rehabilitation Project, the cost sharing term is straightforward: allocation of these costs is based on the annual ratio of ESSUs between the parties, commencing the year in which the costs are first incurred. The idea here was to track the Participation Agreement. (Amend. 2 to Part. Agmt., 12/15/2004, p. 3, § 2.2.)

The agreement for the Capacity Project costs, on the other hand, was not a model of clarity. Obviously, it was necessary to determine the ratio of the anticipated increased capacity that each party would consume. Initially, an estimate was generated by reference to the ratio of ESSUs the City and District would each need through 2020. That ratio was established as 65% District and 35% City (Amend. 2 to Part. Agmt., 12/15/2004, p. 3, § 2.2.). The ratio serves as a baseline of sorts. Actual allocation of Capacity Project costs was to be reviewed annually, commencing 12 months after the Project was completed.⁴ (*Ibid.*) Here is where it gets jumbled. The annual adjustment of that baseline ratio--which again, was grounded in ESSUs--is to be based on the "actual proportion of new *connections* in the City and the District."⁵ (*Ibid.*, emphasis added.) As discussed above, connections and ESSUs are not the same. They are more or less the proverbial apples and oranges. Therefore, adjusting an allocation grounded in ESSUs by virtue of changes in connections presents difficulties.

In any event, the City's own internal documents demonstrate it has never adjusted the allocation since 2004. This, despite the fact its own records show the need. Even assuming the City has been correctly calculating ESSUs in the first instance, according to the City's own building permits, ESSU reports, and ESSU worksheets, there have been additions and changes to ESSUs and connections that necessitate reallocation.

There are other problems with the Project allocation. As noted above, the initial, or baseline, ESSU distributions (65%/35%) were generated based on representations made by the City, as would be expected. Recall that the City was the District's agent, maintaining all books and records and, in that role, was necessarily responsible for calculating connections and ESSUs for the entire system and then allocating costs and revenue. In formulating the agreement, the City represented that historical connections data suggested a divide of 77% District and 23% City. However, based on City documents, the District later learned that the ratio of system ESSUs was never more than 47%. In other words, the underlying basis for the Project cost

⁴ The Project was not completed until approximately 2009.

⁵ The agreement goes on to provide that the annual adjustment should take "into account the number of new service connections within each party during the previous twelve months, the total number of new connections within each party's jurisdiction since [12/15/2004], the likely number of new connections in the next one, three and five year time periods, any changes in organization, including annexations and detachments...and any other facts or conditions the Parties consider relevant." (Amend. 2 to Part. Agmt., 12/15/2004, p. 3, § 2.2.)

allocation was false and does not reflect reality. Despite that, the City has refused to properly adjust the allocation.

Again, these issues must be addressed and corrected now or the District will continue paying more than required or agreed. After all, the City is in control of the District's checkbook, so to speak. In addition to the historical damage caused by over allocation of these expenses to the District, the future harm the District will suffer absent correction is substantial. This includes the Purple Water project.

The City Refuses to Give the District Its *Own* Revenue

We discussed above the fact that District revenue has been improperly deposited into the City Bucket. But, there is an additional revenue issue that must be addressed--the District's net revenue currently being held by the City.

This is how it breaks down. As noted above, the City collects revenue for the entire system. City property revenue goes into the City Bucket and District property revenue goes to the District Bucket. From there, O&M and Project expenses are paid by the City from each bucket according to the allocation determined by the City.⁶ The balance left in each bucket constitutes net revenue.

The District has sought an accounting of its bucket, but the City has refused. In this vein, it may be recalled that the City is the District's "paying and receiving agent," making the District the principal party. There is no sound legal basis for an agent to deny its principal an accounting under these circumstances.

In any event, the District has discovered that the City holds *millions* of dollars in District revenue. This figure is sourced from the City's own financial statements, namely a statement of what it calls "Fiduciary Funds." According to an independent audit, the amount due to District on June 30, 2014, over two years ago, is **\$6,999,374**. (See, e.g., City of Ukiah Combining Statement of Fiduciary Net Position, Fiduciary Funds, 6/30/2014, attached as **Exhibit # 1**.)

Despite the District's requests, the City refuses to give the District its own net revenue. The City offered a number of reasons over time, but the central one is simply that it can't. The reasoning is without justification and flies in the face of its own conduct.

The City's position is grounded in what are known as the Installment Agreement and Financing Agreement. The Installment Agreement was entered into on March 1, 2006, by the City, the Association of Bay Area Governments ("ABAG"), and Wells Fargo bank. The District was *not* a party to it. In short, the Installment Agreement memorialized the transaction by which the City obtained and agreed to repay \$75 million in bond financing for the Project. The document states that the City pledged the *entire* sewer system's net revenue as security. (Inst. Agmt., 3/1/2006, p. 1, item 4 & p. 12, § 4.5 (a)-(d).) As will later be seen, this becomes important when we address purple water issues.

⁶ See Financing Agreement, 3/2/2006, regarding Project-bond expense obligations. It is also discussed below.

However, the Installment Agreement also expressly allows use of the net revenue for "any [] lawful purposes," so long as no "Event of Default" has occurred. There has been no Event of Default. In fact, the District specifically asked the City for any information or materials related to such an event, and the City provided none. Additionally, the Installment Agreement allows the City to at any time deposit revenue, including net revenue, in a "rate stabilization" fund for purposes of stabilizing sewer rates imposed by the City. What's more, the City is permitted to "at any time [] withdraw any or all amounts on deposit in the Rate Stabilization Fund...for any [] lawful purposes of the City." (Inst. Agmt., p. 13, § 4.6)

Again, the District was not a party to the Installment Agreement. That said, on March 2, 2006, the District and City entered into the Financing Agreement. At this juncture, it may be recalled that the parties had agreed in 2004 to allocate Project costs; and, the bonds constitute such a cost. (Amend. 2 to Part. Agmt., 12/15/2004; Inst. Agmt, 3/1/2006, p. 5, "Project".) The purpose of the Financing Agreement was to ensure the District established rates sufficient to enable it to pay its share of Project costs and, thus, to secure the financing costs allocated to the District under the Participation Agreement, as amended. The security was given "in the same manner in which the City's allocable share...is secured under the Installment Agreement. (See Fin. Agmt., 3/2/2006, p. 1, items 2-6.) In other words, the District is permitted to handle that portion of its revenue that exceeds expenses and the reserve required by the Finance Agreement; and, most certainly, the its is permitted to use such revenue for any lawful purposes of the District, including establishing its own rate stabilization fund, which would benefit its ratepayers.

In October 2013, the City released \$2,871,814.49 to the District from a rate stabilization fund. With no further progress over the intervening couple years, in November 2015, the District filed a motion with the court to, in part, force the City to release the funds. Ultimately, the City agreed to give the District \$1,500,000 of the funds now, with the District preserving its right to pursue the balance of its net revenues if the matter could not be informally resolved. It remains a looming issue in the case. Despite all that, the City refuses to release the balance of the District's money. As discussed above, this position is not justified. It also belies the City's own conduct.

The City holds millions of dollars in District money, including net revenue. As noted above, as of June 2014, the figure was at approximately \$7,000,000 according to the City's own statements. These monies are sourced from District properties. All O&M and Project payments allocated to the District (even those improperly allocated), have been paid from District revenues. Indeed, over the last several years, District revenue generated an ample surplus; thus, the millions of dollars of District net revenue that is being held by the City.

Pre and Pending Lawsuit Efforts to Resolve Issues

As noted above, only since 2009 has the District been independently run. Unlike its predecessors, that independent board did not wear "two hats." Its focus and duty was not divided. The District, in light of the agreements, continued to rely on the City as its agent, but discrepancies with the City's accounting, at first insignificant, began coming to light. When questions were raised, answers were either not forthcoming or simply could not be provided. Promises to correct misallocations were never carried out. Something was off. The District undertook an investigation. And, that investigation revealed much of what is discussed above. The wrongs needed to be addressed.

From even before the District's lawsuit was filed, the District was willing to make efforts with the City to resolve the issues underlying this litigation on mutually agreeable terms. For example, on September 6, 2013, the District's counsel, Duncan M. James, provided the City's attorney with a draft copy of the District's proposed complaint. In the cover letter accompanying that draft, Mr. James stated in part:

"The DISTRICT is willing to meet and confer and reach a resolution of this matter without the formality of the Complaint being filed if the CITY demonstrates a similar willingness. If that is to be agreed upon, one condition of the agreement would be a waiver of any potential statutes of limitations (and similar legal and equitable defenses based on timing) that might run during the course of our attempts to resolve the matter. [¶] [...] In the event I do not have an agreement in place on or before October 4, 2013, between the CITY and DISTRICT to attempt to resolve the matter, then I have been instructed by the DISTRICT Board to file the Complaint."

Not only did the City fail to agree to the proposal to waive timing defenses "that might run during the course of our attempts to resolve the matter," there was total silence on the City's part. Therefore, it was necessary for the District to formally take action in the form of a lawsuit.

After the lawsuit was filed by the District, mediation was suggested. The City ultimately agreed to mediation in late December 2013. The mediation did not begin until August 13, 2014. In an effort to be as transparent as possible prior to mediation, on June 18, 2014, the District provided the City, through its attorney, a flash drive containing a copy of every related document the District had located up to that point in time. That included approximately 38,000 pages of material, Bates stamped: ESSU 001-0025; UVSD 3000-36,769; and, UKCC0001-4955. It was a one-sided gesture; the City did not similarly respond.⁷ As an aside, the only additional documents the District has been able to obtain is what little material has been disclosed by the City in response to the District's information requests through discovery or Public Records Act Requests processes, some materials sourced from third-party subpoena efforts with which the City was copied, or what is posted online. Even obtaining City responses to formal discovery or Public Record Act Requests has presented a unnecessary battle; for example, the District served requests for documents in March 2016 and has yet to receive complete responses. Even the most basic requests have gone unanswered (e.g. information and material showing *how* the City determined the ESSU calculations). Absent compliance, the District is left with no choice but to take action to compel compliance. This will only unnecessarily drive up costs, in our view.

Mediation took place on August 13-14 and November 12, 2014. During mediation it was the District's belief that significant progress toward settlement had occurred. Eventually, the mediator (Judge Wm. Bettinelli) sent us home with a recommendation that the City put their offer in writing to enable a formal written response by the District. In the meantime, the lawsuit was placed on hold.

⁷ The City only provided a few documents related to the nitrate issue.

The District did not receive the City's formal written settlement offer, which was dated January 16, 2015, until January 20, 2015. Further, the offer was amended in part on March 12, 2015. After reviewing the offer, the District concluded that, if it agreed to the proposed terms, it would have been placed in an even worse position.

With that, the District was left with no choice but to pursue its claims. Up to this point in time, the City has showed little willingness to address the core issues. It appears--based on all legal maneuvering to date--that the City seeks to escape its wrongs by relying on technical defenses, such as the statute of limitations. As an aside, even if successful, such a defense would only go back so far, leaving open claims spanning the last near decade in the very least, not to mention the future. Further, the court already once rejected the City's efforts in this regard. In our view, this is a poor maneuver in matters involving public trust.

Further, the City appealed the trial judge's ruling against it involving the City's effort to detach (basically, swallow), the District's Overlap Area. Detachment, if appropriate, must proceed through Mendocino LAFCO, and as far as the District is aware, there are no such detachment proceedings in process with LAFCO. This begs the question: why is the City pursuing the appeal and pushing up costs?

Additionally, as explained above, the City has yet to adjust its ESSU allocations to accurately reflect the actual ratios. What's more, the City for the last several years claimed it was unable to provide the District with its ESSU calculations. Then, during a very recent public City Council meeting, the City's engineer volunteered that the information does exist and goes back for years. (City Council Mtg., 6/1/2016, video at time stamp 1:27:40.) This was news to the District. Based on that public comment, the District again requested the information under a Public Records Act request. In response, the City provided an ESSU summary going back to 2005, but it failed to provide material showing how the calculation was generated--i.e. what was the source of information used to actually generate the summary? After all, in order to assess the accuracy of the summary, it is necessary to evaluate the information on which the summary is based. Notwithstanding that, as noted above, when the City's other internal summary records are compared to the ESSU figures reported by the City on its Sewer Statistics report, there are substantial differences, some of which are discussed above.

The point in all of this is that the District is, and has always been, willing and eager to work out these issues with the City. The perception otherwise is not grounded in fact. Finally, the implication that the City is concerned about the effect on District ratepayers of the lawsuit is disingenuous at best. The City, it should be pointed out, charges its customers a base rate that is approximately \$11 per month higher than the District's base rates. There should be no difference in base rate. All told, the District estimates the City collects approximately \$750,000 annually in additional base rate revenue from its ratepayers.

In short, the District's actions seek to redress wrongs committed by the City that have resulted in substantial losses to District ratepayers. Absent abatement now, those losses will grow and continue indefinitely. Finally, the District's efforts here are genuine: funds generated by this lawsuit will, indeed, be for the benefit of District ratepayers.

Purple Water

As discussed above, in the early 2000's the treatment plant was producing treated waste water that was near or beyond standards for, among other things, nitrate and ammonia content. The City, who was charged with overseeing design and construction of the Project, was well aware of these issues and the future environmental water standards. The City secured \$75 million in financing to construct the Project. However, it now appears, the Project was deficient and nearing capacity almost as soon as it was finished.

Now, the City proposes a \$50+ million (the numbers vary) fix in the form of the recycled water program, commonly referred to as the Purple Water project. On the other hand, it appears \$10-25 million would permit a sufficient plant upgrade for the nitrate and ammonia problem. The City is concerned that such a fix to the plant will be a band aid of sorts, speculating that future environmental restrictions will render any newly-upgraded plant out of compliance in short order.

The District does have concerns with the Purple Water project. First, on the City's watch, in 2006, system ratepayers assumed \$75 million in debt for the expansion and upgrade of the existing plant, which when completed, was almost immediately rendered obsolete. Now, the City proposes to expend another \$50+ million to essentially fix the relatively new plant.

Second, it is unclear whether the Purple Water project would handle all, or simply a portion of, the plant's discharge capacity. That said, during a presentation given to the District board by the City's Shawn White in April 2016, Mr. White stated that contracts in place to use the recycled water were not sufficient to handle all of the plant's treated water. (UVSD Bd. Mtg., 4/21/2016, video time stamp 11:20.) This is important because if any treated water is discharged into the river, it remains subject to environmental regulations, namely the nitrate and ammonia limits. The District's concern widens when it considers the fact there may be insufficient avenues to discharge the purple water from October through May (i.e. farmers, parks, and the golf course don't typically use the same volume of water in cooler months as they do in warmer months and storage ponds can only hold so much water). In short, while the project would help the current situation--and may provide benefits in the form of a source of irrigation water--the issues with nitrate and ammonia levels in any remaining water the plant would need to discharge in the river must still be addressed. Lastly on this point, the City's statement in its September 14, 2016, letter that "...it is highly likely that no discharge whatsoever into the river will be allowed in the foreseeable future" appears to be speculation.

Third, and significantly, the plant itself is at or near capacity. Absent additional capacity, there is little to no room for development. According to the most recent report prepared by the City and provided to the District, for the time period ending March 31, 2016, there are 12,006.71 ESSUs being used by system customers (**Exhibit # 2**). But, as of March 2004, the City's reported ESSU allocation was as follows:

CITY:	6603 (54.8% of total)
DISTRICT inside CITY:	2543 (21.1% of total)
DISTRICT outside CITY	2898 (24.1% of total)
Total ESSUs	12,044 (Exhibit # 3)

It seems rather unlikely that there would be a reduction of ESSUs during this time period. In fact, other City documents recently obtained by the District from the City as a result of a Public Records Request reflect that from April 1, 2005, through March 31, 2016, there were actually 388.57 new ESSUs added to the system. If that statistical information is correct, based on the March 31, 2004, ESSU count of 12,044 ESSUs, then the treatment plant currently has a total of 12,432.57 ESSUs, which puts it *significantly over capacity* and in a position similar to that which the parties faced in the early 2000's.

Other documents show that while in 2002 the reported ESSUs were 13,211, in 2003 they dropped to approximately 11,500, only to increase to 14,400 or so in 2006 and then back down again to under 12,000 in 2007. The District can only scratch its head and say to itself "what is true?" Even by reference to the City's March 31, 2016, ESSU numbers, the plant remains over capacity. The ESSU calculations are therefore unreliable and untrustworthy. Consequently, the District is in a dilemma--they are unable to determine whether there exists sufficient capacity to meet current demand and desired development. The point is, it seems logical and wise to address these issues before there is commitment to another \$50+ million project.

Fourth, the City has made it clear that any water generated by the Purple Water program belongs exclusively to the City and that the District will not share in any revenue generated from the program. (Rodin (City Mayor) letter, 10/13/2011, p. 9, § 14-~~Exhibit # 4.~~) That said, since the Purple Water project will handle waste generated by District properties too, it appears the City will attempt to allocate the additional infrastructure and O&M costs to the District. Thus, another reason presents itself for fixing the allocation problem now.

Moving on, there has been considerable public discussion associated with the effect of the District's lawsuit on City's ability to obtain financing for the Purple Water project. According to the City's September 14, 2016, letter to the District--which was made public-- it appears the City was already awarded approximately \$10 million in *grants* for the project, and it may seek an additional \$13 million in grants. The problem apparently arises with regard to *loans* for the Purple Water project. In any event, according to the letter, on April 18, 2016, the City, through its attorney, communicated telephonically with Sergio Rudin, an attorney representing the State Water Resources Control Board ("SWRCB"), the entity who controls the loan funding. During that call, the City was informed that it would be required to confirm, through its counsel, that there is no lawsuit pending affecting the City's sewer system. The letter goes on to say that, during a further telephone call on June 28, 2016, SWRCB raised the issue of the District's lawsuit and stated that it will prevent SWRCB from entering into a loan agreement with the City.

Again, the *facts* shed light on the issue. During a District board meeting on April 21, 2016--three days *after* the City was apparently initially contacted by the State regarding the issue--the City's Sean White made a presentation to the District board regarding the Purple Water project and handed out a power point packet to aid in the presentation.

During his presentation, Mr. White made absolutely no reference to any issues with loan funding, grants, or, for that matter, any issues at all regarding the lawsuit. In fact, his presentation made it quite clear that the City had already received funding for the Purple Water

project. In particular, the power point packet, which Mr. White orally discussed as well, conveyed the following with respect to the "Project History":

- a. "Summer 2013 and 2014- Prop 84 Grant Funds awarded in the amount of \$2,090,191 to begin Phases 1 and 2"; and,
- ...
- b. "November 14, 2015-City applies for and receives Prop 1A Funds totaling \$35,560,000 for Phases 1-3" (**Exhibit # 5**, p. "8".)

In the portion of the presentation entitled "Project Funding," the following appears:

- a. "Total Grants received:
 - \$2,090,191- Prop 84
 - \$9,996,000- Prop 1A
- b. Financing Received- SRF Loan at 1% Interest
 - \$25,564,000"

(*Id.*, p. "9," emphasis added.) In other words, as far as the District knew, the City had already received needed funding.

On Friday, September 16, 2016, two of the District's attorneys, Donald McMullen and Giny Chandler, reached out to Sergio Rudin, counsel for SWRCB. Mr. Rudin's initial statements regarding loan status was that his client and the City were still in the negotiation phase--there had been *no funding approval*. Mr. Rudin confirmed that it was the City who decided to offer the sewer system revenue as security for the loan and the Department of Water Resources evaluated that offered security. But, as previously noted, the City *already pledged* all system revenue as security for repayment of the \$75 million in bonds. The District presumes there is an explanation for this, but none has been given to it. In any event, Mr. Rudin did state that one of the issues his client has with the proposed security is the lawsuit. The District, through counsel, offered to meet and work with Mr. Rudin, his client, and the City in good faith in order to consider a resolution or workable conditions to allow the loan to fund. This was done without any request by the City to do so.

A Final Point on the Issue: The City Itself Filed A Lawsuit Against the District

A fact that has received little, or no, attention is that the City has perpetuated the lawsuit; this, in the face of the City's claims that the lawsuit is hamstringing its efforts to obtain Purple Water financing. Here are the facts. On June 30, 2016--two days *after* the City claims it was told by SWRCB for the second time that the lawsuit would prevent loan funding--it filed its own lawsuit against the District. The action was taken in the District's lawsuit and is called a Cross Complaint.

It is through this Cross Complaint, in allegations buried deep within it, that the District was told for the first time that the lawsuit might affect the City's loan financing for the Purple Water project. This is significant. On the one hand, the City asserts the lawsuit will preclude

loan funding, yet it perpetuates the suit by filing its own claims--claims that are unmeritorious at best. Further, and again, at no prior point in time did the City inform the District of this funding issue. At no time has it sought to address the issues in this litigation in an effort to secure the loan. Rather, the City simply suggests the District dismiss its lawsuit so funding may occur. As noted, however, doing so will only prolong and exacerbate the underlying problems.

The City should take this funding issue as an impetus to sit down with the District, actually work through the underlying issues, and remedy past wrongs. In this, a complete resolution may result as to all issues affecting the parties. Even if the only issue resolved in the discussions is purple water, it will be progress.

Summary

In sum, the District has been left almost completely out of the loop on the Purple Water project. As expressed above, this is apparently the case because the City claims exclusive rights to the water and revenue to be generated by the project. The District cannot be expected to idly sit by and have another deficient project constructed, its costs improperly increased, and its ratepayers harmed.

Therefore, unless the allocation, revenue, and other issues addressed above are not abated, not only will the District continue to see its already-significant losses related to the existing sewer system grow into the future, but the problem will only persist and deepen with the Purple Water project.

Very truly yours,



DONALD J. McMULLEN

Attorney for Ukiah Valley Sanitation District

DMJ/kab
Encls.

cc:
Client
Leo R. Bartolotta, Esq. by email only
Michael E. Chase, Esq. by email only
David J. Rapport, Esq. by email only

Kristine Lawler, City Clerk
Sage Sangiacomo, City Manager

EXHIBIT "1"

CITY OF UKIAH
Combining Statement of Fiduciary Net Position
Fiduciary Funds
June 30, 2014

	Private Purpose Trust					Agency			
	Special Deposit	Payroll Revolving	Downtown Business Improvement	Ukiah Successor Agency	Total Private Purpose Trust	Ukiah Valley Sanitation District	Garbage Billing	Russian River Watershed	Total Agency
Assets									
Cash and investments	\$ 866,727	\$ 550,389	\$ 503	\$ 4,414,059	\$ 5,831,678	\$ 4,589,293	\$ 684,560	\$ 140,322	\$ 5,414,175
Cash and investments with fiscal agent	-	-	-	5,760,668	5,760,668	-	-	-	-
Receivables:									
Accounts	15,220	202	829	-	16,251	355,532	23,567	-	379,099
Unbilled	-	-	-	-	-	292,288	-	-	292,288
Accrued interest	-	-	-	9,947	9,947	15,953	1,517	313	17,783
Real property held for resale	-	-	-	3,730,238	3,730,238	-	-	-	-
Capital assets	-	-	-	142,295	142,295	2,268,471	-	-	2,268,471
Total assets	881,947	550,591	1,332	14,057,207	15,491,077	\$ 7,521,537	\$ 709,644	\$ 140,635	\$ 8,371,816
Liabilities									
Accounts payable	18,495	2,798	-	5,604	26,897	\$ 522,163	\$ 151,824	\$ 26,021	\$ 700,008
Accrued salaries and benefits	-	-	-	390	390	-	-	-	-
Accrued interest	-	-	-	137,240	137,240	-	-	-	-
Payroll withholdings and employer contributions	-	547,793	-	-	547,793	-	-	-	-
Customer utility deposits	393,055	-	-	-	393,055	-	-	-	-
Other deposits	470,397	-	-	-	470,397	-	-	-	-
Due to other agencies						6,999,374	557,820	114,614	7,671,808
Noncurrent liabilities:									
Due within one year	-	-	-	965,000	965,000	-	-	-	-
Due in more than one year	-	-	-	9,727,586	9,727,586	-	-	-	-
Total liabilities	881,947	550,591	-	10,835,820	12,268,358	\$ 7,521,537	\$ 709,644	\$ 140,635	\$ 8,371,816
Net Position									
Held in trust for other purposes	\$ -	\$ -	\$ 1,332	\$ 3,221,387	\$ 3,222,719				

EXHIBIT "2"

CITY OF UK. . AND UVSD
 ESSU STATISTICS REPORT
 APRIL 1, 2016
 (04/01/2015 - 03/31/2016)

	City Accounts # ESSU Units	UVSD #ESSU Units	Total All Acct. #ESSU Units
Report March 2016	6306.64	5700.07	12006.71
March 2016 % of Total	52.53%	47.47%	100.00%
Percent Use to Date March 2016	60.79%	58.37%	59.22%
New Plant 20 Year Net ESSU Used	510.62	910.55	1421.17
New Plant Total ESSU's Remaining To Date	329.38	649.45	978.83
New Plant Agreement	35.00%	65.00%	100.00%
New Plant Capacity	840	1560	2400

EXHIBIT "3"

**CITY OF UKIAH and U.V.S.D.
SEWER STATISTICS
MARCH 2004**

SEWER BILLING STATISTICS AS OF MARCH 2004																
	City Accounts			San District Inside City			San District outside City			Total San District Accounts			Total of all accounts			
Billing	# accts	# units	amt	# accts	# units	amt	# accts	# units	amt	# accts	# units	amt	# accts	# units	amt	
Code			billed			billed			billed			billed			billed	
SADD	44	417	\$ 6,884.67										44	417	\$ 6,884.67	
SC	584	1984	\$ 32,763.96										584	1984	\$ 32,763.96	
SC2	1	1	\$ 8.26										1	1	\$ 8.26	
SC3		0											0	0	\$ -	
SDC				136	1033	\$ 17,060.66				136	1033	\$ 17,060.66	136	1033	\$ 17,060.66	
SDC2					0					0	0	\$ -	0	0	\$ -	
SDC3					0					0	0	\$ -	0	0	\$ -	
SDDD				25	248	\$ 4,084.48				25	248	\$ 4,084.48	25	248	\$ 4,084.48	
SD				1270	1262	\$ 20,826.13	1640	2208	\$ 36,466.23	2910	3470	\$ 57,296.36	2910	3470	\$ 57,296.36	
SR	4266	4202	\$ 69,389.51										4266	4202	\$ 69,389.51	
1		0														
100					0		129	689	\$ 11,370.53	129	689	\$ 11,370.53	129	689	\$ 11,370.53	
TOTAL	4875	6804	\$ 109,026.40	1431	2543	\$ 41,883.29	1769	2898	\$ 47,838.76	3200	5440	\$ 89,822.05	8075	12,044	\$ 198,848.45	
% OF TOTAL	60.4%	54.8%	54.8%	17.7%	21.1%	21.1%	21.9%	24.1%	24.1%	39.6%	45.2%	45.2%	100%	100%	100%	

sewer ESSU.XLS March 2004

EXHIBIT "4"

Letter to UVSD Board of Directors
Subject: Ad hoc committee proposals
Dated: October 13, 2011

Page 9

Clarification of these provisions could address the on-going dispute over sharing administrative costs and could afford an opportunity to resolve the dispute over the 2009-10, 10-11 and 11-12 budget years.

Section 14

This proposal should be discussed by the City Council and the District Board. The City Council notes that Water Code Section 1210 provides, in pertinent part, as follows: "The owner of a waste water treatment plant operated for the purpose of treating wastes from a sanitary sewer system shall hold the exclusive right to the treated waste water as against anyone who has supplied the water discharged into the waste water collection and treatment system, including a person using water under a water service contract, unless otherwise provided by agreement."

The current Participation Agreement does not agree to grant the District a right to treated waste water. As stated in the Preliminary General Comments, the City Council would have to be convinced that it is a benefit to the City's residents and sewer system ratepayers to share waste water produced by the WWTP with the District.

The City Council looks forward to productive negotiations through the ad hoc committees on the changes to the Participation Agreement discussed by the ad hoc committees and the issues contained in this letter.

Very truly yours,



Mari Rodin, Mayor

cc: City Council
City Attorney
City Manager

EXHIBIT "5"



TRANSMITTAL

DATE: April 13, 2016

TO: Ukiah Valley Sanitation District
Attn: Frank McMichael, District Manager
151 Laws Avenue
Ukiah, CA 95482

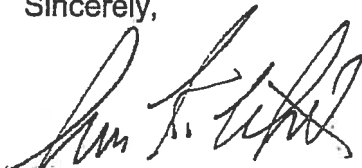
FROM: Sean K. White
Director of Water and Sewer
411 West Clay Street, Ukiah, CA 95482
Phone: (707) 467-5712

RE: **RECYCLED WATER PRESENTATION**

Dear Frank,

Enclosed you will find the presentation prepared for the April 21, 2016 meeting of the Ukiah Valley Sanitation District Board of Directors. In order to provide consistent information amongst our agencies, I have updated the most recent update given to the Ukiah City Council. The presentation contains all of the material you and your Board should need to prepare for your meeting.

Sincerely,



Sean K. White

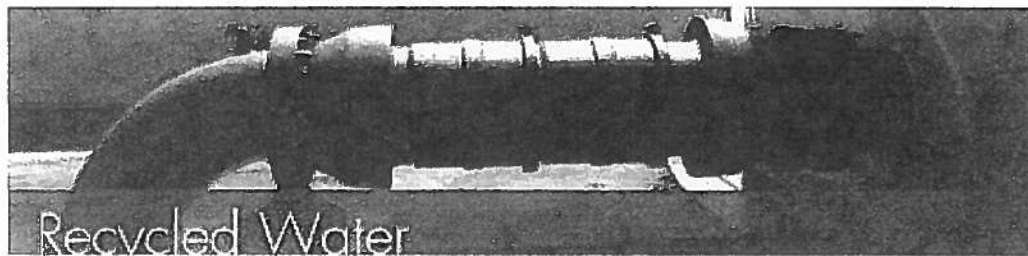
Enclosure

Cc: Sage Sangiacomo, City Manager
David Rapport, City Attorney
Tim Eriksen, PE, Director of Public works/City Engineer
Jarod Thiele, Public Works Project Analyst

City of Ukiah Recycled Water Project

Ukiah Valley Sanitation District Update

April 21, 2016



Project History

- **September 1, 2010** - Council Approved Request for Proposals (RFP) for Engineering Services for the preparation of a Recycled Water Master Plan.
- **October 2, 2010** - 5 RFPs were received and reviewed. Interviews were held with 2 firms and Carollo Engineers was selected by the review committee.
- **December 15, 2010** - City Council awarded the Contract to Carollo Engineers.
- **February, 2011**- Staff began working on the Master Plan with Carollo Engineers, Mendocino County Farm Bureau, Ukiah Valley Sanitation District and the Russian River Flood Control District with other stakeholder involvement.
- **August 12, 2011**- City received a Facilities Planning Grant from the State Water Resources Control Board (SWRCB) which reimbursed 50% of the cost to prepare the Master Plan (hereinafter called "Recycled Water Feasibility Study").
- **December 7, 2011**- City Council received an update on the progress of the Feasibility Study. Once data was gathered, stakeholder workshops were held and the alternatives were developed.
- **June 21, 2012**- Contract with Carollo Engineers was amended to include CEQA-Plus Initial Study.
- **June 5, 2013** - City Council adopted a resolution approving a Mitigated Negative Declaration for the Recommended Alternative of the Recycled Water Feasibility Study.
- **Summer 2013 and 2014**- Prop 84 Grant Funds awarded in the amount of \$2,090,191 to begin Phases 1 and 2
- **May 28, 2014** - City Council Awarded a contract to Carollo Engineers for the design of Phases I and II of the Recommended Alternative.
- **August 31, 2015** – SWRCB approves Change Petition WW0082 changing Purpose and Place of Use for Treated Wastewater
- **November 14, 2015**- City applies for and receives Prop 1A Funds totaling \$35,560,000 for Phases 1-3
- **March 16, 2016**- City amends agreement (\$697,629) with Carollo to add Design of Phase 3 and to complete a Water Balance Model

Project Funding

- Funds committed to date:
 - \$1,543,531 Design, CEQA and Permitting Costs
- Source of Funds:
 - City Sewer Capital Fund 844
- Total Grants received:
 - \$2,090,191- Prop 84
 - \$9,996,000- Prop 1A
- Financing Received- SRF Loan at 1% Interest
 - \$25,564,000
 - Annual Debt Service- \$1,157,904
 - 1996 AWT Loan paid off April 2016- \$425,649
 - Net Debt Service- \$732,255 (10% of total Wastewater Operating Budget)

**CITY OF UKIAH
CITY COUNCIL MINUTES
Regular Meeting
CIVIC CENTER COUNCIL CHAMBERS
300 Seminary Avenue
Ukiah, CA 95482
September 21, 2016
6:00 p.m.**

1. ROLL CALL

2. PLEDGE OF ALLEGIANCE

Ukiah City Council met at a Regular Meeting on September 21, 2016, having been legally noticed on September 16, 2016. Mayor Scalmanini called the meeting to order at 6:03 p.m. Roll was taken with the following **Councilmembers Present:** Maureen Mulheren, Kevin Doble, Jim O. Brown, and Stephen G. Scalmanini. **Councilmember Absent by Prearrangement:** Douglas F. Crane. **Staff Present:** Sage Sangiacomo, City Manager; David Rapport, City Attorney; and Ashley Cocco, Deputy City Clerk.

URGENCY ITEM

Presenter: Shannon Riley, Senior Management Analyst.

Motion/Second: Mulheren/Doble to accept urgency item due to timelines and place as agenda item 11a, Public Hearing. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

3. PROCLAMATIONS/INTRODUCTIONS/PRESENTATIONS

a. Proclamation for Pollution Prevention Week and Creek Week 2016 – *Public Works.*

Presenter: Tim Eriksen, Director of Public Works / City Engineer.

Proclamation received by Linda Sanders.

b. Presentation, Discussion and Possible Action Regarding the Ukiah Valley Sanitation District's Litigation Against the City of Ukiah Related to the Operation of the Sanitary Sewer System – *Administration.*

Presenters: Sage Sangiacomo, City Manager and Sean White, Director of Water/Sewer Utilities.

Public Comment: Don Crawford, Louis Eriksen, Faye Hefty, Linda Sanders, Pinky Kushner, Rich Andersen, Chuck Williams, Donald McMillian, Louis Eriksen (*speaking a second time*), Susan Knopf.

Council Consensus directs staff to reach out to the Ukiah Valley Sanitation District and to bring this item back to Council in two weeks for an update on what communication has transpired.

RECESS: 7:11 - 7:20 P.M.

**c. Presentation by Pacific Gas and Electric Regarding Community Pipeline Safety Initiative
– Public Works.**

Presenters: Tami Bartolomei, Director of Community Services, Darren Cline, and Leslie Borak.

Public Comment: Faye Hefty, Susan Knopf, and Chuck Williams.

4. PETITIONS AND COMMUNICATIONS

5. APPROVAL OF MINUTES

a. Minutes of September 7, 2016, a Regular Meeting.

Motion/Second: Mulheren/Doble to approve Minutes of September 7, 2016, a Regular Meeting, as submitted. Motion **carried** by the following roll call votes: AYES: Mulheren, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: Doble.

b. Minutes of September 14, 2016, a Regular Adjourned Meeting.

Motion/Second: Brown/Mulheren to approve Minutes of September 14, 2016, a Regular Adjourned Meeting, as submitted. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

6. RIGHT TO APPEAL DECISION

7. CONSENT CALENDAR

a. Approval of Disbursements for the Month of August - Finance.

b. Notification to City Council of the Purchase of NPDES Toxicity Testing Services for the Wastewater Treatment Plant from Pacific Ecorisk for a Total not to Exceed \$18,020.00 – Public Works.

~~**c. Adoption of Resolution Designating Darcy Vaughn as Assistant City Attorney – Administration.**~~ - Pulled by Mayor Scalmanini and moved to Agenda Item 13b.

~~**d. Award of Contract for Environmental Impact Report Services for the Costco Wholesale Warehouse Project to Dudek and Associates in the Amount of \$39,205 – Planning and Community Development.**~~ - Pulled by Mayor Scalmanini and moved to Agenda Item 13c.

e. Notification of Contract (COU No. 1516-228) Award to Chem-Dry of Mendocino County for Carpet Cleaning Services for a Three Year Term at Various City Locations – Community Services.

f. Possible Adoption of Ordinance (#1171) Amending the Ukiah City Code to Authorize City Council to Provide a Bidding Preference for Local Vendors by Resolution – Administration.

ORDINANCE NO. 1171

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF UKIAH ADDING A NEW SUBSECTION D.4 TO UKIAH CITY CODE SECTION 1522

g. **Reporting Contract (COU No. 1516-182-A1) with Ready Set Go Services, LLC for Finance Project Assistance in the Amount of \$20,000, and Requesting Authorization to Amend the Contract for Additional Services as Needed - Finance.**

h. **Adoption of Resolution (2016-54) Designating City Officials who may Contract for City Banking Services with MUFG Union Bank, N.A. – Administration.**

Motion/Second: Doble/Mulheren to approve Consent Calendar Items 7a-b, e-h, as submitted, with Agenda Items 7c-d pulled and moved to Agenda Items 13b-c. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

8. **AUDIENCE COMMENTS ON NON-AGENDA ITEMS**

9. **COUNCIL REPORTS**

Presenters: Councilmember Mulheren; Councilmember Doble; Mayor Scalmanini; and Bruce A. Carpenter, Ukiah Area California Highway Patrol Captain/Commander.

10. **CITY MANAGER/CITY CLERK REPORTS**

Presenters: Sage Sangiacomo, City Manager; John Bartlett, Fire Chief; and Tim Eriksen, Director of Public Works/City Engineer.

11. **PUBLIC HEARINGS (6:15 PM)**

a. **(Urgency Item) Conduct a Public Hearing to Discuss the Grantee Performance for State Community Development Block Grant 13-CDBG-8940; Receive Presentation from Staff and Solicit Citizen Input on this Grant.**

Presenters: Shannon Riley, Senior Management Analyst and Craig Schlatter, CDC.

PUBLIC HEARING WAS OPENED AT 8:31 P.M.

PUBLIC HEARING WAS CLOSED AT 8:32 P.M.

Report was received.

12. **UNFINISHED BUSINESS**

a. **Update Regarding Emergency Winter Shelter and Possible Direction Regarding Disbursement of Funds.**

Presenter: Shannon Riley, Senior Management Analyst.

Report was received.

Motion/Second: Brown/Doble to authorize the City Manager to negotiate and execute a release of funds agreement with the County of Mendocino for an emergency winter shelter, and approve the corresponding budget amendment(s). Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

b. Approve Contract between Solid Waste Systems and Potrero Hills Landfill for Municipal Solid Waste Disposal and Disposal of the Municipal Solid Waste at Potrero Hills Landfill in Suisun City California; and Approve Amendment to Transfer Station Agreement between City and Solid Waste System and Amended Transfer Station Lease between City and Solid Waste Systems.

Presenters: Tim Eriksen, Director of Public Works/City Engineer; Emmett Jones, CPA; and Daniel Buffalo, Director of Finance.

Motion/Second: Doble/Brown to 1.) Approve contract between Solid Waste Solutions Inc. and Potrero Hills Landfill Inc., 2.) Direct the City Manager to exercise flow control of Ukiah's municipal solid waste directing that it be transported to Potrero Hills Landfill in Suisun City, California, 3.) Approve Amendment to Transfer Station Agreement (COU No. 1212-11-A1), and 4.) Approve amended Transfer Station Lease. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

c. Financial Plan to Extinguish in Fifteen Years the Estimated Unfunded Closure and Thirty-Year Post Closure Maintenance Costs, and the Corrective Action Plan (CAP) Reserve Requirements Mandated by CalRecycle for the Ukiah Landfill.

Presenters: Tim Eriksen, Director of Public Works/City Engineer; Emmett Jones, CPA; and Daniel Buffalo, Director of Finance.

Motion/Second: Brown/Doble to accept the initial Financial Plan to extinguish in fifteen years the estimated unfunded Closure and thirty-year Post - Closure Maintenance costs, and the CAP reserve requirements, and ask that staff bring back the plan which includes the recommended twelve (\$12) increase in the Transfer Station disposal surcharge as recommended by the Landfill Closure Ad Hoc Committee for approval at the November 16, 2016 Council meeting. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

d. Receive Report of Recommended Rate Adjustments at Ukiah Transfer Station for Future Consideration.

Presenters: Tim Eriksen, Director of Public Works/City Engineer; Emmett Jones, CPA; and Daniel Buffalo, Director of Finance.

Report was received.

e. Adoption of Resolution Initiating the Prop 218 Process, Solid Waste Curbside Collection Rates, Fees, and Charges; and Adoption of Resolution Adopting the Guidelines for the Submission and Tabulation of Protests in Connection with the Rate Hearings.

Presenters: Tim Eriksen, Director of Public Works/City Engineer; Emmett Jones, CPA; and Daniel Buffalo, Director of Finance.

Motion/Second: Brown/Doble to adopt a resolution (2016-55) declaring the City Council's intention to adopt increased solid waste collection charges, set a public hearing for November 16, 2016, and direct staff to provide notice pursuant to Proposition 218; and adopt a resolution (2016-56) adopting guidelines for the submission and tabulation of protests in connection with the rate hearings under Proposition 218. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

13. NEW BUSINESS

- a. Update on the Ukiah Valley Golf Course and Request for Approval for the City Manager to Negotiate and Execute an Interim Amendment to the Lease Agreement Contingent upon Consent of the Ukiah Men's and Women's Golf Clubs, and Approval of Corresponding Budget Amendment(s).**

Presenters: Maya Simerson, Program Administrator and Tami Bartolomei, Director of Community Services.

Public Comment: Roger Vincent

Motion/Second: Mulheren/Brown to authorize the City Manager to negotiate and execute an interim amendment to the lease (*COU No. 1617-112*) with Tayman Park Golf Group, contingent upon the consent of the Ukiah Men's and Women's Golf Clubs, with additional review by Council to be put on the agenda planning calendar for one year, and approval of corresponding budget amendments. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

RECESS 9:22 – 9:28 P.M.

(Previously Agenda Item 7c)

- b. Adoption of Resolution Designating Darcy Vaughn as Assistant City Attorney.**

Presenter: David J. Rapport, City Attorney.

Motion/Second: Brown/Doble to adopt resolution (*2016-57*) designating Darcy Vaughn as Assistant City Attorney. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

(Previously Agenda Item 7d)

- c. Award of Contract for Environmental Impact Report Services for the Costco Wholesale Warehouse Project to Dudek and Associates in the Amount of \$39,205.**

Presenter: Kevin Thompson, Interim Director of Planning and Community Development.

Motion/Second: Scalmanini/Doble to award contract (*COU No. 1617-129*) for environmental impact report services for the Costco Wholesale Warehouse Project to Dudek and Associates in the amount of \$39,205. Motion **carried** by the following roll call votes: AYES: Mulheren, Doble, Brown, and Scalmanini. NOES: None. ABSENT: Crane. ABSTAIN: None.

CITY COUNCIL ADJOURNED TO CLOSED SESSION AT 9:42 P.M.

14. CLOSED SESSION

- a. Conference with Legal Counsel – Existing Litigation**

(Cal. Gov't Code Section 54956.9(d)(1))

Name of case: City of Ukiah v. Questex, LTD, et al, Mendocino County Superior Court, Case No. SCU-K- CVPT-15-66036

b. Conference with Legal Counsel – Existing Litigation

(Government Code Section 54956.9(d)(1))

Name of case: *Ukiah Valley Sanitation District v. City of Ukiah*, Sonoma County Superior Court, Case No. SCV 256737

c. Conference with Legal Counsel – Existing Litigation

(Cal. Gov't Code Section 54956.9(d)(1))

Name of case: *County of Mendocino v. Solid Waste System, Inc. et al.*, Mendocino County Superior Court, Case No. SCU-K-CVG-11-59459

d. Conference with Legal Counsel – Existing Litigation

(Cal. Gov't Code Section 54956.9(d)(1))

Name of case: *Ukiah Citizens for Safety First v. City of Ukiah*, Mendocino County Superior Court, Case No. SCU-KCVPT 14-63579

e. Conference with Legal Counsel – Anticipated Litigation

Significant exposure to litigation pursuant to Cal. Gov't Code Section 54956.9(d)(2) Number of potential cases (1)

15. ADJOURNMENT

There being no further business, the meeting adjourned at 9:58 p.m.

Ashley Cocco, Deputy City Clerk



ITEM NO.: 7a

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: CONSIDERATION AND POSSIBLE ADOPTION OF RESOLUTION ESTABLISHING A UNIFORM PROCESS OF MINUTE TAKING AND MEETING RECORDATION FOR ALL CITY BOARDS AND COMMISSIONS.

Summary: A proposal and resolution are being presented to Council that will allow all City Boards and Commissions to adopt uniform procedures for meeting recordation including the use of Action Minutes in conjunction with digital and website technology.

Background and Discussion: On April 4, 2007, the City Council made the following motion:

M/S Crane/Baldwin to approve the recommended action of keeping "Action Minutes", except for land use decisions such as zoning changes, use permits, and subdivision approvals, which are being considered by the Planning Commission or Zoning Permit Administrator; and that "conditions of approval" be included in the minutes so that changes made during a meeting can be clearly shown in the minutes, with, strikeout and bold underline. Motion carried by an all AYES voice vote.

However, many City Boards and Commissions have continued to use a summary style of minutes. Recent public comment regarding possible inclusion/exclusion of subject matter in the minutes, in addition to on-going concerns of staff time has prompted staff to return to Council to re-establish the style of "Action Minutes" in conjunction with a digital recording for all City boards and commissions.

The Action Minute style, provides a 'Table of Contents' for the recordings, which are kept permanently. If a detailed assessment of a discussion is needed or desired, either a copy of the recording and/or a transcript of a discussion can be produced. Additionally, if a board or commission member specifically wants a statement included in the written record, then this can be attached to the Action Minutes as part of the record. Action Minutes make it possible to easily review the minute document for what actions were taken and people who contributed to the discussions without these important points being lost in extensive content. They also circumvent any possible objections of what was or wasn't included in the minutes.

Continued on Page 2

RECOMMENDED ACTION(S): Adopt the resolution (Attachment 2) that establishes the Action Minute style of taking minutes in conjunction with a digital audio recording for the official recordation of the City Council and all City Boards and Commissions.

ALTERNATIVES: Provide alternate direction to Staff.

Citizens advised: N/A

Requested by: Sage Sangiacomo, City Manager

Prepared by: Kristine Lawler, City Clerk and Kevin Thompson, Interim Director of Planning

Coordinated with: David Rapport, City Attorney and Sage Sangiacomo, City Manager

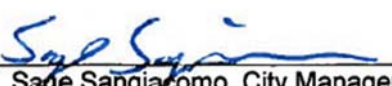
Presenters: Kristine Lawler, City Clerk and Kevin Thompson, Interim Director of Planning

Attachment: 1. City Attorney Concerns and Staff Responses. 2. Resolution

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager

In examining the option of Action Minutes for the Planning Commission, the City Attorney expressed some concerns, which are shown as Attachment 1 along with staff responses. These concerns have now been addressed in the resolution, which has included a hybrid version of Action Minutes for the Planning Commission. However, Staff will continue to monitor the effectiveness and make changes if it is found to be necessary.

The previous Council action made an exception for zoning changes, use permits, and subdivision approvals, considered by the Planning Commission or Zoning Permit Administrator, the digital video and audio recordings have proven to be an efficient and adequate form of recordation of the discussions. The 'conditions in the minutes', referenced in the prior motion, are currently not included in the minutes, but are contained in resolutions and/or ordinances as well as a letter sent to the applicants, which are signed and returned. However, the Findings and Conditions of approval can be considered part of the actions and recorded in the action minute style. Furthermore, any corrections, amendments, and requested changes can be reflected in the motion to approve the subsequent minutes.

All Planning Commission recordings are provided for the public on the City's website, and each agenda item is tagged in the recording to make it easy for both officials and the public to isolate a specific discussion. The City Clerk's office is also available to assist anyone with accessing the digital recordings.

Staff is pursuing the further use of technology through the Granicus program that could help streamline the way minutes are taken for all public meetings in addition to the Council and Planning Commission. In the meantime, all City boards and commissions would be provided with a digital audio recording device that would record the full content of the meetings and be immediately available to staff and public by request with the goal to move forward with formatting all recordings for electronic access from the City's website. Therefore, Staff asks Council to consider adopting the resolution (Attachment 2) that establishes the Action Minute style in conjunction with digital audio recordings for the official recordation of the City Council and all City boards and commissions.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

CITY ATTORNEY CONCERNS AND STAFF RESPONSES:

- I still have misgivings about using action minutes for Planning Commission hearings on use and site development permits, variances and zoning ordinance amendments
 - The findings and conditions can be included with the action minutes as they are part of the action of approval.
- Official minutes are those that have been approved at a subsequent meeting of the Planning Commission, which provides the opportunity to correct errors or request changes.
 - Any corrections, amendments, or requested changes can be included with the motion to approve the minutes at subsequent hearings and with strikeout/underline on the original minutes.
- Having a summary of the evidence presented and the public comments can aid the public and city councilmembers in reviewing what happened at the hearing.
 - The concern is that the evidence and public comments can possibly be filtered through the clerk's understanding of the item. The recording represents the most accurate account of discussion and testimony.
- The alternative is to watch the entire meeting (they sometimes go for hours) and take notes
 - It is easy to bring up the recording for that particular item – as each agenda item is tagged in the recording so that it can be isolated, and it is not necessary to listen to the full meeting. Additionally, the recordings can be edited to a specific discussion on request, which would take a lot less time than writing the summary minutes for each meeting.
- In my experience the city council often relies on the minutes to understand the PC decision.
 - From what I have been told, at least two councilmembers are currently reviewing the Planning Commission items by listening to the recordings instead of the minutes. However, I would be willing to work with councilmembers to show them how to use the technology in regards to the PC items.
- The summary minutes provide an additional tool. The Councilmembers can still review the video recording of the meeting.
 - This is true, but as stated above the reliability of the minutes is in question due to the possibility of the clerk's personal interpretation reflected in the summary.
- I will tell you that preparing a transcript from an audio recording is difficult and generally produces many "inaudible" and "unknown speaker" references. You see this fairly often, even in video recordings, but it is much worse from audio only recordings.
 - With Action Minutes, the names of all speakers are recorded in the order that they were heard, which puts a name to the voice on the recording. However, occasionally there is a speaker who does not give their name and sometimes prefers to remain anonymous. In this case summary minutes written after a meeting will run into the same difficulty.
- Minutes are preserved indefinitely and under applicable case law, the minutes are the official record of what happened at the meeting. They are also searchable in Laserfische. Audio recordings are not. Even video recordings for multiple meeting can't be searched by key words.
 - The digital recordings are currently kept indefinitely, however the resolution can be changed to make that clear. Generally, the key searchable words are in the agenda item title (i.e. property locations, names, etc...) and the names of the presenters or public comment persons. These are still searchable in Laserfische. Once an item is pulled up, then the action minutes and audio can be quickly accessed for further information if needed.

RESOLUTION NO. 2016-**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF UKIAH ADOPTING THE STYLE OF ACTION MINUTES IN CONJUNCTION WITH DIGITAL VIDEO AND/OR AUDIO RECORDINGS TO BE THE OFFICIAL RECORDATION USED FOR THE CITY COUNCIL AND ALL CITY BOARDS AND COMMISSIONS.**

WHEREAS, on April 4, 2007, the City Council approved the keeping of "Action Minutes" for the City Council and all City Commissions and Committees, with some exceptions for the Planning Commission; and

WHEREAS, the City makes digital video and/or audio recordings for all meetings of its commissions and board; and

WHEREAS, the City Council has successfully been using an Action Minutes and a digital video and/or audio recording for nine years, and Action Minutes have become the preferred standard among many cities across the State; and

WHEREAS, some City of Ukiah's Boards, Commissions, and Committees have continued to use a narrative, summary style of minutes; and

WHEREAS, it has since been established that the digital video-audio recordings for the Planning Commission are efficient and adequate to record the full and detailed content of all Planning Commission discussions and hearings; and

WHEREAS, Action Minutes quickly show actions taken, identify individuals who participated in the discussions, are a cost efficient use of staff time, free up staff for other duties, and avoid any possible objections of what was or wasn't included in the minutes; and

WHEREAS, if a Board or Commission member wishes to include a written statement with the minutes, and/or if for the Planning Commission adopts findings or conditions of approval in connection with making land use decisions or recommendations, those written statements and findings and conditions shall be included in its action minutes, including showing in "strikethrough/underline" format any changes to proposed findings or conditions;

NOW, THEREFORE, IT IS HEREBY RESOLVED, that the City Council of the City of Ukiah establishes Action Minutes in conjunction with the video and/or digital audio recordings, which are to be kept as permanent City records, as the official recordation of the meetings of the City Council, and all City Boards, Commission, and Committees.

BE IT FURTHER RESOLVED that the Planning Commission's action minutes shall include within or officially attached to the minutes all Findings and Conditions of Approval, adopted in connection with making land use decisions. If any corrections, amendments, or other requested changes are made to the proposed minutes by the motion to approve them, those changes shall be shown in strikethrough/underline format together with an unmarked copy of the official minutes.

PASSED AND ADOPTED this 5th day of October, 2016, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Stephen G. Scalmanini, Mayor

Kristine Lawler, City Clerk



ITEM NO.: 7b

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: AUTHORIZE REACTIVATION OF THE ASSOCIATE PLANNER POSITION

Summary: Combine Associate Planner I and II into one job description and reactivate position as Associate Planner.

Discussion: At the FY 2016-17 Budget Hearings, Council was advised that the Community Development and Planning Department would evaluate its current staffing levels and come back to Council with recommendations, as needed. An initial evaluation determined the department would be better served by reestablishing the Associate Planner position. This would allow for a higher level of current and long-range planning, project review, and zoning administration. Traditionally, the Associate Planner had two levels (I&II) - with the higher level requiring one extra year of experience. Staff recommends combining the position into one level, which is in line with current industry standard (see Attachment 1 – Job Description).

The Department intends to fill this position with current resources from within the City through the closed promotional process. This position does not represent an added position and will not cause additional budgetary impacts.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Authorize staff to combine Associate Planner I & II into one job description and reactivate position as Associate Planner.

ALTERNATIVES: Do not approve but provide direction to staff.

Citizens advised: N/A
Requested by: Sage Sangiacomo, City Manager
Prepared by: Kevin Thompson, Interim Director of Planning and Community Development, Sheri Mannion, Director of Human Resources/Risk Management
Coordinated with: Sage Sangiacomo, City Manager
Presenter: Kevin Thompson, Interim Director of Planning and Community Development
Attachment: Associate Planner Job Description

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager

Attachment #1



JOB DESCRIPTION

ASSOCIATE PLANNER (Exempt, Management Position)

Salary: \$4,705-\$5,719/month

DEFINITION

Under general direction of the Director of Planning, the Associate Planner performs both current and long-range planning duties, including project review and zoning administration, as well as General Plan implementation; assists the public in matters pertaining to planning in the City of Ukiah; and performs related work as assigned.

EXAMPLES OF DUTIES:

These examples are intended only as illustrations of the various types of work performed in positions allocated to this class. The examples of work performed are neither restricted to or all-encompassing of the duties to be performed under this job title. **(E) Essential Duty; (M) Major Portion of Time**

- Respond to public inquiries received by telephone or personal contact in matters pertaining to planning, zoning, and related policies. (E)
- Interpret and apply the City zoning ordinances in reviewing and analyzing development proposals and in replying to public inquiries. (E)
- Assist the City's Code Enforcement Officer in interpreting the Zoning Code and recognizing and resolving Code violations in the field.
- Process current planning applications, and evaluate plans and projects for code compliance and design considerations. (E)
- Prepare planning reports and develop agenda material for Planning Commission meetings. (E)
- Conduct Initial Studies and prepare basic environmental documents (Exemptions, Negative Declarations, etc.) pursuant to the California Environmental Quality Act (CEQA). (E)
- Conduct land use studies and compile data and information pertaining to planning as needed.
- Collect and record land use data, and prepare base maps, zoning maps, charts, and graphs.
- Develop and implement systems and procedures to ensure the proper processing of permit applications and the issuance of use permits, variances, zone changes, and architectural reviews.
- Perform field work and site visits (occasionally in extreme weather conditions) to fully comprehend, analyze, and document development proposals. (E)
- Make oral presentations to the Planning Commission on a routine basis regarding planning matters and projects, and occasionally address planning issues or projects at City Council meetings. (E)
- Represent the City and its planning policies in the community as required, and prepare reports and correspondence regarding planning matters.
- Coordinate with other City departments and other governmental agencies on planning issues and projects. (M)
- Other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of municipal planning, including building and site design.
- Applicable Federal, State, and local planning laws and regulations, including CEQA.
- Functions of other governmental agencies involved in the planning process.
- Modern office practices, procedures, equipment (computers), and techniques.

Ability to:

- Communicate clearly and concisely.

- Compose planning reports, technical studies, and other planning-related documents with little supervision and editing input from supervisor(s).
- Interpret technical and legal documents related to planning.
- Operate word processing and graphic computer programs.
- Establish and maintain cooperative and productive working relationships with the public and staff.

Experience:

Three years professional planning experience for a local agency. Experience as both a current and long-range Planner is highly desirable.

Education:

Experience and education equivalent to a Bachelor's Degree, with major course work in Planning, Public Administration, or a closely related field. Graduate degree may substitute for one year of experience.

Necessary Special Requirement:

Possession of a Class C California Driver's license.



ITEM NO.: 7c

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: AUTHORIZATION FOR THE CITY MANAGER TO ACCEPT MITIGATION FUNDING FROM PACIFIC GAS & ELECTRIC FOR THE COMMUNITY PIPELINE SAFETY INITIATIVE, AND APPROVE CORRESPONDING BUDGET AMENDMENT(S)

Summary: Pacific Gas & Electric (PG&E) is pursuing a project that is called the "Community Pipeline Safety Initiative". This project involves removal of certain trees, vegetation, and structures that are located in close proximity to PG&E's high pressure gas transmission pipelines. PG&E is proposing the removal of identified trees and vegetation along easements on city-owned property (and/or right of way), and worked with City Staff to identify mitigation costs for the replacement of trees and/or vegetation.

Background: Employees of the City of Ukiah and the members of the Tree Advisory Group met with PG&E staff in June. PG&E staff presented information on the Community Pipeline Safety Initiative. One Tree Advisory Group member and two City Staff members along with PG&E staff and a tree arborist toured the gas line easements on City-owned property (and/or right of way).

On September 13, 2016, PG&E held an open house in which the community was able to learn more about how PG&E has been working with the City of Ukiah and local residents to check the area above natural gas transmission pipeline for the tree, brush, and other items that could pose a safety concern.

During the September 21, 2016, City Council meeting, PG&E representatives presented the Council with an overview of the Pipeline Safety Initiative (Attachment #1). After the presentation, the City Council asked a number of questions regarding various aspects of the project including: private property assessment and remediation processes. Council opened the topic for public comment. City Council directed staff to work with PG&E to provide a map of identified trees that may pose safety concerns/issues to the pipeline and to place information regarding the PG&E Community Pipeline Safety Initiative on the City of Ukiah's website. Information regarding PG&E Community Pipeline Safety Initiative has been placed on the City of Ukiah's web Projects & News page. City Council has requested PG&E provide a map of all trees and vegetation under review on public and private property. The map will be posted when received.

PG&E offers mitigation for the removal of trees or woody vegetation. The goal of mitigation is to replace the vegetation removed by providing funds to replace and care for new plantings of trees and vegetation. There were 133 tree and woody vegetation assessed, of those assessed 19 trees and 46 woody

Continued on Page 2

RECOMMENDED ACTION(S): Authorize the City Manager to accept mitigation funding from Pacific Gas & Electric for the community pipeline safety initiative, and approve corresponding budget amendment(s).

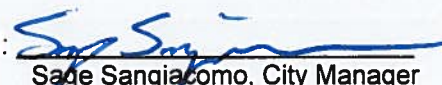
ALTERNATIVES: Do not authorize the City Manager to accept mitigation funding from Pacific Gas & Electric for the community pipeline safety initiative and remand to staff with direction.

Citizens advised: N/A
Requested by: Sage Sangiacomo, City Manager
Prepared by/Contact: Tami Bartolomei, Community Services Administrator
Coordinated with: Sage Sangiacomo, City Manager
Presenter: Tami Bartolomei, Community Services Administrator
Attachment: 1. Agenda Item 3c - Regular Meeting of September 21, 2016.

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager

vegetation will be removed. The bulk of those trees and vegetation are located near the airport. Mitigation to the City will include \$20,000 that will be used for replacement of trees and vegetation at Riverside park and/or other identified areas, and \$2,500 that will be used for the new gardens at Grace Hudson Museum. Other Mitigation funds received may include funds from the removal of trees or vegetation in which private property owners opt out of replacement. The funds will be utilized to comply with the 2 for 1 replacement policy in the City's Tree Management Guidelines.

Discussion: Authorize the City Manager to accept mitigation funding from PG&E for the Community Pipeline Safety Initiative project, and approve corresponding budget amendment(s).

FISCAL IMPACT:				
Budgeted Amendment Amount in 16-17 FY	Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
\$20,000 – Riverside \$2,500 - Museum	Park Development	TBD	Yes ☒ No ☐	N/A



ITEM NO.: 3c

MEETING DATE: September 21, 2016

AGENDA SUMMARY REPORT

SUBJECT: PRESENTATION BY PACIFIC GAS AND ELECTRIC REGARDING COMMUNITY PIPELINE SAFETY INITIATIVE

Summary: In 2012 as part of its statewide gas transmission safety program portfolio, PG&E started the Community Pipeline Safety Initiative to prevent damage to the integrity of gas pipelines or remove natural and manmade structures that can block safety crews from getting to pipelines in an emergency or natural disaster. PG&E is proposing the removal of obstructions above its major underground gas transmission lines throughout the state including easements on city-owned property (and/or right of way) in Ukiah.

Background: Employees of the City of Ukiah and the members of the Tree Advisory Group met with PG&E staff in June. PG&E staff presented information on the Community Pipeline Safety Initiative. During these presentations, PG&E explained how they categorized the tree and woody vegetation as unacceptable or manageable. During the presentation PG&E included a picture of the affected areas on City-owned property and answered questions. At this presentation, staff requested PG&E provide a tour of the affected areas and an Arborist who could confirm how and why the tree was categorized.

One Tree Advisory Group member and two City Staff members along with PG&E staff and a tree arborist toured the gas line easements on City-owned property (and/or right of way). PG&E pointed out what trees and woody vegetation were unacceptable and manageable. Amongst the 133 tree assessment completed by PG&E, 19 trees, and 46 woody vegetations will be removed. Many of the trees identified for removal are near the airport and are the same trees that the Federal Aviation Administration has been requesting the Airport Manager remove due to aviation requirements. Staff located easement documentation that was granted to PG&E by the City. The easement includes PG&E having the right to trim or cut down trees or other vegetation.

PG&E offers mitigation for the removal of trees or woody vegetation. The goal of mitigation is to replace the vegetation removed by providing funds to replace and care for new plantings of trees and vegetation. Mitigation to the City will include \$20,000 that will be used for replacement of vegetation at Riverside park and \$2,500 that will be used for the new gardens at Grace Hudson Museum. The funds will be utilized to comply with the 2 for 1 replacement policy in the City's Tree Management Guidelines.

On September 13, 2016, PG&E held an open house in which the community was able to learn more about how PG&E has been working with the City of Ukiah and local residents to check the area above natural gas transmission pipeline for the tree, brush and other items that could pose a safety concern.

Continued on Page 2

RECOMMENDED ACTION(S): Receive Report.

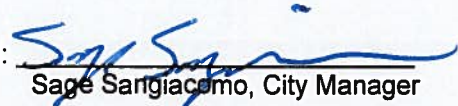
ALTERNATIVES:

Citizens advised:	N/A
Requested by:	Ukiah City Council
Prepared by/Contact:	Tami Bartolomei, Community Services Administrator
Coordinated with:	N/A
Presenters:	PG&E Staff
Attachments:	N/A

COUNCIL ACTION DATE: _____ : ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage San Giacomo, City Manager

Discussion: PG&E will be presenting information regarding their Community Pipeline Safety Initiative. Information provided will include tree replacement and restoration, community partnership and outreach.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A



ITEM NO.: 7d

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: APPROVAL OF UPDATED 2016 COUNCIL SPECIAL ASSIGNMENT LIST SHOWING REASSIGNMENTS TO THE ECONOMIC DEVELOPMENT & FINANCING CORPORATION (EDFC) AND THE MENDOCINO TRANSIT AUTHORITY (MTA) BOARD OF DIRECTORS

Summary: Councilmembers Mulheren and Doble have requested to switch assignments. Councilmember Mulheren is requesting to be assigned to the Mendocino Transit Authority (MTA) and Councilmember Doble is requesting to be assigned to the Economic Development & Financing Corporation (EDFC).

Background and Discussion: Councilmember Mulheren is currently assigned to the EDFC, a multi-agency co-op for economic development and business loan program. Councilmember Doble is currently assigned to the MTA, an agency that covers County-wide bus transportation and funding. Councilmember Mulheren is requesting to be reassigned to the MTA and Councilmember Doble to the EDFC. Attachment 1 is a redline and clean copy of the 2016 Council Special Assignment List showing the requested changes.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Approve the updated 2016 Council Special Assignment List showing reassignments to the Economic Development & Financing Corporation (EDFC) and the Mendocino Transit Authority (MTA) Board of Directors.

ALTERNATIVES: Remand to staff with direction.

Citizens advised: N/A
Requested by: Councilmembers Mulheren and Doble
Contact/Prepared by: Ashley Cocco, Deputy City Clerk
Coordinated with: Kristine Lawler, City Clerk
Presenter: Kristine Lawler, City Clerk
Attachment: 1. 2016 Council Special Assignment List (redline and clean copies)

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager

2016 COUNCIL ASSIGNMENTS (redline version)

County/Regional OnGoing One + Alternate	MTG DATE/TIME	MEETING LOCATION	MAILING ADDRESS/CONTACT	COMMITTEE FUNCTION	ASSIGNED TO	PRINCIPAL STAFF SUPPORT
Mendocino Council of Governments (MCOG)	1st Monday of month, 1:30 p.m.	Civic Center, 300 Seminary Ave., Ukiah Chambers	Executive Director 367 N. State Street, Ste. 206 Ukiah, CA 95482 463-1859	Plan and allocate State funding, transportation, infrastructure and project County wide.	Scalmanini Brown - Alternate	Rick Seanor, Deputy Director of Public Works; 463-6296 rseanor@cityofukiah.com
Mendocino County Inland Water and Power Commission	2nd Thursday of month, 7:00 p.m.	Civic Center 300 Seminary Ave. Conf. Room 5	IWPC Staff P.O. Box 1247 Ukiah, CA 95482 391-7574 - Candace Horsley	Develops coordination for water resources and current water rights: Potter Valley project - Eel River Diversion	Doble Brown - Alternate	Sean White, Water/Sewer Director; 463-5712 swhite@cityofukiah.com
Mendocino Solid Waste Mgmt. Authority (MSWMA)	3rd Thur. of every other month (varies) 10:00 a.m.	Willits Council Chambers	Solid Waste Director 3200 Taylor Dr. Ukiah, CA 95482 468-9710	County-wide Solid Waste JPA	Brown Doble - Alternate	Tim Eriksen, Public Works Director/City Engineer; 463-6280 teriksen@cityofukiah.com
Mendocino Transit Authority (MTA) Board of Directors	2nd Thursday of month, 1:30 p.m.	Alternating locations - Ukiah Conf. Ctr. Or Ft. Bragg, or Pt. Arena	Executive Director 241 Plant Road Ukiah, CA 95482 462-1422	County-wide bus transpiration issues and funding	Doble Mulheren Brown - Alternate	Tim Eriksen, Public Works Director/City Engineer; 463-6280 teriksen@cityofukiah.com
North Coast Rail Authority (NCRA)	2nd Wednesday of month, 10:30 a.m.	Various Locations - announced	419 Talmage Road, Suite M Ukiah CA 95482 463-3280	Provides a unified & revitalized rail infrastructure meeting the freight and passenger needs of the region	The City Selection Committee (composed of Mayors within the County) has filled the open seat with a Willits representative	Shannon Riley, Senior Mgmt Analyst; 467-5793 sriley@cityofukiah.com
Russian River Watershed Association	4th Thursday of month, 9:00 a.m. (only 5 times a year)	Windsor Town Hall	Russian River Watershed Association Attn: Daria Isupov 425 South Main St., Sebastopol, CA 95472 666-4857	Consider issues related to Russian river - plans projects and funding requests	Doble Brown - Alternate	Sean White, Water/Sewer Director; 463-5712 swhite@cityofukiah.com
County/Regional OnGoing One + Staff Alternate	MTG DATE/TIME	MEETING LOCATION	MAILING ADDRESS/CONTACT	COMMITTEE FUNCTION	ASSIGNED TO	PRINCIPAL STAFF SUPPORT
Depot Infrastructure Development	TBD	TBD	300 Seminary Ave. Ukiah, CA 95482	Review and advise regarding public infrastructure improvements in and around the railroad depot property and area	Doble (no alternate necessary)	Shannon Riley, Senior Mgmt Analyst; 467-5793 sriley@cityofukiah.com
Economic Development & Financing Corp. (EDFC)	2nd Thursday of month, 2:00-4:30 p.m.	Primarily 631 S. Orchard St., but location varies	Executive Director 631 South Orchard Ukiah, CA 95482 467-5953	Multi-agency co-op for economic development and business loan program	Mulheren Doble Riley - Alternate	Shannon Riley, Senior Mgmt Analyst; 467-5793 sriley@cityofukiah.com
Greater Ukiah Chamber of Commerce Liaison ex officio	4th Wednesday of month, 9:00 a.m.	Conference Center 200 S. School Street, Ukiah	200 S. School Street Ukiah, CA 95482 462-4705	To represent and set policy for Chamber and area businesses.	Doble Riley - Alternate	Shannon Riley, Senior Mgmt Analyst; 467-5793 sriley@cityofukiah.com ; Kerry Randall, Facilities Admin; 463-6706 KRANDALL@cityofukiah.com
Homeless Shelter	2nd Thursday of month, 2:00 p.m.	260 Hospital Drive, 2nd Floor Conference Room	631 Tokay Avenue Ukiah, CA 95482 or MCAVHN at: P.O. Box 1350 Ukiah, CA 95482 Judy Popowski - 463-6655	HSAG (Homeless Services Action Group).	Scalmanini	Shannon Riley, Senior Mgmt Analyst; 467-5793 sriley@cityofukiah.com
Main Street Program Board of Directors ex officio	1st Thursday of month, 8:00 a.m.	200 S. School Street, Ukiah	200 S. School St. Ukiah, CA 95482 463-6729	Develops activities for downtown economic development program	Mulheren Riley - Alternate	Shannon Riley, Sr. Mgmt. Analyst; 467-5793 Kerry Randall, Facilities Admin; 463-6706 KRANDALL@cityofukiah.com

2016 COUNCIL ASSIGNMENTS

Sun House Guild ex officio	2nd Tuesday of month, 4:30 - 6:30 p.m.	Sun House, 431 S. Main St. Ukiah	431 S. Main Street Ukiah, CA 95482 467-2836	Support and expand Grace Hudson Museum	Doble Sangiacomo - Alternate	Maya Simerson , Community Services Supervisor; 367-0699 msimerson@cityofukiah.com; Sherrie Smith-Ferri , Museum Director/Cultural Arts; 467-2836 sherrie@gracehudsonmuseum.org
Mendocino Youth Project JPA Board of Directors	3rd Wednesday of the month, 7:45 a.m.	776 S. State Street Conference Room	Mendocino Co. Youth Project 776 S. State Street, Ste. 107 Ukiah, CA 95482 707-463-4915	targets all youth with a focus on drug and alcohol prevention, healthy alternatives and empowering youth to make healthy choices.	Brown Chief Dewey - Alternate	Chris Dewey , Police Chief; 463-6245 cdewey@cityofukiah.com
Northern California Power Agency (NCPA)	4th Thursday of month, 9:00 a.m. (See calendar from NCPA)	Roseville, CA and other locations	651 Commerce Drive Roseville, CA 95678 916-781-4202	Pool of public utilities for electric generation and dispatch	Crane Grande - Alternate	Mel Grandi , Electric Utility Director; 463-6295 mgrandi@cityofukiah.com
Local/County/Regional Liasons OnGoing One or Two Council and/or Staff	MTG DATE/TIME	LOCATION	MAILING ADDRESS/CONTACT	COMMITTEE FUNCTION	ASSIGNED TO	PRINCIPAL STAFF SUPPORT
League of California Cities Redwood Empire Legislative Committee	Prior to Division Meetings, meets 3x in person and then via conference call.	Various locations that are announced.	Redwood Empire League President; Public Affairs Program Mgr. (916) 658-8243	Elected city officials and professional city staff attend division meetings throughout the year to share what they are doing and advocate for their interests in Sacramento	Mulheren	Sage Sangiacomo , City Manager; 463-6221 ssangiacomo@cityofukiah.com
City Selection Committee	Called as required by the Clerk of the Board	BOS Conf. Room 501 Low Gap Rd. Rm. 1090, Ukiah	C/O: BOS 501 Low Gap, Rm 1090 Ukiah, CA 95482 463-4441	Makes appointments to LAFCO and Airport Land Use Commission	Mayor	Kristine Lawler , City Clerk; 463-6217 klawler@cityofukiah.com
Investment Oversight Committee	Varies	Civic Center 300 Seminary Ave. Ukiah, CA 95482	Civic Center 300 Seminary Ave. Ukiah, CA 95482	Reviews City investments, policies, and strategies	Crane Alan Carter , Treasurer	Karen Scalabrini , Director of Finance; 463-6220 kscalabrini@cityofukiah.com
Library Advisory Board	3rd Thursday of month, 1:00 p.m.	Various Mendo County Libraries	Ukiah County Library 463-4491	Review library policy and activities	Thomas	Kristine Lawler , City Clerk; 463-6217; klawler@cityofukiah.com
Ukiah Players Theater Board of Directors	3rd Tuesday of month, 6:00 p.m.	1041 Low Gap Rd Ukiah, CA 95482 462-1210	1041 Low Gap Rd Ukiah, CA 95482 462-1210	To oversee the activities, organization and purpose of the Ukiah Players Theater.	Sangiacomo Greg Owen , Airport Mgr.	Kristine Lawler , City Clerk; 463-6217 klawler@cityofukiah.com
Ukiah Unified School District (UUSD) Committee	Quarterly	511 S. Orchard, Ste. D Ukiah, CA 95482	511 S. Orchard Ukiah, CA 95482	Information exchange with UUSD Board Chair, Mayor, Superintendent and City Manager	Mayor	Sage Sangiacomo , City Manager; 463-6221 ssangiacomo@cityofukiah.com
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Mendocino County Local Area Formation Commission (LAFCO)	1st Monday of month, 10:00 a.m.	Board of Supervisors Chambers	Executive Director 200 S. School Street, Ste. 2 Ukiah, CA 95482 463-4470	Required by legislation - planning spheres of influence, annexation, service areas, and special districts	Doble	Charley Stump , Director of Planning; 463-6219 cstump@cityofukiah.com
Mendocino County Airport Land Use Commission	As needed	BOS Conf. Room 501 Low Gap Rd. Rm. 1090, Ukiah	Mendocino County Executive Office 501 Low Gap Rd. Rm. 1010 Ukiah, CA 95482	To formulate a land use compatibility plan, provide for the orderly growth of the airport and the surrounding area, and safeguard the general welfare of the inhabitants within the vicinity.	None from Ukiah Council currently	Kristine Lawler , City Clerk; 463-6217 klawler@cityofukiah.com

2016 COUNCIL ASSIGNMENTS

Boards & Commissions Member Review	CURRENT PUBLIC MEMBERS	POSITION	NOMINATED BY	COMMITTEE FUNCTION	ASSIGNED TO	PRINCIPAL STAFF SUPPORT
Traffic Engineering Committee (TEC)	1. John Lampi 2. Keith Hewett 3. (vacant)	1. Public Member 2. Public Member 3. Active Transportation	1. Rodin 2. Crane 3. (Scalmanini)	To formulate a land use compatibility plan, provide for the orderly growth of the airport and the surrounding area, and safeguard the general welfare of the inhabitants within the vicinity.	N/A	Kristine Lawler , City Clerk; 463-6217 klawler@cityofukiah.com Rick Seanor , Deputy Public Works Director; 463-6296 rseanor@cityofukiah.com

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County/Regional OnGoing One + Alternate	MTG DATE/TIME	MEETING LOCATION	MAILING ADDRESS/CONTACT	COMMITTEE FUNCTION	ASSIGNED TO	PRINCIPAL STAFF SUPPORT
Mendocino Council of Governments (MCOG)	1st Monday of month, 1:30 p.m.	Civic Center, 300 Seminary Ave., Ukiah Chambers	Executive Director 367 N. State Street, Ste. 206 Ukiah, CA 95482 463-1859	Plan and allocate State funding, transportation, infrastructure and project County wide.	Scalmanini Brown - Alternate	Rick Seanor , Deputy Director of Public Works; 463-6296 rseanor@cityofukiah.com
Mendocino County Inland Water and Power Commission	2nd Thursday of month, 7:00 p.m.	Civic Center 300 Seminary Ave. Conf. Room 5	IWPC Staff P.O. Box 1247 Ukiah, CA 95482 391-7574 - Candace Horsley	Develops coordination for water resources and current water rights: Potter Valley project - Eel River Diversion	Doble Brown - Alternate	Sean White , Water/Sewer Director; 463-5712 swhite@cityofukiah.com
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Traffic Engineering Committee (TEC)	1. John Lampi 2. Keith Hewett 3. (vacant)	1. Public Member 2. Public Member 3. Active Transportation	1. Rodin 2. Crane 3. (Scalmanini)	To formulate a land use compatibility plan, provide for the orderly growth of the airport and the surrounding area, and safeguard the general welfare of the inhabitants within the vicinity.	N/A	Kristine Lawler , City Clerk; 463-6217 klawler@cityofukiah.com Rick Seanor , Deputy Public Works Director; 463-6296 rseanor@cityofukiah.com



ITEM NO.: 7e

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: AUTHORIZE THE CITY MANAGER TO NEGOTIATE AND EXECUTE AGREEMENT(S) WITH THE UKIAH VALLEY MEDICAL CENTER AND SPECIAL ICE RENTALS LLC FOR AN OUTDOOR HOLIDAY ICE RINK

Summary: Council approved the partnership between the City and the Ukiah Valley Medical Center on September 7, 2016, to bring an outdoor ice rink to downtown Ukiah in December. Council is now being presented an agreement that outlines the responsibilities of all parties.

Background: The Ukiah Valley Medical Center (UVMC) is celebrating their 60th anniversary and plans to bring an outdoor ice skating rink to Ukiah in December. By partnering with the City on this project the rink can be extended from a three day event to a five week event, allowing the rink to be open for the entire duration of the school winter break. The location for the rink is on School Street in front of Alex Thomas Plaza. This site is ideal for its proximity to electrical access, parking, public restrooms, and the covered pavilion.

Discussion: The rink will be open daily for the duration of five weeks beginning Sunday, December 4th through Sunday, January 8th. The ice rink hours will vary depending on the day of the week, private rentals, and holidays. The rink will also be available for school field trips. Skating (including skate rental) will be \$10 per person per day for unlimited skating.

The agreement between the City, UVMC and Special Ice Rentals, LLC is under development and will be provided, in substantial form, prior to the Council meeting for review. The agreement specifies the dates the UVMC is operating the rink, the dates the City is operating the rink, and the fiscal agent relationship. UVMC will be assuming the responsibility of the fiscal agent for the entire agreement. The agreement also identifies the responsibilities for setting up the rink and its operational needs.

Internally the City will establish a trust fund account to receive all income and process all expenses. Any revenue remaining in the fund will be available for use towards another downtown holiday event in the future at the City's discretion.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Authorize the City Manager to negotiate and execute agreement(s) with the Ukiah Valley Medical Center and Special Ice Rentals LLC for an outdoor holiday ice rink.

ALTERNATIVES: Provide alternate direction to staff.

Citizens advised: N/A
Requested by: Ukiah Valley Medical Center Marketing Staff
Prepared by: Kerry Randall, Facilities Administrator and Maya Simerson, Project Administrator
Coordinated with: David Rapport, City Attorney and Shannon Riley, Senior Management Analyst
Presenter: Maya Simerson, Project Administrator
Attachments: Attachments will be forthcoming

COUNCIL ACTION DATE: _____ : ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager



ITEM NO.: 7f

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: REPORT OF EMERGENCY REPAIR OF JET A FUEL PUMP AND FILTER SKID FOR THE BULK STORAGE TANK IN THE AMOUNT OF \$15,905, AND APPROVE CORRESPONDING BUDGET AMENDMENT

Summary: Council will receive a report of the emergency repair for the fuel pump and electrical components of the Jet A fuel filter and pump skid.

Background: The current Jet A bulk storage tank requires a truck to deliver fuel that has a pump. This limits the amount of trucks that can provide fuel to the airport and adds cost to the fuel delivery price. The piping has been showing sign of wear and the need to replace this piping has become a concern for staff. In 2015, Council approved the purchase of a reconditioned Jet A fuel pump and filter skid from the City of Orville for the bulk storage tank for the amount of \$25,950. This unit had been advertised that it had not been used by the City of Orville since its reconditioning by Mascott Equipment Company. This equipment was a purchased as-is with no warranty.

This being an aviation fueling system, staff was limited in qualified and available contractors to perform the installation. Staff was able to locate Regal Pacific Contracting and Compliance Inc., who are experienced in aviation fueling systems. The purchase included the decommissioning and removal of the existing piping, and installation and testing of the new pump and filter skid for the amount of \$26,790. This was approved in the CIP budget under fund #77900000.80100 Project Code #15042.

Discussion: The installation contractor arrived and did a brief visual inspection of the fuel filter and pump skid and did not see any immediate issues. After the removal of the old pumping equipment and beginning the installation of fuel filter and pump skid, the contractor noticed some significant problems with the skid. The contractor removed the pump and discovered damage to the pump, with signs that it had been possibly run dry. The contractor does not know if the pump will operate at all and has reservations that it will operate within its rated capacity due to the damage. Before the contractor was able to test the pump, it was discovered that the housing for the electrical had not been properly sealed, which had allowed moisture into the electrical components, causing severe corrosion. These electrical components and pump must be replaced before the filter and pump skid can be made operational.

This fuel tank and equipment provides bulk storage of Jet A fuel that Cal Fire and Cal Star require to operate. With the removal of the old equipment, staff is unable to use the bulk storage tank. The original contract amount of \$26,790 for installation would allow staff to amend the contract by 10% or \$5,000, whichever is greater. However, the additional cost of \$15,905.47 exceeded that threshold. Due to the

Continued on Page 2

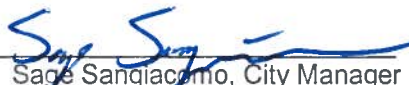
RECOMMENDED ACTION(s): Receive report of emergency repair of Jet A fuel pump and filter skid for the bulk storage tank in the amount of \$15,905, and approve corresponding budget amendment.

ALTERNATIVES: N/A

Citizens advised: Airport Commission
Requested by: Sage Sangiacomo, City Manager
Prepared by: Greg Owen, Airport Manager and Mary Horger, Procurement Manager
Coordinated with: Mary Horger, Procurement Manager and Daniel Buffalo, Finance Director
Presenter: Greg Owen, Airport Manager
Attachments: None

COUNCIL ACTION DATE: _____ : ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Approved: 
Sage Sangiacomo, City Manager

high risk involved with having the fuel tank off-line, especially while we are still in fire season, staff deemed this as an emergency, and moved forward with approving the additional costs so that the fuel skid could be operational as soon as possible.

Below is a breakdown of the total costs to date with Regal Pacific Contracting and Compliance Inc. The highlighted dollar amounts are the amounts normally out of staff authority without further Council approval.

Purchase Order 44190		
Item #	Description	Price
1	Original PO amount for installation.	\$26,790.00*
2	Change order for supplier to provide stamped drawings for applications and submittals for installation of concrete pad.	\$ 5,000.00*
	Subtotal:	\$31,790.00
3	Pump Repair and Trouble-shooting while on-site 9/23/16.	\$ 1,905.47
4	Cost for contractor to come back, supply, and install replacement parts to complete repair. (\$8,100 of which is materials, equipment and freight.)	\$14,000.00
	TOTAL:	\$47,695.47
	<i>*These costs are for the installation stage of the project.</i>	

The original cost of the reconditioned Jet A fuel pump and filter skid purchased from the City of Oroville was \$25,950. With the additional unanticipated repair costs spent to date (Item #3 and #4 above, totaling \$15,905.47), it brings the total equipment investment in the reconditioned Jet A fuel pump and filter skid to \$41,855.47. It is estimated that a brand new filter and pump skid would have cost the City \$60,000, thus the purchase of the reconditioned skid *with* the repairs still represents a savings.

This activity is part of a larger fuel tank upgrade and self-service project (total project budget for 2016-17 is \$172,200) and was expected to be completed in fiscal year 2015-16; however, work did not begin until the current year. The encumbrance was not carried forward in the 2016-17 budget and, therefore, a budget amendment for this current portion of the project is required. The project is funded primarily by a grant from the FAA, but this portion must come from current airport revenues. It is staff's request that Council approve the following budget amendment \$47,696.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
\$172,200	Airport Operations and Capital Funds	#77900000.80100 Project Code #15042	Yes ☒ No ☐	PO #44190



ITEM NO.: 12a

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: DISCUSSION AND POSSIBLE ACTION REGARDING A COUNCIL POSITION ON MEASURE AF, THE MENDOCINO HERITAGE ACT.

Summary: Council will discuss Measure AF and consider a possible position (support, against, or neutral).

Background: Measure AF, the "Mendocino Heritage Act," repeals County Code Chapter 9.31 (Medical Marijuana Cultivation Regulation) and replaces it with a new Chapter 6.22 called "Lawful Cannabis Permits." It also amends the County Zoning Code to add a new Chapter 20.162 (inland) and Chapter 20.514 (coastal) to provide zoning to allow marijuana cultivation, processing, manufacturing and sales.

The No on Measure AF Committee gave a presentation to Council on September 7th, with a request for Council to consider endorsing a "No" vote on Measure AF (Attachment #1).

The proponents of Measure AF submitted correspondence to the September 21st Council meeting requesting Council maintain a neutral position (Attachment #2).

Council directed staff to agendize a discussion and possible action item for them to consider a Council position on Measure AF.

Discussion: After a Council discussion and input from the public, Council may consider whether they want to take a position on Measure AF.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Discussion and possible action regarding a Council position on Measure AF.

ALTERNATIVES: Do not take a Council position on Measure AF.

Citizens advised: N/A
Requested by: City Counsel
Contact/Prepared by: Kristine Lawler, City Clerk
Coordinated with: Sage Sangiacomo, City Manager
Presenter: Sage Sangiacomo, City Manager
Attachment: 1. Correspondence received regarding a Request for Endorsement of No on Measure AF
2. Correspondence Received from Proponents of Measure AF

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager



No on Measure AF Committee

110 South Main Street Suite C

Willits, CA 95490

August 26, 2016

Mayor and City Council
City of Ukiah
300 Seminary Avenue
Ukiah, CA 95482

RE: Request for endorsement of No on Measure AF

Dear Mayor and Councilmembers,

Mendocino County faces an important choice on the future of the marijuana industry. Commercial production was authorized by the legislature in January 2016 and will be expanded under Proposition 64 (the Parker initiative). But both statewide legal schemes allow local cities and counties a wide latitude to establish their own regulations for marijuana cultivation, processing and sales.

The Mendocino County Board of Supervisors has risen to this challenge and worked hard at crafting an ordinance that would authorize permits for commercial marijuana operations while protecting citizens from nuisance impacts and protecting the environment from harm. After months of public hearings, the Board referred a draft ordinance for environmental review with the expectation that it would receive further consideration early next year.

But this careful process didn't satisfy a group of marijuana growers who wanted to write the marijuana rules themselves. They collected enough signatures to qualify the "Mendocino Heritage Act" for the November ballot. It has been designated Measure AF and is 60 pages long.

Serious problems are common when regulations are written by the industry that's being regulated, and Measure AF is no exception. We believe that Measure AF should be rejected on these grounds alone--that it is an attempt to override the good-faith work by our democratically-elected representatives on the Board of Supervisors. Rather than reflect the needs of the entire community, Measure AF would serve the needs of marijuana growers alone.

In addition, there are seven specific flaws in Measure AF:

- Measure AF would allow growing in every residential zoning district, with grows of up to 1 acre of plant canopy.

- Measure AF would allow growing within 30 feet of a neighbor's property and within 100 feet of a neighbor's house, except in mobile home parks where there would be no setback requirements at all.
- Measure AF establishes a civil enforcement procedure that would be so weak and slow as to be non-existent.
- Measure AF would give marijuana recognition under the County's "Right to Farm" ordinance, meaning neighbors would be barred from complaining about odor.
- Measure AF would eliminate the 1000 foot separation under existing County Code between marijuana operations and youth-oriented facilities, churches and residential treatment centers, and Measure AF would reduce the marijuana separation from parks and schools to only 600 feet.
- Measure AF would allow an unlimited number of marijuana dispensaries in any commercial zoning without public process.
- Measure AF would recognize the use of explosive butane in manufacture of hash oil as a "principal permitted use" in any industrial zoning without public process, even though this dangerous practice has caused many fires.

These issues are discussed in detail in the enclosed document, "Questions and Answers About Measure AF."

The voters will decide the fate of Measure AF in November. It's unreasonable for the average voter to analyze a 60-page document and sort out conflicting advertising claims about it. So most voters will look to established bodies like yours for guidance.

An endorsement by the City of Ukiah is appropriate because this issue will affect everyone in Mendocino County--our suburban residents, our rural residents, and our children today and into the future.

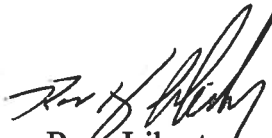
We respectfully request that you consider endorsing a "No" vote on Measure AF and communicating that endorsement to our committee. We are available to discuss this issue in person and can be contacted at NoOnMeasureAF@yahoo.com.

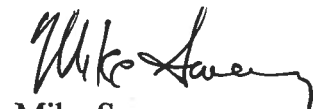
Sincerely,

NO ON MEASURE AF COMMITTEE


Hal Wagenet


Chris Neary


Ross Liberty


Mike Sweeney

enclosure

No on Measure AF

Questions and Answers

Where did Measure AF come from?

Measure AF, the "Mendocino Heritage Act," was written by local marijuana growers who collected enough petition signatures to qualify for the November, 2016 ballot. It is 60 pages long. It repeals County Code Chapter 9.31 (Medical Marijuana Cultivation Regulation) and replaces it with a new Chapter 6.22 called "Lawful Cannabis Permits." It also amends the County Zoning Code to add a new Chapter 20.162(inland) and Chapter 20.514(coastal) to provide zoning to allow marijuana cultivation, processing, manufacturing and sales. The entire text is available at https://mendocinoheritageinitiative.files.wordpress.com/2016/03/an-initiative-of-the-people-of-the-county-of-mendo_032216_v7.pdf

What are the problems with Measure AF?

- **It would regulate the marijuana industry but it's written by the marijuana industry itself.**

The cultivation, processing and sale of marijuana are major economic activities but they have created many nuisance and environmental problems. These problems must be controlled by appropriate regulations and enforcement. The decisions about regulation should be made by the Board of Supervisors with consideration for all our citizens, not just marijuana entrepreneurs. The Board of Supervisors enacted the present Chapter 9.31 regulations and is working hard at revised rules. Measure AF would throw out everything the Board of Supervisors has done and instead enact a law written for the convenience of marijuana growers, allowing them to greatly expand operations with no effective limitations.

This is the worst way to make public policy. Laws should be written by the democratically elected representatives of the people, and not by a special interest group that would benefit by a marijuana free-for-all.

- **By replacing the sheriff with a slow and weak civil enforcement process, Measure AF would effectively eliminate any restrictions whatsoever.**

Measure AF says that marijuana operations will require a County permit with environmental standards, but it also says that “No violations of this Chapter shall be subject to criminal enforcement.” [Measure AF, Section 6.22.150(A)(1)]. Instead, various ordinary County departments are required to issue permits and, presumably, issue “administrative citations” for violations. But as long as a grower has applied for a permit, “No enforcement of provisions of this Chapter shall take place against a permit applicant while their application is pending.” [Ibid.] And if a citation is made, the fine is only \$100. After 60 days, the fine can go up to \$1,000. But any citation can be appealed and the “permittee shall be allowed to continue operating during the Appeals process.” [Section 6.22.150(D)(1)] In order to process an appeal, the County must hire a “hearing officer” who is independent of the department that issued the citation [Section 6.22.150(D)(1)(c)], and a hearing officer’s decision can be appealed to a court. The County currently uses a hearing officer procedure for code enforcement cases and it has proven to be extremely slow and expensive, costing the County around \$1,000 per day to hire hearing officers.

This weak scheme for enforcement would instantly be recognized as a joke by marijuana growers. History has shown that the only effective regulation comes from the sheriff, and with the sheriff prohibited from involvement, the permit rules of Measure AF would be a dead letter. Marijuana growers could do whatever they wanted and the public would have no recourse. A new “Green Rush” of would-be growers from outside the county would occur as the word got around that there was no effective enforcement of any rules in Mendocino County.

- **Measure AF would vastly increase the size of commercial marijuana grows and allow them in any zoning district.**

Presently County Code Chapter 9.31 limits marijuana growing to 25 plants per parcel unless a special permit, with many restrictions, is obtained from the sheriff, in which case up to 99 plants could be grown on parcels larger than 10 acres. Measure AF would throw out these limits and instead allow marijuana grows as follows:

2,500 square feet of plant canopy on parcels less than 1 acre

5,000 square feet of plant canopy on parcels of 1 acre to 5 acres

10,000 square feet of plant canopy on parcels of 5 acres to 20 acres

43,560 square feet of plant canopy on parcels larger than 20 acres
[Measure AF, Sections 162.040(B) and 514.040(B)]

But since Measure AF would have no effective enforcement, these limits could be exceeded with impunity.

- **Measure AF would allow marijuana grows too close to neighbors**

The odor from large numbers of marijuana plants annoys or even sickens many people. Yet Measure AF would allow grows to reach as close as 30 feet from property lines and within 100 feet of a neighbor's house that's on "a parcel under separate ownership." [Measure AF, Section 6.22.060(B)(2&3)]. This doesn't protect mobile home parks which have many mobile homes occupying a single legal parcel. For them, there is no setback protection whatsoever because there are no legal parcel boundaries between the homes.

- **Measure AF would reduce or eliminate separations from places where children are present**

Youth and child advocates are extremely concerned that marijuana shouldn't be pushed onto children because it can seriously interfere with their learning and development. That's why current County Code Section 9.31 requires a 1000 foot setback of marijuana grows and dispensaries from any school, park, youth-oriented facility, church, or residential treatment center. Measure AF abolishes this setback requirement from youth-oriented facilities, churches, and residential treatment centers. Measure AF reduces the setback to parks and schools to 600 feet [Measure AF, Section 6.22.060(B)(1)].

- **Measure AF would block neighbors from complaining about marijuana odor**

Measure AF amends County Code Section 10A.13.010 to declare that "The commercial cultivation of cannabis, in accordance with all applicable state and local laws, ordinances and regulations, shall be considered an agricultural operation within the meaning of this Chapter." [Measure AF, Section 3] This means that marijuana grows would be protected by the County "Right to Farm" ordinance, which is designed to block nuisance complaints for impacts like odor.

The “Right to Farm” policy in County Code states: “No existing or future agricultural operation or any of its appurtenances, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, shall become or be a nuisance, private or public, for adjacent land uses in or about the locality thereof after the same has been in operation for more than three (3) years, when such action was not a nuisance at the time it began; provided that the provisions of this subsection shall not apply whenever a nuisance results from the negligent or improper operation of any such agricultural operation or its appurtenances.” [Mendocino County Code Section 10A.13.020].

- **Measure AF would allow an unlimited number of dispensaries in any commercial zoning**

Measure AF states that the County Health and Human Services Agency “shall” issue permits for marijuana dispensaries. [Measure AF, Section 6.22.090]. Dispensaries would be a “principal permitted use” (meaning they are allowed without the need for discretionary approval) in all commercial zoning. [Measure AF, Sections 162.040(L) and Section 514.040(L)]. As noted above, this means that unlimited numbers of marijuana dispensaries could be placed right next door to a youth-oriented facility, church or residential treatment center, and only 200 yards from schools and parks.

- **Measure AF would authorize butane processing of marijuana to make hash oil in any industrial zone**

Mendocino County is confronting a crisis of fires and explosions caused by the use of butane, a volatile and highly flammable solvent, to make marijuana into hash oil. Incredibly, Measure AF makes processing marijuana with volatile solvents “a principal permitted use in all zoning districts where General Industrial Use is a principal permitted use.” [Measure AF, Sections 162.040(F) and 514.040(F)]. “Volatile solvents” are defined as “explosive gases such as butane, propane, xylene, styrene, gasoline kerosene, O2 or H2, or carcinogens, such as methanol, isopropyl alcohol, methylene chloride, acetone, benzene, toluene, and tricolorethylene.” [Measure AF, Section 6.22.020].

Couldn't the Board of Supervisors amend Measure AF if it passes?

No--not until June 1, 2018, and then only if amendments are “consistent with and further the purposes and intent of this Ordinance.” [Measure AF, Section 8]. Those “purposes” include recognizing marijuana as “an agricultural product” that the County Right to Farm Ordinance “conserves, protects and encourages.” This language opens the door to a lawsuit to fight any changes to Measure AF that marijuana growers don’t like.

If Measure AF is defeated, will the Board of Supervisors enact an ordinance?

The Board of Supervisors has a draft ordinance that is currently under environmental review for compliance with the California Environmental Quality Act (CEQA). This ordinance, if approved, would amend Chapter 9.31 to allow larger commercial marijuana cultivation in appropriate locations, subject to mandatory inspections to ensure compliance with health, safety and environmental rules. Unlike Measure AF, the proposed County ordinance would try to effectively protect neighbors and youth from harmful impacts. Its permit enforcement would have teeth, unlike the toothless Measure AF. However, if Measure AF passes, it would supersede and overrule any ordinance that the Supervisors might pass.

Does the No on Measure AF Committee support the Supervisors’ proposed tax on marijuana?

The Committee does not take a position on any other ballot measure.

What policies on marijuana does the No on Measure AF Committee advocate?

The Committee takes no position except to urge a “No” vote on Measure AF, and believes that local regulations should be enacted by the Board of Supervisors, not by the marijuana growers’ measure. The Board of Supervisors can be responsive to the needs of the entire community, and can freely amend regulations if circumstances require.

Isn’t marijuana going to be legalized by the State?

The Medical Marijuana Regulation and Safety Act (MMRSA), which was passed by the legislature and went into effect on January 1, 2016, specifically states that a local government permit is needed in addition to a state license. Proposition 64 (the Parker initiative) on the November 2016 ballot, would supersede the MMRSA by legalizing personal use and authorizing commercial cultivation. However, Proposition 64 specifically would specifically “allow local governments to reasonably regulate the cultivation of nonmedical marijuana for personal use by adults 21 years and older.” [Proposition 64, Section 3(m)]. All this means that Mendocino County retains the

obligation to establish local permit rules and zoning that apply to marijuana cultivation, processing, manufacturing and sales.

To: Ukiah City Council
From: Mendocino Heritage Initiative of 2016
Date: September 16, 2016
Subject: Council's Endorsement for Measure AF

In 2015, the State of California passed historic legislation to regulate medical cannabis. The MCRSA designates medical cannabis as an agricultural product, to be regulated by the Department of Agriculture. The MCRSA specifically states that prospective participants in this newly regulated industry may not obtain state licenses unless they first obtain locally issued permits, thus opening the doors for counties and cities to follow suit and regulate locally. We commend the efforts of Ukiah as well as every other city in the county to start exploring regulatory options on a local level.

What does Measure AF do? The unregulated cannabis industry has divided our community for decades and has negatively impacted our natural resources and sense of safety. Measure AF is a chance to change direction. It was spearheaded by members of the cannabis industry who are *asking to be regulated* to protect Mendocino County's future.

- AF provides the most time-efficient and cost-effective path to regulation while making Mendocino County's rules consistent with state law.
- It will enact immediate policy to regulate all aspects of the cannabis industry without further delay or costly lawsuits.
- AF saves the taxpayers money and allows for a swifter transition from the black market to the regulated market, for the greater good of Mendocino's people, economy, and environment.

This is a very complex issue, and stakeholders have been working directly with the Board of Supervisors for many months to find solutions. Regardless of your position on medical cannabis, we ask that this Council consider the issue from both sides before voting to endorse in any direction.

How does Measure AF impact the City of Ukiah? It doesn't impact Ukiah, or any city in the county. Cities have the jurisdictional control to regulate and permit cannabis businesses and Measure AF will not affect the people or neighborhoods of Ukiah.

How will Measure AF benefit Mendocino County?

Regulation protects the environment

- The biggest threat to the environment is an unregulated market. AF prohibits illegal diversion of water and permittees will be mandated by the State of CA to enroll in the North Coast Regional Water Quality Control Board's program to obtain a water discharge waiver before they can apply for a County permit. This waiver must be renewed annually, and it will be enforced by a joint task force of NCRWQCB, Fish & Wildlife, and local law enforcement. It also subjects violators to significant fines.
- Contrary to fears about loose regulation, cannabis cultivators will be subject to more stringent environmental standards than any other agricultural product.

Safer neighborhoods

- Today, reckless manufacturing takes place in our neighborhoods and in protected watersheds where unregulated operations create a fire & safety risk. Measure AF restricts these activities (such as solvent extraction) to industrial zones and introduces new, rigorous statewide operational & safety standards with local controls.
- AF makes Mendocino County's setbacks consistent with state law which prohibits cultivation and dispensaries within 600 feet of a school.
- AF creates workplace safety standards and restricts employment to individuals over 21 years of age.

Taxes will benefit the community

- The new state regulations specifically allow for cities to place taxes on cannabis processes and products, in addition to any the county imposes.
- We urge voters to support all ballot measures focused on regulating and taxing cannabis: Yes on AF, AI, & AJ to provide much needed County funds.

Increased enforcement

- By drawing a clearer line between legal and illegal operations, AF strengthens enforcement, and provides the Sheriff with the resources to focus on hard drugs, illegal grows, and violent crime. Bringing the industry out of the shadows is the single most important factor in increasing public safety in Mendocino County - by getting cannabis off the streets and into secured settings.
- State enforcement agents protect against environmental impacts by mandating permits and compliance inspections.

Protects local business

- Measure AF only allows permits to be issued to Mendocino County residents that have lived here for at least two years and requires majority ownership by locals to keep out a "green rush" of large corporate interests. These permitted businesses will be required to follow all the same rules as every other business in Mendocino County.
- Measure AF will stimulate economic activity and create many new jobs in our county.

We ask that this Council follow suit with the Cities of Fort Bragg and Willits and abstain from voting "No" on Measure AF, and let the County's voters decide at the November ballot.

Thank you for your consideration.

Sincerely,

Yes on AF - The Mendocino Heritage Initiative of 2016

Sarah Bodnar Jude Thilman Casey O'Neill Tom Rodrigues Tim Blake Justin Calvino

www.yesonAF.com | mendocinoheritageinitiative@gmail.com | (707) 200-8239



AGENDA SUMMARY REPORT

SUBJECT: APPROVE PLANS AND SPECIFICATIONS FOR NORTH STATE STREET INTERSECTION - LOW GAP ROAD / BRUSH STREET STORM DRAIN AND SIGNALIZATION IMPROVEMENTS, SPECIFICATION NO. 16-06 AND DIRECT STAFF TO ADVERTISE FOR BIDS

Summary: The City Council will consider approving the plans and specifications number 16-06 for the North State Street Intersection - Low Gap Road / Brush Street, Storm Drain and Signalization Improvements. City Council will also consider directing staff to advertise for bids for this project.

Background and Discussion: Per section §22039 of the Public Contracts Code, staff is requesting Council's approval of plans and specifications number 16-06 for the North State Street Intersection - Low Gap Road / Brush Street, Storm Drain and Signalization Improvements. The engineer's estimate, for construction contract items only, for this project is \$1,291,427. In addition, staff estimates costs in the amount of \$260,000 for construction management, inspection, and materials testing. These additional services will be advertised through a request for proposals.

The proposed project will construct the following: new storm drains and curb inlets, new ADA curb ramps at all four corners, widening and repaving of Brush Street from North State Street to just west of Mazzoni Street, a new retaining wall along Brush Street, new traffic signal facilities for signalized left turn lanes on all approaches, and new pavement in the intersection. Per City Council's direction, staff expanded the public notification process for this project. Please refer to Sections 6-24 and 13-29 of the specifications. Additionally, an option for night work was added to the specifications – see section 13-28. Lastly, a bid alternate for night work is included in the proposal section.

The plans and specifications for the project are available for City Council and public review at the Ukiah Civic Center Engineering Department, 300 Seminary Avenue, Ukiah, California. In addition, the plans and specifications are available for review as attachments #1 (specifications) and #2 (plans).

FISCAL IMPACT:							
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required			Previous Contract or Purchase Order No.	
N/A	STP d(1)	50924220.80230	Yes	☒	No	☐	N/A
N/A	Traffic Congestion Relief Fund	51024220.80230	Yes	☒	No	☐	N/A
N/A	Gas Tax Fund	50324220.80230	Yes	☒	No	☐	N/A

RECOMMENDED ACTION(S): Approve plans and specifications for the North State Street Intersection - Low Gap Road / Brush Street, Storm Drain and Signalization Improvements, Specification No. 16-06 and direct staff to advertise for bids.

ALTERNATIVES: N/A

Citizens advised: N/A
Requested by: Tim Eriksen, Director of Public Works / City Engineer
Contact/Prepared by: Rick Seanor, Deputy Director of Public Works
Coordinated with: Sage Sangiacomo, City Manager and Mary Horger, Purchasing Supervisor
Presenter: Tim Eriksen, Director of Public Works / City Engineer
Attachments: 1. specifications
2. plans

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: _____

Sage Sangiacomo, City Manager

CITY OF UKIAH

MENDOCINO COUNTY, CALIFORNIA

CONTRACT DOCUMENTS & SPECIAL PROVISIONS

FOR

**NORTH STATE STREET INTERSECTION – LOW GAP ROAD/BRUSH
STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS**

SPECIFICATION NO. 16-06

City of Ukiah
Department of Public Works
300 Seminary Avenue
Ukiah, California 95482-5400

**Bids Open: Tuesday, November 8, 2016
 2:00 p.m.
 Office of City Clerk**

CITY OF UKIAH

MENDOCINO COUNTY, CALIFORNIA

CITY COUNCIL:

STEVE SCALMANINI – MAYOR

JIM BROWN – VICE MAYOR

DOUGLAS CRANE – COUNCIL MEMBER

KEVIN DOBLE – COUNCIL MEMBER

MAUREEN MULHEREN – COUNCIL MEMBER

SAGE SANGIACOMO – CITY MANAGER

TIM ERIKSEN - DIRECTOR OF PUBLIC WORKS / CITY ENGINEER

MARY HORGER – PURCHASING SUPERVISOR

KRISTINE LAWLER – CITY CLERK

R. ALLEN CARTER – CITY TREASURER

Prepared By:

Approved By:

Thomas A. Hunt, P.E.
SHN Consulting Engineers & Geologists

Tim Eriksen, P.E.
Director of Public Works / City Engineer

CITY OF UKIAH
DEPARTMENT OF PUBLIC WORKS
October 2016

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Preliminary - Not for Bidding

CITY OF UKIAH, MENDOCINO COUNTY, CALIFORNIA
NOTICE TO BIDDERS FOR
NORTH STATE STREET/LOW GAP ROAD INTERSECTION AND STORM DRAIN
IMPROVEMENTS

SPECIFICATION NO. 16-06

NOTICE IS HEREBY GIVEN that sealed standard proposals for NORTH STATE STREET/LOW GAP ROAD INTERSECTION, STORM DRAIN AND SIGNALIZATION IMPROVEMENTS will be received at the Office of the City Clerk, Ukiah Civic Center, 300 Seminary Avenue, Ukiah California until 2:00 p.m. on Tuesday, November 8, 2016 at which time, or as soon thereafter as possible, they will be publicly opened and read. Bids shall be addressed to the City Clerk and shall be endorsed "NORTH STATE STREET/LOW GAP ROAD INTERSECTION AND STORM DRAIN IMPROVEMENTS." Bids are required for the entire work described herein. No fax bids will be accepted.

ENGINEER'S ESTIMATE OF QUANTITIES

North State Street Intersection – Low Gap Road/Brush Street, Storm Drain & Signalization Improvements

Bid Item No.	Approx. Quantity	Bid Item Description	Unit of Measurement
1	1	Mobilization/Demobilization	Lump Sum
2	1	Traffic Control	Lump Sum
3	1	Demolition and Removal of Existing Curb Returns, Sidewalk, Misc. Improvements.	Lump Sum
4	1	Clearing Grubbing of Vegetation	Lump Sum
5	1	Abandonment of Existing Storm Drain Piping	Lump Sum
6	1	Removal of Existing Storm Drain Structures	Lump Sum
7	63	NW Curb Return- Curb & Gutter	Lineal Feet
8	672	NW Curb Return - Sidewalk & ADA Ramp	Square Foot
9	47	NW Curb Return - Vertical Curb	Lineal Feet
10	46	NW Corner - Class 2 Aggregate Base	Cubic Yard
11	26	NW Corner - Asphalt Concrete	Ton
12	129	NE Curb Return- Curb & Gutter	Lineal Foot
13	711	NE Curb Return - Curb Return, ADA Ramp, & Sidewalk	Square Foot
14	175	NE Corner - Commercial Driveway	Square Foot
15	43	NE Corner - Class 2 Aggregate Base	Cubic Yard
16	24	NE Corner - Asphalt Concrete	Ton

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

17	63	SE Curb Return- Curb & Gutter	Lineal Foot
18	479	SE Curb Return - Sidewalk & ADA Ramp	Square Foot
19	58	SE Curb Return - Retaining Wall & Guardrail	Lineal Foot
20	58	SE Corner - Class 2 Aggregate Base	Cubic Yard
21	33	SE Corner - Asphalt Concrete	Ton
22	37	SW Curb Return-Curb & Gutter	Lineal Foot
23	190	SW Curb Return-ADA Ramp, Sidewalk	Square Foot
24	5	SW Corner - Class 2 Aggregate Base	Cubic Yard
25	3	SW Corner - Asphalt Concrete	Ton
26	1	Maintain temporary traffic signal operation during construction	Lump Sum
27	15	Storm Drain – 12 inch HDPE connect to existing Drain Inlet	Lineal Foot
28	27	Storm Drain - 18 inch HDPE	Lineal Foot
29	70	Storm Drain - 18 inch HDPE	Lineal Foot
30	300	Storm Drain - 24 inch HDPE (Sta 1+00 to 4+00)	Lineal Foot
31	190	Storm Drain - 24 inch HDPE (Sta 4+00 to 5+87)	Lineal Foot
32	1	Storm Drain Inlet #1 - Model 4A	Lump Sum
33	1	Storm Drain Junction Box #2 - Model JB2424	Lump Sum
34	1	Storm Drain Inlet #3 - Model 4A	Lump Sum
35	1	Storm Drain Inlet #4 - Model 4AC	Lump Sum
36	1	Storm Drain Inlet #5 - Model 4AC	Lump Sum
37	1	Storm Drain Inlet #6 - Model 4AC	Lump Sum
38	1	Storm Drain Junction Box #7 -Model JB3636	Lump Sum
39	1	Storm Drain Junction Box #8 -Model JB3636	Lump Sum
40	1	Storm Drain Junction Box #9 -Model JB3636	Lump Sum
41	1	Storm Drain Inlet #10 - Model JB1818 w/grate & 12 inch HDPE connection to existing Curb Inlet	Lump Sum
42	1	Removal of Existing Traffic Signal Boxes and abandon electric conduit as needed	Lump Sum

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

43	1	Install new Traffic Signal Pull Boxes per plan, adjust existing boxes to grade	Lump Sum
44	1	Install new Traffic Signal Electric Conduit	Lump Sum
45	1	Install new Traffic Signal Wiring and Signal Control Wiring per Specifications as needed	Lump Sum
46	1	Remove existing Traffic Signal poles per plan	Lump Sum
47	2	Install new Footing for Traffic Signal Pole w/ mast arm per detail	Each
48	4	Provide and install Footing and new Traffic Signal Pole w/o mast arm per plan with pedestrian signal heads	Each
49	1	Provide and install new Traffic Signal Pole w/ Mast Arm at the NE corner per plan	Each
50	1	Provide and install new Traffic Signal Pole w/ Mast Arm at the SE corner per plan with pedestrian signal head	Each
51	4	Provide and install new Traffic Signal Light modules (STANDARD) per plan	Each
52	8	Provide and install new Traffic Signal Light modules (LEFT TURN ARROW) per plan	Each
53	1	Provide new pedestrian cross walk button poles including footing	Lump Sum
54	1	Provide and Install Grid Smart Camera on Mast Arm & Control System in Existing Traffic Signal Cabinet	Lump Sum
55	1	Test new Traffic Signal System	Lump Sum
56	1	Construct Footing for Quest Mart Sign, relocate sign,& connect to existing electrical pull box	Lump Sum
57	1	Brush St. - South Side Frontage Excavation and Grading	Lump Sum
58	308	Brush St- Curb & Gutter	Lineal Foot
59	1,470	Brush St.- Sidewalk	Square Foot
60	250	Brush St.- Commercial Driveway (south side)	Square Foot
61	146	Brush St. - Retaining Wall	Lineal Foot
62	146	Brush St. – 6 foot Chain Link Fence on Retaining Wall	Lineal Foot
63	1	Brush St. - Pier Foundation for residence	Lump Sum
64	2	Brush St.- Sewer Lateral	Each
65	2	Brush St. - Water Service (City of Ukiah Tap)	Each
66	2	Brush St. - Gas Service (PG&E)	Each
67	14,540	Removal of Existing Structural Section of Brush Street and Prepare Subgrade	Square Foot
68	1,616	Provide and place Mirafi 600X Geotextile under new Structural Section (Brush Street)	Square Yard

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

69	539	Class 2 Aggregate Base (Brush Street)	Cubic Yard
70	455	5 inch Asphalt Concrete Pavement (Brush Street)	Ton
71	175	Install 6 inch AC Berm on North Side of Brush Street from end of sidewalk to drain inlet	Lineal Foot
72	3,600	Removal of Existing Shoulder Structural Section on North State Street and prepare Subgrade	Square Foot
73	19,440	Grind Existing Asphalt (North State Street)	Square Foot
74	400	Provide and place Mirafi 600X Geotextile under new Structural Section (North State Street)	Square Yard
75	200	Class 2 Aggregate Base (North State Street)	Cubic Yard
76	608	5 inch Asphalt Concrete Pavement (North State Street)	Ton
77	5,128	Grind Existing Asphalt (Low Gap Road)	Square Foot
78	96	2 inch/4 inch Asphalt Concrete Overlay (Low Gap Road)	Ton
79	1	Adjust Manhole Rims, Valves Boxes, and Utility Vaults to grade	Lump Sum
80	1	Provide and Install a new traffic rated Utility Vault Frame and Lid in existing Electrical Utility Vault in Brush Street	Lump Sum
81	650	Place Centerline Double Yellow Striping	Lineal Foot
82	440	Place Lane Buttons and Reflectors	Lineal Foot
83	295	Place White Left Turn Striping	Lineal Foot
84	1	Place Yellow Cross Walk Striping	Lump Sum
85	1	Place Miscellaneous Lane Arrow Striping	Lump Sum
86	1	Place White 12 inch STOP BAR	Lump Sum
87	2	Remove and Relocate Existing Street Sign poles	Each
88	1	Public Noticing of Traffic Control by Contractor	Lump Sum

Bid Alternate

1a	1	Additional Cost to perform all work during night hours	Lump Sum
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Plans and Special Provisions may be inspected and/or copies obtained **for a non refundable fee of \$115.00.** Plans and Special Provisions may also be download at no charge from the City's website at www.cityofukiah.com. Contact Mary Horger, Purchasing Supervisor, City of Ukiah, 300 Seminary Avenue, California 95482-5400. No bid will be considered unless it is made on the forms furnished by the City and is made in accordance with the details of the Special Provisions. Each bidder must be licensed as required by law. Further information regarding the work or these specifications can be obtained by calling Mary Horger at (707) 463-6233 or at fax phone (707) 313-3621.

The City Council reserves the right to reject any or all bids and to determine which proposal is, in its opinion, the lowest responsible bid of a responsible bidder and which it deems in the best interest of the City to accept. The City Council also reserves the right to waive any information not material to cost or performance in any proposal or bid.

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2016) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2014) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Pursuant to provisions of Section 1770, including amendments thereof, of the Labor Code of the State of California, the Director of the Department of Industrial Relations, State of California, has ascertained the general prevailing rate of wages for straight time, overtime Saturdays, Sundays and Holidays including employer payment for health and welfare, vacation, pension and similar purposes. Copies of the General Prevailing Wage Determination (applicable to the work), for the locality in which the work is to be done are available on the Internet at web address: <http://www.dir.ca.gov/DLSR/PWD/> The prime contractor for the work herein shall possess a current, valid State of California, Class A (General Engineering) Contractor's License. Pursuant to Section 4590 of the California Government Code, this contract includes provisions that allow substitutions of certain types of securities in lieu of the City withholding a portion of the partial payments due the Contractor to insure performance under this contract.

By order of the City Council, City of Ukiah, County of Mendocino, State of California.

Dated: _____
Kristine Lawler, City Clerk, City of Ukiah, California

PUBLISH TWO TIMES: October 9th and October 16th, 2016.

Preliminary - Not for Bidding

INSTRUCTIONS TO BIDDERS

North State Street/Low Gap Road Intersection and Storm Drain Improvements shall be performed in accordance with the Plans and Special Provisions therefor adopted, to which special reference is hereby made.

Each bidder must supply all the information required by the Bid Documents and Special Provisions.

Minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin in consideration for an award of any contract entered into pursuant to this advertisement. Women will be afforded equal opportunity in all areas of employment. However, the employment of women shall not diminish the standards of requirements for the employment of minorities.

All proposals or bids shall be accompanied by a cashier's check or certified check payable to the order of the City of Ukiah amounting to 10 percent of the bid, or by a bond in said amount and signed by the bidder and a corporate surety, payable to said City. Said check shall be forfeited, or said bond shall become payable to said City in case the bidder depositing the same does not, within fifteen (15) days after written notice that the contract has been awarded to him: (a) enter into a contract with the City and (b) furnish certificates of insurance and endorsements, a bond of faithful performance and a payment bond as described in the Special Provisions.

No bidder shall withdraw his or her bid for a period of thirty (30) calendar days after the date set by the City for the opening thereof.

The Contractor and any subcontractors shall each possess a valid City of Ukiah Business License prior to the start of any work.

The Contractor shall furnish a project schedule to the Engineer prior to the start of any work and start work as scheduled.

Phase 1 of this work is to be completed within forty (40) working days thereon work will be suspended until Spring and then Phase 2 work will proceed and is to be completed within thirty (35) working days. The Contractor will pay to the City the sum of five hundred (\$500.00) dollars per day for each and every calendar day's delay beyond the time prescribed.

The staff shall notify a bidder by telephone, email or fax, if it intends to recommend the rejection of the bidder's bid. Any bid protest must with the City Clerk not more than five calendar days following the bid opening, or 2 calendar days following notice that staff is recommending the rejection of a bid. If any such timely written protest is filed, all bidders shall be provided a copy of the protest within 2 calendar days of its receipt, which may be delivered to the bidders as an email attachment or by fax. All such bidders may file with the City Manager a written objection or other response to the protest.

All objections or responses filed not more than 5 days after receipt of the written protest will be presented to the City Council at its next regular meeting occurring not less than 12 calendar days following the bid opening. The City Council will resolve the bid protest at that meeting based on the written protest, any staff recommendation and all timely written objections and responses. In accordance with the Brown Act, any person may address the City Council on this item during the meeting. The City Council action on the protest shall represent a final decision by the City on the protest.

Examination of Site, Drawings, Etc.

Each bidder shall visit the site of the proposed work and fully acquaint himself with local conditions, construction and labor required so that he or she may fully understand the facilities, difficulties and restrictions attending the execution of the work under the Contract. Bidders shall thoroughly examine and be familiar with the Plans and Special Provisions. The failure of any bidder to receive or examine any form, instrument, addendum, or other document, or to visit the site and acquaint himself with conditions there existing, shall in no way relieve the bidder from any obligation with respect to his or her proposal or to the contract. The drawings for the work show conditions as they are supposed or believed by the Engineer to exist; but, it is neither intended nor shall it be inferred that the

conditions as shown thereon constitute a representation by the Engineer, the City or its officers that such conditions are actually existent, nor shall the City, the Engineer or any of their officers or representatives be liable for any loss sustained by the Contractor as a result of a variance between the conditions shown on the drawings and the conditions actually revealed during the progress of the work or otherwise.

The bidder's attention is directed to the possible existence of obstructions and public improvements within the limits of the work or adjacent thereto, which may or may not be shown on the Drawings.

The bidder shall investigate to his or her satisfaction the conditions to be encountered, the character, quality and quantities of work to be performed and materials to be furnished and the requirements of the Plans, Special Provisions, Standard Specifications, Standard Plans, and Contract Documents. The submission of a proposal shall be considered conclusive evidence that the bidder has made such examination and has accepted the project workplace as a safe workplace to perform the work of the Contract.

Bidder Inquiries and Questions

Inquires and questions must be submitted in writing via fax or email to the following designated contact person:

Mary Horger, Purchasing Supervisor

Fax: (707) 313-3621

Email: mhorger@cityofukiah.com

The City reserves the right to not respond to inquiries or questions submitted within 3 business days of the bid opening.

Location of the Work

All of the work to be performed in within the City of Ukiah. Project is located at the intersection of North State Street and Low Gap Road/Brush Street.

GENERAL CONDITIONS

SECTION 1. PROPOSAL REQUIREMENTS AND GENERAL CONDITIONS

1-01. Definitions. Whenever any word or expression defined in this section, or pronoun used in its stead, occurs in these contract documents, it shall have and is mutually understood to have the meaning given:

- a. "City of Ukiah" or "City" shall mean the City of Ukiah, Mendocino County, California, acting through its City Council or any other board, body, official or officials to which or to whom the power belonging to the Council shall by virtue of any act or acts, hereafter pass or be held to appertain.
- b. "Engineer" shall mean the Engineer duly and officially appointed by the City to supervise and direct the work of construction under this contract, acting personally or through agents or assistants duly authorized by him, such agents or assistants acting within the scope of the particular duties entrusted to them.
- c. "Inspector" shall mean the engineering or technical inspector or inspectors duly authorized or appointed by the Engineer, limited to the particular duties entrusted to him or her or them.
- d. "Contractor" shall mean the party entering into contract with the City of Ukiah for the performance of work covered by this contract and his or her authorized agents or legal representatives.
- e. "Date of signing of contract" or words equivalent thereto, shall mean the date upon which this contract, with the signature of the Contractor affixed, together with the prescribed bonds, shall be or shall have been delivered to the City or its duly authorized representatives.
- f. "Day" or "days", unless herein otherwise expressly defined, shall mean a calendar day or days of twenty-four hours each.
- g. "The work" shall mean and include all the work specified, indicated, shown or contemplated in the contract to construct the improvement, including all alterations, amendments or extensions thereto made by contract change order or other written orders of the Engineer.
- h. "Contract drawings", "drawings", "plans" shall mean and include 1) all drawings or plans which may have been prepared by or on behalf of the City, as a basis for proposals, when duly signed and made a part of this contract by incorporation or reference, 2) all drawings submitted in pursuance of the terms of this contract by the successful bidder with his or her proposal and by the Contractor to the City if and when approved by the Engineer and 3) all drawings submitted by the Engineer to the Contractor during the progress of the work as provided for herein.
- i. Where "as shown", "as indicated", "as detailed" or words of similar import are used, it shall be understood that reference to the drawings accompanying these Special Provisions is made unless stated otherwise.

Where "as directed", "as permitted", "approved" or words of similar import are used, it shall be understood that the direction, requirements, permission, approval or acceptance of the Engineer is intended unless stated otherwise.

As used herein, "provide" or "install" shall be understood to mean "provide or install complete in place", that is, "furnish and install". "Shall" is mandatory; "may" is permissive.

1-02. Examination of Plans, Special Provisions and Site of Work. The bidder shall examine carefully the Proposal, Plans, Special Provisions, Contract forms and the site of the work contemplated therefor. It will be assumed that the bidder has investigated to his or her satisfaction the conditions to be encountered and the character, quality and requirements of all Plans, Special Provisions, Standard Specifications, and Standard Plans involved.

1-03. Proposal. Bids shall be made on the blank form prepared by the City. All bids shall give the prices bid, both in writing and in figures and shall be signed by the bidder or his or her authorized representative, with his

or her address. If the bid is made by an individual or partner, his or her name and the post office address of his or her business or partnership, along with his or her signature or the signature of one or more partners must be shown; if made by a corporation, the bid shall show the name of the state under the laws of which the corporation is chartered, the name of the corporation and the title of the person who signs on behalf of the corporation.

Each proposal shall be enclosed in a sealed envelope, endorsed as specified in the notice to bidders. Bidders are warned against making erasures or alterations of any kind and proposals which contain omissions, erasures, conditions, alterations, additions not called for, additional proposals or irregularities of any kind may be rejected.

1-04. Withdrawal of Bids. Any bid may be withdrawn at any time prior to the hour fixed in the notice to bidders for the openings of bids, provided that a request in writing, executed by the bidder or his or her duly authorized representative, for the withdrawal of such bid is filed with the City. The withdrawal of a bid will not prejudice the right of a bidder to file a new bid.

1-05. Public Opening of Bids. Bids will be opened and read publicly at the time and place indicated in the notice to bidders. Bidders or their agents are invited to be present.

1-06. Bid Guaranty. Each bid must be accompanied by a certified check, cashier's check or bidder's bond executed by an admitted surety insurer, payable to the order of the City of Ukiah in an amount not less than 10 percent of the bid as a guarantee that the bidder will enter into a contract, if awarded the work.

1-07. Qualification of Bidders. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Each bidder shall be licensed under the provisions of Chapter 9, Division 3 of the Business and Professions Code and shall be skilled and regularly engaged in the general class or type of work called for under this contract. A statement setting forth this experience and business standing shall be submitted by each bidder on the form provided herewith. It is the intention of the City to award a contract only to a bidder who furnishes satisfactory evidence that he or she has the requisite experience and ability and that he or she has sufficient capital, facilities and equipment to enable him or her to prosecute the work successfully and promptly within the time and in the manner agreed.

In determining the degree of responsibility to be credited to a bidder, the City may weigh evidence that the bidder or his or her personnel charged with the responsibility in the work, has performed satisfactorily other contracts of like nature and magnitude or comparable difficulty at similar rates of progress.

1-08. Disqualification of Bidders. More than one bid from an individual business, partnership, corporation or association, under the same or different names, will not be considered. Reasonable grounds for believing that any bidder is financially interested in more than one bid for the work will cause the rejection of all bids in which he or she is so interested. If there is reason to believe that collusion exists among the bidders, none of the participants in such collusion will be considered. Bids in which the prices obviously are unbalanced may be rejected.

1-09. Identification of Subcontractors. All bids shall comply with the Subletting and Subcontracting Fair Practices Act (Government Code Section 4100 and following) and shall set forth:

(a) The name and the location of the place of business of each subcontractor who will perform work or labor, or render service to the prime contractor in or about the construction of the work, or to a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work according to detailed drawings contained in the plans and Special Provisions, in an amount in excess of one-half of 1 percent of the prime contractor's total bid.

(b) The portion of the work which will be done by each such subcontractor. The prime contractor shall list only one subcontractor for each such portion defined by the prime contractor in his or her bid.

1-10. General Provisions of the Standard Specifications. All provisions of the General Provisions, Sections 1 through 9, of the Standard Specifications, shall be applicable to the contract except as modified by these Special Provisions. The Standard Specifications are set forth in Section 12-05 of these Special Provisions.

SECTION 2. AWARD AND EXECUTION OF CONTRACT

2-01. Award of Contract. Award of the contract in accordance with Public Contract Code Section 20103.8 and other applicable law to the responsible bidder submitting a responsive bid with the lowest bid on the base bid contract without consideration of the prices for additive alternate or deductive items. The reserves the right to accept any portion of the bid, unless the bid package expressly provides that the award will be made as a whole. The award, if made, will be made within thirty (30) days after opening of the bids. The City reserves the right to reject any and all bids and to waive any irregularity in the proposal not pertaining to cost.

2-02. Return of Proposal Guaranties. All bid guaranties will be held until the contract has been fully executed, after which they will be returned upon request to the respective bidders whose bids they accompany.

2-03. Execution of Contract. The contract agreement shall be executed in duplicate by the successful bidder and returned, together with the contract bonds, insurance certificates and endorsements, within fifteen (15) days after written notice of the award of the contract. After execution by the City; one copy shall be filed with the City and one copy shall be returned to the Contractor. If the bidder fails or refuses to enter into the contract agreement within the required time, then the bid guaranty accompanying the bid shall be forfeited to the City.

SECTION 3. SCOPE AND INTENT OF CONTRACT

3-01. Effect of Inspection and Payments. Neither the inspection by the Engineer or an inspector, nor any order, measurement or approved modification, nor certificate or payment of money, nor acceptance of any part or whole of the work, nor any extension of time, nor any possession by the City or its agents, shall operate as a waiver of any provision of this contract or of any power reserved therein to the City, or of any right to damages thereunder; nor shall any breach of this contract be held to be a waiver of any subsequent breach. All remedies shall be construed as cumulative.

3-02. Effect of Extension of Time. The granting of any extension of time on account of delays which, in the judgment of the City, are avoidable delays shall in no way operate as a waiver on the part of the City of its rights under this contract.

3-03. Extra Work. If extra work orders are given in accordance with provisions of this contract, such work shall be considered a part hereof and shall be subject to each and all of its terms and requirements.

3-04. Assignment of Contract. The contract may be assigned or sublet in whole or in part only upon the written consent of the City acting through its authorized agents. Consent will not be given to any proposed assignment which would relieve the original contractor or its surety of their responsibilities under the contract nor will the Engineer consent to any assignment of a part of the work under the contract.

3-05. Subcontractors. The Contractor shall be as fully responsible for the acts and omissions of his or her subcontractors and of persons either directly or indirectly employed by them, as he or she is for the acts and omissions of persons directly employed by him.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the terms of this Contract which are applicable to the work of subcontractors.

Nothing contained in this contract shall be construed to create or shall be relied upon to create any contractual relationship between any subcontractor and the City and no action may be brought by any subcontractor against the City based on this contract.

3-06. Interpretation of Special Provisions and Drawings. The Special Provisions and the Contract Drawings are intended to be explanatory of each other. Any work indicated in the Contract Drawings and not in the Special Provisions, or vice versa, is to be executed as if indicated in both. In case of a discrepancy or conflict between the Technical Specifications and Contract Plans, the Technical Specifications shall govern. All work shown on the Contract Drawings, the dimensions of which are not figured, shall be accurately followed to the scale to which the drawings are made, but figured dimensions are in all cases to be followed, where given, though they differ from scaled measurements. Large scale drawings shall be followed in preference to small scale drawings. Should it appear that the work to be done, or any of the matters relative thereto, are not sufficiently detailed or explained in these contract documents, including the contract drawings, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform thereto as part of this contract, so far as may be consistent with the terms of this contract. In the event of any doubt or questions arising respecting the true meaning of the Special Provisions, reference shall be made to the Engineer and his or her decision thereon shall be final. If the Contractor believes that a clarification or interpretation justifies an increase in the contract price or contract time, the Contractor must comply with the written notice provisions of Sections 9-05 and 10-07 of these Special

Provisions. Contractor's attention is directed to Section 12-05 of the Technical Specifications regarding the Standard Specifications and Standard Plans.

3-07. Liability of City Officials. No city official, nor the Engineer, nor any authorized assistant of any of them, shall be personally responsible for any liability arising under this contract.

3-08. Dispute Resolution. Claims of \$375,000 or less by the Contractor that arise under this Contract are subject to the mandatory dispute resolutions provisions in Public Contract Code Sections 20104-20104.6.

SECTION 4. BONDS

4-01. Faithful Performance Bond. As a part of the execution of this contract, the Contractor shall furnish a bond of a surety company or other securities providing equivalent protection such as cash, letter of credit, or certificates of deposit, acceptable to the City, conditioned upon the faithful performance of all covenants and stipulations under this contract. The amount of the bond shall be 100 percent of the total contract price, as this sum is set forth in the agreement.

4-02. Material and Labor Bond. As a part of the execution of this contract, the Contractor shall furnish a bond of a surety company or other securities providing equivalent protection such as cash, letter of credit or certificates of deposit acceptable to the City in a sum not less than 50 percent of the total contract price, as this sum is set forth in the agreement for the payment in full of all persons, companies or corporations who perform labor upon or furnish materials to be used in the work under this contract, in accordance with the provisions of Sections 3247 through 3252 inclusive of the Civil Code of the State of California and any acts amendatory thereof.

4-03. Defective Material and Workmanship Bond. As a condition precedent to the completion of this contract, the Contractor shall furnish a bond of a surety company acceptable to the City in an amount not less than 5 percent (5%) of the final contract price, to hold good for a period of one (1) year after the completion and acceptance of the work, to protect the City against the results of defective materials, workmanship and equipment during that time. This bond shall be delivered to the City before the final payment under this contract will be made.

4-04. Notification of Surety Companies. The surety companies shall familiarize themselves with all of the conditions and provisions of this contract and they waive the right of special notification of any change or modification of this contract or of extension of time, or decreased or increased work, or of the cancellation of the contract, or of any other act or acts by the City or its authorized agents, under the terms of this contract; and failure to so notify the aforesaid surety companies of changes shall in no way relieve the surety companies of their obligation under this contract.

SECTION 5. INSURANCE REQUIREMENTS FOR CONTRACTORS

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his or her agents, representatives, employees or subcontractors.

5-01. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial Liability Coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).
3. Worker's Compensation insurance as required by the State of California and Employer's Liability Insurance.

5-02. Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and property damage including operations, products and completed operations. If Commercial Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: \$2,000,000 per accident for bodily injury and property damage.
3. Employer's Liability: \$1,000,000 per accident for bodily injury and property damage.

5-03. Deductibles and Self-insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

5-04. Other Insurance Provisions

The generalliability and automobileliability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, officials, employees and volunteers are to be covered as Additional Insured with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance, or as a separate owner's policy.
2. The workers' compensation policy is to be endorsed with a waiver of subrogation. The insurance company, in its endorsement, agrees to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses paid under the terms of this policy which arises from the work performed by the named insured for the City.
3. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees or volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.
5. Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of Civil Code.

5-05. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than the following:

A++ VII	A- VIII
A+ VII	B++ X
A VII	B+ X

5-06. Verification of Coverage. Contractor shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements shall be on forms provided by the City or on other than the City's forms, provided those endorsements or policies conform to the requirements. All certificates and endorsements are to be received within 15 days from written notice of contract award, and the work shall not commence until the certificates and endorsements have been approved by the City. The City reserves the right to require complete certified copies of all required insurance policies, including endorsements affecting the coverage required by these Special Provisions at any time.

5-07. Subcontractors. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

SECTION 6. RESPONSIBILITIES AND RIGHTS OF CONTRACTOR

6-01. Legal Address of Contractor. Both the address given in the proposal and the Contractor's office in the vicinity of the work are hereby designated as places to either of which drawings, samples, notices, letters or other articles or communications to the Contractor may be mailed or delivered. The delivery at either of these places of any such thing from the City or its agents to the Contractor shall be deemed sufficient service thereof upon the Contractor and the date of such service shall be the date of such delivery. The address named in the proposal may be changed at any time by notice in writing from the Contractor to the City. Nothing herein contained shall be deemed to preclude or render inoperative the service of any drawing, sample, notice, letter or other article or communication to or upon the Contractor personally.

6-02. Office of Contractor at Site. During the performance of this contract, the Contractor shall maintain a suitable office at the site of the work or another agreed upon location which shall be the headquarters of a representative authorized to receive drawings and any such thing given to the said representatives or delivered at the Contractor's office at the site of work in his or her absence shall be deemed to have been given to the Contractor.

6-03. Attention to Work. The Contractor shall give his or her personal attention to and shall supervise the work to the end that it shall be prosecuted faithfully and when he or she is not personally present on the work, he or she shall at all reasonable times be represented by a competent superintendent or foreman who shall receive and obey all instructions or orders given under this contract and who shall have full authority to execute the same and to supply materials, tools and labor without delay and who shall be the legal representative of the Contractor. The Contractor shall be liable for the faithful observance of any instructions delivered to him or her or to his or her authorized representative.

6-04. Liability of Contractor. The Contractor shall do all of the work and furnish all labor, materials, tools and appliances, except as otherwise herein expressly stipulated, necessary or proper for performing and completing the work herein required in the manner and within the time herein specified. The mention of any specific duty or liability imposed upon the Contractor shall not be construed as a limitation or restriction of any general liability or duty imposed upon the Contractor by this contract, said reference to any specific duty or liability being made herein merely for the purpose of explanation.

The right of general supervision by the City shall not make the Contractor an agent of the City and the liability of the Contractor for all damages to persons or to public or private property, arising from the Contractor's execution of the work, shall not be lessened because of such general supervision.

Until the completion and final acceptance by the City of all the work under and implied by this contract, the work shall be under the Contractor's responsible care and charge. The Contractor shall rebuild, repair, restore and make good all injuries, damages, re-erections and repairs, occasioned or rendered necessary by causes of any nature whatsoever, excepting only acts of God and none other, to all or any portions of the work, except as otherwise stipulated.

To the fullest extent permitted by law, Contractor shall indemnify and hold harmless the City and its officers, directors, agents and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees, costs of suit, expert witness fees and expenses and fees and costs of any necessary private investigators arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, other than the work itself, including the loss of use resulting therefrom and (2) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder, or by the negligence or omission of a party indemnified herein.

In any and all claims against the City or any of its agents or employees by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workers' or workmen's compensation acts, disability benefit acts, or other employee benefit acts. The obligation to indemnify shall extend to and include acts of the indemnified party which may be negligent or omissions which may cause negligence.

The City shall have the right to estimate the amount of such damage and to cause the City to pay the same

and the amount so paid for such damage shall be deducted from the money due the Contractor under this contract; or the whole or so much of the money due or to become due the Contractor under this contract as may be considered necessary by the City, shall be retained by the City until such suits or claims for damages shall have been settled or otherwise disposed of and satisfactory evidence to that effect furnished to the City.

6-05. Protection of Persons and Property. The Contractor shall furnish such watchman, guards, fences, warning signs, walks and lights as shall be necessary and shall take all other necessary precautions to prevent damage or injury to persons or property.

All property line fences and improvements in the vicinity of the work shall be protected by the Contractor and, if they are injured or destroyed, they and any other property injured by the Contractor, his or her employees or agents, shall be restored to a condition as good as when he or she entered upon the work.

6-06. Protection of City Against Patent Claims. All fees, royalties or claims for any patented invention, article or method that may be used upon or in any manner connected with the work under this contract shall be included in the price bid for the work and the Contractor and his or her sureties shall protect and hold the City, together with all of its officers, agents, servants and employees, harmless against any and all demands made for such fees or claims brought or made on account of this contract. The Contractor shall, if requested by the Engineer, furnish acceptable proof of a proper release from all such fees or classes.

Should the Contractor, his or her agents, servants or employees, or any of them be enjoined from furnishing or using any invention, article, material or appliance supplied or required to be supplied or used under this contract, the Contractor shall promptly substitute other articles, materials or appliance, in lieu thereof, of equal efficiency, quality, finish, suitability and market value and satisfactory in all respects to the Engineer. Or, in the event that the Engineer elects, in lieu of such substitution, to have supplied and to retain and use, any such invention, article, material or appliance, as may by this contract be required to be supplied, in that event the Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for the City, its officers, agents, servants and employees, or any of them, to use such invention, article, material or appliance without being disturbed or in any way interfered with by any proceeding in law or equity on account thereof. Should the Contractor neglect or refuse to make the substitution promptly, or to pay such royalties and secure such licenses as may be necessary, then in that event the Engineer shall have the right to make such substitution, or the City may pay such royalties and secure such licenses and charge the cost thereof against any money due to the Contractor from the City or recover the amount thereof from him or her and his or her sureties notwithstanding final payment under this contract may have been made.

6-07. Protection of Contractor's Work Property. The Contractor shall protect his or her work, supplies and materials from damage due to the nature of the work, the action of the elements, trespassers, or any cause whatsoever under his or her control, until the completion and acceptance of the work. Neither the City nor any of its agents assumes any responsibility for collecting indemnity from any person or persons causing damage to the work of the Contractor.

6-08. Regulations and Permits. The Contractor shall secure and pay for all permits, give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Plans and Special Provisions are at variance therewith, he or she shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in the contract for changes in the work. The contractor and any subcontractors shall each secure and maintain a valid City of Ukiah Business License. The City of Ukiah will issue a no fee encroachment permit to the Contractor allowing him or her to perform work within City right of way or within City property after the Contract Documents have been executed and insurance certificates and endorsements have been approved by the City.

6-09. Construction Utilities. The Contractor shall be responsible for providing for and in behalf of his or her work under this contract, all necessary utilities, such as special connection to water supply, telephones, power lines, fences, roads, watchmen, suitable storage places, etc.

6-10. Approval of Contractor's Plans. The approval by the Engineer of any drawing or any method of work proposed by the Contractor in accordance with paragraph 8-06 shall not relieve the Contractor of any of his or her responsibility for his or her errors therein and shall not be regarded as any assumption of risk or liability by the City or any officer or employee thereof and the Contractor shall have no claim under this contract on account of the failure or partial failure or inefficiency of any plan or method so approved. Such approval shall be considered to

mean merely that the Engineer has no objection to the Contractor's using, upon his or her own full responsibility the plan or method approved.

6-11. Suggestions to the Contractor. Any plan or method of work suggested by the Engineer to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and the Engineer and the City shall assume no responsibility thereof.

6-12. Termination of Unsatisfactory Subcontracts. Should any subcontractor fail to perform in a satisfactory manner the work undertaken by him, such subcontract shall be terminated immediately by the Contractor upon notice from the Engineer.

6-13. Preservation of Stakes and Marks. The Contractor shall preserve carefully bench marks, reference points and stakes and in case of destruction he or she shall replace his or her stakes, reference points and bench marks and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance. Contractor's attention is directed to Section 7-03 of these Special Provisions.

6-14. Assistance to Engineer. At the request of the Engineer the Contractor shall provide men from his or her force and tools, stakes and other materials to assist the Engineer temporarily in making measurements and surveys and in establishing temporary or permanent reference marks. Payment for such materials and assistance will be made as provided for under the caption "Extra Work," provided, however, that the cost of setting stakes and marks carelessly lost or destroyed by the Contractor's employees will be assessed to the Contractor.

6-15. Removal of Condemned Materials and Structures. The Contractor shall remove from the site of the work, without delay, all rejected and condemned materials or structures of any kind brought to or incorporated in the work and upon his or her failure to do so, or to make satisfactory progress in so doing, within forty-eight (48) hours after the service of a written notice from the Engineer, the condemned material or work may be removed by the City and the cost of such removal shall be taken out of the money that may be due or may become due the Contractor on account of or by virtue of this contract. No such rejected or condemned material shall again be offered for use by the Contractor under this Contract.

6-16. Proof of Compliance with Contract. In order that the Engineer may determine whether the Contractor has complied with the requirements of this contract, not readily enforceable through inspection and tests of the work and materials, the Contractor shall, at any time when requested, submit to the Engineer properly authenticated documents or other satisfactory proofs as to his or her compliance with such requirements.

6-17. Errors and Omissions. If the Contractor, in the course of the work, finds any errors or omissions in plans or in the layout as given by survey points and instruction, or if he or she finds any discrepancy between the plans and the physical conditions of the locality, he or she shall immediately inform the Engineer, in writing and the Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

6-18. Cooperation. The Contractor shall cooperate with all other contractors who may be performing work in behalf of the City and workmen who may be employed by the City on any work in the vicinity of the work to be done under this contract with the work of such contractors or workmen. he or she shall make good promptly, at his or her own expense, any injury or damage that may be sustained by other contractors or employees of the City at his or her hands. Any difference or conflict which may arise between the Contractor and other contractors, or between the contractor and workmen of the City in regard to their work shall be adjusted and determined by the Engineer. If the work of the Contractor is delayed because of any acts or omissions of any other contractor or of the City, the Contractor shall on that account have no claim against the City other than for an extension of time.

6-19. Right of Contractor to Stop Work. Under the following conditions the Contractor shall have the right, if he or she so desires, to stop the work and terminate the contract upon ten (10) days written notice to the Engineer and recover from the City payment for all work actually performed and for all satisfactory materials actually delivered to the site of the work for permanent incorporation therein, all as may be shown by the estimate of the Engineer.

- (1) If the work be stopped under an order of any court or other competent public authority for a period of time of three (3) months through no act or fault of the Contractor or of anyone employed by him.
- (2) If the Engineer fails to issue the monthly certificate for payment in accordance with the terms of

this contract.

- (3) If the City fails to pay the Contractor within sixty (60) days after it shall have become due, as provided by the terms of this contract, any sum certified by the Engineer or awarded by the City.

All provided that if such action to terminate the contract be not instituted by the Contractor within ten (10) days after the alleged existence of such condition and if written notice of such action be not at that time delivered to the City and the Engineer, then such right shall lapse until another occasion arises according to this section.

6-20. Hiring and Dismissal of Employees. The Contractor shall employ only such foremen, mechanics and laborers as are competent and skilled in their respective lines of work and whenever the Engineer shall notify the Contractor that any person on the work is, in his or her opinion, incompetent, unfaithful, intemperate or disorderly, or refuses to carry out the provisions of this contract, or uses threatening or abusive language to any person on the work representing the City, or is otherwise unsatisfactory, such person shall be discharged immediately from the work and shall not be re-employed upon it except with the consent of the Engineer.

6-21. Wage Rates.

1. Contractor shall pay all mechanics and laborers employed or working upon the site of the work unconditionally and without subsequent deductions or rebate on any account the full amounts due at the time of payment at wage rates not less than those contained in the applicable prevailing wage determination, regardless of any contractual relationship which may be alleged to exist between the Contractor and subcontractors and such laborers and mechanics.
2. Contractor shall comply with the California Labor Code Section 1775. In accordance with said Section 1775, Contractor shall forfeit as a penalty to the Owner, \$50.00 for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for such work or craft in which such workman is employed for any work done under the Contract by him or her or by any subcontractor under him or her in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each workman for each calendar day or portion thereof for which each workman was paid less than the stipulated prevailing wage rate shall be paid to each workman by the Contractor.
3. Pursuant to the provision of Section 1770 of the Labor Code of the State of California, Owner has ascertained the general prevailing rate of wages (which rate includes employer payments for health and welfare, vacation, pension and similar purposes) applicable to the work to be done, for straight time work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned. Copies of the General Prevailing Wage Determination are available on the Internet at web address: <http://www.dir.ca.gov/DLSR/PWD> The Contractor shall post the wage determination at the site of work in a prominent place where it can easily be seen by the workers.
4. City will not recognize any claim for additional compensation because the Contractor has paid any rate in excess of the prevailing wage rate obtained by the Contractor. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his or her bid and will not in any circumstances be considered as the basis for a claim against the City.
5. The Labor Commissioner through the Division of Labor Standards Enforcement (DLSE) may at any time require contractors and subcontractors to furnish electronic certified payroll records directly to DLSE. Commencing with contracts awarded or after April 1, 2015, all contractors and subcontractors must furnish electronic certified payroll records directly to the DLSE.
6. Travel and Subsistence Payments.

Contractor shall make travel and subsistence payments to each workman needed to execute the work in accordance with the requirements in Section 1773.8 of the Labor Code (Chapter 880, Statutes of 1968).

7. Apprentices.

Attention is directed to the provisions in Sections 1777.5 (Chapter 1411, Statutes of 1968) and 1777.6 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him. Contractor and any subcontractor under him or her shall comply with the requirements of said sections in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

6-22. Cleaning Up. The Contractor shall not allow the site of the work to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction period. The Engineer shall have the right to determine what is or is not waste material or rubbish and the place and manner of disposal.

On or before the completion of the work, the Contractor shall without charge therefor carefully clean out all pits, pipes, chambers or conduits and shall tear down and remove all temporary structures built by him or her and shall remove rubbish of all kind from any of the grounds which he or she has occupied and leave them in first class condition.

6-23. Guaranty. All work shall be guaranteed for a period of one year from the date of acceptance by the City. The Contractor shall promptly make all needed repairs arising out of defective materials, workmanship and equipment.

The City is hereby authorized to make such repairs if within ten days after the mailing of a notice in writing to the Contractor or his or her agent, the Contractor shall neglect to make or undertake with due diligence the aforesaid repairs, provided, however, that in case of an emergency where, in the opinion of the City delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor and the Contractor shall pay the costs thereof.

Pursuant to the provisions of Section 4-03 of these Special Provisions, the Contractor shall furnish a Defective Material and Workmanship Bond in an amount not less than 5 percent of the final contract price, which shall be effective for a period of one (1) year after the completion and acceptance of the work.

6-24. Public Notification. The contractor shall be responsible for all public notification regarding construction work within the subject intersection, including detours, lane and street closures, hours of operations, and notification of effected commercial businesses within 1000 feet of the construction. For any business impacted by construction, the contractor shall provide adequate sized on-site signage indicating that businesses are open during construction. The contractor shall prepare public noticing via the newspaper, radio announcements, notification of the emergency vehicle agencies, public transit, school buses, County of Mendocino offices, the high school, junior high school, and Frank Zeek elementary school that access off Low Gap Road will be effected by potential detours and street closures, with recommended alternate routes of travel. Through street access from Orchard Avenue to Brush Street will be restricted to businesses and residents only during construction closures. Location of Street Closures signage shall be positioned to give motorists the ability to use alternate routes prior to coming to a dead end road closed for construction. All proposed detours, closures and traffic control methods shall be submitted to the Engineer for approval prior noticing to the public. All public noticing shall be performed a minimum of one week prior to instituting traffic control, and lane or street closures. The tentative construction schedule shall be included in the public noticing, and the use of temporary traffic signalization of the intersection shall be noted. The contractor shall submit all public notice language to the City Engineer for approval prior to publication of notices. All road closures, detour routes, and traffic control including temporary lane closure plans shall be submitted by the Contractor to the City Engineer for approval prior to public noticing and use.

SECTION 7. RESPONSIBILITIES AND RIGHTS OF CITY

7-01. Authority of the Engineer. All work done under this contract shall be done in a workmanlike manner and shall be performed to the reasonable satisfaction of the Engineer, who shall have general supervision of all work included hereunder. To prevent disputes and litigation, the Engineer (1) shall in all cases determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this contract, (2) shall decide all questions relative to the true construction, meaning and intent of the Special Provisions and Drawings, (3) shall decide all questions which may arise relative to the classifications and measurements of quantities and materials and the fulfillment of this contract and (4) shall have the power to reject or condemn all work or material which does not conform to the terms of this contract. his or her estimate and decision in all matters shall be a condition precedent to an appeal for arbitration, or the right of the Contractor to receive, demand, or claim any money or other compensation under this agreement and a condition precedent to any liability on the part of the City to the Contractor on account of this contract. Whenever the Engineer shall be unable to act, in consequence of absence or other cause, then such engineer as the Engineer or the City shall designate, shall perform any and all of the duties and be vested with any or all of the powers herein given to the Engineer.

7-02. Inspection. The City will provide engineering personnel for the inspection of the work.

The Engineer and his or her representatives shall at all times have access to the work whenever it is in preparation or progress and the Contractor shall provide proper facilities for such access and inspection.

If the Special Provisions, the Engineer's instruction, laws, ordinances, or any public authority requires any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by an authority other than the Engineer, of the date fixed for such inspection. Inspections by the Engineer shall be promptly made at the source of supply where practicable. If any work shall be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Engineer and, if so ordered, the work must be uncovered by the Contractor. If such work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If such work is not in accordance with the contract documents, the Contractor shall pay such cost.

Properly authorized and accredited inspectors shall be considered to be the representatives of the City limited to the duties and powers entrusted to them. It will be their duty to inspect materials and workmanship of those portions of the work to which they are assigned, either individually or collectively, under instructions of the Engineer and to report any and all deviations from the Drawings, Special Provisions and other contract provisions which may come to their notice. Any inspector may be considered to have the right to order the work entrusted to his or her supervision stopped, if in his or her opinion such action becomes necessary, until the Engineer is notified and has determined and ordered that the work may proceed in due fulfillment of all contract requirements.

7-03. Surveys. Contractor shall furnish all land surveys, establish all base lines and bench marks and make sufficient detailed surveys needed for working points, lines and elevations. The Contractor shall develop all slope stakes and batter boards. Contractor shall also develop all additional working points, lines and elevations as he or she may desire to facilitate his or her methods and sequence of construction.

7-04. Rights-of-Way. The City will provide all necessary rights-of-way and easements in or beneath which work will be performed by the Contractor under this contract.

7-05. Retention of Imperfect Work. If any portion of the work done or material furnished under this contract shall prove defective and not in accordance with the Plans and Special Provisions, and if the imperfection in the same shall not be of sufficient magnitude or importance to make the work dangerous or undesirable, the Engineer shall have the right and authority to retain such work instead of requiring the imperfect work to be removed and reconstructed, but he or she shall make such deductions therefor in the payments due or to become due the Contractor as may be just and reasonable.

7-06. Changes in the Work. The Engineer shall have the right, in writing, to order additions to, omissions from, or corrections, alterations and modifications in the line, grade, form, dimensions, plan, or kind or amount of work or materials herein contemplated, or any part thereof, either before or after the beginning of construction. However, the arithmetical sum of the cost to the City of additions and subtractions from the work under this

contract shall not exceed 10 percent of original contract amount or \$25,000, whichever is the lesser, unless based upon a supplementary agreement to be made therefore.

The order of such additions, omissions, corrections, alterations and modifications shall be in writing and signed by the Engineer and, in order, shall then be binding upon the Contractor. The Contractor shall proceed with the work as changed and the value of such change shall be determined as provided for in section 10-07 of these Special Provisions.

Such alterations shall in no way affect, vitiate, or make void this contract or any part thereof, except that which is necessarily affected by such alterations and is clearly the evident intention of the parties to this contract.

7-07. Additional Drawings by City. The drawings made a part of this contract at the time of its execution are intended to be fairly comprehensive and to indicate in more or less detail the scope of the work. In addition to these drawings, however, the Engineer shall furnish such additional drawings from time to time during the progress of the work as are necessary to make clear or to define in greater detail the intent of the Special Provisions and the contract drawings and the Contractor shall make his or her work conform to all such drawings.

7-08. Additional and Emergency Protection. Whenever, in the opinion of the Engineer, the Contractor has not taken sufficient precautions for the safety of the public or the protection of the works to be constructed under this contract, or of adjacent structures or property which may be injured by the processes of construction on account of such neglect and whenever, in the opinion of the Engineer, an emergency shall arise and immediate action shall be considered necessary in order to protect public or private, personal or property interest, then and in that event, the Engineer, with or without notice to the Contractor may provide suitable protection to the said interests by causing such work to be done and such material to be furnished as shall provide such protection as the Engineer may consider necessary and adequate.

The cost and expense of such work and material so furnished shall be borne by the Contractor and, if the same shall not be paid on presentation of the bills therefor, then such costs shall be deducted from any amounts due or to become due the Contractor.

The performance of such emergency work under the direction of the Engineer shall in no way relieve the Contractor from any damages which may occur during or after such precaution has been taken by the Engineer.

7-09. Suspension of Work. The City may at any time suspend the work or any part thereof by giving five (5) days written notice to the Contractor. The work shall be resumed by the Contractor within ten (10) days after the date fixed in the written notice from the City to the Contractor so to do. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this contract as a result of such suspension.

If the work, or any part thereof, shall be stopped by the notice in writing aforesaid and if the City does not give notice in writing to the Contractor to resume work at a date within ten (10) days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work so suspended and he or she will be entitled to the estimates and payments for all work done on the portions so abandoned, if any, plus 5 percent of the value of the work so abandoned, to compensate for loss of overhead, plant expense and anticipated profit.

7-10. Right of City to Terminate Contract. If the Contractor should be adjudged a bankrupt, or if he or she should make a general assignment for the benefit of his or her creditors, or if a receiver should be appointed on account of his or her insolvency, or if he or she should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply sufficient properly skilled workmen or proper materials, or if he or she should fail to make prompt payments to subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Engineer, or otherwise be guilty of a substantial violation of any provision of the contract, then the City, upon the certificate of the Engineer that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor seven days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances and finish the work by whatever method the City may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the City. The expense incurred by the City as herein provided and the damage incurred through the Contractor's default, shall be certified by the Engineer.

7-11. Use of Completed Portions. The City shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work or such portions which may not have expired; but such taking possession and using shall not be deemed an acceptance of any work not completed in accordance with the contract documents. If such prior use increases the cost of or delays the work, the Contractor shall be entitled to such extra compensation, or extension of time or both, as the Engineer may determine.

SECTION 8. WORKMANSHIP, MATERIALS and EQUIPMENT

8-01. General Quality. Materials and equipment shall be new and of a quality equal to that specified or approved. Work shall be done and completed in a thorough and workmanlike manner.

8-02. Quality in Absence of Detailed Specifications. Whenever under this contract it is provided that the Contractor shall furnish materials or manufactured articles or shall do work for which no detailed specifications are set forth, the materials or manufactured articles shall be of the best grade in quality and workmanship obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards for first-class materials or articles of the kind required, with due consideration of the use to which they are to be put. In general, the work performed shall be in full conformity and harmony with the intent to secure the best standard of construction and equipment of the work as a whole or in part.

8-03. Materials and Equipment Specified by Name. Whenever any material or equipment is indicated or specified by patent or proprietary name or by the name of the manufacturer, such specification shall be considered as used for the purpose of describing the material or equipment desired and shall be considered as followed by the words "or approved equal". The Contractor may offer any material or equipment which shall be equal in every respect to that specified, provided that written approval first is obtained from the Engineer.

8-04. Source of Materials. Price, fitness and quality being equal, preference shall be given by the Contractor for supplies grown, manufactured or produced in the State of California and, next, for such products partially produced in this State in accordance with Government Code Section 4332.

8-05. Storage of Materials. Materials shall be so stored to ensure the preservation of their quality and fitness for the work. They shall be so located and disposed that prompt and proper inspection thereof may be made.

8-06. Drawings, Samples and Tests. As soon as possible after execution of the contract, the Contractor shall submit to the Engineer, in quintuplicate, sufficient information including, if necessary, assembly and detail drawings to demonstrate fully that the equipment and materials to be furnished comply with the provisions and intent of these Special Provisions and Drawings. If the information thus submitted indicates the equipment or materials is acceptable, the Engineer will return one copy stamped with his or her approval; otherwise, one copy will be returned with an explanation of why the equipment or material is unsatisfactory. The Contractor shall have no claims for damages or for extension of time on account of any delay due to the revision of drawings or rejection of material. Fabrication or other work performed in advance of approval shall be done entirely at the Contractor's risk. After approval of equipment or material, the Contractor shall not deviate in any way from the design and specifications given without the written consent of the Engineer.

When requested by the Engineer, a sample or test specimens of the materials to be used or offered for use in connection with the work shall be prepared at the expense of the Contractor and furnished by him or her in such quantities and sizes as may be required for proper examination and tests, with all freight charges prepaid and with information as to their sources.

All samples shall be submitted before shipment and in ample time to permit the making of proper tests, analyses, or examination before the time at which it is desired to incorporate the material into the work. All tests of materials furnished by the Contractor shall be made by the Engineer. Samples shall be secured and tested whenever necessary to determine the quality of the material.

SECTION 9. PROSECUTION OF WORK

9-01. Equipment and Methods. The work under this contract shall be prosecuted with all materials, tools, machinery, apparatus and labor and by such methods as are necessary to the complete execution of everything described, shown, or reasonably implied. If at any time before the beginning or during the progress of the work, any part of the Contractor's plant or equipment, or any of his or her methods of execution of the work, appear to the Engineer to be unsafe, inefficient, or inadequate to insure the required quality or the rate of progress of the work, he or she may order the Contractor to increase or improve his or her facilities or methods and the Contractor shall comply promptly with such orders; but, neither compliance with such orders nor failure of the Engineer to issue such orders shall relieve the Contractor from his or her obligation to secure the degree of safety, the quality of the work and the rate of progress required of the Contractor. The Contractor alone shall be responsible for the safety, adequacy and efficiency of his or her plant, equipment and methods.

9-02. Time of Completion. The Contractor shall promptly begin the work under this contract and shall complete and make ready for full use all portions of the project made the subject of this contract within the time set forth in the agreement bound herewith.

9-03. Avoidable Delays. Avoidable delays in the prosecution or completion of the work shall include all delays which might have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor. The City will consider as avoidable delays within the meaning of this contract (1) delays in the prosecution of parts of the work, which may in themselves be unavoidable, but do not necessarily prevent or delay the prosecution of other parts of the work nor the completion of the whole work within the time herein specified, (2) reasonable loss of time resulting from the necessity of submitting plans to the Engineer for approval and from the making of surveys, measurements, inspections, and testing and (3) such interruptions as may occur in the prosecution of the work on account of the reasonable interference of other contractors employed by the City which do not necessarily prevent the completion of the whole work within the time herein specified.

9-04. Unavoidable Delays. Unavoidable delays in the prosecution or completion of the work under this contract shall include all delays which may result, through cause beyond the control of the Contractor and which he or she could not have provided against by the exercise of care, prudence, foresight and diligence. Orders issued by the City changing the amount of work to be done, the quantity of material to be furnished or the manner in which the work is to be prosecuted and unforeseen delays in the completion of the work of other contractors under contract with the City will be considered unavoidable delays, so far as they necessarily interfere with the Contractor's completion of the whole of the work. Delays due to normally adverse weather conditions will not be regarded as unavoidable delays. However, truly abnormal amounts of rainfall, temperatures or other weather conditions for the location of the work and time of year may be considered as unavoidable delays if those conditions necessarily cause a delay in the completion of the work.

9-05. Notice of Delays. Whenever the Contractor foresees any delay in the prosecution of the work and, in any event, immediately upon the occurrence of any delay which the contractor regards as an unavoidable delay, he or she shall notify the Engineer in writing of the probability of the occurrence of such delay and its cause, in order that the Engineer may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, or, if this cannot be done, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues and to what extent the prosecution and completion of the work are to be delayed thereby.

9-06. Extension of Time. Should any delays occur which the Engineer may consider unavoidable, as herein defined, the Contractor shall, pursuant to his or her application, be allowed an extension of time proportional to said delay or delays, beyond the time herein set forth, in which to complete this contract; and liquidated damages for delay shall not be charged against the Contractor by the City during an extension of time granted because of unavoidable delay or delays.

Any claim by Contractor for a time extension based on unavoidable delays shall be based on written notice delivered to the Engineer within 15 days of the occurrence of the event giving rise to the claim. Failure to file said written notice within the time specified shall constitute a waiver of said claim. Notice of the full extent of the claim and all supporting data must be delivered to the Engineer within 45 days of the occurrence unless the Engineer specifies in writing a longer period. All claims for a time extension must be approved by the Engineer and incorporated into a written change order.

9-07. Unfavorable Weather and Other Conditions. During unfavorable weather and other conditions, the Contractor shall pursue only such portions of the work as shall not be damaged thereby. No portions of the work

whose satisfactory quality or efficiency will be affected by any unfavorable conditions shall be constructed while these conditions remain, unless, by special means or precautions approved by the Engineer, the Contractor shall be able to overcome them.

The Contractor shall be granted a time extension of one day for each unfavorable weather day which prevents him or her from placing concrete forms or placing and finishing concrete or asphalt concrete. Such unfavorable weather day is defined as a rain day where precipitation prevents the contractor from performing the work more than four (4) continuous hours within the authorized work period or a temperature day where the ambient temperature is below that specified for the placement of materials associated with the controlling work item for more than four (4) continuous work hours of the authorized work period.

9-08. Saturday, Sunday, Holiday and Night Work. No work shall be done between the hours of 6 p.m. and 7 a.m., nor on Saturdays, Sundays or legal holidays except such work as is necessary for the proper care and protection of work already performed, or except in cases of absolute necessity and in any case only with the permission of the Engineer.

It is understood, however, that night work may be directed as a regular procedure by the Engineer as established in the bidding process and the special provisions. Night work may be revoked at any time by the Engineer if the Contractor fails to maintain at night adequate force and equipment for reasonable prosecution and to justify inspection of the work. The hours of night work shall start after 8:00 pm and stop before 6:00am.

9-09. Hours of Labor. Eight (8) hours of labor shall constitute a legal day's work and the Contractor or any subcontractor shall not require or permit more than eight hours of labor in a day from any person employed by him or her in the performance of the work under this contract, unless paying compensation for all hours worked in excess of eight (8) hours per day at not less than 1½ times the basic rate of pay. The Contractor shall forfeit to the City, as a penalty, the sum of twenty-five dollars (\$25.00) for each workman employed in the execution of the contract by him or her or by any subcontractor, for each calendar day during which such laborer, workman, or mechanic is required or permitted to labor more than eight hours in violation of the provisions of Section 1810 to 1816, inclusive, (Article 3, Chapter 1, Part 7, Division 2) of the Labor Code of the State of California and any acts amendatory thereof.

SECTION 10. PAYMENT

10-01. Certification by Engineer. All payments under this contract shall be made upon the presentation of certificates in writing from the Engineer and shall show that the work covered by the payments has been done and the payments thereof are due in accordance with this contract.

10-02. Progress Estimates and Payment. The Engineer shall, within the first seven (7) days of each month, make an estimate of the value of the work performed in accordance with this contract during the previous calendar month.

The first estimate shall be of the value of the work satisfactorily completed in place and meeting the requirements of the contract. And every subsequent estimate, except the final estimate, shall be of the value of the work satisfactorily completed in place since the last preceding estimate was made; provided, however, that should the Contractor fail to adhere to the program of completion fixed in this contract, the Engineer shall deduct from the next and all subsequent estimates the full calculated accruing amount of the liquidated damages to the date of said estimate, until such time as the compliance with the program has been restored.

The estimate shall be signed by the Engineer and, after approval, the City shall pay or cause to be paid to the Contractor in the manner provided by law, an amount equal to 95 percent of the estimated value of the work satisfactorily performed and complete in place.

10-03. Substitution of Securities.

1. At such times that Government Code Section 4590 is in effect Contractor may propose the substitution of securities of at least equal market value for any moneys to be withheld to ensure performance under the Contract. Market value shall be determined as of the day prior to the date such substitution is to take place. Such substitution shall be made at the request and expense of the Contractor. The securities shall be one or more of the following types:

- (a) Bonds or interest-bearing notes or obligations of the United States, or those for which the faith and credit of the United States are pledged for the payment of principal and interest.
- (b) Bonds or interest-bearing notes on obligations that are guaranteed as to principal and interest by a federal agency of the United States.
- (c) Bonds of the State of California, or those for which the faith and credit of the State of California are pledged for the payment of principal and interest.
- (d) Bonds or warrants, including, but not limited to, revenue warrants, of any county, city, metropolitan water district, California water district, California water storage district, irrigation district in the State of California, municipal utility district, or school district of the State of California, which are rated by Moody's or Standard and Poor as A or better.
- (e) Bonds, consolidated bonds, collateral trust debentures, consolidated debentures, or other obligations issued by federal land banks or federal intermediate credit banks established under the Federal Farm Loan Act, as amended; debentures and consolidated debentures issued by the Central Bank for Cooperatives and banks for cooperatives established under the Farm Credit Act of 1933, as amended; bonds, or debentures of the Federal Home Loan Bank Board established under the Federal Home Loan Bank Act; and stock, bonds, debentures and other obligations of the Federal National Mortgage Association established under the National Housing Act as amended and bonds of any Federal Home Loan Mortgage Corporation.
- (f) Commercial paper of "prime" quality as defined by a nationally recognized organization which rates such securities. Eligible paper is further limited to issuing corporations: (1) organized and operating within the United States; (2) having total assets in excess of five hundred million dollars (\$500,000,000); and (3) approved by the Pooled Money Investment Board of the State of California. Purchases of eligible commercial paper may not exceed 180 days' maturity, nor represent more than 10 percent of the outstanding paper of an issuing corporation.
- (g) Bills of exchange or time drafts on and accepted by a commercial bank, otherwise known as bankers acceptances, which are eligible for purchase by the Federal Reserve System.

- (h) Certificates of deposits issued by a nationally or state-chartered bank or savings and loan association.
- (i) The portion of bank loans and obligations guaranteed by the United States Small Business Administration or the United States Farmers Home Administration.
- (j) Student loan notes insured under the Guaranteed Student Loan Program established pursuant to the Higher Education Act of 1965, as amended (20 U.S.C. 1001, et seq.) and eligible for resale to the Student Loan Marketing Association established pursuant to Section 133 of the Education Amendments of 1972, as amended (20 U.S.C. 1087-2).
- (k) Obligations issued, assumed or guaranteed by International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, or the Government Development Bank of Puerto Rico.
- (l) Bonds, debentures and notes issued by corporations organized and operating within the United States. Such securities eligible for substitution shall be within the top three ratings of a nationally recognized rating service.

2. The securities shall be deposited with City or with any commercial bank as escrow agent, who shall arrange for transfer of such securities to the Contractor upon satisfactory completion of the contract. Any interest accrued or paid on such securities shall belong to the Contractor and shall be paid upon satisfactory completion of the contract.

The market value of the securities deposited shall at all times be maintained in an amount at least equal, in the sole judgment of City, to the moneys to be withheld pursuant to the Contract Documents to ensure performance of the Contract. In order to comply with this condition, Contractor shall deposit additional securities as necessary upon request by City or the escrow agent.

3. Upon acceptance of any Proposal that includes substituting securities for amounts withheld to ensure performance, a separate escrow agreement satisfactory in form and substance to City shall be prepared and executed by City, the Contractor and the escrow agent, which may be City. The escrow agreement shall specify, among other matters, value of securities to be deposited; procedures for valuing the securities and for adding or withdrawing securities to maintain the market value of the deposited securities at least equal to the amount of moneys which would otherwise be withheld; the terms and conditions of conversion to cash in case of the default by the Contractor; and terms, conditions and procedure for termination of the escrow. City shall have no obligation to enter any such Agreement that does not provide the City with the unilateral right to convert securities to cash and to gain immediate possession of the cash.

10-04. Acceptance. The work must be accepted by vote of the City Council of the City of Ukiah when the whole shall have been completed satisfactorily. The Contractor shall notify the Engineer, in writing, of the completion of the work, whereupon the Engineer shall promptly, by personal inspection, satisfy himself as to the actual completion of the work in accordance with the terms of the contract and shall thereupon recommend acceptance by the City Council.

10-05. Final Estimate and Payment. The Engineer shall, as soon as practicable after the final acceptance of the work done under this contract, make a final estimate of the amount of work done thereunder and the value thereof. Such final estimate shall be signed by the Engineer, and after approval, the City shall pay or cause to be paid to the Contractor, in the manner provided by law, the entire sum so found to be due hereunder, after deducting therefrom all previous payments and such other lawful amounts as the terms of this contract prescribe.

In no case will final payment be made in less than thirty-five (35) days after the filing of the notice of completion with the County Recorder.

10-06. Delay Payments. Should any payment due the Contractor or any estimate be delayed, through fault of the City beyond the time stipulated, such delay shall not constitute a breach of contract or be the basis for a claim for damages, but the City shall pay the Contractor interest on the amount of the payment at the rate of 6 percent per annum for the period of such delay. The terms for which interest will be paid shall be reckoned, in the case of any monthly or progress payment, from the twentieth day of the month next succeeding the month in which the work was performed to the date of payment of the estimate; and in the case of the final estimate, from the forty-fifth day

after acceptance to the date of payment of the final estimate.

The date of payment of any estimate shall be considered the day on which the payment is offered or mailed as evidenced by the records of the Treasurer of the City. If interest shall become due on any delayed payment, the amount thereof, as determined by the City, shall be added to a succeeding payment. If the interest shall become due on the final payment, it shall be paid on a supplementary voucher to interest or any sum or sums which, by the terms of this contract, the City is authorized to reserve or retain.

10-07. Extra Work and Work Omitted. Whenever corrections, alterations, or modifications of the work under this contract ordered by the Engineer and approved by the City increase the amount of work to be done, such added work shall be known as "extra work"; and when such corrections, alterations, or modifications decrease the amount of work to be done, such subtracted work shall be known as "work omitted".

When the Contractor considers that any changes ordered involve extra work, he or she shall immediately notify the Engineer in writing and subsequently keep him or her informed as to when and where extra work is to be performed and shall make claim for compensation therefor each month not later than the first day of the month following that in which the work claimed to be extra work was performed and he or she shall submit a daily complete statement of materials and labor used and expenses incurred on account of extra work performed, showing allocation of all materials, labor and expenses.

All such claims shall state the date of the Engineer's written order and the date of approval by the City authorizing the work on account of which claim is made. Unless such notification is made in writing within the time specified and unless complete statements of materials used and expenses incurred on account of such extra work are furnished as above required, the Contractor shall not be entitled to payment on account of extra work and Contractor shall be deemed to have waived the right to make any future claims for compensation for such extra work.

When changes decrease the amount of work to be done, they shall not constitute a claim for damages on account of anticipated profits on the work that may be omitted.

10-08. Compensation for Extra Work or Work Omitted. Whenever corrections, additions, or modifications in the work under this contract change the amount of work to be done or the amount of compensation due the Contractor, excepting increases or decreases in contract items having unit contract prices for each measurable quantity installed in place, and such changes have been ordered in writing by the Engineer and approved by the City prior to the Contractor performing the extra work, then a price may be agreed upon. Failing such an agreement in price, the Contractor shall be compensated for performing extra work pursuant to the provisions of Section 4-1.03 D, "Extra Work", and Section 9-1.03, "Force Account Payment" of the Standard Specifications.

This method of determining the price of work shall not apply to the performance of any work which is required or reasonably implied to be performed or furnished under this contract.

10-09. Compensation to the City for Extension of Time. In case the work called for under this contract is not completed within the time limit stipulated herein, the City shall have the right as provided hereinabove, to extend the time of completion thereof. If the time limit be so extended, the City shall have the right to charge to the Contractor and to deduct from the final payment for the work the actual cost to the City of engineering, inspection, superintendence and other overhead expenses which are directly chargeable to the contract and which accrue during the period of such extension, except that the cost of final unavoidable delays shall not be included in such charges.

10-10. Liquidated Damages for Delay. It is agreed by the parties to the contract that time is of the essence and that, in case all the work is not completed before or upon the expiration of the time limit as set forth, damage, other than those cost items identified in section 10-09, will be sustained by the City and that it is and will be impracticable to determine the actual amount of damage by reason of such delay; and it is therefore agreed that the Contractor will pay to the City the sum of five hundred dollars (\$500.00) per day for each and every calendar day's delay beyond the time prescribed.

SECTION 11. MISCELLANEOUS

11-01. Notice. Whenever any provision of the contract documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice. If mailed, the notice shall be deemed received on the date of delivery stated in the return receipt.

11-02. Computation of Time. When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

11-03. Litigation and Forum Selection. Contractor and City stipulate and agree that any litigation relating to the enforcement or interpretation of this contract, arising out of Contractor's performance or relating in any way to the work shall be brought in Mendocino County and that venue will lie in Mendocino County.

The parties waive any objections they might otherwise have to the propriety of jurisdiction or venue in the state courts in Mendocino County and agree that California law shall govern any such litigation.

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the City thereunder, shall be in addition to and shall not be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by law or contract, by special warranty or guaranty, or by other provisions of the contract documents and the provisions of this paragraph shall be as effective as if repeated specifically in the contract documents in connection with each particular duty, obligation, right and remedy to which they apply. All warranties and guaranties made in the contract document shall survive final payment and termination or completion of this contract.

11-04. Waiver. The Contractor shall strictly comply with all notices and other contract requirements. Waiver by the City of any failure of the Contractor to comply with any term of the contract, including the notice provisions, shall not be deemed a waiver of a subsequent breach.

TECHNICAL SPECIFICATIONS

SECTION 12. GENERAL INFORMATION

12-01. Arrangement of Technical Specifications. The Technical Specifications are arranged in sections covering the various phases of work as follows:

Section No.	Title
12	General Information
13	Special Provisions
14	Exclusions from General Conditions
15	Amendments to General Conditions

12-02. Arrangement of Plans. The Plans consist of twenty five (25) sheets numbered 1 through 25 and they are hereby made a part of the Contract Documents.

12-03. Business Licenses. The Contractor and any subcontractors shall each secure and maintain a valid City of Ukiah Business License prior to the start of any portion of the work.

12-04. Permits. The Contractor shall obtain and pay for all permits required to complete this work except the required encroachment permit. The Contractor shall obtain an encroachment permit from the Public Works Department at no cost prior to the start of the Work. The encroachment permit will not be issued until the Contract Agreement and bonds have been executed, submitted, and accepted by the City and all insurance endorsements have been submitted to and accepted by the City's Risk Manager.

12-05. Standard Specifications and Standard Plans. The Standard Specifications and Standard Plans of the California State Department of Transportation, 2015 unless otherwise noted, are hereby made a part of these Technical Specifications, and are hereinafter referred to as "Standard Specifications" and "Standard Plans."

Whenever the following terms are used in the Standard Specifications and the Standard Plans, they shall be understood to mean and refer to the following:

Department or Department of Transportation - The City Council.

Director of Public Works - The City of Ukiah Director of Public Works/City Engineer.

Engineer - The Engineer, designated by the Director of Public Works, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Laboratory - The designated laboratory authorized by the City of Ukiah to test materials and work involved in the contract.

State - The City of Ukiah

Other terms appearing in the California Standard Specifications and the California Standard Plans shall have the intent and meaning specified in Section I, Definition of Terms of the California Standard Specifications.

In case of discrepancy between the contract documents, the order of precedence from the highest to lowest is as follows:

1. (City) Special Provisions (Technical Specifications)
2. (City) Project Plans

3. City Standard Plans and Details
4. California Standard Plans
5. California Standard Specifications

12-06. Temporary Facilities. All temporary facilities are the responsibility of the Contractor and the removal of said facilities shall be the responsibility of the Contractor. The Contractor shall be responsible for any and all damages to existing facilities which are a result of the installation and removal of the Contractor's temporary facilities.

12-07. Public Convenience and Safety. The Contractor shall conduct operations so as to cause the least possible obstruction and inconvenience to public traffic. The Contractor shall, at his or her expense, furnish such flag persons and furnish, erect, construct and maintain such fences, barriers, lights, signs, detours, pedestrian walkways, driveway ramps and bridging as may be necessary to give adequate warning to the public that work is in progress and that dangerous conditions exist, to provide access to abutting properties and to permit the flow of pedestrian and vehicular traffic to safely and expeditiously pass through the work.

The Contractor shall post notice(s) at the job sites a minimum of 72 hours in advance of working at the site, indicating the date and times that street parking will be prohibited. This notice shall be placed in obvious locations and be spaced no further than 250 feet apart along the length of the project site and on each side of the affected street. The Contractor shall also provide and place door hangers at all houses adjacent to working area. The door hanger notification shall be in writing and it shall be submitted to the Engineer for approval a minimum of 5 working days prior to the proposed public notification. Full cost for "Public Convenience and Safety" shall be considered as included in the various items of work and no additional compensation will be made.

12-08. Maintaining Traffic. Attention is directed to Section 7-1.03, "Public Convenience," Section 7-1.04, "Public Safety," Section 12-3.11, Construction Area Signs," Section 12-3.33, "Temporary Signal Systems," Section 12-4, "Maintaining Traffic," and Section 12-6, "Temporary Pavement Delineation" of the California Standard Specifications.

Streets shall be open to through vehicular traffic during non-working hours. All public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

Full costs for "Maintaining Traffic", including "Flagging Costs", shall be considered as included in the Traffic Control item of work and no additional compensation will be made.

Street Closures shall conform to the provisions in the section of these Special Provisions entitled "Traffic Control System for Street Closure."

When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

The full width of the traveled way shall be opened for use by public traffic on Saturdays, Sundays, and designated City holidays, after 3:00 p.m. Fridays and the day preceding designated City holidays, and when construction operations are not actively in progress.

Designated City holidays are: January 1st, the third Monday in January, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, the second Monday in October, the second Monday in November, Thanksgiving Day, the day following Thanksgiving Day, December 24th, December 25th, December 30th, December 31st. When a designated City holiday falls on a Sunday, the following Monday shall be a designated City holiday. When a designated City holiday falls on a Saturday, the preceding Friday shall be a designated City holiday.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if in the opinion of the Engineer public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Engineer has indicated his written approval. All other modifications will be made by contract change order.

The fences, temporary railing (Type K), barricades, lights, signs, and other devices furnished and installed by the Contractor, at his expense, to conform to the provisions in said Section 12-3.01A, and in addition to any construction area traffic control devices for which payment is provided for elsewhere in the specifications.

Payment. Full costs for "Maintaining Traffic", including "Flagging Costs" shall be considered as part of the lump sum payment for Traffic Control System and no additional compensation will be made.

12-09. Traffic Control System for Street Closure. A traffic control system shall consist of closing streets in accordance with the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones, the provisions of Section 12-3, "Construction Area Traffic Control Devices," of the Standard Specifications, and provisions under "Maintaining Traffic" elsewhere in these Special Provisions.

The provisions in this section will not relieve the Contractor of their responsibilities that may be necessary to comply with the provisions in Section 7-1.04, "Public Safety", of the Standard Specifications.

The base material of construction area signs may be plywood in City Right-of-Way, but shall not be plywood in the State Right-of Way.

The contractor shall develop and submit to the Engineer for approval a Traffic Control Plan a minimum of one week before beginning construction. The Traffic Control Plan shall show the planned method of traffic control during construction.

The following information shall be included in the Traffic Control Plan:

- Sequencing of construction
- Street layout, with street names and direction of flow
- Location and types of construction area signs (including pedestrian notification)
- Locations of barriers or other traffic control devices
- Location of flaggers
- A contingency plan for how to handle emergency vehicles

The Contractor shall not begin construction at the site until the Traffic Control Plan is reviewed and approved by the Engineer. The City reserves the right to delay the contractor's operations until such time that a Traffic Control Plan has been reviewed and approved by the Engineer.

If any component in the traffic control system is damaged, displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

When street closures are made for work periods only, at the end of each work period, all components of the traffic control system shall be removed from the traveled way and shoulder. If the contractor so elects, said components may be stored at select central locations, approved by the Engineer, within the limits of the street right-of-way.

Payment. The contract lump sum price paid for traffic control shall include full compensation for furnishing a Traffic Control Plan, furnishing all labor, materials (including signs), tools, equipment, and incidentals and for doing all the work involved in placing, removing, storing, maintaining and moving to new locations, replacing, and disposing of the components of the traffic control system as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

12-10. Stream Pollution. The Contractor shall exercise precaution to limit the muddying or silting of live streams and drainage channels to the maximum extent practicable, and the Contractor's attention is called to the fact that

the terms of this contract do not relieve him or her of responsibility for compliance with Sections 5650 and 12015 of the Fish and Game Code or other applicable statutes relating to pollution prevention or abatement.

The Contractor's attention is also directed to Section 13, "Water Pollution Control," of the Standard Specifications and to the Construction Details Section concerning the requirement for submittal to the Engineer for approval a written program for the control of pollution to adjacent drainage courses during the construction of the project. Said written program shall include the erosion control provisions required by Section 13-6, "Temporary Sediment Control", of these Construction Details."

12-11. Warranties. Unless otherwise indicated, the Contractor shall warrant all materials provided and work performed under this contract for a period of one year from the date of final acceptance. The Contractor shall replace promptly and at his own expense any materials and/or workmanship that are faulty or defective during this warranty period.

12-12. Utilities. The owner will not arrange water, sewer or electrical services for construction. It is the Contractor's sole responsibility to arrange such services as necessary with the applicable utility provider(s).

12-13. Dust Control. Dust control shall conform to the provisions of Section 10-5 of the Standard Specifications. Full compensation for dust control shall be considered as included in the prices paid for the various contract items and no additional compensation will be made therefore. This includes the application of water for the purpose of controlling dust caused by public traffic within the project area. The Contractor may at his option use dust palliative in accordance with the provisions of Section 18, "Dust Palliative" of the Standard Specifications except that the full compensation for applying dust palliative shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be made therefore.

All active construction areas shall be watered at least twice daily and more often during hot or windy periods. The active areas adjacent to the apartment complexes shall be kept damp at all times. Hauling trucks shall be covered or at least a two-foot freeboard shall be maintained.

Unpaved access roads, parking areas for construction equipment and construction employee vehicles, staging areas, and storage areas shall be paved or shall receive the application of either water twice daily or non-toxic soil stabilizers. All paved access roads, parking areas, staging areas, storage areas, and public roads impacted by the work of the project shall be swept daily with street sweepers equipped with water spray to remove soil materials that have been deposited on these surfaces by reason of the work.

The Contractor shall enclose, cover, or water twice daily or apply non-toxic soil stabilizers or install erosion control blankets to or on exposed stockpiles, embankment slopes, and cut slopes. Traffic speeds on unpaved surfaces shall be limited to a maximum speed of 15 mph

12-14. Noise Control. The Contractor's attention is directed to the provisions of Section 14-8.02, "Noise Control Requirements", of the Standard Specifications and Saturday, Sunday, Holiday, and Night Work, of these General Conditions concerning the control of noise emissions and authorized work hours and days. Between 7:00 a.m. and 7:00 p.m., noise from Contractor's operations shall not exceed limits established by applicable laws or regulations and in no event shall exceed 86 dB at a distance of 50 feet from the noise source.

The City shall provide a Noise Disturbance Coordinator who shall be responsible for acting on any local complaints concerning the construction noise being generated by reason of the work of the project. The Contractor shall conspicuously post a telephone number for the Noise Disturbance Coordinator at the construction site and he shall include it in the construction schedule notice to be provided to the residents. The Noise Disturbance Coordinator shall investigate the noise complaint allegations and shall require the Contractor to implement reasonable measures to mitigate the noise level in accordance with the requirements of these General Conditions and of the Standard Specifications.

The Contractor shall locate all stationary noise generating construction equipment such as air compressors and generators as far as practical from the nearby residences and other noise sensitive land uses. The noise source shall be acoustically shielded when practical. The Contractor shall prohibit unnecessary idling of internal combustion engines.

12-15. Watering. The application of water and the developing of a water supply shall be performed in accordance with the provisions of Section 10-6, "Watering," of the Standard Specifications except as modified by these Special Provisions. Full compensation for applying water where called for or as directed by the Engineer and for developing the water supply shall be considered as included in the prices paid for the various contract items and no additional compensation will be made therefore. The Contractor is advised that water may be obtained from fire hydrants within the project area under permit with the City's Public Works Department and upon the payment of a meter deposit. Permit application and inquiry as to the water usage fees are to be made at the City of Ukiah, 300 Seminary Avenue, phone (707) 463-6228.

12-16. Preconstruction Conference. A preconstruction conference will be held before any work will be allowed to commence. This meeting will cover inspection, work schedule, and among other items, the responsibilities and procedures of each of the interested parties to assure that the project will be completed in accordance with the contract documents.

12-17. Progress Schedule. Progress schedules will be required for this contract and shall conform to the provisions in Section 8-1.02B, "Schedule Format," of the Standard Specifications.

12-18. Safety Requirements. The Contractor shall comply with all pertinent provisions of the Department of Labor "Safety and Health Regulations for Construction (29 FCS Part 1518, 36 CFR 7340)", with additions or modifications thereto, in effect during construction of this project.

12.19. Final Payments.

Section 9-1.02C, "Final Pay Quantities," of the Standard Specifications is amended to read:

9-1.02C Final Pay Items

When an item of work is designated as (F) or (S-F) in the Engineer's Estimate, the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions, except as otherwise provided for minor structures in Section 51-7.01D, "Payment." If a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as (F) or (S-F) in the Engineer's Estimate shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the Plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the Engineer's Estimate for a final pay item and the quantity or summation of quantities for the item shown on the Plans, payment will be based on the quantity shown in the Engineer's Estimate.

Final pay quantity designations shown on the Plans shall not apply.

Preliminary - Not for Bidding

SECTION 13 – SPECIAL PROVISIONS

13-01. Location and Scope of Work.

The work involves:

PHASE 1 - The removal and abandonment of the existing storm drain inlets, structures, and storm drain piping and installing new drain inlet structures and storm drain piping as shown on the plans. Remove and reconstruct existing curb returns to new radii and grades, together with new sidewalk, driveways sections, ADA ramps, and new roadway section adjacent to the new curb and gutter as shown on the plans. Construct footing and relocated existing commercial sign. Remove and relocate existing traffic signal infrastructure effected by the new sidewalk construction, and install new traffic signal poles and light modules and shown on the plans, together with a video camera system, relocation or replacement of conduit, new pull boxes, and electrical wiring as needed, including temporary traffic control system and testing.

Work to be suspended during winter months.

PHASE 2 – Construction frontage improvements consisting of sidewalk and retaining walls on the south side of Brush Street, not including the curb return. The removal of the existing structural section of Brush Street not including the shoulder improvements adjacent to the sidewalk, install new structural section per the plan detail, remove and reconstruct the shoulders along North State Street north of the intersection, grind the existing asphalt in the North State Street north of the intersection and overlay, grind existing asphalt and overlay Low Gap Road as delineated on the plans.

The Contractor should familiarize himself with the local conditions of the project site. Failure to do so will in no way relieve him of the responsibility for performing any of the work or operations required as a part of this contract.

13-02. Existing Highway Facilities. The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15 of the Standard Specifications and these Special Provisions.

All existing highway facilities and structures to be removed shall be disposed of at locations outside the highway right-of-way.

Payment Full compensation for complying with this section of the Special Provisions shall be considered as included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefore.

13-03. Preservation of Property. The contractor shall conform to the provisions of Section 5-1.36, "Preservation of Property" of the Standard Specifications and to these Special Provisions. All costs to the Contractor for protecting, removing, modifying, relocating and restoring existing improvements shall be considered as included in the contract prices paid for the various items of work and no additional allowances will be made therefore.

Payment Full compensation for complying with this section of the Special Provisions shall be considered as included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefore.

13-04. Watering. Developing water supply and applying shall conform to the provisions in Section 10-6 of the Standard Specifications and these Special Provisions. Water shall not be obtained from any of the nearby property owners without their written permission.

Payment. Full compensation for developing and applying water conforming to the above requirements shall be considered as included in the prices paid for the various contract items of work requiring water, and no additional compensation will be allowed therefore.

13-05. Utility Boxes. Utility Boxes which include but are not limited to manholes, valve boxes, sewer cleanouts and street monument boxes are listed on the Plans for information purposes only. Contractor shall take special care when working around existing utility boxes. Utility boxes shall be replaced by the Contractor if damaged due to negligence.

Payment. Full compensation for complying with this section of the Special Provisions shall be considered included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefore.

13-06. Surplus Material. All material removed or excavated during the course of construction will be surplus. All surplus material will be the property of the Contractor and be disposed of outside the right-of way.

13-07. Mobilization. Mobilization shall conform to the provisions in Section 9-1.16D, "Mobilization", of the California Standard Specifications.

Mobilization shall include the obtaining of all permits, moving onto the site of all equipment, temporary Buildings, if needed, and other construction facilities as required for the proper performance and completion of the work.

Mobilization shall include but not be limited to the following principal items:

1. Signed Contract by the City and the Contractor.
2. Completion of all tasks and submittal of all documents (bonds, insurance, schedule, etc.) required as conditions of issuing the Notice to Proceed.
3. Moving onto the site of all Contractors' equipment required for operations.
4. Installing temporary construction water supply, power, wiring and lighting facilities, as required.
5. Providing field office trailers if needed by the Contractor.
6. Providing all on-site communication facilities, including telephones, and radio pagers.
7. Obtaining all required permits.
8. Having all OSHA required notices and establishment of safety programs.
9. Attendance at Pre-Construction Conference of Contractor's principal construction personnel.
10. Beginning work on the project or at the subject site as applicable, including submittal of required Construction Schedule to Engineer.

Payment: Mobilization will be measured and paid for as a lump sum which price shall include all labor, materials, and equipment and incidentals, and for doing all work involved in mobilization and specified herein.

13-08. Clearing and Grubbing. Clearing and grubbing shall conform to the provisions in Section 16, "Clearing and Grubbing," of the California Standard Specifications. Concrete removal shall conform to applicable provisions of Section 15-1.03B, "Removing Concrete," of the California Standard Specifications and these Special Provisions. The Contractor's attention is directed to Section 5-1.36, "Preservation of Property" of the California Standard Specifications. All concrete which is to be removed from sidewalk, curb, gutter, and gutter pan, shall be removed to the nearest score mark or construction joint as directed by the Engineer unless otherwise noted on plans. Reinforcing steel may be encountered in portions of concrete to be removed and no additional allowance

will be made for the removal of such steel. Saw-cut: Where no joint exists between concrete or asphalt concrete to be removed and concrete or asphalt concrete to remain in place, the concrete or asphalt concrete shall be cut in a neat line to a minimum depth of 2 inches in sidewalks to full depth in concrete roadway slabs with a power driven saw before the concrete or asphalt concrete is removed. All saw-cutting operations shall be "wet" for dust control purposes. Full compensation for concrete saw cutting, removal and disposal will be considered as included in the prices paid for various contract items of work, which price shall include full compensation for furnishing all labor. Materials, tools and equipment and doing all work involved in concrete saw cutting and removal of sidewalk, curb & gutter, as specified herein, and as directed by the Engineer and no additional allowance will be made therefor. All improvements which are not planned to be removed as part of this work, but are damaged or destroyed by reason of the Contractor's operations shall be replaced in kind or restored to a condition as good as when the Contractor encountered the work at the Contractor's expense. The Contractor shall dispose of all debris off site and in a legal manner.

Payment: Full compensation for clearing and grubbing shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

13-09. Aggregate Base. Aggregate base shall be Class 2, %" maximum gradation, conforming to the provisions in Section 26, "Aggregate Bases," of the California Standard Specifications. Aggregate base shall be moisture condition, placed, graded, and compacted to the grade or limits shown on the plans.

Quality Requirements: The minimum sand equivalent shall be 31 for any individual test.

Payment: Full compensation for aggregate base shall be considered as included in the prices paid for aggregate base or various contract items of work and no additional allowance will be made therefore.

13-10. Asphalt Concrete Trench Paving. Asphalt concrete and the placing thereof shall conform to the requirements of Section 39, "Asphalt Concrete," of the California Standard Specifications, and these Special Provisions.

Asphalts: Temporary paving on all trenches shall be cold mix asphalt concrete installed a minimum 2" thickness placed each day over the work. The amount of asphalt binder to be mixed with the aggregate will be specified by the Engineer at the time of paving. A different asphalt binder content may be specified for each lift and each location. General Requirements: The Contractor shall provide compaction of backfill and base material as the job progresses, each day. Temporary paving will be placed over the work, each day, leaving no more than 25 feet unpaved. This temporary paving shall be removed for final trench paving. The balance of the trench shall be covered with skid resistant steel plates (with a coefficient of friction of 0.35 or greater per CTM342), capable of sustaining normal (H20) traffic loads without shifting or bouncing, and shall be secured per Caltrans requirements. Cold Mix asphalt concrete shall be placed and compacted around all edges of steel plates with a sufficient width and gradual slope in order to provide a smooth transition to existing pavement. Finished asphalt trench' paving shall be even, smooth riding and have an appearance that is compatible to the surrounding surface, unless proper written approval has been provided by the Engineer. The Engineer may require additional paving beyond the minimum dimensions shown in STD. 220 (36" beyond the trench wall), or as shown on the plans, where records indicate that the existing pavement or structural section is as shown on the plans. Asphalt concrete used for temporary trench paving shall be removed and disposed of in an approval location for recycling.

Payment: Full compensation for furnishing and installing temporary and permanent trench paving asphalt shall be considered as included in the prices paid or the various contract items of work and shall include full compensation for furnishing all labor, materials, tools, equipment and doing all work involved in placing finished roadway surface, and permanent trench paving, including but not limited to: saw cutting, tack coat, compaction and any other work required for finish roadway surface and permanent trench paving no additional allowance will be made therefor.

13-11. Asphalt Concrete Roadway Paving. Asphalt concrete and the placing thereof shall conform to the requirements of Section 39, "Asphalt Concrete," of the California Standard Specifications, and these Special Provisions.

Asphalts: Paving of roadways shall be hot mix asphalt concrete per Section 39-2.01A(3)(b) Job Mix Formula of the California Standard Specifications, and these Special Provisions.

Per Section 39-2.01A(3)(b)(i) General

Except for the HMA to be used in miscellaneous areas and dikes, submit your proposed JMF for each type of HMA to be used. The JMF must be submitted on the Contractor Job Mix Formula Proposal form along with:

1. Mix design documentation on Contractor Hot Mix Asphalt Design Data form dated within 12 months of submittal
2. JMF verification on a Caltrans Hot Mix Asphalt Verification form, if applicable
3. JMF renewal on a Caltrans Job Mix Formula Renewal form, if applicable
4. SDS for:
 - 4.1. Asphalt binder
 - 4.2. Supplemental fine aggregate except fines from dust collectors
 - 4.3. Antistrip additives

The Contractor Hot Mix Asphalt Design Data form must show documentation on aggregate quality.

If you cannot submit a Department-verified JMF on a Caltrans Hot Mix Asphalt Verification form dated within 12 months before HMA production, the Engineer verifies the JMF.

Submit a new JMF if you change any of the following:

1. Target asphalt binder percentage greater than ± 0.2 percent
2. Asphalt binder supplier
3. Combined aggregate gradation
4. Aggregate sources
5. Liquid antistrip producer or dosage
6. Average binder content in a new processed RAP stockpile by more than ± 2.00 percent from the average RAP binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form
7. Average maximum specific gravity in a new processed RAP stockpile by more than ± 0.060 from the average maximum specific gravity value reported on page 4 of your Contractor Hot Mix Asphalt Design Data form
8. Any material in the JMF

Allow the Engineer 5 business days from a complete JMF submittal for document review of the aggregate qualities, mix design, and JMF. The Engineer notifies you if the proposed JMF submittal is accepted.

If your JMF fails verification testing, submit an adjusted JMF based on your testing. The adjusted JMF must include a new Contractor Job Mix Formula Proposal form, Contractor Hot Mix Asphalt Design Data form, and the results of the failed verification testing.

You may submit an adjusted aggregate gradation TV on a Contractor Job Mix Formula Proposal form before verification testing. Aggregate gradation TV must be within the TV limits specified.

Section 39-2.01A(3)(b)(ii) Job Mix Formula Renewal

You may request a JMF renewal by submitting:

1. Proposed JMF on a Contractor Job Mix Formula Proposal form
2. Previously verified JMF documented on a Caltrans Hot Mix Asphalt Verification form dated within 12 months
3. Mix design documentation on a Contractor Hot Mix Asphalt Design Data form used for the previously verified JMF

Section 39-2.01A(3)(b)(iii) Job Mix Formula Modification

For an authorized JMF, submit a modified JMF if you change any of the following:

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1. Asphalt binder supplier
2. Liquid antistrip producer
3. Liquid antistrip dosage

You may change any of the above items only once during the Contract.

Submit your modified JMF request at least 15 days before production. Each modified JMF submittal must include:

1. Proposed modified JMF on Contractor Job Mix Formula Proposal form, marked *Modified*.
2. Mix design records on Contractor Hot Mix Asphalt Design Data form for the authorized JMF to be modified.
3. JMF verification on Hot Mix Asphalt Verification form for the authorized JMF to be modified.
4. Test results for the modified JMF in compliance with the mix design specifications. Perform tests at the mix design OBC as shown on the Contractor Asphalt Mix Design Data form.

With an accepted modified JMF submittal, the Engineer verifies each modified JMF within 10 days of receiving all verification samples.

Section 39-2.01A(3)(c) Quality Control Plan

With your proposed JMF submittal, submit a QC plan for HMA.

The QC plan must describe the organization and procedures for:

1. Controlling HMA quality characteristics
2. Taking samples, including sampling locations
3. Establishing, implementing, and maintaining QC
4. Determining when corrective actions are needed
5. Implementing corrective actions
6. Using methods and materials for backfilling core locations

The QC plan must address the elements affecting HMA quality, including:

1. Aggregates
2. Asphalt binder
3. Additives
4. Production
5. Paving

The QC plan must include aggregate QC sampling and testing during lime treatment.

Allow 5 business days for review of the QC plan.

If you change QC procedures, personnel, or sample testing locations, submit a QC plan supplement before implementing the proposed change. Allow 3 business days for review of the QC plan supplement.

Section 39-2.01A(3)(d) Test Results

For mix design, JMF verification, production start-up, and each 10,000 tons, submit AASHTO T 283 and AASHTO T 324 (Modified) test results to the Engineer .

Submit all QC test results, except AASHTO T 283 and AASHTO T 324 (Modified), within 3 business days of a request. Submit AASHTO T 283 QC tests within 15 days of sampling.

For tests performed under AASHTO T 324 (Modified), submit test data and 1 tested sample set within 5 business days of sampling.

If coarse and fine durability index tests are required, submit test results within 2 business days of testing.

If a tapered notched wedge is used, submit compaction test result values within 24 hours of testing.

Section 39-2.01A(4) Quality Assurance:

Section 39-2.01A(4)(a) General

AASHTO T 324 (Modified) is AASHTO T 324 with the following parameters:

1. Target air voids must equal 7.0 ± 1.0 percent
2. Specimen height must be 60 ± 1 mm
3. Number of test specimens must be 4 to run 2 tests.
4. Do not average the 2 test results.
5. Test specimen must be a 150 mm gyratory compacted specimen.
6. Test temperature must be set at:
 - 6.1. 113 ± 2 degrees F for PG 58
 - 6.2. 122 ± 2 degrees F for PG 64
 - 6.3. 131 ± 2 degrees F for PG 70 and above
7. Measurements for impression must be taken at every 100 passes along the total length of the sample.
8. Inflection point is the number of wheel passes at the intersection of the creep slope and the stripping slope at maximum rut depth.
9. Testing shut off must be set at 25,000 passes.
10. Submersion time for samples must not exceed 4 hours.

Take samples under California Test 125.

Section 39-2.01A(4)(f)(ii) Hot Mix Asphalt Plants

Before production, the HMA plant must have a current qualification under the Department's Material Plant Quality Program.

Section 39-2.01A(4)(h) Quality Control

Section 39-2.01A(4)(h)(i) General

QC test results must comply with the specifications for Department acceptance.

Prepare 3 briquettes for air voids content and voids in mineral aggregate determination. Report the average of 3 tests.

Except for smoothness, if 2 consecutive QC test results or any 3 QC test results for 1 day's production do not comply with the materials specifications:

1. Stop HMA production
2. Notify the Engineer
3. Take corrective action
4. Demonstrate compliance with the specifications before resuming production and placement

For QC tests performed under AASHTO T 27, results are considered 1 QC test regardless of number of sieves out of compliance.

Do not resume production and placement until the Engineer authorizes your corrective action proposal.

Section 39-2.01A(4)(h)(vi) Hot Mix Asphalt Density

During HMA placement determine HMA density using a nuclear gauge. On the 1st day of production, develop a correlation factor between cores and nuclear gauge under California Test 375.

Test for in-place density using cores and a nuclear gauge. Test at random locations you select and include the test results in your QC production tests reports.

Section 39-2.01A(4)(h)(ix) Pavement Smoothness

For HMA pavement within 3 feet from and parallel to the construction joint formed between curbs, gutters, or existing pavement, test pavement smoothness using a 12-foot straightedge.

Section 39-2.01A(4)(i)(ii) In-Place Density

Except for HMA pavement placed using method compaction, the Engineer tests the density core you take from each 250 tons of HMA. The Engineer determines the percent of theoretical maximum density for each density

core by determining the density core's density and dividing by the theoretical maximum density.

Density cores must be taken from the final layer, cored through the entire pavement thickness shown. Where OGFC is required, take the density cores before placing OGFC.

If the percent of theoretical maximum density does not comply with the specifications, the Engineer may accept the HMA and take a payment deduction as shown in the following table:

HMA percent of maximum theoretical density	Reduced payment factor	HMA percent of maximum theoretical density	Reduced payment factor
91.0	0.0000	97.0	0.0000
90.9	0.0125	97.1	0.0125
90.8	0.0250	97.2	0.0250
90.7	0.0375	97.3	0.0375
90.6	0.0500	97.4	0.0500
90.5	0.0625	97.5	0.0625
90.4	0.0750	97.6	0.0750
90.3	0.0875	97.7	0.0875
90.2	0.1000	97.8	0.1000
90.1	0.1125	97.9	0.1125
90.0	0.1250	98.0	0.1250
89.9	0.1375	98.1	0.1375
89.8	0.1500	98.2	0.1500
89.7	0.1625	98.3	0.1625
89.6	0.1750	98.4	0.1750
89.5	0.1875	98.5	0.1875
89.4	0.2000	98.6	0.2000
89.3	0.2125	98.7	0.2125
89.2	0.2250	98.8	0.2250
89.1	0.2375	98.9	0.2375
89.0	0.2500	99.0	0.2500
<89.0	Remove and replace	>99.0	Remove and replace

Section 39-2.01B(3) Asphalt Binder
Asphalt binder must comply with section 92.

For a leveling course, the grade of asphalt binder for the HMA must be PG 64-16.

39-2.01B(11) Miscellaneous Areas and Dikes
For miscellaneous areas and dikes:

1. Choose either the 3/8-inch or 1/2-inch aggregate gradation for Type A HMA.
2. Minimum asphalt binder content must be 6.40 percent for 3/8-inch aggregate and 5.70 percent for 1/2-inch aggregate. You may reduce the minimum asphalt binder content if authorized.
3. Choose asphalt binder Grade PG 64-10, PG 64-16 or PG 70-10.

For HMA used in miscellaneous areas and dikes, Sections 39-2.01A(3), 39-2.01A(4), 39-2.01B(2), 39-2.01B(4)(c), and 39-2.01B(5)–(10) do not apply.

Section 39-2.01C Construction

Section 39-2.01C(1) General
Do not place HMA on wet pavement or frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

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1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for depositing, pickup, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 degrees F

HMA placed in a windrow on the roadway surface must not extend more than 250 feet in front of the loading equipment or material transfer vehicle.

You may place HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps

Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder
2. Below 140 degrees F for HMA with modified binder
3. Below 130 degrees F for HMA with WMA technology

Section 39-2.01C(2) Spreading and Compacting Equipment

Section 39-2.01C(2)(a) General

Paving equipment for spreading must be:

1. Self-propelled
2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device
5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope

Install and maintain grade and slope references.

The screed must be heated and produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades, and cross sections
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction

Section 39-2.01C(2)(b) Material Transfer Vehicle

If a material transfer vehicle is specified, the material transfer vehicle must have sufficient capacity to prevent

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stopping the paver and must be capable of:

1. Either receiving HMA directly from trucks or using a windrow pickup head to load it from a windrow deposited on the roadway surface
2. Remixing the HMA with augers before transferring into the paver's receiving hopper or feed system
3. Transferring HMA directly into the paver's receiving hopper or feed system

Section 39-2.01C(2)(c) Method Compaction Equipment

For method compaction, each paver spreading HMA must be followed by 3 rollers:

1. One vibratory roller specifically designed to compact HMA. The roller must be capable of at least 2,500 vibrations per minute and must be equipped with amplitude and frequency controls. The roller's gross static weight must be at least 7.5 tons.
2. One oscillating-type pneumatic-tired roller at least 4 feet wide. Pneumatic tires must be of equal size, diameter, type, and ply. The tires must be inflated to 60 psi minimum and maintained so that the air pressure does not vary more than 5 psi.
3. One steel-tired, 2-axle tandem roller. The roller's gross static weight must be at least 7.5 tons.

Each roller must have a separate operator. Rollers must be self-propelled and reversible.

Section 39-2.01C(3) Surface Preparation

Section 39-2.01C(3)(a) General

Before placing HMA, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

Section 39-2.01C(3)(f) Tack Coat

Apply a tack coat:

1. To existing pavement including planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
 - 3.1. Curbs
 - 3.2. Gutters
 - 3.3. Construction joints

Equipment for the application of tack coat must comply with section 37-1.03B.

Before placing HMA, apply a tack coat in 1 application at the minimum residual rate shown in the following table for the condition of the underlying surface:

Tack Coat Application Rates for HMA

HMA over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMRS2/PMCRS2 and PMRS2h/PMCRS2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
Concrete pavement and existing asphalt concrete surfacing	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

If a stress absorbing membrane interlayer as specified in section 37-2.06 is applied, the tack coat application rates for new HMA apply.

Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Measure added water either by weight or volume under section 9-1.02 or use water meters from water districts, cities, or counties. If you measure water by volume, apply a conversion factor to determine the correct weight.

With each dilution, submit:

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

Apply a tack coat to vertical surfaces with a residual rate that will thoroughly coat the vertical face without running off.

If authorized, you may:

1. Change tack coat rates
2. Omit tack coat between layers of new HMA during the same work shift if:
 - 2.1. No dust, dirt, or extraneous material is present
 - 2.2. Surface is at least 140 degrees F

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not allow the tracking of tack coat onto pavement surfaces beyond the job site.

If you use an asphalt binder for tack coat, the asphalt binder temperature must be from 285 to 350 degrees F when applied.

Type A Hot Mix Asphalt Production shall be consistent with Section 39-2.02A(4)(b)(ix) of the Standard Specifications.

Design specifications for Type A Hot Mix Asphalt Mix shall conform to Section 39-2.02B(2) of the Standard Specifications, and Asphalt Aggregates shall comply with Section 39.2.02B(4) of the Standard Specifications.

Construction methods for Type A Hot Mix Asphalt Mix shall be per Section 39-2.02C of the Standard Specifications unless otherwise directed by the Engineer.

Payment: Full compensation for furnishing Asphalt Dike and Type A HMA shall be considered as included in the unit prices paid or the contract items of work and shall include full compensation for furnishing all labor, materials, tools, equipment and doing all work involved in placing finished roadway surface, including but not limited to: providing HMA, tack coat, performing compaction, and any other work required for finish roadway surface and permanent trench paving no additional allowance will be made therefor.

13-12. Curb, Gutter, and Sidewalk. Portland cement concrete curb, gutter and sidewalk, shall be constructed in conformance to the standard details and details shown on plans and at the locations shown on the plans and in accordance with the applicable provisions of the City Construction Specifications and these special provisions. Contractor shall be responsible for replacing all Portland cement concrete surfaces damaged or destroyed by his operations at no additional cost to the City.

The work shall be constructed of minor concrete conforming to the provisions in the Standard Specifications Section 90-2, "Minor Concrete," except as follows:

The maximum size of aggregate used for extruded or slip-formed curb construction shall be at the option of the Contractor, but in no case shall the maximum size be larger than one inch nor smaller than 3/8 inch. The cement content of the minor concrete shall not be less than 463 pounds per cubic yard, except that when extruded or slip-

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formed curbs are constructed using 3/8 inch maximum size aggregate, the cement content shall be not less than 548 pounds per cubic yard. All concrete which is to be removed from curb and gutter areas shall be removed to the nearest construction joint or as directed by the Engineer. Said joint shall be saw-cut to eliminate any defects. All concrete which is to be removed from sidewalks shall be removed to the nearest transverse score mark across the full width of the sidewalk or construction joint as directed by the Engineer. Joints between old and new concrete shall be neat and free of defects. Saw-cutting may be required to achieve this effect. All soft or spongy material shall be removed and replaced with suitable material as required by the Engineer. Concrete curb, gutter, and sidewalk shall be cured in accordance with the requirements of Section 90-1.03 "Curing Concrete," of the California Standard Specifications except that the Contractor may substitute other than a pigmented sealer upon the approval in writing of such substituted sealer by the Engineer. All oil, paint, tire marks, and other discoloring shall be removed from the curb and gutter by sandblasting prior to acceptance by the Engineer." Cement mortar will not be an acceptable substitute for sandblasting. Full compensation for constructing and installing curb ramp detectable warning surfaces shall be considered as included in the contract price paid per each for pedestrian ramps and no separate payment will be made therefore.

Payment: Full compensation for removing and constructing new curb, gutter and sidewalk shall be considered as included in the prices paid for the curb and gutter, and sidewalk and no additional allowance will be made therefor.

13-13. Trench Shoring and Bracing. Trench shoring and bracing shall conform to the provisions in Section 7-1.02, "Excavation Safety Plans," of the California Standard Specifications and these Special Provisions. Trench sheeting and boxing shall be withdrawn in such a manner as to prevent caving at the walls of excavations or damage to piping, or other structures. Except as may be hereinafter modified, no sheeting shall be left in the trench and no backfill shall be made against the sheeting before it is removed. And sheeting ending below the invert of the pipe shall be left in place by cutting off in a manner satisfactory to the Engineer. The Contractor shall obtain any necessary permits from the State of California, Division of Industrial Safety. The Contractor shall pay all costs in connection with said permits and proof of such permits shall be submitted to the Engineer prior to commencing the trench work.

Payment: Trench Shoring and Bracing shall be paid for in the unit price for Storm Drain, and include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in shoring and bracing for water, sewer and storm drain as specified in these Special Provisions and shall include the removal and disposal of all material required to accomplish the work. The adjustment provisions in Section 4-1.05, "Changes," of the California Standard Specifications, shall not apply to trench shoring and bracing. Adjustments in compensation for trench shoring and bracing will be made only for increased or decreased trench shoring and bracing required by changes ordered by the Engineer, and will be made on the basis of the cost of the increased or decreased trench shoring and bracing necessary. Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account Payment," of the California Standard Specifications for increased work and estimated on the same basis in the case of decreased work.

13-14. Soil and Groundwater Disposal.

13-14 (A) General: Bidder's attention is directed to the fact that the proposed project is located in an area that contains no known subsurface petroleum hydrocarbon contamination. The contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the City immediately upon discovery. Conditions indicative of contamination may be either visual (staining in soil, sheen on water surface) or olfactory (petroleum hydrocarbon odors.) Upon the discovery of suspected contaminated material, the Contractor shall immediately provide 40 hour OSHA-HAZWOPER certified workers in the contaminated area. The Contractor shall also provide a field Site Safety Officer that is also a B-hour OSHA-HAZWOPER Supervisor trained to directly oversee the contaminated materials removal and handling operation. All workers in this circumstance must have their initial and annual renewal refresher training, medical clearance and personal protection equipment in accordance with BCCR Section 5192.

13-14 (B) Soil: None of the excavated material shall be disposed of on the work site. All material excavated from trenches in the project area shall be the property of the Contractor. Prior to disposal of any excess material from the work site, the Contractor shall submit to the Engineer written authorization for such disposal and entry permission signed by the approved disposal site. Contractor shall comply with all disposal regulations such as City, County, and/or State permit and license, as may be required.

13-14 (C) Water: Groundwater may be encountered during the course of excavation. If it is encountered, the Contractor shall immediately notify the City. The Contractor shall remove all water which accumulates in the excavation during the progress of work until the pipe or, other structures are installed and until backfilling has progressed to a sufficient height to anchor the work against possible flotation or leakage. At all times, the Contractor shall have a minimum of 2 working pumps available for immediate use at all times. Water accumulated in excavations shall be discharged to the sanitary sewer under the supervision of City staff. Said water shall be disposed of in a manner as to cause no injury to public or private property, or be a menace to public health. Sediment shall be removed from any water to be disposed of, prior to discharge, by placing the pump inlet hose into a sump filled with clean gravel, or a perforated bucket filled with clean gravel. The outlet of the pump shall have a filter sock installed to retain residual sediment. If any odor, sheen or other visual discrepancy is noted during excavation or discharge, stop pumping and immediately notify the Engineer. Pumped groundwater will not be allowed into any watercourse or storm drain system.

Contractor shall be responsible for constructing, operating, and maintaining all necessary features to complete the work including furnishing, installing and maintaining all pumping and other equipment required to dewater any trenches containing water as may be encountered during performance of the work. Dewatering plan for each occurrence shall be approved by the Engineer prior to implementation. At the permanent conclusion of dewatering operations, all dewatering equipment shall be removed from the job site.

Payment: Full compensation for disposal of all excavated material and trench water, including, but not limited to, transportation costs and soil disposal fees and providing all necessary equipment and labor (including back-up pumping equipment) shall be considered as included in the contract prices paid for various contract items of work and no additional compensation will be allowed therefor. The City will pay discharge fees for the necessary disposal of trench water. In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the City immediately, upon discovery. All excavated material from trenches shall be the property of the Contractor and shall be immediately removed. None of the excavation material shall be dumped, stockpiled or disposed of on the work site. Where excavation occurs within the drip line of any street tree the Contractor shall hand dig to protect tree roots as directed by the Engineer. Root pruning shall be done only when directed by the Engineer and shall be accomplished by use of sharp tools appropriate for the size of the root to be cut. Each cut shall be clean with no torn bark or splintered wood remaining on the root. At no time shall roots be pulled on by excavating equipment. Construction Water: Construction water for the work under this contract will NOT be furnished by the City. The Contractor must obtain water according to these Special Provisions.

13-15. Portland Cement Concrete. All Portland cement concrete on this project shall be in accordance with Section 90, "Concrete," of the Amendments to July 2015 California Standard Specifications. All references to Class "A" concrete and Class "A" PCC in the City Standards and the City Specifications shall be changed to Class 2 concrete in accordance with Section 90, "Concrete," of the California Standard Specifications.

13-16. Material Recycling. The Contractor shall dispose of all Portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials. The Contractor shall provide receipts verifying delivery and approximate quantity (in tons) of the material delivered to a material recycler. All other excess materials from the project shall become the property of the Contractor and shall be disposed of by him, at his expense.

Payment. Full compensation for material recycling as specified herein shall be considered as included in the contract prices paid for various items of work, and no additional compensation will be allowed therefor.

13-17. Geotextiles. This work shall consist of providing and placing Geotextile material as per the Plans and in accordance with Section 96, "Geosynthetics" of the Standard Specifications except as provided herein, the Standard Plans, and these Special Provisions. See the following specifications for site preparation and installation for Mirafi 600x geotextile material.

Specification for Geotextile Used in Separation Application

1. GENERAL

1.1 SECTION INCLUDES

- A. Geotextile to prevent mixing of a subgrade soil and an aggregate cover material (subbase, base, select embankment, etc.). The separation application is appropriate for pavement structures constructed over soils with a California Bearing Ratio (CBR) equal to or greater than 3 ($\text{CBR} \geq 3$) (shear strength greater than approximately 90 kPa). This specification also applies to situations other than beneath pavements where separation of two dissimilar materials is required but where water seepage through the geotextile is not a critical function.

1.3 REFERENCES

- A. AASHTO Standards
 - 1. T88 - Particle Size Analysis of Soils
 - 2. T90 - Determining the Plastic Limit and Plasticity Index of Soils
 - 3. T99 - The Moisture-Density Relations of Soils Using a 5.5lb (2.5 kg) Rammer and a 12in (305 mm) Drop.
 - 4. M288-06 - Geotextile Specification for Highway Applications
- B. American Society for Testing and Materials (ASTM):
- C. Federal Highway Administration (FHWA) - Geosynthetic Design and Construction Guidelines, Publication No. FHWA HI-95-038, May 1995.
- D. American Association for Laboratory Accreditation (A2LA)
- E. Geosynthetic Accreditation Institute (GAI) - Laboratory Accreditation Program (LAP).
- F. National Transportation Product Evaluation Program (NTPEP)
- G. International Standards Organization (ISO) – 9001:2008

1.4 DEFINITIONS

- A. Minimum Average Roll Value (MARV): Property value calculated as typical minus two standard deviations. Statistically, it yields a 97.7 percent degree of confidence that any sample taken during quality assurance testing will exceed value reported.

1.5 SUBMITTALS

- A. Submit the following:
 - 1. Certification: The contractor shall provide to the Engineer a certificate stating the name of the manufacturer, product name, style number, chemical composition of the filaments or yarns and other pertinent information to fully describe the geotextile. The Certification shall state that the furnished geotextile meets MARV requirements of the specification as evaluated under the Manufacturer's quality control program. The Certification shall be attested to by a person having legal authority to bind the Manufacturer.
 - 2. Quality Standards: The contractor shall provide to the Engineer the Manufacturer's Quality Control Plan along with their current A2LA, GAI-LAP, and ISO 9001:2008 certificates.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications:

1. The geotextile Manufacturer shall have all of the following credentials:
 - a. Geosynthetic Accreditation Institute (GAI)- Laboratory Accreditation Program (LAP)
 - b. American Association for Laboratory Accreditation (A2LA)
 - a. ISO 9001:2008 Quality management System
 - B. The geotextile Manufacturer shall have a GAI-LAP and A2LA accredited laboratory at the location of production capable of performing the ASTM tests as outlined in the specification.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Geotextiles labeling, shipment, and storage shall follow ASTM D4873. Product labels shall clearly show the manufacturer or supplier name, style name, and roll number.
 - B. Each geotextile roll shall be wrapped with a material that will protect the geotextile from damage due to shipment, water, sunlight, and contaminants.
 - C. During storage, geotextile rolls shall be elevated off the ground and adequately covered to protect them from the following: site construction damage, precipitation, extended ultraviolet radiation including sunlight, chemicals that are strong acids or strong bases, flames including welding sparks, excess temperatures, and any other environmental conditions that may damage the physical property values of the geotextile.
2. PRODUCTS
- 2.1 MANUFACTURERS
- A. TenCate™ Geosynthetics Americas
 365 South Holland Drive
 Pendergrass, GA, USA 30567
 1-800-685-9990
 1-706-693-2226
 1-706-693-4400, fax
 www.mirafi.com
- 2.2 MATERIALS
- A. Geotextile:
 1. The geotextile shall be manufactured with fibers consisting of long-chain synthetic polymers composed of at least 95 percent by weight of polyolefins or polyesters. They shall form a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages.
 2. The geotextile shall meet the requirements of Table 1. All numeric values in Table 1 except AOS represent MARV in the weakest principal direction. Values for AOS represent maximum average roll values.

TABLE 1 - SEPARATION GEOTEXTILE

Property	Test Method	Units	Elongation < 50%
Grab Tensile Strength	ASTM D4632	lbs (N)	315 (1402)
Tear Strength	ASTM D4533	lbs (N)	113 (503)
CBR Puncture Strength	ASTM D6241	lbs (N)	900 (4005)
Permittivity	ASTM D4491	sec ⁻¹	0.05
Apparent Opening Size	ASTM D4751	U.S. Sieve (mm)	40 (0.43 max)

Ultraviolet Stability (after 500 hrs)	ASTM D4355	%	70
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3. Approved geotextiles are as follows:

Elongation < 50%: Mirafi® 600X

2.3 QUALITY CONTROL

- A. Manufacturing Quality Control: Testing shall be performed at a laboratory accredited by GAI-LAP and A2LA for tests required for the geotextile, at frequency meeting or exceeding ASTM D4354.
- B. Geotextile properties, other than Ultraviolet Stability shall be tested by NTPEP to verify conformance with this specification.
- C. Manufacturer's certifications and testing of quality assurance samples obtained using Procedure B of ASTM D4354. A lot size for conformance or quality assurance sampling shall be considered to be the shipment quantity of the given product or a truckload of the given product, whichever is smaller.

3. EXECUTION

3.1 PREPARATION

- A. The installation site shall be prepared by clearing, grubbing, and excavation or filling the area to the design grade. This includes removal of topsoil and vegetation.

3.2 INSTALLATION

- A. The geotextile shall be laid smooth without wrinkles or folds on the prepared subgrade in the direction of construction traffic. Adjacent geotextile rolls shall be overlapped, sewn or joined as required in the plans. Overlaps shall be in the direction as shown on the plans. See table below for overlap requirements.

Soil CBR	Method of Joining
Greater than 3	12 – 18 in (300 - 450 mm) overlap
1 - 3	24 – 40 in (600 - 1000 mm) overlap
0.5 - 1	40 in (1000 mm) overlap or sewn
Less than 0.5	Sewn
All roll ends	40 in (1000 mm) overlap or sewn

- B. On curves, the geotextile may be folded or cut to conform to the curves. The fold or overlap shall be in the direction of construction and held in place by pins, staples, or piles of fill or rock.
- C. Prior to covering, the geotextile shall be inspected by a certified inspector of the Engineer to ensure that the geotextile has not been damaged during installation. Damaged geotextiles, as identified by the Engineer, shall be repaired immediately. Cover the damaged area with a geotextile patch which extends an amount equal to the required overlap beyond the damaged area.
- D. The subbase shall be placed by end dumping onto the geotextile from the edge of the geotextile, or over previously placed subbase aggregate. Construction vehicles shall not be allowed directly on the geotextile. The subbase shall be placed such that at least the minimum specified lift thickness shall be between the geotextile and equipment tires or tracks at all times. Turning of vehicles shall not be permitted on the first lift above the geotextile.
- E. On subgrades having a CBR value of less than 1, the subbase aggregate should be spread in its full thickness as soon as possible after dumping to minimize the potential of localized subgrade failure due to overloading of the subgrade.
- F. Any ruts occurring during construction shall be filled with additional subbase material, and compacted to the specified density.

- G. If placement of the backfill material causes damage to the geotextile, the damaged area shall be repaired as previously described above. The placement procedure shall then be modified to eliminate further damage from taking place.

Measurement. Geotextiles will be measured by the square yard (or square meter - as indicated in contract documents) including seams, overlaps, and wastage per the installed area new finish roadway structural section.

Payment. The contract price paid per square yard for Geotextiles shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in installing geotextile material on the roadway subgrade.

13-18. Traffic Striping. This work shall consist of painting traffic striping including applying glass beads as per the Plans and in accordance with Section 84-2, "Traffic Stripes and Pavement Markings" of the Standard Specifications except as provided herein, the Standard Plans, and these Special Provisions.

Measurement. Painting traffic stripes will be measured by the linear foot, along the line of the traffic stripes, without deductions for gaps in broken traffic stripes. A double traffic stripe consisting of two 4-inch wide yellow stripes, separated by a 3-inch black stripe, will be measured as one traffic stripe.

Payment. The contract price paid per linear foot for Painted Traffic Stripes shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in painting traffic stripes.

13-19. Pavement Markings. Pavement markings which include crosswalks, STOP bars, "STOP" markings shall be painted and shall have glass beads applied as per the plans in accordance with Section 84-2, "Traffic Stripes and Pavement Markings" of the Standard Specifications except as provided herein, the Standard Plans, and these Special Provisions. Contractor shall reference all existing pavement markings prior to any slurry seal taking place on those streets that have pavement markings.

Measurement. Pavement Markings shall be measured as a lump sum.

Payment. The lump sum price paid for Pavement Markings shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, referencing the existing pavement markings and doing all the work involved in painting pavement markings as designated by the Plans, and no additional compensation will be allowed therefore.

13-20. Reflective Pavement Markers. White lane buttons and reflectors shall be placed to match the existing lane markings on State Street. Blue raised reflective pavement markers shall be placed on streets to mark fire hydrants. Blue reflective pavement markers shall be placed 6 inches from the centerline stripe, or approximate center of the pavement where there is no centerline stripe, on the side nearest the fire hydrant. All pavement makers shall conform to the provisions in Section 95 of the California Standard Specifications. Pavement Adhesive used to install pavement markers shall conform to the requirements of Section 95-1.02E of the California Standard Specifications

Measurement. White buttons and reflectors will be measured per lineal foot. Placing blue reflective pavement markers will be measured as each.

Payment. The lineal foot price paid for Lane Buttons and Reflectors, together the with the blue reflectors if needed within the work shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing pavement markers.

13-21. Storm Drainage Facilities. All Storm Drainage Pipe materials, and work shall conform to the provisions in Section 61 of the California Standard Specifications. Plastic Storm Drain pipe shall conform to the provisions in Section 64 of the California Standard Specifications.

Refer to following Sections of 64-2.02 MATERIALS of the Standard Specifications for Plastic Storm Drain piping:

Section 64-2.02A General of the Standard Specifications:

Plastic pipe must be Type C or Type S corrugated polyethylene pipe or corrugated PVC pipe with smooth interior.

The residue from the ignition of HDPE and PVC compounds must not exceed 30 percent as determined under ASTM D2584 except the muffle furnace temperature must be 840 ± 45 degrees F.

Pipes and fittings must be homogenous throughout and uniform in color, opacity, density, and other properties. The inside and outside surfaces must be semi-matte or glossy in appearance and free of chalky, sticky, or tacky material. The pipe walls must be free of cracks, holes, blisters, voids, foreign inclusions, or other defects affecting the pipe wall integrity or visible to the naked eye. Do not use pipes or fittings with abrasions or scratches deeper than 10 percent of the wall thickness. The joint surfaces where the gaskets bear must be smooth and free of imperfections, ridges, fractures, or cracks that could adversely affect the joint seal.

Store pipes in unit packages and protect the bell end of the pipes from damage. Support unit packages with racks or dunnage to prevent damage and bending. If unit packages are stacked, do not allow the weight of the upper units to cause deformation to the pipes in the lower units. Do not store pipes adjacent to heat sources. Do not allow pipes to overhang vehicles or storage areas unsupported by more than 3 feet.

Cover pipes to provide temporary sun block protection. Provide adequate air circulation around the covered pipes to reduce excessive heat accumulation. Protect gaskets from exposure to weather, heat, ozone, oil, grease, and sunlight for any time period exceeding 48 hours. Do not store gaskets near electrical or exhaust heat sources.

The Department rejects pipes with cracked or split gaskets.

Protect pipes and fittings from damage when handling and installing.

Section 64-2.02B Backfill of the Standard Specifications:

Structure backfill material for plastic pipe must comply with section 19-3 except the gradation of structure backfill must comply with the following table:

Gradation of Structure Backfill for Plastic Pipe

Sieve size	Percentage passing
1-1/2"	100
No. 4	25-70
No. 50	5-20
No. 200	0-5

Controlled low-strength material and slurry cement backfill must comply with section 19-3.

Section 64-2.02C Corrugated Polyethylene Pipe of the Standard Specifications:

Corrugated polyethylene pipe must be 60 inches or less in nominal diameter.

Type C and Type S corrugated polyethylene pipe must be manufactured from HDPE virgin compounds and comply with AASHTO M 294.

HDPE compounds used in the manufacture of corrugated polyethylene pipe and fittings must comply with AASHTO M 294 except the mix must contain from 2 to 4 percent well-dispersed carbon black.

The corrugated polyethylene pipe manufacturer must:

1. Participate in the National Transportation Product Evaluation Program for each plant supplying corrugated polyethylene pipe and fittings for the project.

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2. Conduct and maintain a quality control program under National Transportation Product Evaluation Program.

Measurement. Storm Drainage Culvert will be measured by the lineal foot of culvert.

Payment. The unit price paid for the various items of work included in Storm Drain shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing storm drainage piping.

13-22. Storm Drainage Inlets. All Storm Drainage Inlets and Manholes, and work shall conform to the provisions in Section 51-7 of the California Standard Specifications. Precast structures shall conform to H20 loading and minimum concrete compressive strength of 3000 psi at 28 days. The structures shall be free of cracks or damage upon installation. Backfill around structures shall be 2 sack concrete slurry or other approved backfill capable of meeting 95% relative compaction.

Measurement. Storm Drainage Inlets and Manholes will be measured by the complete installed structure.

Payment. The unit price paid for the various items of work included in Storm Drain Structures shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing storm drain structures.

13-23. Existing Storm Drainage Facilities. All existing Storm Drainage Inlets, and junction structures and storm drain piping designated to be removed and or abandoned shall be Backfill of removed drainage structures shall be completely backfilled with 2 sack concrete sand slurry or other approved excavation and backfill capable of meeting 95% relative compaction. Storm Drain culverts abandoned in place shall be completed filled with 5 sack concrete slurry pumped into the existing culvert until it is full, otherwise the culvert shall be excavated and removed and the trench excavation shall be backfill with compacted class 2 aggregate base or 2 sack concrete sand slurry. The existing materials that are removed shall be the responsibility of the Contractor to dispose in an approved manner. This work relates to all location, saw cutting, excavations, demolition, backfill, and install a new roadway structural section necessary to proper remove or abandon the existing drainage facilities as designated on the plans to be removed.

Measurement. There will be no field measurement of the removed culvert or drainage structures.

Payment. The unit price paid for the various items of work included in Removal of Existing Drainage Facilities includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing storm drain structures.

13-24. Tubular Hand Railing. Section 83-2.08B of the Standard Specifications includes specifications for constructing tubular hand railings. The materials for tubular hand railing components must comply with the specifications shown in the following table:

Material	Specification
Rail and post tubes	ASTM A500/A500M, Grade B
Rolled bars and plates	ASTM A36/A36M
Rail splice sleeves	ASTM A36/A36M
Bolts	ASTM A325, A325M, or A449
Threaded rods	ASTM A449
Nuts and washers for bolts and threaded rods	ASTM A325 or A325M

Bolts and threaded rods furnished under ASTM A449 must comply with the mechanical requirements specified in ASTM A449 after galvanizing. Rail tubes must be shop bent or fabricated to fit the horizontal curve if the radius is less than 900 feet. If the vertical radius of the tubular hand railing is 30 feet or less, that portion of the railing must be either shop bent or built up from 1/4-inch-thick structural steel plates. The built-up tubular rail elements must match the seamless tubing in appearance. The difference between out-to-out rail splice sleeve dimensions and

the clear inside dimensions of the tubular steel rail elements must not exceed 3/16 inch after galvanizing.

Section 83-2.08C Construction

Tubular hand railings must present a smooth, uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered. Before the tubular hand railing parts are assembled, clean the bearing surfaces and surfaces to be in permanent contact. If the railing is mounted on a concrete surface, the post bases must be true and flat to provide uniform bearing. Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the galvanizing. Adjust the vertical position of the tubular hand railing to compensate for the camber and dead load deflection of the superstructure. The Engineer determines the adjustment amount before the railing is installed. The metal railing posts to which the chain link railing attaches must fit the mounting brackets, pipe sleeves, and other connection fittings. Where necessary, install shims at posts and rail elements to provide uniform bearing and conformance with the horizontal lines and vertical grade lines. Shims at steel posts must be commercial-quality, galvanized sheet steel.

Section 83-2.09 PIPE HANDRAILINGS

Section 83-2.09B Materials

Rail elements must be commercial-quality standard steel pipe. Brackets, bolts, nuts, and other fittings must be commercial-quality structural steel, except standard steel pipe fittings may be used where shown.

Section 83-2.09C Construction

Erect pipe hand railings carefully and true to line and grade.

Measurement. Field measurement per lineal foot of hand railings along the top of retaining walls and raised sidewalk sections.

Payment. The lineal foot price paid for "Retaining Wall with Hand Railings" items of work includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in providing and installing hand railings as shown on the plans.

13-25. Retaining Walls and Chain Link Fence. This retaining wall work shall consist of constructing concrete retaining walls including reinforcement, footings, forming, and the installation of drains per the plans and Section 90 "Concrete" of Standard Specifications. The chain link fence work shall consist of constructing a complete installed 6 foot high chain link fence of galvanized wire mesh and galvanized schedule 40 2 inch diameter steel posts.

Measurement. Retaining walls will be measured by the linear foot, along the line of the roadway, depending of the average height of the wall. Chain Link fence on top of the retaining wall shall be measured by the linear foot along the line of the roadway.

Payment. The contract price paid per linear foot for the various items of "Retaining Wall" shall include full compensation for furnishing all labor, materials including reinforcement, tools, equipment and incidentals, and for doing all the work involved in constructing retaining walls per the plans and details. The contract price paid per linear foot for the various items of "Chain Link Fence" shall include full compensation for furnishing all labor, materials including sleeves, tools, equipment and incidentals, and for doing all the work involved in constructing chain link fence per the standard specifications and standard of practice for chain link fencing.

13-26. Traffic Signal Facilities. This work will consist of modifying the existing traffic signal facility as shown on the plans and specified in these special provisions and specified in the following portions of Section 86 of the Standard Specifications, 2010 version including any section references within this section of the special provisions.

Section 86-1.06 MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS

Section 86-1.06A General

Keep existing electrical system or authorized temporary replacement in working order during the progress of the work. Shutdown is allowed for alteration or removal of the system. Traffic signal shutdown must be limited to normal working hours. Lighting system shutdown must not interfere with the regular lighting schedule. Notify the Engineer before performing work on the existing system.

Notify the local traffic enforcement agency before traffic signal shutdown.

If lane closures are specified, traffic signal system shutdowns must be limited to the hours allowed for lane closures.

Where an existing or temporary system is being modified and the work is not described but the Engineer considers it necessary to keep the system in working order, the work is change order work.

The Department or local agency will:

1. Continue the operation and maintenance of existing electrical facilities
2. Continue to provide electrical energy to operate existing electrical facilities
3. Repair or replace existing facilities damaged by traffic
4. Pay for electrical energy to operate existing or new facilities undergoing the functional tests specified in section 86-2.14C.

Verify location and depth of existing detectors, conduits, pull boxes, and other electrical facilities before using tools or equipment that may damage those facilities or interfere with an electrical system.

Notify the Engineer immediately if existing facility is damaged by your activities. Repair or replace damaged facility promptly. If you fail to complete the repair or replacement, promptly, the Department will repair or replace and deduct the costs.

Replace damaged detectors within 24 hours at your expense. If you fail to complete the repair within 24 hours, the Department will repair and deduct the repair costs.

If the roadway remains open to traffic while an existing lighting system is modified:

1. Keep the existing system in working order
2. Make the final connection so the modified circuit is in operation by nightfall

Keep temporary electrical installations in working order until no longer required. Remove temporary installations under section 86-7.

During traffic signal system shutdown, place W3-1, "Stop Ahead," and R1-1, "Stop," signs in each direction to direct traffic through the intersection. For 2-lane approaches, place 2 R1-1 signs.

Use a minimum size of 30 inches for the R1-1 sign.

Cover signal faces when the system is shut down overnight. Cover temporary W3-1 and R1-1 signs when the system is turned on.

Section 86-1.07 SCHEDULING OF WORK

The first order of work must be to place the order for the electrical equipment. Furnish the Engineer a statement from the vendor that the order for the electrical equipment has been received and accepted by the vendor. Submit the statement as an informational submittal.

Except service installation and service equipment enclosure, do not work above ground until all materials are on hand to complete the electrical work at each location. Schedule work to allow each system to be completed and

ready for operation before opening the corresponding section of the roadway to traffic.

If street lighting exists or is installed in conjunction with traffic signals, do not turn on the signals until the street lighting is energized.

Traffic signals will not be placed in operation until the roadways to be controlled are open to traffic.

Lighting and traffic signals, including flashing operation, will not be placed in operation before starting the functional test period specified in section 86-2.14.

Do not pull conductors into conduit until:

1. Pull boxes are set to grade
2. Metallic conduit is bonded and grounded

The initial traffic signal turn on must be made between 9:00 a.m. and 2:00 p.m. Before the initial turn on, all equipment, including pedestrian signals, pedestrian push buttons, vehicle detectors, lighting, signs, and pavement delineation must be installed and in working order. Direct louvers, visors, and signal faces to maximize visibility.

Start functional tests on any working day except Friday or the day before a holiday. Notify the Engineer 48 hours before the start of a functional test.

Section 86-2 MATERIALS AND INSTALLATION

86-2.01 EXCAVATING AND BACKFILLING

Dispose of surplus excavated material.

Backfill under section 19-3. Backfill placed in conduit trenches outside the hinge point of slopes and not under pavement must be compacted to a minimum relative compaction of 90 percent. Compact backfill within hinge points and in areas where pavement is to be constructed to a minimum relative compaction of 95 percent.

Backfill trenches and restore sidewalk, pavement, and landscaping corner before starting excavation another intersection corner.

Unless otherwise specified in section 12, restrict closure for excavation on a street or highway to 1 lane at a time.

Section 86-2.02 REMOVING AND REPLACING IMPROVEMENTS

Replace or reconstruct underlying material damaged by your activities. Replacement material must be of equal or better quality than the material replaced.

If a part of a square or slab of concrete sidewalk, curb, gutter, or driveway is broken or damaged, the entire square or slab must be removed and reconstructed.

Cut the outline of concrete sidewalk or driveway to be removed:

1. Using a power-driven saw
2. On a neat line
3. To a 0.17-foot minimum depth

Section 86-2.03 FOUNDATIONS

86-2.03A General

Concrete must comply with the specifications for minor concrete.

Construct concrete foundations on firm ground.

After each post, standard, and pedestal is properly positioned, place mortar under the base plate. Finish the exposed portion to present a neat appearance. Mortar must comply with the specifications for mortar in section 51-1, except mortar must have:

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1. 1 part by volume of cement
2. 3 parts by volume of clean sand

Form exposed portions of the foundation to present a neat appearance and true to line and grade. The top of the foundation for posts and standards must be finished to curb or sidewalk grade. Forms must be rigid and braced securely in place. Conduit ends and anchor bolts must be placed at the proper height and position. Anchor bolts must be installed a maximum of 1:40 from vertical and held in place by rigid top and bottom templates. Use a steel bottom template at least 1/2 inch thick that provides proper spacing and alignment of anchor bolts near the embedded bottom end. Install the bottom template before placing footing concrete.

For relocated standards, construct new foundations and furnish anchor bolts of the proper type and size.

Galvanize steel parts under section 75-1.05.

Provide 2 nuts and washers for the upper threaded part of each anchor bolt. Provide 3 nuts and washers for each anchor bar or stud.

Do not weld HS steel used for anchor bolts, anchor bars, or studs.

Before placing concrete, moisten the forms and ground. Keep the forms in place until the concrete sets for at least 24 hours and is strong enough to prevent damage to the surface.

Except when located on a structure, construct foundations for posts, standards, and pedestals monolithically.

Apply ordinary surface finish under section 51-1.03F(2).

If a foundation must be extended for additional depth, the extension work is change order work.

Do not erect posts, poles, standards, pedestals, or cabinets until the concrete foundation has cured for at least 7 days.

The Engineer will choose either the plumbing or raking technique for posts, standards, and pedestals. Plumb or rake by adjusting the leveling nuts before tightening nuts. Do not use shims or similar devices. After final adjustments of both top nuts and leveling nuts on anchorage assemblies have been made, and each post, standard, and pedestal on the structure is properly positioned, tighten nuts as follows:

1. Tighten leveling nuts and top nuts, following a crisscross pattern, until bearing surfaces of all nuts, washers, and base plates are in firm contact.
2. Use an indelible marker to mark the top nuts and base plate with lines showing relative alignment of the nut to the base plate.
3. Tighten top nuts, following a crisscross pattern, an additional 1/6th of a turn.

If a foundation is shown to be abandoned, remove the top of the foundation, anchor bolts, and conduits to a minimum depth of 0.5 foot below the sidewalk surface or original ground. Backfill the resulting hole with material equivalent to the surrounding material.

A foundation must be completely removed if not shown to be reused or abandoned.

Dispose of foundations removed.

Section 86-2.03B Cast-In-Drilled-Hole Concrete Pile Foundations

Reinforced CIDH concrete pile foundation must comply with section 49-3, except:

1. Dispose of material resulting from drilling holes under section 86-2.01
2. Concrete for CIDH concrete piles will not be considered as designated by compressive strength

Concrete must contain not less than 590 pounds of cementitious material per cubic yard.

For standards and poles located in sidewalk areas, the pile foundation must be placed to final sidewalk grade before the sidewalk is placed. The top 4 inches must be square shaped.

Section 86-2.04 STANDARDS, POLES, STEEL PEDESTALS, AND POSTS

Section 86-2.04A General

Except for Type 1 standards, attach rectangular corrosion-resistant metal identification tags on all standards and

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poles using stainless steel rivets as follows:

1. For standards and poles, attach a tag above the hand hole near the base of the standard or pole.
2. For signal standards, attach 1 tag above the hand hole near the base of the pole and 1 tag on the underside of the signal mast arm near the arm plate.

The lettering on each identification tag must be depressed or raised, 1/4 of an inch tall, legible, and include the following information:

1. Name of the manufacturer
2. Date of manufacture
3. Identification number
4. Contract number
5. Unique identification code:
 - 5.1. Assigned by the manufacturer
 - 5.2. Traceable to a particular Contract and the welds on that component
 - 5.3. Readable after the support structure is coated and installed

Change in the mast arm configuration is allowed as long as the mounting height and stability are maintained.

Configure the mast arm as a smooth curving arm.

Holes left in the shaft of an existing standard due to the removal of equipment or mast arm must be sealed by fastening a galvanized steel disk to cover the hole. Fasten using a single central galvanized steel fastener. Seal edges of the disk and hole with a polysulfide or polyurethane sealing compound complying with ASTM C 920, Type S, Grade NS, Class 25, Use O.

If an existing standard is ordered to be relocated or reused, remove large dents, straighten shafts, and replace parts that are in poor condition. Furnish anchor bolts or bars and nuts required for relocating or reusing standard. Repair and replacement work is change order work.

If a standard or mast arm is relocated or the Department furnishes a used standard or mast arm, furnish:

1. New bolts, nuts, cap screws, and washers
2. New keeper plate, if the standard has a slip base

Section 86-2.04B Steel Standards, Poles, Pedestals, and Posts

Section 86-2.04B(1) General

Welding must comply with AWS D1.1.

Handhole reinforcement rings for standards, steel pedestals, poles, and posts must be continuous around the handholes.

Push button posts, pedestrian barricades, and guard posts must comply with ASTM A 53.

Standards, poles, pedestals, posts, fasteners, and other ferrous materials must be galvanized under section 75-1.05.

Section 86-2.04B(2) Bolted Connections

Anchor bolts must comply with ASTM F 1554, Grade 55 for weldable steel.

HS anchor bolts, nuts, and washers must comply with section 55-1.02A(1).

Bolts, nuts, and washers for general applications must comply with section 55-1.02A(1).

HS bolts shown to be snug tight must comply with section 55-1.02A(1) for general applications.

HS bolts, nuts, and flat washers used to connect slip base plates must comply with ASTM A 325.

Assemble and tighten the slip base when the pole is on the ground. Threads of heavy hex nuts for each slip base

bolt must be coated with additional lubricant that is clean and dry to the touch. Tighten HS slip base bolts to within ± 10 ft-lb of torque shown in the following table:

Slip Base Bolt Tightening Requirements

Standard type	Torque (ft-lb)
15-SB	150
30	150
31	200
36-20A	165

Zinc-coated nuts used on fastener assemblies having a specified preload obtained by specifying a prescribed tension, torque value, or degree of turn must be provided with a colored lubricant, clean and dry to the touch. The lubricant color must contrast the zinc coating color on the nut such that the presence of the lubricant is visually obvious. Lubricant must be insoluble in water or the fastener components must be shipped to the job site in a sealed container.

Plate washers must be manufactured by saw cutting and drilling steel plate. Steel plate must comply with AISI 1018. Before galvanizing, remove burrs and sharp edges and chamfer both sides of holes to allow the bolt head to make full contact with the washer without tension.

HS cap screws for attaching arms to standards must comply with ASTM A 325 or A 449, and the mechanical requirements in ASTM A 325 after galvanizing. Coat threads of cap screws with a colored lubricant, clean and dry to the touch. Lubricant color must contrast the zinc-coating color on the cap screw such that the presence of the lubricant is visually obvious. Lubricant must be insoluble in water or the fastener components must be shipped to the job site in a sealed container.

Bolted connections attaching signal or luminaire arm to the pole must be considered slip critical. Galvanized faying surfaces of plates on luminaire arm, signal arm, and pole must be roughened by hand using a wire brush before assembly and must comply with requirements for Class C surface conditions for slip-critical connections in "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts," a specification approved by the RCSC. Paint for faying surfaces must comply with the RCSC specification for Class B coating.

Before manufacturing, details must be adjusted to ensure that cap screw heads can be turned using conventional installation tools. During manufacturing, properly locate the position of the luminaire on the arm plate to avoid interference with the cap screw heads.

The Engineer will randomly take test samples of fastener components from each production lot and submit to these test samples to METS with test reports specified in ASTM fastener specifications for QA testing and evaluation. The Engineer will determine sample sizes for each fastener component.

Section 86-2.04B(3) Standards and Poles

Standards and poles with shaft lengths of 15 feet or longer must comply with section 55-1.02 and the following:

1. Tapered tubes must be manufactured from sheet steel of weldable grade having a minimum yield strength of 55,000 psi after manufacturing.
2. Certified test reports verifying compliance with minimum yield strength requirements must be submitted. Test report may be the mill test report for the as-received steel or if the as-received steel has a lower yield strength than required, provide test data assuring that your method of cold forming will consistently increase the tensile properties of the steel to meet the specified minimum yield strength. Test data must include tensile properties of the steel after cold forming for specific heats and thicknesses.
3. If a single-ply 5/16-inch-thick pole is specified, a 2-ply pole with equivalent section modulus may be substituted.
4. Standard may be manufactured of full-length sheets or shorter sections. Each section must be manufactured from 1 or 2 pieces of sheet steel. If 2 pieces are used, the longitudinal welded seams must be directly opposite from one another. If the sections are butt-welded together, the longitudinal welded seams of adjacent sections must be placed to form continuous straight seams from the base to the top of the standard.

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5. Butt-welded circumferential joints of tubular sections requiring CJP groove welds must be made using a metal sleeve backing ring inside each joint. The sleeve must have at least a 1/8 inch nominal thickness and be manufactured from steel having the same chemical composition as the steel in the tubular sections to be joined. If the sections to be joined have different specified minimum yield strengths, the steel in the sleeve must have the same chemical composition as the tubular section having the higher minimum yield strength. The width of the metal sleeve must be consistent with the type of NDT selected and must be a minimum width of 1 inch. At fitting time, the sleeve must be centered at the joint and in contact with the tubular section at the point of the weld.
6. Welds must be continuous.
7. Weld metal at the transverse joints must extend to the sleeve, making the sleeve an integral part of the joint.
8. During manufacturing, longitudinal seams on vertical tubular members of cantilevered support structures must be centered on and along the side of the pole that the pole plate is located. Longitudinal seams on horizontal tubular members, including signal and luminaire arms, must be within ± 45 degrees of the bottom of the arm.
9. Longitudinal seam welds in steel tubular sections may be made by the electric resistance welding process.
10. Longitudinal seam welds must have a 60 percent minimum penetration, except:
 - 10.1. Within 6 inches of a circumferential weld, the longitudinal seam weld must be a CJP groove weld.
 - 10.2. Longitudinal seam welds on lighting support structures having a telescopic pole segment splice must be CJP groove welds on the female end for a length on each end equal to the designated slip-fit splice length plus 6 inches.
11. Exposed circumferential welds, except fillet and fatigue-resistant welds, must be ground flush with the base metal before galvanizing or painting. Ground flush is specified as -0, +0.08-inch.
12. Circumferential welds and base plate-to-pole welds may be repaired only 1 time.
13. Exposed edges of the plates that make up the base assembly must be finished smooth and exposed corners of the plates must be broken. Provide shafts with slip-fitter shaft caps.
14. Surface flatness requirements specified in ASTM A 6 apply to plates:
 - 14.1. In contact with concrete, grout, or washers and leveling nuts
 - 14.2. In HS bolted connections
 - 14.3. In joints, where cap screws are used to secure luminaire and signal arms
 - 14.4. Used for breakaway slip base assemblies
15. Standards and poles must be straight with a maximum variation of:
 - 15.1. 1 inch measured at the midpoint of a 30-foot to 35-foot standard
 - 15.2. 3/4 inch measured at the midpoint of a 17-foot to 20-foot standard
 - 15.3. 1 inch measured 15 feet above the base plate for Type 35 and Type 36 standards
16. Do not make additional holes in structural members.
17. Standards with an outside diameter of 12 inches or less must be round. Standards with an outside diameter greater than 12 inches must be round or multisided. Multi-sided standards must be convex with a minimum of 12 sides and have a minimum bend radius of 4 inches.
18. Manufacture mast arms from material specified for the standard.
19. Manufacture the cast steel option for slip bases from material of Grade 70-40 complying with ASTM A 27/A 27M. Other comparable material may be used if authorized. The casting tolerances must comply with the Steel Founders' Society of America's recommendations for green sand molding.
20. One casting from each lot of a maximum of 50 castings must be radiographed under ASTM E 94. Castings must comply with the acceptance criteria for severity level 3 or better for the types and categories of discontinuities specified in ASTM E 186 and E 446. If the casting fails the inspection, 2 additional castings must be radiographed. If the 2 additional castings fail the inspection, the lot will be rejected.

Section 86-2.05 CONDUIT

Use conduits to run the conductors except for overhead and where conductors are run inside poles.

You may use a larger size conduit than specified as long as you use it for the entire length between outlets. Do not use reducing coupling.

New conduit must not pass through existing foundations for standards.

Section 86-2.05A Material

Conduit and conduit fitting must be UL or NRTL listed and comply with the requirements shown in the following table:

Conduit and Conduit Fitting Requirements

Type 1	Hot-dip galvanized rigid steel conduit and conduit couplings must comply with UL 6 and ANSI C80.1. Zinc coating testing must comply with copper sulfate test requirements in UL 6. Conduit couplings for rigid steel conduit must be electrogalvanized.
Type 2	Hot-dip galvanized rigid steel conduit must comply with requirements for Type 1 conduit and be coated with PVC or polyethylene. Exterior thermoplastic coating must have a minimum thickness of 35 mils. Internal coating must have a minimum thickness of 2 mils. Coated conduit must comply with UL 6; NEMA RN 1; or NRTL PVC-001.
Type 3	Rigid nonmetallic PVC conduit must comply with UL 651. Type A extruded rigid PVC conduit and extruded rigid HDPE conduit must comply with UL 651A. Coilable, smooth-wall, continuous length HDPE conduits must comply with UL 651B. Install at underground locations only.
Type 4	Waterproof flexible metal conduit must consist of conduit with a waterproof nonmetallic sunlight-resistant jacket over an inner flexible metal core. Type 4 conduit must be UL listed for use as the grounding conductor.
Type 5	Intermediate steel conduit and conduit couplings must comply with UL 1242 and ANSI C80.6. Zinc coating testing must comply with copper sulfate test requirements in UL 1242. Conduit couplings for intermediate rigid steel conduit must be electrogalvanized. Type 5 conduit must only be used if specified.

Bonding bushings to be installed on metal conduit must be insulated and either galvanized or zinc alloy type.

Fittings for steel conduit and for watertight flexible metal conduit must be UL listed at UL 514B.

Section 86-2.05B Use

Install Type 1 conduit on all exposed surfaces and at the following locations:

1. In concrete structures
2. Between a structure and nearest pull box

Change or extend existing conduit runs using the same material. Install pull box if an underground conduit changes from the metallic type to Type 3.

Minimum trade size of conduit must be:

1. 1-1/2 inches from electrolier to adjacent pull box

2. 1 inch from pedestrian push button post to adjacent pull box
3. 2 inches from signal standard to adjacent pull box
4. 3 inches from controller cabinet to adjacent pull box
5. 2 inches from overhead sign to adjacent pull box
6. 2 inches from service equipment enclosure to adjacent pull box
7. 1-1/2 inches if unspecified

Two conduits must be installed between a controller cabinet and the adjacent pull box.

Section 86-2.05C Installation

Whether shop or field cut, ream ends of conduit to remove burrs and rough edges. Make cuts square and true. Slip joints and running threads are not allowed for coupling conduit. If a standard coupling cannot be used for coupling metal type conduit, use a threaded union coupling that is UL or NRTL listed. Tighten couplings for metal conduit to maintain a good electrical connection through conduit run.

Cut Type 3 conduit with tools that will not deform the conduit. Use solvent weld for connections.

Cut Type 2 conduit with pipe cutters; do not use hacksaws. Coated conduit must be threaded with standard conduit-threading dies. Tighten conduit into couplings or fittings using strap wrenches or approved groove joint pliers.

Protect shop-cut threads from corrosion under the standards shown in the following table:

Shop-Cut Thread Protection

Steel conduit and conduit couplings	ANSI C80.1
Electrical intermediate metal conduit and conduit couplings	ANSI C80.6

Paint conduits. Apply 2 coats of authorized unthinned zinc-rich primer of organic vehicle type. Do not use aerosol cans. Paint the following parts of conduits:

1. All exposed threads
2. Field-cut threads before installing conduit couplings to steel conduit
3. Damaged surfaces on metal conduit

Do not remove shop-installed conduit couplings.

Damaged Type 2 conduit or conduit coupling must be wrapped with at least 1 layer of 2-inch-wide, 20-mil-minimum-thickness PVC tape as specified in ASTM D 1000, with a minimum tape overlap of 1/2 inch. Before applying the tape, conduit or fitting must be cleaned and painted with 1 coat of rubber-resin based adhesive as recommended by the tape manufacturer. You may repair damaged spots in the thermoplastic coating by painting over with a brushing type compound supplied by the conduit manufacturer instead of the tape wrap.

The ends of Types 1, 2, or 5 conduit must be threaded and capped with standard pipe caps until wiring is started. The ends of Types 3 and 4 conduit must be capped until wiring is started. If caps are removed, replace with conduit bushings. Fit insulated bonding bushings on the end of metal conduit ending in pull box or foundation. Bell or end bushings for Type 3 conduit must be nonmetallic type.

Conduit bends, except factory bends, must have a radius of not less than 6 times the inside diameter of the conduit. If factory bends are not used, bend the conduit without crimping or flattening using the longest radius practicable. Bend conduits as shown in the following table:

Conduit-Bending Requirements

Type 1	By equipment and methods recommended by the conduit manufacturer.
Type 2	Use standard bending tool designed for use on thermoplastic coated conduit. Conduit must be free of burrs and pits.
Type 3	By equipment and methods recommended by the conduit manufacturer. Do not expose conduit to direct flame.
Type 5	By equipment and methods recommended by the conduit manufacturer.

Install pull tape in conduit that is to receive future conductors. The pull tape must be a flat woven lubricated soft fiber polyester tape with a minimum tensile strength of 1,800 lb and have printed sequential measurement markings every 3 feet. At least 2 feet of pull tape must be doubled back into the conduit at each end.

Existing underground conduit to be incorporated into a new system must be cleaned with a mandrel or cylindrical wire brush and blown out with compressed air.

Install conduit to a depth of not less than 30 inches below finished grade, except in sidewalk and curbed paved median areas, where it must be at least 18 inches below grade. You may lay conduit on existing pavement within new curbed median.

Conduit coupling must be a minimum of 6 inches from the face of the foundation.

Place a minimum of 2 inches of sand bedding in the trench before installing Type 2 or Type 3 conduit. Place a minimum of 4 inches of same material over conduit before placing additional backfill material.

Conduit runs located behind curbs may be installed in the street, within 3 feet of, and parallel with the face of the curb by the trenching in pavement method as specified in section 86-2.05C. Pull boxes must be located behind the curb or at the locations shown.

Obtain authorization before disturbing pavement. If an obstruction is encountered, obtain authorization to cut small holes in the pavement to locate or remove the obstruction. If jacking or drilling method is used, keep jacking or drilling pit 2 feet away from edge of pavement. Pavement must not be weakened or subgrade softened from excess water use.

Conduit used for drilling or jacking must be removed; install new conduit for completed work. If a hole larger than the conduit is pre-drilled and you install conduit by hand or by equipment and method recommended by the conduit manufacturer, you may install Type 2 or Type 3 conduit under the pavement.

If trenching in pavement method is specified, conduit installation under pavement that is not a freeway lane or freeway to freeway connector ramp, must comply with the following:

1. Use Type 3 conduit. Place conduit under pavement in a trench approximately 2 inches wider than the outside diameter of conduit, but not exceeding 6 inches in width. Trench depth must not exceed the greater of 12 inches or conduit trade size plus 10 inches, except that at pull boxes the trench may be hand dug to required depth. The top of the installed conduit must be a minimum of 9 inches below finished grade.
2. Trenching installation must be completed before placing final pavement layer.
3. Cut pavement to be removed with a rock cutting excavator. Minimize shatter outside the removal area.
4. Place conduit in the bottom of the trench and backfill with minor concrete. Minor concrete must contain a minimum of 590 lb of cementitious material per cubic yard. If the trench is in asphalt concrete pavement and pavement overlay is not placed, backfill the top 0.10 foot of the trench with minor HMA.
5. Backfill trenches, except for the top 0.10 foot, by the end of each day. The top 0.10 foot must be filled within 3 days after trenching.

If jacking or drilling method is used, construct jacking pit to a minimum of 13 feet from the centerline of track at the near side of jacking pit. Cover jacking pit with substantial planking if left overnight.

Conduit ending in a standard or pedestal must not extend more than 3 inches vertically above the foundation and must be sloped toward the handhole opening. Conduit entering through the side of a nonmetallic pull box must end inside the box within 2 inches of the wall and 2 inches above the bottom and be sloped toward the top of the

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box to facilitate pulling of conductors. Conduit entering through the bottom of a pull box must end 2 inches above the bottom and be located near the end walls to leave the major portion of the box clear. At the outlet, the conduit must enter from the direction of the run.

Underground conduit runs, including under sidewalks, that are adjacent to gasoline service stations or other underground gasoline or diesel storage, piping, or pumps and that lead to a controller cabinet, circuit breaker panel, service, or enclosure where an arc may occur during normal operations must be sealed if the conduit is within the limits specified in the NEC for Class 1, division 1. Use Type 1 or Type 2 conduit for these runs.

Conduit for future use in structures must be threaded and capped. Conduit leading to soffit, wall, or other lights or fixtures below pull box grade must be sealed and made watertight, except where conduit ends in a No. 9 or No. 9A pull box.

Section 86-2.05D Expansion Fittings

Install expansion fitting where the conduit crosses an expansion joint in a structure. Each expansion fitting for metal conduit must include a copper bonding jumper having the ampacity specified in NEC.

Each expansion-deflection fitting for expansion joints of 1-1/2-inch movement rating must be watertight and include a molded neoprene sleeve, a bonding jumper, and 2 silicon bronze or zinc-plated iron hubs. Each fitting must allow a minimum of 3/4-inch expansion, contraction, and lateral deflection.

Section 86-2.06 PULL BOXES

You may use a larger standard size pull box than that described.

Section 86-2.06A Materials

Pull box, cover, and extension for installation in ground or sidewalk area must be precast reinforced concrete or nonconcrete material. Nonconcrete material must:

1. Be fire resistant with a burn rate no greater than 0.3 inch per minute per 0.1 inch of thickness when tested under ASTM D 635
2. Show no significant change in physical properties with exposure to weather
3. Be dense, free of voids or porosity, and gray or brown in color

Nonconcrete pull box must comply with the following:

1. Top dimensions must not exceed the bottom dimensions by more than 1 inch.
2. Extension must be of the same material as the pull box and attached to the pull box to maintain the minimum combined depths as shown.
3. Cover must not fail and must not deflect more than 1/4 inch when a vertical force of 1,500 lb is applied through a 1/2-by-3-by-6-inch steel plate to a nonconcrete cover on the pull box. Center the steel plate on the cover with its longitudinal axis coinciding with the longitudinal axis of the cover.

Nonconcrete pull boxes must be of sufficient rigidity that when a designated concentrated force is applied perpendicularly to the midpoint of one of the long sides at the top while the opposite long side is supported by a rigid surface, it must be possible to remove the cover without the use of tools. The designated concentrated force must be 150 lb for a No. 3-1/2 pull box and must be 100 lb for a No. 5 or No. 6 pull box.

If a transformer or other device must be placed in a nonmetallic pull box, include recesses for a hanger.

Secure cover, except ceiling pull box cover, with 3/8-inch hold down bolts, cap screws, or studs, washers, and brass stainless steel or other non-corroding metal nut. Stainless steel hardware must have an 18 percent chromium content and an 8 percent nickel content.

Galvanize ferrous metal parts under section 75-1.05.

Traffic pull box must be provided with steel cover and special concrete footing. Steel cover must have an embossed nonskid pattern.

Traffic pull box and cover must have a vertical proof-load strength of 25,000 lb. Comply with Federal Specification RR-F-621 and distribute the 25,000 lb load through a 9-by-9-by-2-inch steel plate. You must be able to place the load anywhere on the box and cover for 1 minute without causing cracks or permanent deformations.

No. 3-1/2(T) and No. 5(T) traffic pull box must be reinforced with a galvanized Z bar welded frame and cover similar to that shown for No. 6(T) pull box. Frame must be anchored to the box with 1/4 by 2-1/4 inch concrete anchors. Four concrete anchors must be included for No. 3-1/2(T) pull box; one placed in each corner. Six concrete anchors must be included for No. 5(T) and No. 6(T) pull boxes; one placed in each corner and one near the middle of each of the longer sides.

Hold down screws must be 3/8-inch hex flange cap screws of Type 316 stainless steel. Nut must be zinc-plated carbon steel, vibration resistant, and have a wedge ramp at the root of the thread. Nut must be spot welded to the underside or fabricated with galvanized Z-bar pull box frame.

Steel cover must be countersunk approximately 1/4 inch to accommodate the bolt head. When tightened, the bolt head must not exceed more than 1/8 inch above the top of the cover. A 1/4-inch tapped hole and brass bonding screw must be included.

Concrete placed around and under traffic pull boxes must be minor concrete.

Section 86-2.06B Cover Marking

Marking must be clearly defined, uniform in depth, and parallel to either the long or short sides of the cover.

Marking letters must be between 1 to 3 inches high.

Before galvanizing steel or cast iron cover, apply marking by one of the following methods:

1. Use cast iron strip at least 1/4 inch thick with letters raised a minimum of 1/16 inch. Fasten strip to cover with 1/4-inch flathead stainless steel machine bolts and nuts. Peen bolts after tightening.
2. Use sheet steel strip at least 0.027 inch thick with letters raised a minimum of 1/16 inch. Fasten strip to cover by spot welding, tack welding, or brazing, with 1/4-inch stainless steel rivets or 1/4-inch roundhead stainless steel machine bolts and nuts. Peen bolts after tightening.
3. Bead weld the letters on cover such that the letters are raised a minimum of 3/32 inch.

Section 86-2.06C Installation and Use

Space pull boxes no more than 200 feet apart. You may install additional pull boxes to facilitate the work.

Pull box in ground or sidewalk area must be installed as follows:

1. Embed bottom of the pull box in crushed rock.
2. Place a layer of roofing paper on the crushed rock.
3. Place grout over the layer of roofing paper. Grout must be 0.50 to 1 inch thick and be sloped toward the drain hole.
4. Make a 1-inch drain hole in the center of the pull box through the grout and roofing paper.
5. Place grout between the pull box and the pull box extension, and around conduits.

Reconstruct the sump of an existing pull box if disturbed by your activities. Remove old grout and replace with new if the sump was grouted.

After installation of traffic pull box, install the steel cover and keep it bolted down when your activities are not in progress at the pull box. When the steel cover is placed for the final time, the cover and Z bar frame must be cleaned of debris and tightened securely.

Section 86-2.08 CONDUCTORS AND CABLES

Section 86-2.08A General

Conductor must be copper wire that complies with ASTM B 3 and B 8.

Wire size must comply with the requirements shown in the following table:

Wire Size Requirements

Conductor usage	Requirement
In loop detector lead-in cable	ASTM B 286
Everywhere except in loop detector lead-in cable	AWG ^a

^aExcept conductor diameter must not be less than 98 percent of specified AWG diameter.

Single conductor and cable, except detector lead-in cable, must have clear, distinctive, and permanent markings on the outer surface throughout its length. The markings must include the manufacturer's name or trademark, insulation type letter designation, conductor size, voltage, and temperature rating, and for cables, it must also include number of conductors.

Section 86-2.08B Conductor Identification

Conductor insulation must be a solid color with a permanent stripe as specified below. The solid color must be homogeneous through the full depth of insulation. Identification stripe must be continuous throughout the length of conductor. For conductor sizes No. 2 and larger, the insulation may be black and the ends of the conductors must be taped for a minimum length of 20 inches with electrical insulating tape of the required color. Conductor identification must comply with the requirements in the following table:

Conductor Identification

Circuit	Signal phase or function	Identification			Size
		Insulation color ⁱ		Band symbols ^f	
		Base	Stripe ^a		
Vehicle signals ^{a, b, d}	2, 6	Red, Yel, Brn	Blk	2, 6	14
	4, 8	Red, Yel, Brn	Ora	4, 8	14
	1, 5	Red, Yel, Brn	None	1, 5	14
	3, 7	Red, Yel, Brn	Pur	3, 7	14
	Ramp meter 1	Red, Yel, Brn	None	NBR	14
	Ramp meter 2	Red, Yel, Brn	Blk	NBR	14
Pedestrian signals ^d	2p, 6p	Red, Brn	Blk	2p, 6p	14
	4p, 8p	Red, Brn	Ora	4p, 8p	14
	1p, 5p	Red, Brn	None	1p, 5p	14
	3p, 7p	Red, Brn	Pur	3p, 7p	14
Pedestrian push buttons ^d	2p, 6p	Blu	Blk	P-2, P-6	14
	4p, 8p	Blu	Ora	P-4, P-8	14
	1p, 5p	Blu	None	P-1, P-5	14
	3p, 7p	Blu	Pur	P-3, P-7	14
Traffic signal controller cabinet	Ungrounded circuit conductor	Blk	None	CON-1	6
	Grounded circuit conductor	Wht	None	CON-2	6
Highway lighting pull box to luminaire	Ungrounded-line 1	Blk	None	NBR	14
	Ungrounded-line 2	Red	None	NBR	14
	Grounded	Wht	None	NBR	14
Multiple highway lighting	Ungrounded-line 1	Blk	None	ML1	10
	Ungrounded-line 2	Red	None	ML2	10
Lighting control	Ungrounded to PEU	Blk	None	C1	14
	Switching leg from PEU unit or SM transformer	Red	None	C2	14
Service	Ungrounded-line 1 (signals)	Blk	None	NBR ^e	6
	Ungrounded-line 2 (lighting)	Red ^h	None	NBR ^e	8
Sign lighting	Ungrounded-line 1	Blk	None	SL-1	10
	Ungrounded-line 2	Red	None	SL-2	10
Flashing beacons ^g	Ungrounded between flasher and beacons	Red or Yel	None	F-Loc. ^c	14

Grounded and common	Pedestrian push buttons	Wht	Blk	NBR	14
	Signals and multiple lighting	Wht	None	NBR	10
	Flashing beacons and sign lighting	Wht	None	NBR	12
	Lighting control	Wht	None	C-3	14
	Service	Wht	None	NBR	14
Railroad preemption		Blk	None	R	14
Spares		Blk	None	NBR	14

NBR = No band required PEU=Photoelectric unit

^aOn overlaps, insulation is striped for 1st phase in designation. e.g., phase (2+3) conductor is striped as for phase 2.

^bBand for overlap and special phases as required.

^cFlashing beacons having separate service do not require banding.

^dThese requirements do not apply to signal cable.

^e"S" if circuit is switched on line side of service equipment by utility.

^fBand conductors in each pull box and near ends of termination points. On signal light circuits, a single band may be placed around 2 or 3 ungrounded conductors comprising a phase.

^gUngrounded conductors between service switch and flasher mechanism must be black and banded.

^hBlack acceptable for size No. 2 and larger. Tape ends for 20 inches with indicated color.

ⁱColor Code: Yel-Yellow, Brn-Brown, Blu-Blue, Blk-Black, Wht-White, Ora-Orange, Pur-Purple.

Section 86-2.08C Circuit Conductors

Circuit conductors must be UL or NRTL listed and rated for 600 V(ac) operation. Insulation for No. 14 to No. 4 conductors must be one of the following:

1. Type TW PVC as specified in ASTM D 2219
2. Type THW PVC
3. Type USE, RHH, or RHW cross-linked polyethylene

Minimum insulation thickness for the insulation types shown must comply with the following table:

Insulation Thickness

Insulation type	Conductor size	Insulation thickness (mils)
USE, RHH, or RHW	No. 14 to No. 10	39
	No. 8 to No. 2	51
THW or TW	No. 14 to No. 10	27
	No. 8	40
	No. 6 to No. 2	54

Insulation for No. 2 and larger conductor must be one of the types listed above or Type THWN.

Conductor for wiring wall and soffit luminaire must be stranded copper with insulation rated for use at temperatures up to 125 degrees C.

Section 86-2.08D Signal Cable

Signal cable, except for the 28-conductor type, must:

1. Not be spliced
2. Be marked in each pull box with the signal standard information it is connecting to

Signal cable must comply with the following:

1. Cable jacket must be:
 - 1.1. Black polyethylene with an inner polyester binder sheath
 - 1.2. Rated for 600 V(ac) and 75 degrees C
2. Filler material, if used, must be polyethylene material.
3. Conductor must be solid copper with Type THWN insulation as specified in section 86-2.08 and ASTM B 286. The minimum thickness of Type THWN insulation must be 12 mils for conductor sizes No. 14 to No. 12 and 16 mils for conductor size No. 10. The minimum thickness of nylon jacket must be 4 mils.

Conductor Signal Cable Requirements

Cable type ^a	Conductor quantity and type	Cable jacket thickness (mils)		Maximum nominal outside diameter (inch)	Conductor color code	Remarks
		Average	Minimum			
3CSC	3 - No. 14	44	36	0.40	blue/black, blue/orange, white/black stripe	Use for pedestrian push buttons and spare
5CSC	5 - No. 14	44	36	0.50	red, yellow, brown, black, white	
9CSC	8 - No. 14 1 - No. 12	60	48	0.65	No. 12 - white No. 14 - red, yellow, brown, black, and red/black, yellow/black, brown/black, white/black stripe	
12CSC	11 - No. 14 1 - No. 12	60	48	0.80	No. 12 - white No. 14 - see "12CSC Color Code and Functional Connection" table	Use for vehicle signals, pedestrian signals, spares, and signal common
28CSC	27 - No. 14 1 - No. 10	80	64	0.90	No. 10 - white No. 14 - see "28CSC Color Code and Functional Connection" table	Keep signal commons in each cable separate except at the signal controller. Label each cable as "C1" or "C2" in pull box. Use "C1" for signal phases 1, 2, 3, and 4. Use "C2" for phases 5, 6, 7, and 8.

^aConductor signal cable description starts with the number of conductors, followed by "CSC".

(e.g., a signal cable with 3 conductors is labeled "3CSC".)

12CSC Color Code and Functional Connection

Color code	Termination	Phase
Red	Vehicle signal red	2, 4, 6, or 8
Yellow	Vehicle signal yellow	2, 4, 6, or 8
Brown	Vehicle signal green	2, 4, 6, or 8
Red/black stripe	Vehicle signal red	1, 3, 5, or 7
Yellow/black stripe	Vehicle signal yellow	1, 3, 5, or 7
Brown/black stripe	Vehicle signal green	1, 3, 5, or 7
Black/red stripe	Spare, or use as required for red or DONT WALK	
Black/white stripe	Spare, or use as required for yellow	
Black	Spare, or use as required for green or WALK	
Red/white stripe	Ped signal DONT WALK	
Brown/white stripe	Ped signal WALK	

28CSC Color Code and Functional Connection

Color code	Termination	Phase
Red/black stripe	Vehicle signal red	2 or 6
Yellow/black stripe	Vehicle signal yellow	2 or 6
Brown/black stripe	Vehicle signal green	2 or 6
Red/orange stripe	Vehicle signal red	4 or 8
Yellow/orange stripe	Vehicle signal yellow	4 or 8
Brown/orange stripe	Vehicle signal green	4 or 8
Red/silver stripe	Vehicle signal red	1 or 5
Yellow/silver stripe	Vehicle signal yellow	1 or 5
Brown/silver stripe	Vehicle signal green	1 or 5
Red/purple stripe	Vehicle signal red	3 or 7
Yellow/purple stripe	Vehicle signal yellow	3 or 7
Brown/purple stripe	Vehicle signal green	3 or 7
Red/2 black stripes	Ped signal DONT WALK	2 or 6
Brown/2 black stripes	Ped signal WALK	2 or 6
Red/2 orange stripes	Ped signal DONT WALK	4 or 8
Brown/2 orange stripes	Ped signal WALK	4 or 8
Red/2 silver stripes	Overlap A, C red	OLA, OLC
Brown/2 silver stripes	Overlap A, C green	OLA, OLC
Red/2 purple stripes	Overlap B, D red	OLB, OLD
Brown/2 purple stripes	Overlap B, D green	OLB, OLD
Blue/black stripe	Ped push button	2 or 6
Blue/orange stripe	Ped push button	4 or 8
Blue/silver stripe	Overlap A, C yellow	OLA(y), OLC(y)
Blue/purple stripe	Overlap B, D yellow	OLB(y), OLD(y)
White/black stripe	Ped push button common	
Black/red stripe	Railroad preemption	
Black	Spare	

Section 86-2.08E Signal Interconnect Cable (SIC)

Signal interconnect cable must be a 3-pair or 6-pair type with stranded tinned copper No. 20 conductors. Each conductor insulation must be 13 mils minimum nominal thickness, color-coded, polypropylene material. Conductors must be in twisted pairs. Color coding distinguishes each pair. Each pair must be wrapped with an aluminum polyester shield and must have a No. 22 or larger stranded tinned copper drain wire inside the shielded pair.

Cable jacket must be black, HDPE, rated for a minimum of 300 V(ac) and 60 degrees C, and must have a minimum nominal wall thickness of 40 mils. Cable jacket or moisture-resistant tape directly under the outer jacket must be marked as specified in section 86-2.08.

You must have a minimum of 6 feet of slack at each controller cabinet. Splicing is allowed only if shown.

Insulate conductor splice with heat-shrink tubing and overlap at least 0.6 inch. Cover overall cable splice with

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heat-shrink tubing and overlap the cable jacket at least 1-1/2 inch.

SECTION 86-2.09 WIRING

Solder conductors by hot iron, pouring, or dipping method, connectors and terminal lugs for conductor sizes No. 8 and smaller. Do not perform open-flame soldering.

Section 86-2.09A Circuitry

Do not run traffic signal indication conductors to a terminal block on a standard unless connected to a mounted signal head.

Use only 1 conductor to connect to each terminal of a pedestrian push button.

The common for pedestrian push button circuit must be separate from the traffic signal circuit grounded conductor.

Section 86-2.09B Installation

Use a UL- or NRTL-listed inert lubricant for placing conductors in conduit.

Pull conductors into conduit by hand, using pull tape specified in section 86-2.05C. Do not use winches or other power-actuated pulling equipment.

If adding new conductors or removing existing conductors, remove all conductors, clean the conduit under section 86-2.05C, and pull all conductors in the conduit as 1 unit.

If traffic signal conductors are run in a lighting standard containing street lighting conductors from a different service point, you must encase the traffic signal conductors or the lighting conductors with a flexible or rigid metal conduit for a length until the 2 types of conductors are no longer in the same raceway.

If less than 10 feet above grade, enclose temporary conductors in flexible or rigid metal conduit.

Leave slack for each conductor as shown in the following table:

Conductor Slack Requirements

Location	Slack (feet)
Signal standard	1
Lighting standard	1
Signal and lighting standard	1
Pull box	3
Splice	3
Standards with slip base	0

After conductors are installed, seal ends of conduits with an authorized sealing compound.

To form a watertight seal, tape the ends of spare conductors and conductors ending in pull boxes.

Conductors and cables inside a fixture or cabinet must be neatly arranged and tied together by function with self-clinching nylon cable ties or enclosed in a plastic tubing or raceway.

Identify conductors for signal overlap phase as specified for vehicle signals in the table titled "Conductor Identification."

Permanently identify conductors by function. Place identification on each conductor or each group of conductors forming a signal phase at each pull box and near the end of the conductors.

Label, tag, or band conductors by mechanical methods. Identification must not move along the conductors.

Section 86-2.09C Connectors and Terminals

Connectors and terminals must be UL- or NRTL-listed crimp type. Use a manufacturer-recommended tool for NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

connectors and terminals to join conductors. Comply with MIL-T-7928.

Terminate stranded conductors smaller than No. 14 in crimp style terminal lugs.

Section 86-2.09D Splicing and Terminations

Splices are allowed for:

1. Grounded conductors in a pull box.
2. Pedestrian push button conductors in a pull box.
3. Conductors in a pull box adjacent to each electrolier or luminaire.
4. Ungrounded traffic signal conductors in a pull box, if traffic signals are modified.
5. Ungrounded traffic signal conductors to a terminal compartment or a signal head on a standard with conductors of the same phase in the pull box adjacent to the standard.
6. Ungrounded lighting circuit conductors in a pull box, if lighting circuits are modified.

Section 86-2.09E Splice Insulation

You may use "Heat-shrink tubing" or "Method B" to insulate splices.

Splice must function under continuous submersion in water.

Multi-conductor cable must be spliced and insulated to form a watertight joint and to prevent moisture absorption by the cable.

Low-voltage tape must be:

1. UL or NRTL listed
2. Self fusing, oil and flame-resistant, synthetic rubber
3. PVC, pressure-sensitive adhesive of 6 mils minimum thickness

Insulating pad must be a combination of an 80-mils thick electrical grade PVC laminate and a 120-mils thick butyl splicing compound with removable liner.

Heat-shrink tubing must comply with the following:

1. Be medium or heavy wall thickness, irradiated polyolefin tubing with an adhesive mastic inner wall.
2. Before contraction, minimum wall thickness must be 40 mils.
3. Comply with requirements for extruded insulated tubing at 600 V(ac) in UL Standard 468D and ANSI C119.1, and the requirements shown in the following table:

Heat-Shrink Tubing Requirements

Shrinkage ratio	33 percent, maximum, of supplied diameter when heated to 125 °C and allowed to cool to 25 °C
Dielectric strength	350 kV per inch, minimum
Resistivity	25 ¹³ Ω per inch, minimum
Tensile strength	2,000 psi, minimum
Operating temperature	-40 °C to 90 °C (135 °C in emergency)
Water absorption	0.5 percent, maximum

Insulate splices using "Heat-shrink tubing" by performing the following:

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1. Completely cover the splice area with electrical insulating coating and allow to dry.
2. Heat as recommended by the manufacturer. Do not perform open-flame heating.
3. When heated, the inner wall must melt and fill crevices and interstices of the covered object and the outer wall must shrink to form a waterproof insulation.
4. After contraction, each end of the heat-shrink tubing or the open end of end cap of heat-shrink tubing must overlap the conductor insulation at least 1-1/2 inches.
5. If 3 or more conductors are to be enclosed in 1 splice, place mastic around each conductor before placing inside tubing. Use mastic type recommended by heat-shrink tubing manufacturer.
6. Cover entire splice with electrical insulating coating and allow to dry.

Insulate splices using "Method B" by performing the following:

1. Completely cover the splice area with electrical insulating coating and allow to dry.
2. Apply 2 layers of electrical insulating pad with a minimum thickness of 1/8 inch each layer or 2 layers of half lapped low voltage tape.
3. Apply 3 layers of half lapped polyvinyl chloride tape.
4. Cover entire splice with electrical insulating coating and allow to dry.

Use at least 2 thicknesses of electrical insulating pad. Apply pad to splice as recommended by the manufacturer.

Section 86-2.09F Fused Splice Connectors

Install a fused disconnect splice connector in each ungrounded conductor, between the line and the ballast, in the pull box adjacent to each luminaire. Connector must be accessible in the pull box.

For 240 and 480 V(ac) circuits, each connector must simultaneously disconnect both ungrounded conductors. Connector must not have exposed metal parts except for the head of the stainless steel assembly screw. Recess the head of the stainless steel assembly screw a minimum of 1/32 inch below the top of the plastic boss that surrounds the head.

Splice connector must protect the fuse from water or weather damage. Contact between the fuse and fuseholder must be spring loaded. Splice connector terminals must be:

1. Rigidly crimped, using a tool recommended by the manufacturer of the fused splice connector, onto ungrounded conductors
2. Insulated
3. Watertight

Fuses must be standard midget ferrule type, with "Non-Time-Delay" feature, and 13/32 by 1-1/2 inches.

SECTION 86-2.10 BONDING AND GROUNDING

Secure all metallic components, mechanically and electrically, to form a continuous system that is effectively grounded.

Bonding jumper must be copper wire or copper braid of the same cross sectional area as a No. 8 or larger to match the load. Equipment grounding conductors must be color coded as specified in NEC or be bare.

Attach bonding jumper to the standard as shown in the following table:

Bonding Jumper Attachment

Standard type	Requirements
Standard with handhole and traffic pull box lid cover	Use UL-listed lug and 3/16-inch diameter or larger brass or bronze bolt. Run a jumper to the conduit or bonding wire in adjacent pull box. Grounding jumper must be visible after the standard is installed and mortar pad is placed on foundation.
Standard without handhole	Use UL-listed ground clamp on each anchor bolt.
Slip base standard	Use UL-listed ground clamp on each anchor bolt or attach UL-listed lug to bottom slip base plate with 3/16-inch diameter or larger brass or bronze bolt.

Ground 1 side of the secondary circuit of step-down transformer.

Ground metal conduit, service equipment, and grounded conductor at the service point as specified by NEC and service utility, except grounding electrode conductor must be No. 6 or larger.

Equipment bonding and grounding conductors are required in conduits. Run a No. 8 minimum bare copper wire continuously in a conduit system. The bonding wire must be sized as specified in the NEC.

Ground electrode must be:

1. 1 piece
2. 10-foot minimum length of one of the following:
 - 2.1. Galvanized steel rod or pipe not less than 3/4 inch in diameter
 - 2.2. Copper clad steel rod not less than 5/8 inch in diameter
3. Installed as specified in NEC
4. Bonded to service equipment using one of the following:
 - 4.1. Ground clamp
 - 4.2. Exothermic weld
 - 4.3. No. 6 or larger copper conductor

On wood pole, metallic equipment mounted less than 8 feet above ground surface must be grounded.

Bond metallic conduit in nonmetallic pull box using bonding bushing or bonding jumper.

Bond metallic conduit in metal pull box using bonding bushings and bonding jumpers connected to bonding wire running in the conduit system.

SECTION 86-4 TRAFFIC SIGNAL FACES AND FITTINGS

Section 86-4.01 VEHICLE SIGNAL FACES

Each vehicle signal face must:

1. Be adjustable and allow for 360-degree rotation about the vertical axis
2. Comply with ITE publication ST-017B, "Vehicle Traffic Control Signal Heads"
3. Comply with California Test 604, except for arrow and "X" faces
4. Have 3 sections arranged vertically: red at top, yellow at center, and green at bottom
5. Be of the same manufacturer and material, if more than 1 is installed at an intersection, except for programmed visibility type

6. Be sealed with neoprene gasket at top opening

Section 86-4.01A Signal Sections

Each signal section must comply with the following:

1. Maximum height must be 10-1/4 inches for an 8-inch section and 14-3/4 inches for a 12-inch section.
2. Housing must:
 - 2.1. Be either die-cast or permanent mold-cast aluminum, or if specified, be structural plastic.
 - 2.2. Comply with ITE publication ST-017B if die-cast or permanent mold-cast aluminum is used.
 - 2.3. Have a 1-piece, hinged, square-shaped door designed to allow access for relamping without the use of tools. Door must be secured to hold the door closed during loading tests. Module or lens must be watertight and mounted in the door.
3. Hinge pins, door latching devices, and other exposed hardware must be Type 304/304L or 305 stainless steel. Interior screws and fittings must be stainless steel or steel with a corrosion resistant plating or coating.
4. Opening must be placed on the top and bottom to receive 1-1/2-inch pipe. The 8- and 12-inch sections of an individual manufacturer must be capable of joining to form a signal face in any combination. This interchangeability is not required between metal and plastic sections.
5. Gaskets must be made of a material not affected if installed in a section with metal or plastic housing that is continuously operated for 336 hours.
6. Use LED modules.

Description of structural failure and the requirements for signal sections are shown in the following table:

Signal Section Structural Failure

Signal section type	Requirements	Description of structural failure
Metal	California Test 666	Fracture within housing assembly or deflection of more than half the lens diameter of signal section during wind load test
Plastic	California Test 605	Fracture within housing assembly or deflection of more than 10 degrees in either the vertical or horizontal plane after wind load has been removed from front of signal face, or deflection of more than 6 degrees in either the vertical or horizontal plane after wind load has been removed from back of signal face

a) Section 86-4.01A(1) Metal Signal Sections

Each metal signal section must have a metal visor. Metal signal faces requiring backplates must have metal backplates.

b) Section 86-4.01A(2) Plastic Signal Sections

Housing must be molded in 1 piece or fabricated from 2 or more pieces and joined into a single piece. Plastic must have ultraviolet stability and be self extinguishing. Housing and door must be colored throughout and be black matching color no. 17038, 27038, or 37038 of FED-STD-595.

Each face section must be joined to adjacent section by one of the following:

1. Minimum of 3 machine screws for 8-inch sections and 4 machine screws for 12-inch sections, installed through holes near front and back of housing. Each screw must be a No. 10 and have a nut, flat washer, and lock washer.
2. Two machine screws, each with a nut, flat washer, and lock washer, installed through holes near the front of the housing, and a fastening through the 1-1/2-inch pipe opening. Fastening must have 2 large flat washers to

distribute the load around the pipe opening and 3 carriage bolts, each with a nut and lock washer. Minimum screw size must be No. 10. Minimum carriage bolt size must be 1/4 inch.

Supporting section of each signal face supported only at the top or bottom must have reinforcement.

Reinforcement plate must be either sheet aluminum, galvanized steel, or cast aluminum. Each plate must be a minimum of 0.11 inch thick and have a hole concentric with a 1-1/2-inch pipe-mounting hole in the housing. Place reinforcement plate as shown in the following table:

Reinforcement Plate Placement

Type of reinforcement plate	Placement
Sheet aluminum	Inside and outside of housing
Galvanized steel	Inside of housing
Cast aluminum	Outside of housing

Reinforcement plates placed outside of the housing must be finished to match the signal housing color and be designed to allow a proper serrated coupling between the signal face and the mounting hardware. A minimum of 3 No. 10 machine screws must be installed through holes in each plate and matching holes in the housing. Each screw must have a round or binder head, a nut, and lock washer.

If signal face is supported by a Type MAS side attachment slip fitter inserted between 2 sections, place spacers between the 2 sections. Vertical dimension of spacers must allow proper seating of serrations between the slip fitter and the 2 sections. In addition to the fastening through the large openings in the housing, the 2 sections must join with at least 2 machine screws through holes near the front of the housing and the spacers and through matching holes in a reinforcing plate installed in the housing. Machine screws must be No. 10 minimum size. Spacers must be made of the same material as the signal housing.

If reinforcing webs are used to connect the back of the housing to the top, bottom, and sides, reinforcing plates are not required.

Holes for machine screws must be either cast or drilled during signal section fabrication. Surround each hole with a 1/8-inch-minimum-width boss to allow contact between signal sections about the axis of the hole.

Each plastic signal section must have a plastic or metal visor. Plastic signal faces requiring backplates must have plastic backplates.

Serrated nylon washer must be inserted between each plastic signal section and metal mounting assembly. Each washer must be between 3/16 and 1/4 inch thick. Serrations must match those on the signal section and the mounting assembly.

Section 86-4.01B Electrical Components

Conductors must be connected to a terminal block mounted inside, at the back of housing. Terminal block must have enough screw type terminals or NEMA type tab connectors to end all field and module or lamp conductors independently. Permanently identify terminal with field conductors attached or color code conductors to facilitate field wiring.

Section 86-4.01C Visors

Include a removable visor with each signal section. Comply with ITE publication ST-017B. Visors are classified by lens enclosure as (1) full circle, (2) tunnel, or (3) cap type. The bottom opens for tunnel type and both, the bottom and the lower sides open for cap type. Unless specified, visors must be tunnel type.

Visor must have a downward tilt between 3 and 7 degrees with a length of:

1. 9-1/2-inch minimum for nominal 12-inch round lenses
2. 7 inch for nominal 8-inch round lenses

Metal visor must be formed from 0.050-inch minimum thickness aluminum-alloy sheet.

Plastic visor must be either formed from sheet plastic or assembled from 1 or more injection, rotational, or blow-molded plastic sections. Material must be of a black homogeneous color with lusterless finish. Sections must be joined using thermal, chemical, or ultrasonic bonding, or with aluminum rivets and washers permanently colored to match the visor.

Secure each visor to its door and prevent removal or permanent deformation when the specified wind load in California Tests 605 for plastic visors or 666 for metal visors is applied to its side for 24 hours.

If directional louvers are used, fit louvers snugly into full-circular signal visors. Outside cylinder must be constructed of 0.030-inch nominal thickness, or thicker, sheet steel and vanes must be constructed of 0.016-inch nominal thickness, or thicker, sheet steel, or the cylinder and vanes must be constructed of 5052-H32 aluminum alloy of equal thickness.

Section 86-4.01D Light Emitting Diode Signal Module

Section 86-4.01D(1) General

Section 86-4.01D(1)(a) Summary

This work includes installing LED signal module.

Use LED signal module as the light source for the following traffic signal sections:

1. 8-inch section
2. 12-inch section
3. 12-inch arrow section
4. 12-inch U-turn section
5. 12-inch bicycle section
6. 12-inch PV section
7. 12-inch lane control section

(1) Section 86-4.01D(1)(b) Submittals

Before shipping LED signal modules to the job site, submit the following to METS:

1. Delivery form including Contract number and contact information
2. List containing all LED signal module serial numbers anticipated for use
3. LED signal modules

(2) Section 86-4.01D(1)(c) Quality Control and Assurance

(a) Section 86-4.01D(1)(c)(i) General

Module must be one listed on the Authorized Material List for LED traffic signals.

The Department will test LED signal module shipments as specified in ANSI/ASQ Z1.4. Testing will be completed within 30 days of delivery to METS. LED signal modules tested or submitted for testing must be representative of typical production units. LEDs must be spread evenly across the module. LED arrow indication must provide the minimum initial luminous intensity listed.

LED and circular LED signal modules will be tested as specified in California Test 604. Arrow, U-turn, and bicycle LED signal modules will be tested as specified in California Test 3001. All parameters of the specification may be tested on the modules. Measurements will be performed at the rated operating voltage of 120 V(ac).

Delays resulting from submittal of noncompliant materials do not relieve you from executing the Contract within the allotted time. Noncompliant materials will be rejected. Resubmit new LED for retesting and pick up the failed units within 7 days of notification. Provide new LED signal modules and allow a minimum of 30 days for retesting.

After testing, pick up the tested LED signal modules from METS and deliver to the job site.

c) Section 86-4.01D(2) Materials

(1) Section 86-4.01D(2)(a) General

LED signal module must:

1. Have an operational lifecycle rating of 48 months. During the operational lifecycle, LED signal module must comply with all parameters of this specification.
2. Be a single, self-contained device, designed to be sealed in the door frame of a standard traffic signal housing and comply with ITE publication, Equipment and Material Standards, chapter 2, "Vehicle Traffic Control Signal Heads."
3. Be 4 lb maximum weight.
4. Be from the same manufacturer.
5. Be the same model for each size and type.
6. Be sealed units with:
 - 6.1. 2 color-coded conductors for power connection, except for lane control LED signal modules use 3 color-coded conductors.
 - 6.2. Printed circuit board and power supply contained inside and complying with chapter 1, section 6 of TEES.
 - 6.3. Lens that is:
 - 6.3.1. Integral to the units.
 - 6.3.2. Convex or flat with a smooth outer surface.
 - 6.3.3. Made of UV-stabilized plastic or glass and withstands UV exposure from direct sunlight for 48 months without exhibiting evidence of deterioration.
 - 6.4. 1-piece EPDM gasket.
7. Include 3-foot-long conductors with quick disconnect terminals attached.
8. Be weather tight and connect directly to electrical wiring.
9. Be capable of optical unit replacement.
10. Have manufacturer's name, trademark, model number, serial number, lot number, month and year of manufacture, and required operating characteristics, including rated voltage, power consumption, and volt-ampere, permanently marked on the back of the module.
11. Have a symbol of the module type and color. The symbol must be an inch in diameter. The color must be written out in 0.50-inch-high letters next to the symbol.
12. Be AlInGaP technology for red and yellow indications and gallium nitride technology for green indications.
13. Be ultra bright type rated for 100,000 hours of continuous operation from -40 to +74 degrees C.

Individual LEDs must be wired so catastrophic loss or failure of 1 LED will not result in loss of more than 5 percent of the signal module light output. Failure of an individual LED in a string must not result in loss of an entire string or other indication.

No special tools for installation are allowed.

The symbol for a 12-inch U-turn section is an inverted "U" with an arrow on the left end and is 15/16 inch wide. Approximate shape and size for the U-turn face is as shown.

Approximate shape and size for the 12-inch bicycle section face is as shown.

Lane control section is a combination module with a red X and green arrow. Approximate shape and size for lane control signal face is as shown. Conductor function and color code requirements are shown in the following table:

Conductor Function and Color Code

Function	Color
Neutral	White
Red X	Red
Green arrow	Brown

Minimum power consumption for LED signal module must be 5 W.

Maximum power consumption for LED signal module must be as shown in the following table:

Power Consumption Requirements

LED signal module type	Power consumption (Watts)					
	Red		Yellow		Green	
	25 °C	74 °C	25 °C	74 °C	25 °C	74 °C
8-inch circular	8	13	13	16	12	12
12-inch circular	11	17	22	25	15	15
12-inch arrow	9	12	10	12	11	11
12-inch U-turn	9	12	10	12	11	11
Bicycle	11	17	22	25	15	15
Programmed visibility	11	17	22	25	15	15
Lane control (X)	9	12	--	--	--	--
Lane control (Arrow)	--	--	--	--	11	11

Lens may be tinted or may use transparent film or materials with similar characteristics to enhance "On/Off" contrasts. Tinting or other materials to enhance "On/Off" contrast must not affect chromaticity and must be uniform across the face of the lens.

If polymeric lens is used, surface coating or chemical surface treatment must be applied for front surface abrasion resistance.

The power supply must be integral to the module.

Internal components must be adequately supported to withstand mechanical shock and vibration from high winds and other sources.

Lens and LED signal module material must comply with the ASTM specifications for that material.

Enclosures containing either the power supply or electronic components of LED signal module, except lenses, must be made of UL94VO flame-retardant material.

If a specific mounting orientation is required, the LED signal module must have prominent and permanent vertical markings for accurate indexing and orientation within the signal housing. Markings must include an up arrow, or the word "Up" or "Top."

When operating at 25 degrees C, the LED signal module must meet or exceed the illumination values shown in the following tables:

Minimum Initial Intensities for Circular Indications (cd)

Angle (v,h)	8-inch			12-inch		
	Red	Yellow	Green	Red	Yellow	Green
2.5, ± 2.5	157	314	314	399	798	798
2.5, ± 7.5	114	228	228	295	589	589
2.5, ± 12.5	67	133	133	166	333	333
2.5, ± 17.5	29	57	57	90	181	181
7.5, ± 2.5	119	238	238	266	532	532
7.5, ± 7.5	105	209	209	238	475	475
7.5, ± 12.5	76	152	152	171	342	342
7.5, ± 17.5	48	95	95	105	209	209
7.5, ± 22.5	21	43	43	45	90	90
7.5, ± 27.5	12	24	24	19	38	38
12.5, ± 2.5	43	86	86	59	119	119
12.5, ± 7.5	38	76	76	57	114	114
12.5, ± 12.5	33	67	67	52	105	105
12.5, ± 17.5	24	48	48	40	81	81
12.5, ± 22.5	14	29	29	26	52	52
12.5, ± 27.5	10	19	19	19	38	38
17.5, ± 2.5	19	38	38	26	52	52
17.5, ± 7.5	17	33	33	26	52	52
17.5, ± 12.5	12	24	24	26	52	52
17.5, ± 17.5	10	19	19	26	52	52
17.5, ± 22.5	7	14	14	24	48	48
17.5, ± 27.5	5	10	10	19	38	38

Minimum Luminance for [Arrows, U-turn, Bicycle, Lane Control](FL), and Programmed Visibility Indications (cd)

	Red	Yellow	Green
Arrow indication	1,605	3,210	3,210
U-turn indication	1,605	3,210	3,210
Bicycle indication	1,605	1,605	1,605
Lane control indication (X)	1,605	--	--
Lane control indication (Arrow)	--	--	1,605
PV indication at angle $v=2.5$, $h=\pm 2.5$	91	91	91

When operating over a temperature range of -40 to +74 degrees C, the LED signal module, except yellow, must meet or exceed the following illumination values for 48 months. When operating at 25 degrees C, the yellow LED signal module must meet or exceed the following illumination values for 48 months:

Minimum Maintained Intensities for Circular Indications (cd)

Angle (v,h)	8-inch			12-inch		
	Red	Yellow	Green	Red	Yellow	Green
2.5, ± 2.5	133	267	267	339	678	678
2.5, ± 7.5	97	194	194	251	501	501
2.5, ± 12.5	57	113	113	141	283	283
2.5, ± 17.5	25	48	48	77	154	154
7.5, ± 2.5	101	202	202	226	452	452
7.5, ± 7.5	89	178	178	202	404	404
7.5, ± 12.5	65	129	129	145	291	291
7.5, ± 17.5	41	81	81	89	178	178
7.5, ± 22.5	18	37	37	38	77	77
7.5, ± 27.5	10	20	20	16	32	32
12.5, ± 2.5	37	73	73	50	101	101
12.5, ± 7.5	32	65	65	48	97	97
12.5, ± 12.5	28	57	57	44	89	89
12.5, ± 17.5	20	41	41	34	69	69
12.5, ± 22.5	12	25	25	22	44	44
12.5, ± 27.5	9	16	16	16	32	32
17.5, ± 2.5	16	32	32	22	44	44
17.5, ± 7.5	14	28	28	22	44	44
17.5, ± 12.5	10	20	20	22	44	44
17.5, ± 17.5	9	16	16	22	44	44
17.5, ± 22.5	6	12	12	20	41	41
17.5, ± 27.5	4	9	9	16	32	32

Minimum Maintained Luminance for [Arrow, U-turn, Bicycle, Lane Control](FL), and Programmed Visibility Indications (cd)

	Red	Yellow	Green
Arrow indication	1,610	3,210	3,210
U-turn indication	1,610	3,210	3,210
Bicycle indication	1,610	1,610	1,610
Lane control indication (X)	1,610	--	--
Lane control indication (Arrow)	--	--	1,610
PV indication at angle $v=2.5$, $h=\pm 2.5$	314	314	314

LED signal module must comply with the chromaticity requirements for 48 months when operating over a temperature range of -40 to +74 degrees C shown in the following table:

Chromaticity Standards (CIE Chart)

Red	Y: not greater than 0.308 or less than 0.998 - X
Yellow	Y: not less than 0.411 nor less than 0.995 - X nor greater than 0.452
Green	Y: not less than 0.506 - 0.519(X) nor less than 0.150 + 1.068(X) nor more than 0.730 - X

LED signal module must operate:

1. At a frequency of 60 ± 3 Hz, over a voltage range from 95 to 135 V(ac), without perceptible flicker to the unaided eye. Fluctuations of line voltage must have no visible effect on luminous intensity of the indications. Rated voltage for measurements must be 120 V(ac).
2. Compatible with currently used controller assemblies, including solid state load switches, flashers, and conflict monitors. Comply with TEES chapters 3 and 6. If a 20 mA alternating current or less is applied to the unit, the voltage read across the 2 leads must be 15 V(ac) or less.

Wiring and terminal block must comply with section 13.02 of ITE publication, Equipment and Material Standards, chapter 2, "Vehicle Traffic Control Signal Heads." Electrical connection for each Type 1 LED signal module must be 2 secured, color-coded, 3-foot-long, 600 V(ac), 20 AWG minimum stranded jacketed copper wires. Wires must comply with NEC, rated for service at +105 degrees C. Three wires must be used for lane control LED signal module.

LED signal module on-board circuitry must:

1. Include voltage surge protection to withstand high-repetition noise transients. The voltage surge protection must comply with NEMA Standard TS2, section 2.1.6.
2. Comply with FCC, title 47, subpart B, section 15 regulations for Class A emission limits for electronic noise.

LED signal module must provide a power factor of 0.90 or greater.

Total harmonic distortion from current and voltage induced into an alternating current power line by LED signal module must not exceed 20 percent at an operating temperature of 25 degrees C.

When power is applied to LED signal module, light emission must occur within 90 ms.

Section 86-4.01E Backplates

Background light must not be visible between the backplate and the signal face or between sections.

Plastic backplates must be either formed from sheet plastic or assembled from extruded, molded, or cast sections. Sections must be factory joined using one of the following:

1. Appropriate solvent cement
2. Aluminum rivets and washers painted or permanently colored to match backplate
3. No. 10 machine screws with washers, lock washers, and nuts, painted to match backplate

Backplate material must be of black homogeneous color with a lusterless finish. Secure each plastic backplate to the plastic signal face in a manner that prevents its removal or permanent deformation when the wind-load test is applied to either the front or back of the signal face. Permanent deformation of any portion of the backplate must not exceed 5 degrees forward or backward after wind loading is applied for 24 hours.

If plastic backplate requires field assembly, join with at least 4 No. 10 machine screws at each field-assembled joint. Each machine screw must have an integral or captive flat washer, a hexagonal head slotted for a standard screwdriver, and either a locking nut or a nut and lockwasher. Machine screws, nuts, and washers must be stainless steel or steel with a zinc or black-oxide finish.

If a metal backplate has 2 or more sections, fasten sections with rivets or aluminum bolts peened after assembly

to avoid loosening.

Instead of the screws shown, you may use self-threading No. 10 steel screws to fasten plastic backplates to plastic signal face. Each screw must have an integral or captive flat washer, a hexagonal head slotted for a standard screwdriver, and is stainless steel or steel with a zinc or black-oxide finish.

SECTION 86-4.04 PEDESTRIAN SIGNAL MOUNTING ASSEMBLIES

Signal mounting assembly must include:

1. 1-1/2-inch standard steel pipe or galvanized conduit
2. Pipe fitting made of ductile iron, galvanized steel, aluminum alloy Type AC-84B no. 380, or bronze
3. Mast arm and post top slip fitters and terminal compartments made of cast bronze or hot-dip galvanized ductile iron

After installation, clean and paint exposed threads of the galvanized conduit brackets and bracket areas damaged by a wrench or vise jaws. Use a wire brush to clean and apply 2 coats of authorized unthinned zinc-rich primer, organic vehicle type. Do not use aerosol can.

Fit each terminal compartment with a terminal block having a minimum of 12 positions, each with 2 screw-type terminals. Each terminal must accommodate at least five no. 14 conductors. Include a cover on the compartment for ready access to the terminal block. The terminal compartment used to bracket-mount signals must be bolted securely to a pole or standard.

The horizontal dimension of mounting assembly members between vertical centerline of the terminal compartment or slip fitter and the vertical centerline of each signal face must not exceed 11 inches, except where required for proper signal face alignment or to allow programming of programmed visibility signal faces.

Mounting assembly members must be plumb or level, symmetrically arranged, and securely assembled.

Mounting assembly must be watertight and free of sharp edges or protrusions that might damage conductor insulation. Include positive-locking serrated fittings that, if mated with similar fittings on signal faces, will prevent faces from rotating.

Orient each mounting assembly to allow maximum horizontal clearance to the adjacent roadway.

Use a slip fitter for post-top mounting of signals. Fit slip fitter over a 4-1/2-inch-outside-diameter pipe or tapered standard end. Include cadmium-plated steel set screws. Include an integral terminal compartment for each slip-fitter used to post-top mount signals with brackets.

For Type SV-1-T mountings with 5 sections and SV-2-TD mountings, bolt the mountings to the standard through the upper pipe fitting as shown for bolting the terminal compartment.

Do not install signal faces at an intersection until all other signal equipment, including complete controller assembly is in place and ready for operation. You may mount signal faces if covered or not directed toward traffic.

SECTION 86-5.02 PEDESTRIAN PUSH BUTTON ASSEMBLIES

Housing must be either die-cast or permanent mold-cast aluminum. Assembly must be rainproof and shockproof in any weather condition.

The switch must be a single-pole, double-throw switching unit with screw-type terminals rated 15 A at 125 V(ac), and must have:

1. Plunger actuator and a U frame to allow recessed mounting in the push button housing
2. Operating force of 3.5 lb
3. 1/64-inch maximum pre-travel
4. 7/32-inch minimum over-travel
5. 0.0004- to 0.002-inch differential travel
6. 2-inch-minimum-diameter actuator

Wherever a pedestrian push button is attached to a pole, shape the housing to fit the pole curvature and secure. Include saddles to make a neat fit if needed.

Wherever a pedestrian push button is mounted on top of a 2-1/2-inch-diameter post, fit the housing with a slip-fitter and use screws for securing rigidly to post.

Pedestrian push button signs must be porcelain-enameled metal or structural plastic.

Install the push button and the sign on the crosswalk side of the pole.

Point arrows on the push button signs in the same direction as the corresponding crosswalk.

Attach the sign on a Type B push button assembly.

For Type C pedestrian push button assembly, mount the instruction sign on the same standard as the push button assembly, using 2 straps and saddle brackets. Straps and saddle brackets must be corrosion-resisting chromium nickel steel and comply with ASTM A 167, Type 302B. Theftproof bolts must be stainless steel with a chromium content of 17 percent and a nickel content of 8 percent.

LED STREET LIGHTING SYSTEM MATERIALS

Light Emitting Diode (LED) Luminaire.

General.

This specification sets forth the requirements for a GE Evolve LED Series Roadway Scalable Cobrahead Guideform, or approved equal, that provides an advanced LED optical system, high uniformity, glare control, improved vertical light distribution, and reduced light trespass for effective Roadway Lighting.

Optical System Requirements.

Each scaled optical assembly shall be a fixture sub-assembly and be comprised of a precision reflector system that is metallic coated with a reflective automotive grade material containing a long life finish designed to last the life of the fixture without corroding, peeling or fading under normal operating conditions and a 16 gauge aluminum clad metal core printed circuit board assembly, designed to operate as a class I circuit. LED's shall be surface mounted to the aluminum clad circuit board using advanced SMT manufacturing processes. The circuit board shall be attached to a machined surface on the precision casting so as to maximize heat transfer and mechanical adherence over the life of the fixture. Each optical assembly circuit board shall have a maximum of forty LED's that are symmetrically placed on the circuit board to minimize heat buildup of the LED junction and be below suggested junction temperature of the LED manufacturer. On units that contain more than one light engine, there shall be a provision to specify that at least one light engine unit (closest to the electrical cavity) can offer photometry in the house side direction. There shall be a separate, single precision die cast removable bezel to hold a glass lens in place, covering the entire optical enclosure. Each fixture shall contain one single translucent tempered glass lens designed to maximize efficiency of light output and minimize the effect of dirt depreciation. The lens shall have a single long life silicon gasket. The silicon gasket shall be "channeled" so as to form around both sides of the glass lens. There shall be no caulk of any kind used to seal any parts of the fixture optical enclosure for IP65 applications.

PHOTOMETRIC REQUIREMENTS.

The LED Luminaire shall have high brightness LED's, a nominal Correlated Color Temperature (CCT) of 4000 OK and 5000 OK typical binned per ANSI C78.377-2008, a typical Color Rendering Index (CRI) ~ 70, an IESNA TM-15 UUUH rating of 0, , and a minimum initial Luminaire Efficacy ~ 74 lm/V with a typical at 80 lm/V depending on CCT.

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LED Photometric Configuration - Traffic Signals & Safety Lights

Type III ERS20H3D15502GRAY 5000 LED Color Temp 13400 Lumens 138 Watts

700-4.9.4 Electrical System Requirements.

The LED Luminaire shall have:

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- a) Off-state power draw of 0 watts (excluding PE or remote control devices)
 - b) 7-prong locking ANSI C136.41 photocell receptacle with tool-less orientation.
 - c) A minimum system power factor of .90 tested and specified at 120v input and maximum load conditions.
 - d) Maximum THD < 20% tested and specified at 120v input and maximum load conditions
 - e) Nominal LED forward current of 525 mA as the standard with options for 350mA and 700mA typical.
 - f) Operating temperature range of -40° C to 50° C.
 - g) UL Class 1 power supply units (i.e. drivers) operating in DC constant current mode
 - h) Drivers shall be pre-wired to the light engine and have a "quick pinch" disconnect from the power door.
 - i) Mode supplying DC forward current for LED operation (no pulsed operation allowed)
 - j) EMI compliance with FCC 47 CFR Part 15 Class A.
 - k) Class A sound rating.
 - l) The luminaire shall contain the factory-installed driver supplied with the light engine.
 - m) The light engine assembly and housing shall be from the same manufacturer.
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- n) The drivers shall reliably start and operate the light engine at ambient temperatures from -40°C to 50°C

Surge Protection:

- a) For the 120-277 VAC single phase luminaire, the standard protection for the electrical system shall survive 120 repetitive surge events of "82" (82 - 4kV/1 .2 x 50uS, 2kA18 x 20uS) waveforms at 1 minute or less intervals. 82 waveforms are as defined in IEEE/ANSI C62.41 .-1991 , Scenario 1 Location Category 82. Events shall be 5 of each phase/polarity (45, 90, 270 - Positive, 90, 225, 270 - Negative) and mode (L 1-L2, L 1-G, L2-G, L 1/L2-G).
- b) Alternate High Capacity Surge Protection for 120-277 VAC single phase luminaire electrical system protection:
 - 1) Shall survive 120 repetitive surge events of "C2" (C2- 1 OkV/1 .2 x 50uS, 5kA18 x 20uS) waveforms at 1 minute or less intervals. C2 waveforms are as defined in IEEE/ANSI C62.41.-1991, Scenario 1 Location Category C2. Events shall be 5 of each phase/polarity (45, 90, 270 - Positive, 90, 225, 270 - Negative) and mode (L 1-L2, L 1-G, L2-G, L 1/L2-G).
 - 2) It shall also survive 5,000 repetitive surge events of "C-Low" (C-Low - 6kV/1 .2 x 50uS, 3kA18 x 20uS) waveforms at 1 minute or less intervals. C-low waveforms are as defined in IEEE/ANSI C62.41.2-2002, Scenario 1 Location Category Clow. Events shall be 5 of each phase/polarity (45, 90, 270 - Positive, 90, 225, 270 - Negative) and mode (L 1-L2, L 1-G, L2-G, L 1/L2-G).

"Power Door" Assembly:

- c) The fixture shall have a precision die-cast aluminum "power door"
- d) The fixture assembly for the door shall have a threaded screw that can be tightened to bind the door against the main fixture casting for positive door closure. The screw can have a slotted hex head or a slotted, knurled (toolless) head to allow for screwing and unscrewing.
- e) There shall be a secondary retention latch to avoid the power door from dropping down once the screw is backed out but prior to the operator/installer needing the door open. The latch can be easily pushed by the operator/installer to allow the power door to swing down.
- f) Shall contain hinge latches that do not require any tools to remove from the fixture.
- g) Warranty shall not be affected by opening the power door and/or accessing the

electrical cavity.

h) Shall have all of the needed electrical and electronic components for the fixture attached to it with quick disconnect connectors that can be squeezed and pulled apart. The exception to this is for the high capacity surge protection which will be inside the cavity due to the size.

i) Shall be able to accommodate GE supplied or third party supplied "control" modules.

j) Electrical Cavity

k) The electrical cavity shall use only copper wire within the fixture, but be able to accommodate aluminum field wiring.

l) Harness and wiring insulation shall be AWM rated for 125°C and 600 Volt.

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m) The terminal block shall be "lineman friendly" and angled within the electrical cavity so as to allow for easy wire connections.

n) The terminal block shall accommodate AWG 8-16 gauge CU wire and up to AWG 6 gauge AL wire.

o) Shall be able to accommodate GE supplied or third party supplied "control" modules.

700-4.9.5 Mechanical Requirements.

The LED Luminaire shall be comprised of precision die-cast aluminum housing, scaled to the appropriate wattage and lumen requirement output with an ERS 1 or 2 scaled fixture. The housing construction will incorporate heat sink fins that are integrally cast with the housing to maximize heat transfer and minimize thermal impacts of environmental conditions such as debris-clogged fins. The luminaire shall meet ANSI 2G vibration standards with an option to meet 3G vibration standards. Slip fitter in the housing shall contain two-bolt single piece clamp fastening for the ERS1 and ERS2 fixtures and four-bolt single piece clamp fastening for the ERS3 and ERS4 fixtures which do not pass through the housing and tighten from the arm directly to mount on 1.66" to 2.375" Ø .0. horizontal tenons, and provide +/- 5 degrees of tilt adjustment.

The fixture shall not be greater than:

a) 27 in x 15.25 in x 6.5 in (L x W x H) 1 and 2 scaled optical assemblies.

The effective Projected Area (EPA) shall not to exceed 0.5 for ERS1 or 0.7 for ERS2 square foot maximum. Total product weight for the ERS 1 or 2 shall be less than or equal to the pounds per the list below:

b) ERS1: 24.5 lbs. (20.4-24.5 lbs)

c) ERS2: 28.5 lbs (24.5-28.5 lbs)

Performance.

The LED performance shall be independently verified from the LED manufacturer. Verification shall include lumen output, life and color properties. CCT and CRI and shall be tested and measured in accordance with LM-79. Lumen depreciation data shall be measured in accordance with LM-80. Lumen Maintenance projections shall not exceed 6X of the available system-level lumen depreciation test data. Maintain a normal operation temperature from -40°C to 50°C. Substitution of a non-approved driver shall result in void of warranty. System shall be rated at L85/S50 for no less than 50,000hrs. LED module(s)/array(s) shall deliver at least 85% of initial lumens, when installed for a minimum of 50,000 hours.

Measurement / Performance / Safety Standards.

1) LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

2) LM-80-08 Approved Method: Measuring Lumen Maintenance of LED Light Sources

3) Luminaire is UL Listed to UL 1598

4) LM-79 tests and reports shall be available and be performed in accordance with IESNA standards.

5) Shall be UUL listed, suitable for wet locations

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6) Shall be IP 65 rated optical enclosure per ANSI C136.25-2009.

7) Shall be RoHS compliant.

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Warranty.

A limited system warranty must be provided for the replacement or repair of the luminaire due to any electrical failure (including light source and or power supplies/drivers) for 10 years.

Payment. Payment shall include full compensation for furnishing and installing the Traffic Signal Poles with Mast Arm and without Mast Arms, the LED Luminaire(s), pedestrian signal heads, and all related components shall be considered as included in the Lump Sum Contract prices for "TRAFFIC SIGNAL POLES with Mast Arm and without Mast Arm" and no additional compensation shall be allowed therefor.

Payment shall include full compensation for furnishing and installing the new LED Traffic Signal Modules on the Signal poles and mast arms as designated on the Signalization plan per the Unit price for each module.

Payment shall include full compensation for Constructing new Traffic Signal Poles footings shall include all work to perform the excavation, provide and place reinforcement and concrete, together with anchor bolts for the Lump Sum for each new signal pole.

Payment shall include full compensation for furnishing all materials and labor for installation of electrical conduit, pull boxes, signalization wiring shall be per the Lump Sum price for each item of work.

Payment shall include full compensation for furnishing all materials and labor for removal and reinstallation of new pedestrian button pedestals per the Lump Sum for pedestrian cross walk button poles as specified on the plans.

Payment shall include full compensation for furnishing all materials and labor for the removal of existing traffic signal pull boxes and abandoning of existing electrical conduit and wiring shall be included in the Lump Sum price for "Removal of existing Traffic Signal Boxes and abandon electric conduit."

Payment for furnishing all materials and labor for the testing electrical wiring of the completed traffic signal system shall be included in the various items of work associated with the traffic signal installation.

Payment for furnishing, installing, maintaining, and removing falsework lighting equipment is included in the payment for the items of work involved in the structure that requires the falsework lighting.

13-27. Traffic Signal Control Facilities. This work will consist of modifying the existing traffic signal facility to use a GRIDSMART Bell video camera mounted on a mast arm and connected it to the GRIDSMART controller in the existing traffic control cabinet with a CAT6 cable. The installer shall program and test the video system to coordinate the new traffic signal system.

Payment. The price paid for the Lump Sum item for "The GRIDSMART video camera and processor" traffic signal control system shall include full compensation for furnishing all labor, materials, tools, equipment, testing, and incidentals, and for doing all the work involved in installing the GRIDSMART system.

The price paid for the Lump Sum item for "Test new Traffic Signal System" shall include full compensation for furnishing all labor, materials, tools, equipment, testing and incidentals, for doing all the work involved in the testing and calibration of the new GRIDSMART Signal control system.

13-28. Performing Work during Night hours.

THE BASICS

The MUTCD states that a responsible person must decide what the PPE requirements are and that high visibility safety apparel have an ANSI 107-99 label in it. For the contractor, their IIPP will dictate.

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

The current standard being applied is ANSI 107-99 and it is broken down into three distinct classes, which are based on the amount of retroreflective material included in the vest or ensemble:

- Class I – a vest only, normally with two vertical retroreflective stripes on either side of the shoulder that goes up the front and down the back of the vest.
- Class II – a vest only, normally with the same two vertical retroreflective stripes and adds a horizontal stripe around the torso normally near the waistline. (This is the current standard for everyone for night work!)
- Class III – this is normally an ensemble that includes a Class II vest and pants with retroreflective stripes around the leg below the knee. Other Class III garments include jackets and short sleeved shirt vests (which can be worn over another shirt) with retroreflective striping on the sleeves.

Whatever garment you or the contractor chooses to wear, it should be clean and in good condition and per CSO 1598 the retroreflective material shall be visible at a minimum of 1000 feet. If you note anyone with a garment in poor condition that does not meet this standard, ask them to replace the garment immediately.

AGENCY AND INSPECTION PERSONNEL

The requirements/options are:

The new ANSI 107-99 Class III ensemble of the green Class II vest and green pants is the new standard.

- White coveralls are still an option, but not in foggy or snow conditions.
- Safety glasses are mandatory.
- The Caltrans approved rain jacket may be worn in lieu of the vest and should be worn in place of white clothing in either foggy or snow conditions.
-

CONTRACTOR PERSONNEL

This will be discussed as part of the Pre-Job checklist. At the minimum, all contractor personnel must wear a Class II reflectorized vest with a horizontal stripe around the torso per CSO 1598 (for all personnel) and CSO 1599 (for flaggers).

NIGHT WORK BASICS

LIGHTING

The key issue facing you at night will be ensuring that the contractor provides sufficient light for the work areas. The current requirement per CSO 1523 is 10 foot candles, which will normally be achieved with light plants or balloon lights. For reference, a street luminaire or vehicle headlights on a low beam setting provide only 2-4 foot candles.

The bottom line for lighting is simple, the contractor will provide lighting for all operations, no exceptions are to be made. Any contractor personnel working outside the lights will be directed to return to a lighted area or the operation shall be stopped.

Lighting small mobile operations is the biggest challenge faced by the contractor and it is the contractors responsibility to make a good faith effort to meet the CSO requirements. Each of the cases below will require the contractor to make additional effort to ensure the safety of their personnel. These operations include:

- Sawcutting with a following sweeper
- Gradesetter

- Striping layout
- AC dump man
- Digout operations, where ground personnel come in behind the grinder to clean up the digout

CONTRACTOR WORK VEHICLES AND EQUIPMENT

A secondary issue not currently formally covered under any Caltrans specifications deals with contractor work vehicles. At times, the contractor may hire personnel using their personal vehicles to complete tasks for the contractor and this vehicle will probably not have any signage or additional safety lighting (such as a rotating beacon). However, having a vehicle with no other identification or safety lighting traveling through your lane closure has a potential to confuse the public such that someone may choose to “follow the leader” and jump into your closure to get around a vehicle because they saw an unmarked vehicle traveling through the closure. If this situation occurs on your job, you should ask that the contractor ensure that all work vehicles have a rotating beacon on them.

All contractor work vehicles, this includes heavy equipment, backhoes, trenching machines, etc. are required by the CSO's are required to have two working headlights and taillights, respectively. Vehicles without appropriate lighting should be kept from working until they are brought into CSO compliance.

All work vehicles subject to registration (i.e. 10 wheel dumps or tractor trailers) are required to have at least a single white back up light per CVC 24606. This is especially important for backing operations for 10 wheel dump trucks.

CSO 1592, Warning Methods, mandates a signaler be used for backing operations where there are high ambient noise or congested conditions. Due to limited visibility at night, a signaler should be mandated for all backing operations.

Any stockpiles or contractor equipment parked in the 15 foot construction area clear recovery zone in an area outside the active lighted work zone should be delineated with cones. Where possible, ensure stockpiles or contractor equipment is parked outside the construction clear recovery zone.

MAINTAINING TRAFFIC SSP

The Maintaining Traffic SSP has a standard requirement that no contractor personal vehicles be parked within the State right-of-way. This needs to be rigidly enforced at night to ensure the public is not confused by private vehicles parked and/or moving in and out of the work zone.

TRAFFIC CONTROL AND FLAGGERS

Getting this right takes effort from the contractor, there are more items that need to be addressed here than in any other inspectable task that will normally go on at night.

The following list of items should all be routinely checked as part of traffic control:

- Flagger stations – shall be illuminated and shall be visible from 1000 feet. If slow flaggers are to be used, remind them that they must stay in the lighted area, they cannot walk with the end of queue as they would during a daylight operation.
- Glare – you will need to drive through the work zone in both directions looking at the light plants and the potential for glare affecting driver vision. PCMS boards need to be dimmed appropriately to reduce this condition.
- PCMS – These are one of your most important tools for a night work and there are a series of items you need to check to ensure they are being used properly:

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

- o Ensure you drive through the work zone at highway speeds and that you can read all the messages on the board.
- o Ensure the board is angled for maximum visibility and is set at the appropriate height (1.5 m above OG for rural areas, 2.1 m above OG for urban areas).
- o If the board is to be left in place after the shift is complete, ensure it is turned off and the message face is turned 90 degrees, such that it is aligned parallel to traffic flow.
- o Check the board for legibility, the minimum distance that you should be able to read the message from is 750 feet and the PCMS board should have a corresponding letter height of approximately 18 inches to meet this requirement.
- o Per the CA MUTCD, if the PCMS board is within 15 feet of the edge of traveled way it is to be delineated with a 9 cone taper set at a spacing of 25 feet apart.

Lane shifts - Ensure that the lane shifts/drop tapers are set at the appropriate length. It is important that drivers have time to make the lane change.

Signs - All signs, both permanent and temporary shall conform to the Standard Plans and Specifications and SSP requirements. They must be retroreflective (this means a retroreflective background). Paper signs with retroreflective lettering are not legal and should immediately be removed from the job site.

Road work ahead rag sign - These must have a flashing beacon with 12 inch lens installed. Check this periodically during the shift to ensure it is still flashing at an appropriate rate.

Cones/Channelizers/Delineators - Ensure these are in good condition, per the ATSSA "Quality Standards for Work Zone Traffic Control Devices" reference and that they each have appropriate retroreflective material installed.

OTHER SAFETY CONSIDERATIONS

There are other items that you may consider to enhance the safety of your nighttime traffic control zone:

- If you are having issues with rear end collisions at the lane shift/drop or with traffic continually knocking over the cones on the lane drop consider using traffic drums in lieu of cones, especially in high-speed environments. Traffic drums have a higher profile, are more visible, and the public is more reluctant to run into a traffic drum versus a cone. If you choose to use traffic drums, use them for the length of the lane drop, preferably continue them for the first two spots once the lane is closed, then switch back to cones.

PRE-JOB CONFERENCE

It is essential that you thoroughly discuss night work expectations at the pre-job conference with the contractor. Establishing expectations from the very beginning of the job will make it easier to enforce the contract requirements when work is actively taking place. The Pre-Job Safety Checklist used in North Region has a number of night work specific items to help guide your discussions on night work expectations.

5-1.06 SUPERINTENDENCE

- The Contractor shall designate in writing before starting work, an authorized representative who shall have the authority to represent and act for the Contractor.
- When the Contractor is comprised of 2 or more persons, firms, partnerships or corporations functioning on a joint venture basis, the Contractor shall designate in writing before starting work, the name of one authorized representative who shall have the authority to represent and act for the Contractor.

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

- The authorized representative shall be present at the site of the work at all times while work is actually in progress on the contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.
- Whenever the Contractor or the Contractor's authorized representative is not present on any particular part of the work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the orders are given.
- Any order given by the Engineer, not otherwise required by the specifications to be in writing, will on request of the Contractor, be given or confirmed by the Engineer in writing.

SECTION 5-1.08 INSPECTION

The Engineer shall, at all times, have safe access to the work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of these specifications, the special provisions and the plans. All work done and all materials furnished shall be subject to the Engineer's inspection.

SECTION 5-1.12 CHARACTER OF WORKERS

If any subcontractor or person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, they shall be discharged immediately on the request of the Engineer, and that person shall not again be employed on the work.

SECTION 7-1.01 LAWS TO BE OBSERVED

The Contractor shall keep fully informed of all existing and future State and Federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with, and shall cause all the Contractor's agents and employees to observe and comply with all existing and future laws, ordinances, regulations, orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the State of California, and all officers and employees thereof connected with the work, including but not limited to the Director and the Engineer, against any claim or liability arising from or based on the violation of any law, ordinance, regulation, order or decree, whether by the Contractor or the Contractor's employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications or contract for the work in relation to any law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing.

SECTION 7-1.06 SAFETY AND HEALTH PROVISIONS

The Contractor shall conform to all applicable occupational safety and health standards, rules, regulations and orders established by the State of California.

Working areas utilized by the Contractor to perform work during the hours of darkness, shall be lighted to conform to the minimum illumination intensities established by California Division of Occupational Safety and Health Construction Safety Orders.

All lighting fixtures shall be mounted and directed in a manner precluding glare to approaching traffic.

SECTION 7-1.08 PUBLIC CONVENIENCE

In order to expedite the passage of public traffic through or around the work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, temporary railing (Type K), barricades and other facilities for the sole convenience and direction of public traffic. Also where directed by the Engineer, the Contractor shall furnish competent flaggers whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing the signs, lights, flares, temporary railing (Type K), barricades, and other facilities, not to be paid for as separate contract items, will be paid for as extra work as provided in Section 4-1.03D.

SECTION 7-1.09 PUBLIC SAFETY

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

Whenever the Contractor's operations create a condition hazardous to traffic or to the public, the Contractor shall, at the Contractor's expense and without cost to the City, furnish, erect and maintain those fences, temporary railing (Type K), barricades, lights, signs and other devices and take such other protective measures that are necessary to prevent accidents or damage or injury to the public.

Fences, temporary railing (Type K), barricades, lights, signs, and other devices furnished, erected and maintained by the Contractor, at the Contractor's expense, are in addition to any construction area traffic control devices for which payment is provided for elsewhere in the specifications.

- The Contractor shall also furnish such flaggers as are necessary to give adequate warning to traffic or to the public of any dangerous conditions to be encountered, and payment therefore will be made as provided in Section 12-2.02, "Flagging Costs."
- Signs, lights, flags, and other warning and safety devices and their use shall conform to the requirements set forth in Part 6 of the MUTCD and of the MUTCD California Supplement. Signs or other protective devices furnished and erected by the Contractor, at the Contractor's expense, as above provided, shall not obscure the visibility of, nor conflict in intent, meaning and function of either existing signs, lights and traffic control devices or any construction area signs and traffic control devices for which furnishing of, or payment for, is provided elsewhere in the specifications. Signs furnished and erected by the Contractor, at the Contractor's expense, shall be approved by the Engineer as to size, wording and location.
- Should the Contractor appear to be neglectful or negligent in furnishing warning devices and taking

protective measures as above provided, the Engineer may direct attention to the existence of a hazard and the necessary warning devices shall be furnished and installed and protective measures taken by the Contractor at the Contractor's expense.

SECTION 12-1.01 DESCRIPTION

Attention is directed to Part 6 of the MUTCD and of the MUTCD California Supplement. Nothing in this Section 12 is to be construed as to reduce the minimum standards in these manuals.

SECTION 12-2.01 FLAGGERS

Flaggers while on duty and assigned to traffic control or to give warning to the public that the highway is under construction and of any dangerous conditions to be encountered as a result thereof, shall perform their duties and shall be provided with the necessary equipment in conformance with Part 6 of the MUTCD and of the MUTCD California Supplement. The equipment shall be furnished and kept clean and in good repair by the Contractor at the Contractor's expense.

SECTION 12-3.03 FLASHING ARROW SIGNS

Flashing arrow signs shall conform to the following legibility requirements.

The minimum legibility distance is the distance at which flashing arrows signs shall be legible at noon on a cloudless day and at night by persons with vision of or corrected to 20/20.

(e) During the hours of darkness, flaggers' stations shall be illuminated such that the flagger will be clearly visible to approaching traffic and flaggers shall be outfitted with reflectorized garments. The retroreflective material shall be visible at a minimum distance of 1,000 feet. The retroreflective clothing, or the retroreflective material added to the clothing, shall have a minimum of one horizontal stripe around the torso. White outer garments with retroreflective material that meets the above requirements may be worn during hours of darkness in lieu of colored vests, jackets and/or shirts.

PORTABLE CHANGEABLE MESSAGE SIGNS

The message displayed on the sign shall be visible from a distance of cloudless day, by persons with vision of or corrected to 20/20. The sign panel shall be 3-line matrix and shall display not less than 7 characters per line. Sign messages to be displayed shall be as approved by the Engineer.

Payment. The price paid for the Lump Sum Bid Alternate item for "Performing Construction work during night hours" shall include full compensation for furnishing all labor, materials, tools, equipment, testing, and incidentals, and for doing all the work involved in providing traffic control, traffic devices, detours, lighting, worker safety equipment, prevailing wage adjustment, subcontractor compliance with all provisions for working during night hours, and contractor superintendence and no additional compensation will be considered. The Lump Sum price shall be considered as a percentage cost increase of the various items in the project bid schedule and included on progress payment requests as a percentage of Lump Sum bid amount based on the value of the work completed.

13-29. Public Notification

The contractor shall be responsible for all public notification regarding construction work within the subject intersection, including detours, lane and street closures, hours of operations, and notification of effected commercial businesses within 1000 feet of the construction. For any business impacted by construction, the contractor shall provide adequate sized on-site signage indicating that businesses are open during construction. The contractor shall prepare public noticing via the newspaper, radio announcements, notification of the emergency vehicle agencies, public transit, school buses, County of Mendocino offices, the high school, junior high school, and Frank Zeek elementary school that access off Low Gap Road will be affected by potential detours and street closures, with recommended alternate routes of travel. Through street access from Orchard Avenue to Brush Street will be restricted to businesses and residents only during construction closures. Location of Street Closures signage shall be positioned to give motorists the ability to use alternate routes prior to coming to a dead end road closed for construction. All proposed detours, closures and traffic control methods shall be submitted to the Engineer for approval prior noticing to the public. All public noticing shall be performed a minimum of one week prior to instituting traffic control, and lane or street closures. The tentative construction schedule shall be included in the public noticing, and the use of temporary traffic signalization of the intersection shall be noted. ***The contractor shall submit all public notice language to the City Engineer for approval prior to publication of notices. All road closures, detour routes, and traffic control including temporary lane closure plans shall be submitted by the Contractor to the City Engineer for approval prior to public noticing and use.***

Payment. The price paid for the Lump Sum item for "Public Notification by Contractor" shall include full compensation for furnishing all labor, time and incidentals, and for doing all the work involved in providing public notification of construction schedule, roadway closures, recommended detours.

SECTION 14. EXCLUSIONS FROM GENERAL CONDITIONS

14-01. Provisions to be Excluded from General Conditions. The following designated provisions of the General Conditions are hereby determined to be inapplicable to the proposed work and, therefore, are hereby excluded from the terms of the Notice to Bidders, Proposal, Agreement and other contract documents as though entirely omitted from said General Conditions:

(1) Section 6-02. Office at the Site

No other exclusions.

SECTION 15. AMENDMENTS TO GENERAL CONDITIONS

15-01. Sections of General Conditions to be Amended.

The following designated sections of the Special Provisions are hereby amended to read as follows:
No amendments.

BID SUBMITTAL CHECKLIST

The following is a checklist to assist you in your submission of your bid documents. Please make sure you include the following when submitting your bid documents to reduce the risk of having your bid rejected:

Did you include?...

- o **Proposal** (Page)
 - Unit prices filled out per instruction
 - Extended prices calculated correctly
 - Total bid amount calculated correctly
 - Sign the proposal, and provide complete information
 - CLSB No. and expiration date
 - Department of Industrial Relations Public Works Contractor Registration Number
- o **Fair Employment Practices Certification** (Page)
 - Filled out completely per instruction
- o **Worker's Compensation Certificate** (Page)
 - Filled out completely per instruction
- o **Certification of Non-Discrimination in Employment** (Page)
 - Filled out completely per instruction
- o **List of Proposed Subcontractors** (Page)
 - Include California Contractor License Number for each
 - Include DIR Public Works Contractor Registration Number for each
 - Identify what portion of work to be performed
- o **Statement of Experience** (Page)
- o **Signature of Bidder** (Page)
 - Filled out completely per instruction
 - Authorized signature provided
- o **Bidder's Bond** (Page)
 - Filled out completely per instruction
- o **Non-Collusion Affidavit** (Page)
 - Filled out completely per instruction
 - Notarized
- o **Addenda Issued**
 - Signed and Returned

Preliminary - Not for Bidding



**CITY OF UKIAH
MENDOCINO COUNTY, CALIFORNIA**

PROPOSAL

FOR

North State Street Intersection- Low Gap Road/Brush Street, Storm Drain, & Signalization Improvements

Specification No. 16-06

The undersigned, as bidder, declares that he or she has thoroughly examined all of the contract documents herein contained, that this proposal is made without collusion with any other person, firm or corporation and that all laws and ordinances relating to the interest of public officers in this contract have been complied with in every respect.

AND he or she proposes and agrees, if this proposal is accepted,

- 1) that he or she will contract with the CITY OF UKIAH, Mendocino County, California, in the form of the copy of the agreement herein contained
 - a) to provide all necessary machinery, tools, apparatus and other means of construction;
 - b) to furnish all materials;
 - c) to provide all superintendence, overhead expenses and all labor and expenses of whatever nature necessary to complete the job in conformity with the specifications and drawings and other contract provisions herein or reasonably implied hereby or as necessary to complete the work in the manner and within the time named herein and according to the requirements and to the reasonable satisfaction of the CITY ENGINEER;
 - d) to pay all charges of freight transportation and hauling;
- 2) that he or she indemnifies the CITY against any loss or damage arising from any act of the undersigned as CONTRACTOR; and
- 3) that he or she will accept as full payment therefore the following sums:

Preliminary - Not for Bidding

BIDDING SCHEDULE

In any discrepancy between unit prices and extended amounts for a bid item using unit prices (specified unit price multiplied by specified quantity for bid item does not equal the extended amount for the item), the specified unit price will control and will be used by the City to compare bids in selecting the lowest bid and in awarding the contract. If the specified total bid amount does not equal the total of the extended amounts for all bid items, the City will use the total of the extended amounts for each bid item (adjusted, if necessary, so that the extended amount equals the specified unit price multiplied by the specified quantity for that bid item) to compare bids in selecting the lowest bid.

BASE BID

North State Street Intersection – Low Gap Road/Brush Street, Storm Drain & Signalization Improvements

Item No.	Est. Quantity	Item Description	Unit of Measurement	Unit Price	TOTAL
1	1	Mobilization/Demobilization	Lump Sum	\$	\$
2	1	Traffic Control	Lump Sum	\$	\$
3	1	Demolition and Removal of Existing Curb Returns, Sidewalk, Misc. Improvements.	Lump Sum	\$	\$
4	1	Clearing Grubbing of Vegetation	Lump Sum	\$	\$
5	1	Abandonment of Existing Storm Drain Piping	Lump Sum	\$	\$
6	1	Removal of Existing Storm Drain Structures	Lump Sum	\$	\$
7	63	NW Curb Return- Curb & Gutter	Lineal Feet	\$	\$
8	672	NW Curb Return - Sidewalk & ADA Ramp	Square Foot	\$	\$
9	47	NW Curb Return - Vertical Curb	Lineal Feet	\$	\$
10	46	NW Corner - Class 2 Aggregate Base	Cubic Yard	\$	\$
11	26	NW Corner - Asphalt Concrete	Ton	\$	\$
12	129	NE Curb Return- Curb & Gutter	Lineal Foot	\$	\$
13	711	NE Curb Return - Curb Return, ADA Ramp, Sidewalk	Square Foot	\$	\$
14	175	NE Corner - Commercial Driveway	Square Foot	\$	\$
15	43	NE Corner - Class 2 Aggregate Base	Cubic Yard	\$	\$
16	24	NE Corner - Asphalt Concrete	Ton	\$	\$
17	63	SE Curb Return- Curb & Gutter	Lineal Foot	\$	\$

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

18	479	SE Curb Return - Sidewalk & ADA Ramp	Square Foot	\$	\$
19	58	SE Curb Return - Retaining Wall & Guardrail	Lineal Foot	\$	\$
20	58	SE Corner - Class 2 Aggregate Base	Cubic Yard	\$	\$
21	33	SE Corner - Asphalt Concrete	Ton	\$	\$
22	37	SW Curb Return-Curb & Gutter	Lineal Foot	\$	\$
23	190	SW Curb Return-ADA Ramp, Sidewalk	Square Foot	\$	\$
24	5	SW Corner - Class 2 Aggregate Base	Cubic Yard	\$	\$
25	3	SW Corner - Asphalt Concrete	Ton	\$	\$
26	1	Maintain temporary traffic signal operation during construction	Lump Sum	\$	\$
27	15	Storm Drain – 12 inch HDPE Connect storm drain to existing Drain Inlet	Lineal Foot	\$	\$
28	27	Storm Drain - 18 inch HDPE	Lineal Foot	\$	\$
29	70	Storm Drain - 18 inch HDPE	Lineal Foot	\$	\$
30	300	Storm Drain - 24 inch HDPE (Sta 1+00 to 4+00)	Lineal Foot	\$	\$
31	190	Storm Drain - 24 inch HDPE (Sta 4+00 to 5+87)	Lineal Foot	\$	\$
32	1	Storm Drain Inlet #1 - Model 4A	Lump Sum	\$	\$
33	1	Storm Drain Junction Box #2 - Model JB2424	Lump Sum	\$	\$
34	1	Storm Drain Inlet #3 - Model 4AC	Lump Sum	\$	\$
35	1	Storm Drain Inlet #4 - Model 4AC	Lump Sum	\$	\$
36	1	Storm Drain Inlet #5 - Model 4AC	Lump Sum	\$	\$
37	1	Storm Drain Inlet #6 - Model 4AC	Lump Sum	\$	\$
38	1	Storm Drain Junction Box #7 -Model JB3636	Lump Sum	\$	\$
39	1	Storm Drain Junction Box #8 -Model JB3636	Lump Sum	\$	\$
40	1	Storm Drain Junction Box #9 -Model JB3636	Lump Sum	\$	\$
41	1	Storm Drain Inlet #10 - Model JB1818 w/grate & 12 inch HDPE connection to existing Curb Inlet	Lump Sum	\$	\$
42	1	Removal of Existing Traffic Signal Boxes and abandon electric conduit as needed	Lump Sum	\$	\$

43	1	Install new Traffic Signal Pull Boxes per plan, adjust existing boxes to grade	Lump Sum	\$	\$
44	1	Install new Traffic Signal Electric Conduit	Lump Sum	\$	\$
45	11	Install new Traffic Signal Wiring and Signal Control Wiring per Specifications as needed	Lump Sum	\$	\$
46	1	Remove existing Traffic Signal poles to per plan	Lump Sum	\$	\$
47	2	Install new Footing for Traffic Signal Pole w/ mast arm per detail	Each	\$	\$
48	4	Provide and install Footing and new Traffic Signal Pole w/o mast arm per plan with pedestrian signal head(s)	Each	\$	\$
49	1	Provide and install new Traffic Signal Pole w/ Mast Arm at the NE corner per plan	Each	\$	\$
50	1	Provide and install new Traffic Signal Pole w/ Mast Arm at the SE corner per plan with pedestrian signal head	Each	\$	\$
51	4	Provide and Install new Traffic Signal Light modules (STANDARD) per plan	Each	\$	\$
52	8	Provide and Install new Traffic Signal Light modules (LEFT TURN ARROW) per plan	Each	\$	\$
53	1	Provide new pedestrian cross walk button poles including footing	Lump Sum	\$	\$
54	1	Provide and Install Grid Smart Camera on Mast Arm & Control System in Existing Traffic Signal Cabinet	Lump Sum	\$	\$
55	1	Test new Traffic Signal System	Lump Sum	\$	\$
56	1	Construct Footing for Quest Mart Sign, relocate sign,& connect to existing electrical pull box	Lump Sum	\$	\$
57	1	Brush St. - South Side Frontage Excavation and Grading	Lump Sum	\$	\$
58	308	Brush St- Curb & Gutter	Lineal Foot	\$	\$
59	1,470	Brush St.- Sidewalk	Square Foot	\$	\$
60	250	Brush St.- Commercial Driveway (south side)	Square Foot	\$	\$
61	146	Brush St. - Retaining Wall	Lineal Foot	\$	\$
62	146	Brush St. - Chain Link Fence on Retaining Wall	Lineal Foot	\$	\$
63	1	Brush St. - Pier Foundation for residence	Lump Sum	\$	\$
64	2	Brush St.- Sewer Lateral	Each	\$	\$
65	2	Brush St. - Water Service (City of Ukiah)	Each	\$	\$

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

66	2	Brush St. - Gas Service (PG&E)	Each	\$	\$
67	14,540	Removal of Existing Structural Section of Brush Street and Prepare Subgrade	Square Foot	\$	\$
68	1,616	Provide and place Mirafi 600X Geotextile under new Structural Section (Brush Street)	Square Yard	\$	\$
69	539	Class 2 Aggregate Base (Brush Street)	Cubic Yard	\$	\$
70	455	5 inch Asphalt Concrete Pavement (Brush Street)	Ton	\$	\$
71	175	Install 6 inch AC Berm on North Side of Brush Street from end of sidewalk to drain inlet	Lineal Foot	\$	\$
72	3,600	Removal of Existing Shoulder Structural Section on North State Street and prepare Subgrade	Square Foot	\$	\$
73	19,440	Grind Existing Asphalt (North State Street)	Square Foot	\$	\$
74	400	Provide and place Mirafi 600X Geotextile under new Structural Section (North State Street)	Square Yard	\$	\$
75	200	Class 2 Aggregate Base (North State Street)	Cubic Yard	\$	\$
76	608	5 inch Asphalt Concrete Pavement (North State Street)	Ton	\$	\$
77	5,128	Grind Existing Asphalt (Low Gap Road)	Square Foot	\$	\$
78	96	2 inch/4 inch Asphalt Concrete Overlay (Low Gap Road)	Ton	\$	\$
79	1	Adjust Manhole Rims, Valves Boxes, and Utility Vaults to grade	Lump Sum	\$	\$
80	1	Provide and Install a new traffic rated Utility Vault Frame and Lid in existing Electrical Utility Vault in Brush Street	Lump Sum	\$	\$
81	650	Place Centerline Double Yellow Striping	Lineal Foot	\$	\$
82	440	Place Lane Buttons and Reflectors	Lineal Foot	\$	\$
83	295	Place White Left Turn Striping	Lineal Foot	\$	\$
84	1	Place Yellow Cross Walk Striping	Lump Sum	\$	\$
85	1	Place Miscellaneous Lane Arrow Striping	Lump Sum	\$	\$
86	1	Place White 12 inch STOP BAR	Lump Sum	\$	\$
87	2	Remove and Relocate Existing Street Sign poles	Each	\$	\$
88	1	Public Noticing of Traffic Control by Contractor	Lump Sum	\$	\$
Total Bid					\$

NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

Total Bid:

(In Words)

\$

(In Words)

(In Figures)

Signature of Bidder

Company

BID ALTERNATE

North State Street Intersection – Low Gap Road/Brush Street, Storm Drain & Signalization Improvements

Item No.	Est. Quantity	Item Description	Unit of Measurement	Unit Price	TOTAL
1a	1	Additional cost to perform all work during night hours	Lump Sum	\$	\$

Bid Alternate:

(In Words)

\$

(In Words)

(In Figures)

Signature of Bidder

Company

We, the undersigned, acknowledge that the City Council has reserved the right to reject any or all bids or to select the base bid plus any additive bid item or combination of additive bid items and to determine which proposal is, in its opinion, the lowest responsible bid of a responsible bidder and that which it deems in the best interest of the CITY to accept. We, the undersigned, further agree, if this proposal shall be accepted, to sign the agreement and to furnish the required bonds with satisfactory surety, or sureties, within fifteen (15) calendar days after written notice that the contract is ready for signature; and, if the undersigned shall fail to contract, as aforesaid, it shall be understood that he or she has abandoned the contract and that, therefore, this proposal shall be null and void and the proposal guaranty accompanying this proposal, or the amount of said guaranty, shall be forfeited to and become the property of the CITY. Otherwise, the proposal guaranty accompanying this proposal shall be returned to the undersigned.

Witness our hands this day of _____, 20____

Licensed in accordance with an act providing for the registration of California Contractors License No. _____, expiration date _____.

THE CONTRACTOR'S LICENSE NUMBER AND EXPIRATION DATE STATED HEREIN ARE MADE UNDER PENALTY OF PERJURY.

Signature of bidder or bidders, with business address, phone number and fax number:

Notice: In the case of a corporation, give below the addresses of the principal office thereof and names and addresses of the President, Secretary, Treasurer.

FAIR EMPLOYMENT PRACTICES CERTIFICATION

TO: _____

The undersigned, in submitting a bid for performing the following work by Contract, hereby certifies that he or she has or will meet the standards of affirmative compliance with the Fair Employment Practices requirements of the Special Provisions contained herein.

North State Street/Low Gap Road Intersection, Storm Drain & Signalization Improvements

(Signature of Bidder)

Business Mailing Address:

Business Location:

(The bidder shall execute the certification of this page prior to submitting his or her proposal.)

Preliminary - Not for Bidding

WORKER'S COMPENSATION CERTIFICATE

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or undertake self-insurance in accordance with the provisions of that code and I will comply with such provisions before commencing the performance of the work of this contract.

Witness my hand this _____ day of _____, 20____

Signature of Bidder, with Business Address:

Preliminary - Not for Bidding

CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT

The bidder represents that he or she has/has not, participated in a previous contract or subcontract subject to either the equal opportunity clause herein or the clause contained in Section 301 of Executive Order 10925; that he or she has/has not, filed all required compliance reports; and that representations indicating submission of required compliance prior to subcontract awards.

Signature and address of Bidder:

Date_____

(This certification shall be executed by the bidder in accordance with Section 60-1.6 of the Regulations of the President's Committee on Equal Employment Opportunity for implementing Executive Orders 10925 and 11114.)

Preliminary - Not for Bidding

In compliance with the provisions of Sections 4100-4108 of the California Public Contract Code and any amendments thereof, each bidder shall set forth (a) the name and location of the place of business of each subcontractor who will perform work or labor or render service in or about the construction site or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of 1 percent of the total bid and (b) the California Contractor License Number for each subcontractor, and (c) the portion of the work to be done by each subcontractor. (See General Conditions Section 1-09.) *Include with the name of each sub-contractor their Department of Industrial Relations Public Works Contractor Registration Number.*

Preliminary - Not for Bidding

Preliminary - Not for Bidding

The bidder is required to state below what work of similar magnitude or character he or she has done and to give references that will enable the City Council to judge of his or her experience, skill and business standing and his or her ability to conduct work as completely and rapidly as required under the terms of the contract.

Preliminary - Not for Bidding

Preliminary - Not for Bidding

SIGNATURE(S) OF BIDDER

Accompanying this proposal is _____
(insert the words "cash (\$)", "cashier's check" or "bidder's bond", as the case may be) in an amount equal to at least 10 percent of the bid.

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: If bidder or other interested person is a corporation, provide the legal name of corporation and also the names of the president, secretary, treasurer and manager thereof. If a co-partnership, provide the true name of firm and also the names of all individual co-partners composing the firm. If bidder or other interested person is an individual, provide the first and last names in full.

Licensed in accordance with an act providing for the registration of Contractors:

License No. _____, License Expiration Date _____.

Signature(s) of Bidder: _____

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if bidder is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts in behalf of the co-partnership; and if bidder is an individual, his or her signature shall be placed above. If a member of a partnership, a Power of Attorney must be on file with the Department prior to opening bids or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.

Business address: _____

Place of residence: _____

Dated: _____

CITY OF UKIAH
Mendocino County, California

BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS,

That we, _____

_____, as PRINCIPAL and

_____, as SURETY,

are held and firmly bound unto the City of Ukiah in the penal sum of 10 PERCENT OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by said Principal to the City of Ukiah, as the case may be, for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, to the City Clerk to which said bid was submitted, we bind ourselves, our heirs, executors, administrators and successors jointly and severally, firmly by these presents. In no case shall the liability of the surety hereunder exceed the sum of \$ _____

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above mentioned bid to the City of Ukiah, as aforesaid, for certain construction specifically described as follows, for which bids are to be opened at the Office of the City Clerk, Ukiah Civic Center, Ukiah, California, on October 28, 2016 for **North State Street/Low Gap Road Intersection, Storm Drain & Signalization Improvements**

NOW, THEREFORE, If the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him or her for signatures, enters into a written contract, in the prescribed form, in accordance with the bid and files two bonds with the City of Ukiah, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____ day of _____, A.D. 20____.

_____(Seal)

_____(Seal)

_____(Seal)

Principal

_____(Seal)

_____(Seal)

_____(Seal)

Surety

Address: _____

Preliminary - Not for Bidding

NON-COLLUSION AFFIDAVIT

Note: Bidder shall execute the affidavit on this page prior to submitting his or her bid.

To City Council, City of Ukiah:

The undersigned in submitting a bid for performing **North State Street/Low Gap Road Intersection and Storm Drain Improvements** by contract, being duly sworn, deposes and says:
that he or she has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract.

Signature(s) of Bidder

Business Address: _____

Place of Residence: _____

NOTARIZATION

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public in and for the County of _____, State of California.

My Commission Expires _____, 20 ____.

Preliminary - Not for Bidding

CITY OF UKIAH

Mendocino County, California

AGREEMENT

FOR

**NORTH STATE STREET/LOW GAP ROAD INTERSECTION AND STORM DRAIN
IMPROVEMENTS**

Specification No. 16-06

THIS AGREEMENT, made this _____ day of _____, 20____, by and between the City of Ukiah,
Mendocino County, California, hereinafter called the City and _____ hereinafter called the
Contractor,

WITNESSETH:

WHEREAS, the City has caused to be prepared in accordance with law, specifications, drawings and other contract documents for the work herein described and shown and has approved and adopted these contract documents, specifications and drawings and has caused to be published in the manner and for the time required by law a notice to bidders inviting sealed proposals for doing the work in accordance with the terms of this contract and

WHEREAS, the Contractor, in response to the notice to bidders, has submitted to the City a sealed proposal accompanied by a proposal guaranty in an amount of not less than 10 percent of the bid price for the construction of the proposed work in accordance with the terms of this contract and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined and canvassed the proposals submitted and as a result has determined and declared the Contractor to be the lowest and best regular responsible bidder for the work and for the sums named in the proposal,

NOW, THEREFORE, THIS AGREEMENT WITNESSETH:

Article 1. Work to be Done and Contract Days Allowed.

That the Contractor shall provide all necessary machinery, tools, apparatus and other means of construction; shall furnish all materials, superintendence, overhead, expenses, all labor and expenses of whatever nature necessary for completion of the work in conformity with the Special Provisions and other contract documents hereto attached and according to such instructions as may be given by the Engineer. The Contractor shall complete the work within seventy (75) working days, not including a planned suspension of work between Phase 1 and 2. Contract days shall be counted starting with the 10th day following receipt of notice that the contract has been executed by the City. Contractor, at his or her option, may begin work prior to start of counting contract days, however, in no event shall the Contractor start work without giving notification to the Engineer at least 72 hours prior to the start of work, without obtaining an encroachment permit from the City, or without having submitted certificates of insurance that have been accepted and approved by the Engineer.

Article II. Contract Prices.

That the City shall pay the Contractor the prices stated in the proposal submitted by the Contractor, for complete performance of the contract by the Contractor. The Contractor hereby agrees to accept the prices as full compensation for all material and appliances necessary to the work, for all labor and use of tools and other implements necessary to execute the work contemplated in this contract; for all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the work; for all risks of every description connected therewith; for all expenses of the work, as herein specified; for all liability and other insurance, for all overhead and other expenses incident to the work; all according to the Contract Drawings, the Special Provisions, the Details, the instructions and the requirements of the City.

Article III. Labor Discrimination.

Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, color, national origin or ancestry, or religion of such persons and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

In connection with the performance of work under this contract, the Contractor agrees as follows:

- (a) The Contractor will not willfully discriminate against any employee or an applicant for employment because of race, color, religion, ancestry, or national origin. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, ancestry, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the awarding authority setting forth the provisions of this Fair Employment Practice section.
- (b) The Contractor will send to each labor union or representative of workers with which he or she has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the awarding authority, advising the said labor union or worker's representative of the Contractor's commitments under this section, to employees and applicants for employment.
- (c) The Contractor will permit access to his or her records of employment, employment advertisements, application forms and other pertinent data and records by the Fair Employment Practices Commission, City of Ukiah or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract.
- (d) A finding of willful violation of the Fair Employment Practices section of this Contract or of the Fair Employment Practices Act shall be regarded by the awarding authority as a basis for determining the Contractor to be not a "responsible bidder" as to future contracts for which such Contractor may submit bids, for revoking the Contractor's pre-qualification rating, if any and for refusing to establish, reestablish or renew a pre-qualification rating for the Contractor.

The City of Ukiah shall deem a finding of willful receipt of written notice from the Fair Employment Practices Act to have occurred upon that it has investigated and determined that the Contractor has violated the Fair Employment Practices Act and has issued an order under Labor Code Section 1426 or obtained an injunction under Labor Code Section 1429.

Upon receipt of such written notice from the Fair Employment Practices Commission, the City shall notify the Contractor that unless he or she demonstrates to the satisfaction of the awarding authority within a stated period that the violation has been corrected, his or her pre-qualification rating will be revoked at the expiration of such period.

- (e) The Contractor agrees that should the City determine that the Contractor has not complied with the Fair Employment Practices section of this Contract, then pursuant to Labor Code Section 1735 and 1775 the Contractor shall, as a penalty to the City, forfeit for each calendar day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided

in the Labor Code for violation of prevailing wage rates. Such monies may be recovered from the Contractor. The City may deduct any such damages from any monies due the Contractor.

- (f) Nothing contained in this Fair Employment Practices section shall be construed in any manner of fashion so as to prevent the City or the State of California from pursuing any other remedies that may be available at law.
- (g) Prior to awarding the Contract, the Contractor shall certify to the awarding authority that he or she has or will meet the following standards for affirmative compliance, which shall be evaluated in each case by the awarding authority:
 - (1) The Contractor shall provide evidence, as required by the City that he or she has notified all supervisors, foremen and other personnel officers in writing of the content of the anti-discrimination clause and their responsibilities under it.
 - (2) The Contractor shall provide evidence, as required by the City, that he or she has notified all sources of employees' referrals (including unions, employment agencies, advertisements, Department of Employment) of the content of the anti-discrimination clause.
 - (3) The Contractor shall file a basic compliance report, as required by the City. Willfully false statements made in such reports shall be punishable as provided by law. The compliance report shall also spell out the sources of the work force and who has the responsibility for determining whom to hire, or whether or not to hire.
 - (4) Personally, or through his or her representatives, the Contractor shall, through negotiations with the unions with whom he or she has agreements, attempt to develop an agreement which will:
 - a. Spell out responsibilities for nondiscrimination in hiring, referral, upgrading and training.
 - b. Otherwise implement an affirmative anti-discrimination program in terms of the unions' specific areas of skill and geography to the end that qualified minority workers will be available and given and equal opportunity for employment.
 - (5) The Contractor shall notify the City of opposition to the anti-discrimination clause by individuals, firms or organizations during the period of its pre-qualification.
- (h) The Contractor will include the provisions of the foregoing paragraphs 1 through 5 in every first tier subcontract so that such provisions will be binding upon each such subcontractor.
- (i) The "Fair Employment Practices Certification" must be completed and signed prior to the time of submitting the bid.

Article IV. Parts of the Contract.

That the complete contract consists of the following documents, all of which shall be considered a part of this agreement.

1. Notice to Bidders
2. Wage Rates
3. General Conditions
4. Technical Specifications
5. Proposal
6. Fair Employment Practices Certification
7. Agreement
8. Contract Bonds
9. Contract Drawings and Construction Details
10. Standard Drawings
11. Indemnification Agreement

IN WITNESS WHEREOF, this contract being executed in duplicate and the parties having caused their names to be signed by authority of their duly authorized office this _____ day of _____, 20_____.

CITY OF UKIAH, MENDOCINO COUNTY, CALIFORNIA

By: _____
CITY MANAGER, CITY OF UKIAH

Attest: _____
CITY CLERK, CITY OF UKIAH

By: _____
CONTRACTOR

Attest: _____

Title: _____

The foregoing contract is approved as to form and legality this _____ day of _____, 20_____.

CITY ATTORNEY, CITY OF UKIAH

INDEMNIFICATION AGREEMENT

This Indemnification Agreement is made and entered in Ukiah, California, on _____, 20____, by and between the City of Ukiah (Ukiah) and _____(Contractor)

Contractor is

_____ for Ukiah.

As a condition of issuing the work order, attached hereto, Ukiah requires assurance that Contractor will protect Ukiah from damage or damage claims which arise from its performance of the work.

Accordingly, Contractor agrees as follows:

1. Indemnification. Contractor shall indemnify and hold harmless Ukiah and its officers, agents, and employees from and against any claim, loss, or damage, including the legal and other costs of defending against any claim of damage or loss which arises out of the Contractor's negligent or wrongful performance under the work order attached hereto, except for claims, losses, or damages resulting from the sole and exclusive negligence or other wrongful conduct of Ukiah or its officers, agents and employees.

CONTRACTOR

BY: _____

TITLE: _____

Preliminary - Not for Bidding

CITY OF UKIAH
Mendocino County, California

FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That we the undersigned, _____

AS PRINCIPAL, and

AS SURETY,

are held firmly bound unto **THE CITY OF UKIAH**, hereinafter called the "City", in the penal sum of

_____ dollars (\$ _____)

for the payment of which sum we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally.

WHEREAS, the Principal has entered into a certain Contract with the City, dated _____, 20_____, a copy of which is hereto attached and made a part hereof,

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall in all respects fully perform the Contract and all duly authorized modifications thereof, during its original term and any extensions thereof that may be granted and during any guaranty period for which the Contract provides, and if the Principal shall fully satisfy all claims, arising out of the prosecution of the work under the Contract and shall fully indemnify the City for all expenses which it may incur by reason of such claims, including its attorney's fees and court costs, and if the Principal shall make full payment to all persons supplying labor, services, materials, or equipment in the prosecution of the work under the Contract, in default of which such persons shall have a direct right of action hereupon; and if the Principal shall pay or cause to be paid all sales and use taxes payable as a result of the performance of the Contract as well as payment of gasoline and special motor fuels taxes in the performance of the Contract and all motor vehicle fees required for commercial motor vehicles used in connection with the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect. No modification of the Contract or extension of the term thereof, nor any forbearance on the part of the City shall in any way release the Principal or the Surety from liability hereunder. Notice to the Surety of any such modification, extension, or forbearance is hereby waived.

IN WITNESS WHEREOF, the aforesaid Principal and Surety have executed this instrument and affixed their seals hereto, this _____ day of _____, 20_____.

In the presence of:

WITNESS:

_____(SEAL)
(Individual Principal)

(Business Address)

(City/State/Zip Code)

WITNESS:

(Corporate Principal)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

ATTEST:

(Corporate Principal)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

ATTEST:

(Corporate Surety)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

The rate of premium on this bond is \$ _____ per thousand.

The total amount of premium charges is \$ _____.

(The above is to be filled in by Surety Company). (Power of Attorney of person signing for Surety Company must be attached).

(CERTIFICATE AS TO CORPORATE PRINCIPAL)

I _____, certify that I am the
Secretary of the corporation named as Principal in the foregoing bond; that
_____, who signed the said bond on behalf of the Principal, was then
_____ of said corporation; that I know his signature, and that his
signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and in behalf of said
corporation by authority of its governing body.

Affix Corporate Seal

CITY OF UKIAH
Mendocino County, California

MATERIAL AND LABOR BOND

KNOW ALL MEN BY THESE PRESENTS,

That we the undersigned, _____

_____, **AS PRINCIPAL**, and

_____, **AS SURETY**,

are held firmly bound unto **THE CITY OF UKIAH**, hereinafter called the "City" in the penal sum of

_____ dollars (\$ _____)

for the payment of which sum we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally.

WHEREAS, the Principal has entered into a certain Contract with the City, dated _____, 20____, a copy of which is hereto attached and made a part hereof,

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall in all respects fully perform the Contract and all duly authorized modifications thereof, during its original term and any extensions thereof that may be granted and during any guaranty period for which the Contract provides, and if the Principal shall fully satisfy all claims, arising out of the prosecution of the work under the Contract and shall fully indemnify the City for all expenses which it may incur by reason of such claims, including its attorney's fees and court costs, and if the Principal shall make full payment to all persons supplying labor, services, materials, or equipment in the prosecution of the work under the Contract, in default of which such persons shall have a direct right of action hereupon; and if the Principal shall pay or cause to be paid all sales and use taxes payable as a result of the performance of the Contract as well as payment of gasoline and special motor fuels taxes in the performance of the Contract and all motor vehicle fees required for commercial motor vehicles used in connection with the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect. No modification of the Contract or extension of the term thereof, nor any forbearance on the part of the City shall in any way release the Principal or the Surety from liability hereunder. Notice to the Surety of any such modification, extension, or forbearance is hereby waived.

IN WITNESS WHEREOF, the aforesaid Principal and Surety have executed this instrument and affixed their seals hereto, this _____ day of _____, 20_____.

In the presence of:

WITNESS:

_____(SEAL)
(Individual Principal)

(Business Address)

(City/State/Zip Code)

WITNESS:

(Corporate Principal)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

ATTEST:

(Corporate Principal)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

ATTEST:

(Corporate Surety)

Affix
Corporate
Seal

(Business Address)

(City/State/Zip Code)

The rate of premium on this bond is \$_____ per thousand.

The total amount of premium charges is \$_____..

(The above is to be filled in by Surety Company). (Power of Attorney of person signing for Surety Company must be attached).

(CERTIFICATE AS TO CORPORATE PRINCIPAL)

I, _____, certify that I am the Secretary of the corporation named as Principal in the foregoing bond; that _____, who signed the said bond on behalf of the Principal, was then _____ of said corporation; that I know his signature, and that his signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and in behalf of said corporation by authority of its governing body.

_____ Affix Corporate Seal

DIRECTIONS FOR PREPARATION OF PERFORMANCE AND MATERIAL AND LABOR BOND

1. Individual sureties, partnerships, or corporations not in the surety business will not be acceptable.
2. The name of the Principal shall be shown exactly as it appears in the Contract.
3. The penal sum shall not be less than required by the Specifications.
4. If the Principals are partners or joint ventures, each member shall execute the bond as an individual and state his place of residence.
5. If the Principal is a corporation, the bond shall be executed under its corporate seal.
If the corporation has no corporate seal, it shall so state and affix a scroll or adhesive seal following the corporate name.
6. The official character and authority of the person(s) executing the bond for the Principal, if a corporation, shall be certified by the Secretary or Assistant Secretary thereof under the corporate seal, or copies attached to such records of the corporation as will evidence the official character and authority of the officer signing, duly certified by the Secretary or Assistant Secretary, under the corporate seal, to be true copies.
7. The current power-of-attorney of the person signing for the surety company must be attached to the bond.
8. The date of the bond must not be prior to the date of the Contract.
9. The following information must be placed on the bond by the surety company:
 - a. The rate of premium in dollars per thousand; and
 - b. The total dollar amount of premium charged.
10. The signature of a witness shall appear in the appropriate place attending to the signature of each party of the bond.
11. Type or print the name underneath each signature appearing on the bond.
12. An executed copy of the bond must be attached to each copy of the Contract (original counterpart) intended for signing.

Preliminary - Not for Bidding

CITY OF UKIAH
Mendocino County, California

DEFECTIVE MATERIAL AND WORKMANSHIP (MAINTENANANCE)

KNOW ALL MEN BY THESE PRESENTS,

That we, _____,
_____, as **PRINCIPAL**
and _____,
_____, as **SURETY**,

are held and firmly bound unto the City of Ukiah as Obligee, in the penal sum of

_____, (\$ _____),
(5 PERCENT OF THE FINAL CONTRACT AMOUNT)

to which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the said Principal entered into a Contract with the City Of Ukiah
dated _____
for _____

WHEREAS, said Contract has been completed, and was approved on the _____ day of _____
20 _____,

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal shall guarantee that the work will be free of any defective materials or workmanship which become apparent during the period of one (1) year following completion of the Contract, then this obligation shall be void, otherwise to remain in full force and effect, provided however, any additional warranty or guarantee whether expressed or implied is extended by the Principal or Manufacturer only, and the surety assumes no liability for such a guarantee.

Signed, sealed, and dated this _____ day of _____, 20_____.

_____(Seal)

BY: _____(Seal)

_____(Seal)

Principal

_____(Seal)

BY: _____(Seal)

_____(Seal)

Surety

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

Preliminary - Not for Bidding

APPENDIX “A”

PLAN SHEETS

Please see Attachment #2 as a separate link for Agenda Item 12b.

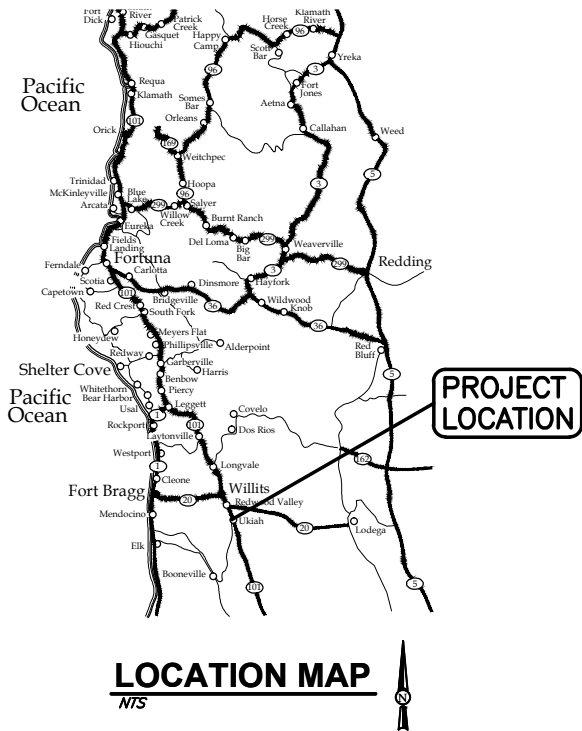
NORTH STATE STREET INTERSECTION - LOW GAP ROAD/BRUSH STREET, STORM DRAIN & SIGNALIZATION IMPROVEMENTS

CITY OF UKIAH, CALIFORNIA

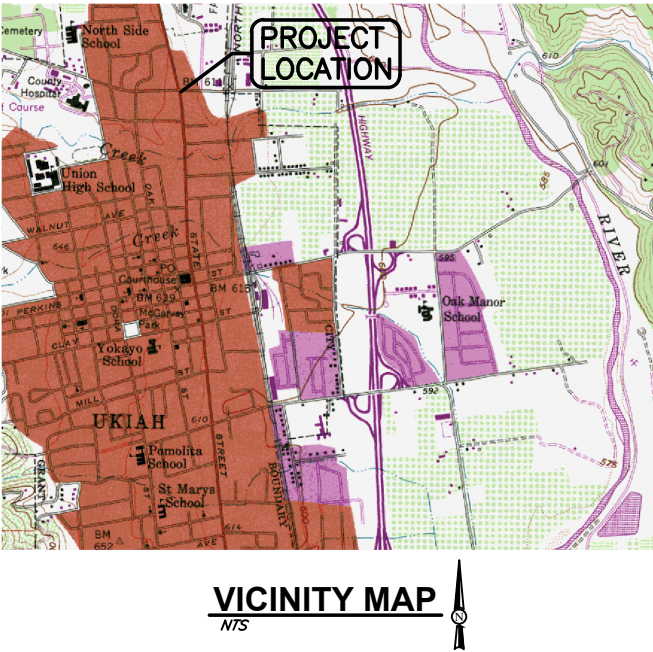
PREPARED BY:



SEPTEMBER 2016



THOMAS A. HUNT, P.E. C 53327
SHN CONSULTING ENGINEERS & GEOLOGISTS, INC. DATE



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CITY OF UKIAH
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD
COVER

SHEET	G-1
SEQ	1
DATE	09/2016
PROJ. NO.	415080-200



ABBREVIATIONS

A	ABN — ABANDON	G	GAS
ABS — ACRYLONITRILE-BUTADIENE-STYRENE	GA — GAGE	GALV — GALVANIZED	GAGE
AC — ANCHOR BOLT, AGGREGATE BASE	GIP — GALVANIZED IRON PIPE	GM — GAS METER	REDUCER
ACP — ASPHALTIC CONCRETE	GPD — GALLONS PER DAY	RWD — REDWOOD	REFER OR REFERENCE
ACI — ASPHALTIC CEMENT PIPE	GPH — GALLONS PER HOUR	REF — REFER OR REFERENCE	REINFORCED, REINFORCING
ADI — AMERICAN CONCRETE INSTITUTE	GPM — GALLONS PER MINUTE	REIN — REINFORCE	REQUIRED
ADJ — ADJUSTABLE	GRD — GRADE OR GROUND	REQD — REQUIRED	RETURN
AGGR — AGGREGATE	GSP — GALVANIZED STEEL PIPE	RET — RETURN	RIGHT HAND
AISC — AMERICAN INSTITUTE OF STEEL CONSTRUCTION	GV — GATE VALVE	RH — RIGHT HAND	ROOM
AL — ALUMINUM	GYP — GYPSUM	RO — ROUGH OPENING	ROCK SLOPE PROTECTION
ALT — ALTERNATE		RSP — RIGHT OR RING TIGHT	RIGHT OF WAY
AP — ANGLE POINT		R/W — RAIN WATER LEADER	
APPROX — APPROXIMATELY			
ARCH — ARCHITECTURAL			
ASTM — AMERICAN SOCIETY FOR TESTING & MATERIALS			
AUTO — AUTOMATIC			
AUX — AUXILIARY			
AT — AT			
B			
BC — BEGIN CURVE			
BCR — BEGIN CURB RETURN			
BD — BOARD			
BF — BLIND FLANGE			
BFV — BUTTERFLY VALVE			
BK — BOOK OR BACK			
BLDG — BUILDING			
BM — BENCH MARK, BEAM			
BMP — BEST MANAGEMENT PRACTICE			
BO — BLOW OFF			
BOT — BOTTOM			
BRG — BEARING			
BTWN — BETWEEN			
BV — BALL VALVE			
BVC — BEGINNING OF VERTICAL CURVE			
BW — BACK OF WALK			
BWV — BACKWATER VALVE			
C			
C — CHANNEL (STRUCTURAL SHAPE)			
CARV — COMBINATION AIR AND VACUUM RELEASE VALVE			
CATV — CABLE TELEVISION			
CB — CATCH BASIN			
CEIL — CEILING			
CFM — CUBIC FEET PER MINUTE			
CFS — CUBIC FEET PER SECOND			
CHEM — CHEMICAL			
CI — CAST IRON			
CIP — CAST IRON PIPE			
C.I.P. — CAST IN PLACE			
CJ — CONSTRUCTION JOINT			
CLR — CLEAR			
CL — CENTERLINE			
CMP — CORRUGATED METAL PIPE			
CMU — CONCRETE MASONRY UNIT			
CTSK — COUNTERSINK			
CO — CLEANOUT			
COL — COLUMN			
CONC — CONCRETE			
CONT — CONTINUOUS OR CONTINUED			
COORD — COORDINATE			
CPLG — COUPLING			
CRS — COLD ROLLED STEEL			
CTR — CENTER			
CTS — COPPER TUBE SIZE			
CU — CUBIC			
CU FT — CUBIC FEET			
CV — CHECK VALVE			
CW — COLD WATER			
CY — CUBIC YARD			
D			
d — DEGREE (ANGLE)			
D — PENNY (NAIL SIZE)			
DB — DRAIN			
DBL — DISTRIBUTION BOX			
DF — DOUGLAS FIR			
DI — DROP INLET OR DUCTILE IRON			
DIA — DIAMETER			
DIAG — DIAGONAL			
DIM — DIMENSION			
DIMJ — DUCTILE IRON MECHANICAL JOINT			
DIP — DUCTILE IRON PIPE			
DET — DETAIL			
DWG — DRAWING			
DW — DRIVEWAY			
E			
(E) — EXISTING			
E — EASTING OR EAST			
EA — EACH			
EC — END CURVE			
ECR — END CURB RETURN			
EF — EACH FACE			
EFL — EFFLUENT			
EG — EXISTING GRADE/GROUND			
EL — ELEVATION			
ELEC — ELECTRIC OR ELECTRICAL			
ELEV — ELEVATION			
ENGR — ENGINEER			
EP — EDGE OF PAVING			
EQ — EQUAL			
EQUIP — EQUIPMENT			
ER — EDGE OF ROAD			
EVC — END OF VERTICAL CURVE			
EW — EACH WAY			
EWEF — EACH WAY, EACH FACE			
EXC — EXCAVATE			
EXP — EXPOSED OR EXPANSION			
EXP JT — EXPANSION JOINT			
EXT — EXISTING			
EXT — EXTERIOR			
F			
F — FLANGE			
FC — FLEXIBLE COUPLING			
FCA — FLEXIBLE COUPLING ADAPTER			
FD — FLOOR DRAIN			
FDC — FIRE DEPARTMENT CONNECTION			
FDN — FOUNDATION			
FF — FINISH FLOOR			
FG — FINISHED GRADE			
FH — FIRE HYDRANT			
FIG — FIGURE			
FIN — FINISH			
FIP — FEMALE IRON PIPE			
FL — FLOW LINE			
FLG — FLANGE			
FLR — FLOOR			
FLTR — FILTER			
FO — FIBER OPTIC			
FOC — FACE OF CONCRETE			
FT — FOOT OR FEET			
FT2 — SQUARE FEET			
FT3 — CUBIC FEET			
FTG — FOOTING			
FUT — FUTURE			

CURVE DATA

R (RADIUS)
L (LENGTH)
Δ (DELTA)
T (TANGENT)

UTILITIES LEGEND

PROPOSED	EXISTING	
		GATE VALVE
		PLUG VALVE
		BALL VALVE
		BUTTERFLY VALVE
		AUTOMATICALLY OPERATED VALVE (P= PNEUMATIC, E= ELECTRIC, S= SOLENOID, H= HYDRAULIC, D= DIAPHRAGM ACTUATOR)
		3-WAY VALVE
		GLOBE VALVE
		ANGLE VALVE
		PRESSURE REGULATING VALVE
		PRESSURE RELIEF VALVE
		CHECK VALVE
		AIR OR VACUUM RELEASE VALVE
		AIR AND VACUUM VALVE
		COMBINATION AIR VALVE
		FLOW METER
		HOSE BIBB (NF= NON-FREEZE)
		REDUCER
		FIRE HYDRANT
		DROP INLET
		MANHOLE
		SEWER CLEAN OUT OR SEWER LATERAL
		UNDERGROUND ELECTRICAL
		OVERHEAD ELECTRICAL
		FIBER OPTIC LINE
		CABLE TELEVISION
		JOINT UTILITIES
		UNDERGROUND TELEMETRY LINE
		OVERHEAD TELEMETRY LINE
		UNDERGROUND TELEPHONE LINE
		OVERHEAD TELEPHONE LINE
		FIRE WATER LINE
		STEAM LINE
		WATER LINE
		SANITARY SEWER LINE
		STORM DRAIN LINE
		GAS LINE
		FORCE MAIN AND DIRECTION OF FLOW
		CULVERT
		POLE MOUNTED ROADWAY LUMINAIRE
		ITEM TO BE REMOVED
		ITEM TO BE ABANDONED IN PLACE
		WATER SERVICE— WM-1= SINGLE WM-2= DUAL
		PULL BOX AND DESIGNATION
		SIGN AND DESIGNATION

NOTES

- CONTACT THE ENGINEER FOR SYMBOLS NOT LISTED.
- THIS IS A STANDARD SHEET, THEREFORE, SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET WHICH DO NOT APPEAR ON THE PLANS.
- SITE AND UTILITY SYMBOLS SHOWN ON THIS SHEET ARE NOT INTENDED TO REPRESENT THE PHYSICAL SCALE OR SHAPE OF ANY ITEMS. WHERE LARGE-SCALE PLANS ARE PRESENTED, THE SYMBOLS SHOWN HEREON MAY BE REPLACED BY DETAILS MORE SUITED TO THE DRAWING SCALE.

TOPOGRAPHIC LEGEND

PROPOSED	EXISTING	
		P.I. (POINT OF INTERSECTION)
		TEMPORARY BENCH MARK
		FINISH GRADE ELEVATION
		ELEVATION OF ORIGINAL GROUND
		RADIAL POINT
		FLOW LINE AND DIRECTION
		TOP OF CUT
		TOP OF FILL
		TOE OF CUT OR FILL
		CONTOUR LINE
		CONCRETE (IN PLAN)
		CONCRETE (IN SECTION)
		PAVEMENT
		ROCKS
		STUMPS
		TREES
		ROADS
		UTILITY POLE (PP=POWER POLE, TP= TEL POLE, JP=JOINT POLE)
		GUY WIRE
		FENCE
		BOUNDARY LIMITS, W/DESIGNATION
		CENTERLINE
		MARSH
		WETLAND
		SPRING
		TEST PIT AND DESIGNATION
		EXPLORATION BORE HOLE
		PROPERTY CORNER
		SURVEY MONUMENT
		CONTROL POINT
		DRIVEWAY

DETAIL AND SECTION DESIGNATION

SECTION (LETTER)
OR DETAIL (NUMERAL)
DESIGNATION

INDICATES SECTION OR DETAIL TAKEN AND SHOWN ON SAME SHEET

ON DRAWING WHERE SECTION OR DETAIL IS TAKEN:

SHEET NUMBER WHERE SHOWN

ON DRAWING WHERE SECTION OR DETAIL IS SHOWN:

SHEET NUMBER WHERE TAKEN

STANDARD DETAIL NUMBER (DETAIL MAY BE SHOWN ON ANY SHEET WITHIN THE DRAWING SET)



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BY

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CITY OF UKIAH

CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR

NORTH STATE STREET AND LOW GAP ROAD

STANDARD ABBREVIATIONS

SHEET

G-2

SEQ

2

DATE

09/2016

PROJ. NO.

415080-200

SAVED: 9/14/2016 4:45 PM SHEATH, PLOTTED: 9/15/2016 8:50 AM SAM R. HEATH
\\WILLISSVR\PROJECTS\2016\415080-N.STATE\TX\DWGS\415080-000SVY2TH.DWG

GENERAL NOTES:

1. THE CONTRACTOR SHALL NOTE THAT THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AS ARE THE VERTICAL DEPTHS AND SHOULD NOT BE TAKEN AS ALL INCLUSIVE. THE CONTRACTOR SHALL NOTE THAT OBSTRUCTIONS SHALL INCLUDE ANY SUBSURFACE CONCRETE ROADWAY IMPROVEMENTS AND UTILITY ENCASEMENT. THE CONTRACTOR IS CAUTIONED THAT THE PLANS MAY NOT INCLUDE ALL EXISTING UTILITIES AND THE CITY OF UKIAH AND THE ENGINEER ASSUME NO RESPONSIBILITY FOR UTILITIES AND OBSTRUCTIONS THAT MAY BE ENCOUNTERED DURING EXCAVATION AND REMOVAL OF EXISTING IMPROVEMENTS.

2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXECUTING OF THESE PLANS AND SPECIFICATIONS BY POT-HOLING OF UTILITIES UNDER THE SUPERVISION OF THE PROJECT INSPECTOR AND CITY OF UKIAH FORCES, AND OTHER UTILITIES AGENCIES WITH UTILITIES IN THE WORK AREA.

3. THE CONTRACTOR SHALL USE CARE DURING EXCAVATION TO PROTECT EXISTING UTILITIES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGED UTILITIES UNDER THE DIRECTION OF THE ENGINEER AND THE CITY OF UKIAH. UTILITIES NOT OWNED BY THE CITY OF UKIAH SHALL BE REPAIRED BY THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE AS DETERMINE BY THE AGENCY.

3. THE CONTRACTOR SHALL START SUCH CONSTRUCTION PROCEDURES BY PERFORMING USA UTILITY MARKING REQUEST PRIOR TO ANY EXCAVATION WORK.

LEGEND

- JOINT POLE WITH GUY
- TELEPHONE POLE
- TELEPHONE BOX OR VAULT
- CATV BOX
- FIRE DEPT CONNECTION, HYDRANT
- WATER METER
- WATER VALVE
- APRX. WATER MAIN/SERVICE SEE UTILITY NOTE
- HOSE BIB
- DRINKING FOUNTAIN
- UTILITY MANHOLE
- DRAIN INLET
- SANITARY SEWER CLEANOUT OR BOX
- APRX. SANITARY SEWER MAIN/LATERAL SEE UTILITY NOTE
- ELECTRIC BOX OR VAULT
- APRX. UNDERGROUND ELEC. CONDUIT SEE UTILITY NOTE
- MISC. ELECTRICAL
- LIGHT
- ELECTRIC METER
- TRANSFORMER
- GAS METER
- APRX. GAS MAIN/SERVICE SEE UTILITY NOTE
- TREE STUMP
- SIGN
- HANDICAP RAMP OR PARKING
- PLANTER
- AC ASPHALTIC CONCRETE
- CN CONCRETE
- EP EDGE OF PAVING
- TFC TOP FACE OF CURB
- GRATE
- APRX. UNDERGROUND TEL CONDUIT SEE UTILITY NOTE
- FENCE
- OVERHEAD ELECTRIC LINES
- INDICATES CONCRETE SURFACE
- FOUND MONUMENT
- SURVEY CONTROL POINT
- DOWNSPOUT
- MONITORING WELL
- TO BE REMOVED AND/OR RELOCATED

NOT ALL SYMBOLS ARE USED IN ALL DRAWINGS.

CERTIFICATION

THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN APRIL, 2016.

MATTHEW T. HERMAN PLS 8335

DATE



CONTROL TABLE				
Point #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	9286.18	10155.73	630.21	60DS
2	9228.80	10502.49	611.82	60DS
104	9221.72	9898.35	635.09	MAG&S
202	9298.19	10075.82	630.50	X IN WALK

NOTES

HORIZONTAL DATUM: LOCAL COORDINATE SYSTEM. BASIS OF BEARINGS SOUTH 0544101° EAST BETWEEN FOUND MONUMENTS AS SHOWN ON THE PARCEL MAP OF MINOR SUBDIVISION NO. 92-22, RECORDED IN M.C. 2, D. 58, P. 96, M.C.R.

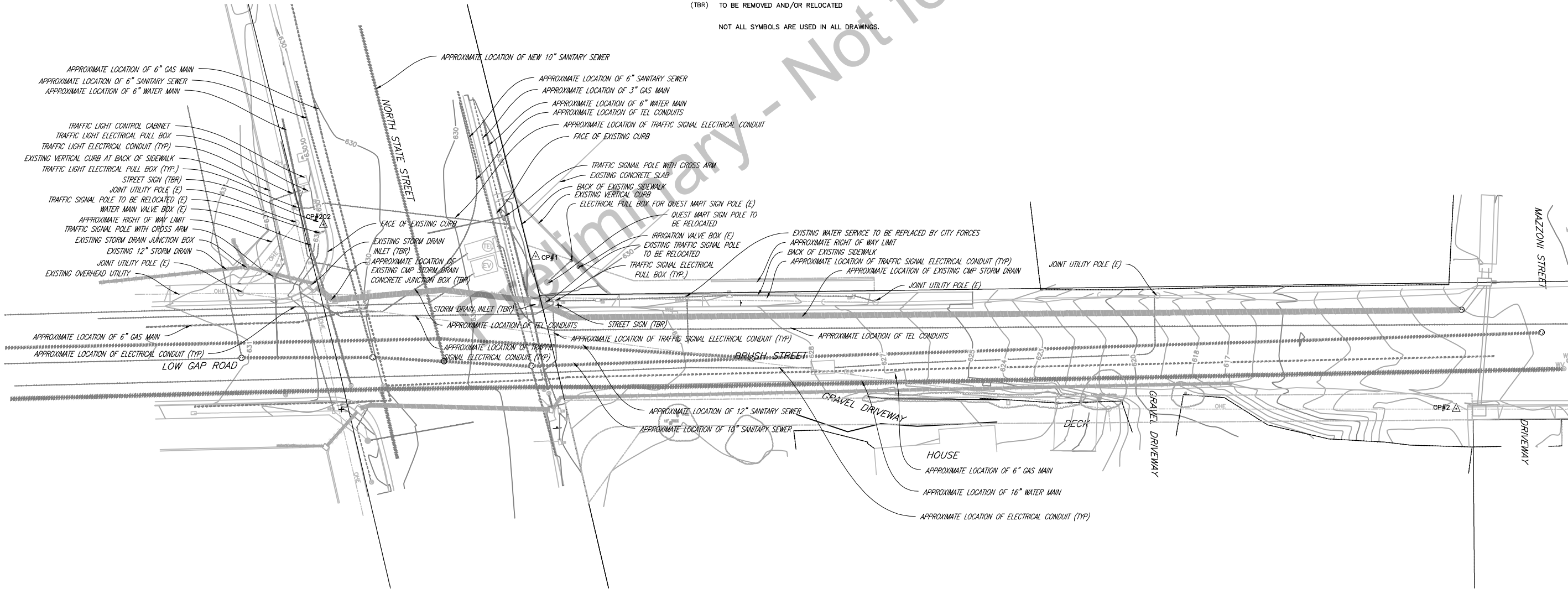
VERTICAL DATUM: NGVD 29 PER U.S.G.S BENCHMARK X104 LOCATED IN THE RAILROAD RIGHT OF WAY EASTERLY OF THE RAILROAD TRACK, 27 FEET NORTH OF THE CENTERLINE OF BRUSH STREET AND APPROXIMATELY 1.6 FEET NORTHEASTERLY OF METAL WITNESS POST. NGVD 29 WAS USED TO BE CONSISTENT WITH THE CITY OF UKIAH IMPROVEMENT PLANS FOR THE INTERSECTION OF NORTH STATE STREET & BRUSH/ LOW GAP PREPARED BY RAU AND ASSOCIATES DATED MARCH, 1995. THE VERTICAL DATUM OF THE CURRENT CITY OF UKIAH NORTH STATE STREET SEWER MAIN REPLACEMENT PROJECT APPEARS TO BE APPROXIMATELY 29.7 FEET LOWER THAN NGVD 29.

UNDERGROUND UTILITY NOTE:
UNDERGROUND UTILITY INFORMATION SHOWN IS BASED ON VISIBLE EVIDENCE. SHN MAKES NO GUARANTEE REGARDING LOCATION, TYPE, SIZE, NOR PRESENCE OR ABSENCE OF UNDERGROUND UTILITIES.
IRRIGATION SYSTEM NOT MAPPED.

UNDERGROUND UTILITY INFORMATION SHOWN OTHER THAN THOSE BASED ON VISIBLE EVIDENCE ARE APPROXIMATE AND BASED ON INFORMATION SHOWN ON THE CITY OF UKIAH IMPROVEMENT PLANS FOR THE INTERSECTION OF NORTH STATE STREET & BRUSH/ LOW GAP PREPARED BY RAU AND ASSOCIATES SHEET 1 DATED MARCH, 1995

OVERHEAD UTILITY NOTE:
OVERHEAD LINES OFF OF THE PROJECT SITE ARE NOT FULLY MAPPED. INFORMATION SHOWN IS BASED ON VISIBLE EVIDENCE. NO MAPPING OBTAINED FOR PHONE AND CABLE TELEVISION FACILITIES. PHONE AND CABLE TELEVISION LINE LOCATIONS NOT VERIFIED.

TREE NOTE:
ALL TREES SURVEYED WERE DECIDUOUS UNLESS NOTED OTHERWISE. INDIVIDUAL TRUNKS IN TREE CLUSTERS NOT SHOWN.



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DR
TAH

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MTH

APVD

CITY OF UKIAH
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD

EXISTING SITE IMPROVEMENT PLAN

DRAWING
SVY-1

SHT
3

DATE
09/2016

PROJ. NO.
415080-200

SAVED: 9/18/2016 11:43 AM SHEATH, PLOTTED: 9/15/2016 8:15 AM SAM R. HEATH
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GENERAL NOTES:

- ALL WORK SHALL CONFORM TO CURRENT CALIFORNIA BUILDING CODE AND CALTRANS 2010 STANDARD SPECIFICATIONS AND PLANS, AND CITY OF UKIAH STANDARDS.
- THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING, PROVIDED SUCH IS PERMITTED BY LOCAL PUBLIC AUTHORITIES WITH JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE A COPY OF THE TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE EXCAVATION OF ANY TRENCH OVER FIVE FEET IN DEPTH.
- CONTRACTOR SHALL PERFORM TRENCH WORK IN CONFORMANCE WITH THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY REQUIREMENTS AND SHALL CONFORM TO ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH STANDARDS, RULES, REGULATIONS AND ORDERS ESTABLISHED BY THE STATE OF CALIFORNIA AND OTHER APPLICABLE AGENCIES.
- CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, GENERAL CONTRACTOR WILL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. ALL WORK AND EQUIPMENT SHALL COMPLY WITH THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY REQUIREMENTS. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY, AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER, THE ENGINEER AND HIS/HER CONSULTANTS.
- THE CONTRACTOR SHALL INDEPENDENTLY REVIEW EXISTING SITE IMPROVEMENTS, UTILITIES, SOILS CONDITIONS, TOPOGRAPHY, VEGETATION, AND CONDITIONS THROUGHOUT THE SITE, AND ASSUME THE RISK OF COMPLETING THE WORK SET OUT ON THESE PLANS, REGARDLESS OF ROCK, WATER TABLE, EXISTING IMPROVEMENTS, OTHER CONDITIONS WHICH MAY BE ENCOUNTERED IN THE COURSE OF THE WORK.
- ANY DISCREPANCY DISCOVERED BY THE CONTRACTOR IN THESE PLANS, OR ANY FIELD CONDITIONS DISCOVERED BY THE CONTRACTOR THAT MAY DELAY OR OBSTRUCT THE PROPER COMPLETION OF THE WORK SHOWN HEREIN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE ENGINEER IMMEDIATELY UPON DISCOVERY. SAID NOTIFICATION SHALL BE IN WRITING.
- ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED TESTED AND APPROVED PRIOR TO PAVING.
- THE CONTRACTOR SHALL NOT BEGIN EXCAVATING UNTIL ALL EXISTING UTILITIES HAVE BEEN MARKED IN THE FIELD. THE CONTRACTOR SHALL NOTIFY EACH APPLICABLE ENTITY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) TWO WORKING DAYS BEFORE DIGGING AT (800) 227-2600 FOR LOCATES.
- GRADING AND CONSTRUCTION CONTRACTORS SHALL STOP WORK AND NOTIFY THE OWNER AND THE ENGINEER IF CULTURAL RESOURCES ARE DISCOVERED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE THE INSPECTOR 48 HOURS ADVANCE NOTICE OF ANY CONSTRUCTION OR REQUIRED TESTING.
- SHOULD THE CONTRACTOR OR ANY OF HIS AGENTS OR EMPLOYEES ENCOUNTER OR DISCOVER MATERIALS WHICH APPEAR TO BE HAZARDOUS DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY AND SUSPEND WORK IN THE AFFECTED AREA UNTIL THE ENGINEER HAS INSPECTED THE LOCATION AND MATERIALS IN QUESTION. SHOULD IT BE NECESSARY TO UNDERTAKE REMEDIATION, THE ENGINEER WILL GIVE WRITTEN NOTICE TO SUSPEND WORK IN THE AFFECTED AREA UNTIL THE PROPER COURSE OF ACTION HAS BEEN DETERMINED. OPERATIONS IN THE AFFECTED AREA SHALL BE RESUMED ONLY UPON WRITTEN NOTICE BY THE ENGINEER.
- ALL SITE GRADING WILL BE INSPECTED BY THE ENGINEER. COMPACTION TESTING WILL BE CONDUCTED AFTER SUFFICIENT DENSITIES HAVE BEEN ACHIEVED IN THE CONTRACTOR'S OPINION. THE CONTRACTOR SHALL MAKE ALL REQUESTS FOR MATERIALS TESTING AT LEAST 48 HOURS IN ADVANCE. ANY SOILS THAT FAIL TO MEET THE REQUIRED COMPACTION LEVELS SHALL BE REMOVED, AND RECOMPACTED. ALL COSTS ASSOCIATED WITH ACHIEVING COMPACTION STANDARDS SHALL BE INCLUDED IN THE CONTRACTOR'S ORIGINAL BID.
- NO CHANGES OR MODIFICATIONS SHALL BE MADE TO THESE PLANS WITHOUT WRITTEN APPROVAL BY THE ENGINEER. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO AND USES OF THESE PLANS UNLESS APPROVED IN WRITING BY THE PREPARER OF THESE PLANS OR THE CITY ENGINEER.
- THE LOCATIONS OF CITY OF UKIAH ELECTRICAL FACILITIES, AT&T, CABLE, AND PACIFIC GAS & ELECTRIC UTILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL POTHOLE AND DETERMINE THE EXACT HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AS PART OF THE COST OF THE PERFORMING WORK UNDER THIS CONTRACTOR, AND THE SHALL ADJUST THE DEPTH OF THE NEW UTILITIES TO CLEAR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE OFF-SITE DISPOSAL OF ALL BITUMINOUS PAVEMENT, CONCRETE, REINFORCEMENT, AND SPOILS NOT NEEDED FOR BACKFILL AS REQUIRED BY THE ENGINEER AND PER THESE SPECIFICATIONS.
- THE CONTRACTOR SHALL MAINTAIN REASONABLE ACCESS TO ALL DRIVEWAYS AND SIDEWALKS DURING CONSTRUCTION.
- ALL TRENCHES SHALL BE PAVED AT THE END OF EACH WORKING DAY PER SPECIFICATIONS.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALTRANS MANUAL OF TRAFFIC FOR CONSTRUCTION AND MAINTENANCE OF WORK ZONES. ALL SIGNS SHALL BE APPROPRIATELY CONSTRUCTED WITH REFLECTIVE MATERIAL ON A BACKING OF METAL OR FABRIC (NO WOOD OR PLASTIC ALLOWED) AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO PROVIDE PROPER VISIBILITY.
- ALL PAVEMENT MARKINGS DAMAGED DUE TO CONSTRUCTION SHALL BE REPLACED PER CALTRANS STANDARDS. PATCHING OF DAMAGED MARKINGS WILL NOT BE ALLOWED.
- NO CONSTRUCTION SHALL COMMENCE WITHOUT PRIOR APPROVAL OF THE CITY OF UKIAH, DEPARTMENT OF PUBLIC WORKS.
- CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE NEW AND OF A QUALITY EQUAL TO THAT SPECIFIED OR APPROVED. WORK SHALL BE DONE AND COMPLETED IN A THOROUGH AND WORKMANLIKE MANNER.
- CONTRACTOR SHALL CONFINE HOURS OF CONSTRUCTION OPERATION TO 7 A.M. TO 7 P.M. MONDAY THRU FRIDAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

PROJECT SPECIFICATIONS:

GENERAL COMPACTION

- NO GEOTECHNICAL ENGINEERING REPORT WAS PREPARED FOR SITE PREPARATION, EXCAVATION, ENGINEERED FILL, AND OTHER GENERAL RECOMMENDATIONS FOR THIS PROJECT.
- COMPACTION REQUIREMENTS AS SPECIFIED WILL BE BY PERCENT OF THE MAXIMUM DRY DENSITY AND AS DETERMINED PER ASTM D 1557.
- PLACE BACKFILL AND FILL SOIL MATERIAL IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES FOR MATERIAL COMPACTED BY HEAVY EQUIPMENT, AND NOT MORE THAN 6 INCHES FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- THE GROUND SURFACE IN AREAS TO RECEIVE FILL SHALL BE PREPARED AS FOLLOWS:
 - ALL ORGANIC MATERIAL AND TOPSOIL SHALL BE REMOVED.
 - ON SLOPES GREATER THAN 1V:4H, HORIZONTAL BENCHES SHALL BE CUT INTO THE SOIL TO PROVIDE A LEVEL BEARING SURFACE FOR THE FILL MATERIAL. THE MINIMUM WIDTH OF THE BENCHES SHALL BE FOUR FEET.
- ALL IMPROVEMENTS SHALL BE GRADED TO DRAIN TO THE APPROVED DRAINAGE COURSE AT A UNIFORM SLOPE OF 2% MINIMUM UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM THE GROUND ELEVATIONS AND OVERALL TOPOGRAPHY OF THE SITE PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY SHM CONSULTING ENGINEERS AT 707-441-8835 IMMEDIATELY, AND PROVIDE WRITTEN DESCRIPTION OF ANY DIFFERENCES IN TOPOGRAPHY FROM THAT SHOWN ON THESE PLANS WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR AFFECT EARTHWORK QUANTITY.
- NO CUT OR FILL SLOPES SHALL EXCEED THE SLOPE RATIO OF 2H:1V, UNLESS OTHERWISE NOTED.
- TOPSOIL SHALL BE REMOVED FROM ALL CUT AND FILL AREAS AND SHALL NOT BE USED FOR ENGINEERED FILL. TOPSOIL SHALL BE STOCKPILED SEPARATELY AND REPLACED OVER AREAS OF EXPOSED SUB-GRADE TO A MINIMUM DEPTH OF 6 INCHES.
- FILL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS REPORT UNLESS OTHERWISE NOTED ON THESE PLANS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR COMPLYING WITH THE FILL MATERIAL REQUIREMENTS OF THE SOILS REPORT.
- COMPACTION IN TRENCHES SHALL BE TESTED EVERY 50-75 FEET WITH A MINIMUM OF TWO TESTS PER ANY LENGTH OF TRENCHING. THE ENGINEER WILL BE PERMITTED TO COMPLETE TESTING AT ANY BACKFILL ELEVATION DURING THE BACKFILLING PROCESS. THE CONTRACTOR SHALL PROVIDE EQUIPMENT AND AN OPERATOR, FREE OF CHARGE TO FACILITATE THE TESTING REQUIRED BY THE ENGINEER.
- FILL MATERIALS SHALL BE MECHANICALLY COMPACTED. JETTING WILL NOT BE ALLOWED.
- CARE SHALL BE TAKEN NOT TO CRUSH THE PIPE OR OTHER COMPONENTS WITH COMPACTION EQUIPMENT.
- GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE FOOTING EXCAVATIONS PRIOR TO PLACEMENT OF FORMS AND REBAR.

TESTING AND INSPECTION

- ALL SITE GRADING, SUBGRADE, AND BACKFILLING WILL BE INSPECTED BY THE ENGINEER. CONTRACTOR TO PROVIDE 48 HOUR NOTICE IN ADVANCE OF REQUIRED INSPECTION. FAILURE TO GIVE ADEQUATE NOTICE MAY RESULT IN TESTING DELAYS WHICH WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE ENGINEER WILL MAKE ALL COMPACTION TESTS WHEN ADVISED BY THE CONTRACTOR THAT IN THE OPINION OF THE CONTRACTOR, SUFFICIENT DENSITIES HAVE BEEN ACHIEVED. THE CONTRACTOR SHALL FURNISH A BACKHOE AND OPERATOR UPON REQUEST AT NO COST TO OWNER.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY EXCAVATIONS FOR COMPACTION TESTS. COSTS OF EXCAVATION, BACKFILLING, AND COMPACTION IN CONNECTION WITH COMPACTION TESTING SHALL BE BORNE BY THE CONTRACTOR. A FAILING COMPACTION TEST INDICATES THAT THE REQUIRED COMPACTION STANDARDS HAVE NOT BEEN ACHIEVED. ANY FILL MATERIAL OR PORTION OF FILL MATERIAL THAT DOES NOT MEET THE SPECIFIED REQUIREMENTS SHALL BE REMOVED AND RECOMPACTED UNTIL THE REQUIREMENTS ARE SATISFIED AT NO ADDITIONAL COST TO THE OWNER. COSTS ASSOCIATED WITH RETESTING PREVIOUSLY FAILED AREAS SHALL BE PAID BY OWNER AND BACK-CHARGED TO THE CONTRACTOR.
- EXCAVATIONS FOR COMPACTION TESTS SHALL BE BACKFILLED WITH MATERIAL SIMILAR TO THAT EXCAVATED, AND BE COMPACTED TO THE SPECIFIED DENSITY.
- ALL COSTS ASSOCIATED WITH ACHIEVING COMPACTION STANDARDS SHALL BE INCLUDED IN THE BID PRICES PAID FOR THE BID ITEM INVOLVED AND THEREFORE NO ADDITIONAL COMPENSATION SHALL BE MADE.

PAVING

- ALL ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS SECTION 39.
- ASPHALT MATERIAL SHALL BE HMA TYPE A WITH ½ INCH AGGREGATE GRADATION. ASPHALT BINDER SHALL BE PG64-16.
- ASPHALT CONCRETE SHALL BE INSTALLED AND TESTED ACCORDING TO THE "STANDARD PROCESS" SPECIFIED IN SECTION 39. ACCEPTANCE CRITERIA PER CALTRANS TEST 309.
- WHERE NEW PAVING MEETS EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAWCUT.
- APPLY TACK COAT TO CONTACT SURFACES OF CURBS, GUTTERS AND EXISTING PAVEMENT.
- PLACE ASPHALT CONCRETE WITHIN 24 HOURS OF APPLYING PRIMER OR TACK COAT.
- TACK COAT SHALL BE TYPE SS-1.
- COMPACT PAVEMENT BY ROLLING TO A MINIMUM OF 95% OF MAXIMUM DENSITY. DO NOT DISPLACE OR EXTRUDE PAVEMENT FROM POSITION. HAND COMPACT IN AREAS INACCESSIBLE TO MECHANICAL ROLLING EQUIPMENT.
- PERFORM ROLLING WITH CONSECUTIVE PASSES TO ACHIEVE SMOOTH FINISH WITHOUT ROLLER MARKS.
- AGGREGATE BASE SHALL BE CALTRANS CLASS 2, COMPACTED TO 95% RELATIVE COMPACTION PER ASTM D1557/D6938.
- IN AREAS TO BE PAVED, MINIMUM TOP 6 INCHES OF SUITABLE NATIVE SOIL SHALL BE SCARIFIED AND RECOMPACTED TO 90% RELATIVE COMPACTION PER ASTM D1557/D6938.
- UNLESS OTHERWISE SHOWN ON THESE PLANS, NEW ASPHALT CONCRETE SURFACES AND NEW FINISH GRADE SURFACES SHALL BE INSTALLED SO AS TO MAINTAIN EXISTING SURFACE DRAINAGE PATTERNS.

ELECTRICAL – TRAFFIC SIGNAL

- THE CONTRACTOR SHALL INSTALL ALL TRAFFIC SIGNAL IMPROVEMENTS AS SHOWN AND CONSISTENT WITH THE EXISTING FACILITIES.
- ALL WIRE CONDUCTOR MATERIALS SHALL BE REUSED IF POSSIBLE OR MATCH THE EXISTING WIRE SIZES.
- NO WIRE SPLICES SHALL BE MADE EXCEPT IN PULL BOXES AS SHOWN.
- THE CONTRACTOR SHALL PROVIDE ELECTRICAL PULL BOXES OF THE SAME SIZE AS THE EXISTING.
- WHERE EXISTING CONDUIT NEEDS TO BE EXTENDED, A COUPLING MAY USED, HOWEVER NEW WIRE CONDUCTORS SHALL BE INSTALLED.
- THE LID ON ALL NEW PULL BOXES SHALL BE LABEL "ELECTRIC" OR "TRAFFIC SIGNAL ELECTRICAL".
- ALL WORK SHALL ON THE ELECTRICAL SYSTEM FOR THE TRAFFIC SIGNALS SHALL BE PERFORMED BY A QUALIFIED LICENSED ELECTRICAL CONTRACTOR UNDER THE DIRECTION OF THESE PLANS AND THE CITY OF UKIAH ELECTRIC DEPARTMENT.
- THE TRAFFIC SIGNAL SYSTEM SHALL BE DE-ENERGIZED PRIOR TO EXCAVATION WORK BY THE CITY OF UKIAH ELECTRICAL DEPARTMENT.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL SIGNAGE WHILE THE TRAFFIC SIGNAL WILL NOT BE WORKING.

PROJECT SPECIFICATIONS (CONT):

SITE WORK CONCRETE

- SEE CIVIL SHEETS FOR CONCRETE WITHIN THE PROJECT FOOTPRINT.
- ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19A OF THE CBC AND WITH THE PROVISIONS OF ACI 318. MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.
- UNLESS OTHERWISE STATED, CONCRETE SHALL BE HARD ROCK CONCRETE AND SHALL MEET THE FOLLOWING DESIGN CRITERIA:
 - MINIMUM 28-DAY COMPRESSIVE STRENGTH = 3,000 PSI
 - MINIMUM CEMENT CONTENT = 5 SACKS/CUYD
 - MAXIMUM AGGREGATE SIZE = ¾"
 - SLUMP = 4"±1"
- CONCRETE SHALL BE MIXED, PLACED, AND CURED IN ACCORDANCE WITH ACI 318.
- REINFORCING SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE."
- SURFACE OF ALL CONCRETE FLATWORK SHALL BE IN ACCORDANCE WITH CBC REQUIREMENTS FOR ACCESSIBLE ROUTES.
- ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES AND SLEEVES SHALL BE SECURELY POSITIONED IN FORMS BEFORE PLACEMENT OF CONCRETE.
- WALKWAYS SHALL MEET THE ACCESSIBILITY REQUIREMENTS PROVIDED IN THE CALIFORNIA BUILDING CODE. LONGITUDINAL SLOPES OF WALKWAYS SHALL NOT EXCEED 5%. CROSS SLOPES OF WALKWAYS SHALL NOT EXCEED 2%. LANDINGS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.

SANITARY SEWER

- THE CONTRACTOR SHALL INSTALL ALL SANITARY SEWER IMPROVEMENTS TO THE LINES AND GRADES SHOWN ON THE PLANS.
- ALL MATERIALS SHALL BE FROM NEW STOCK AND DELIVERED IN NEW CONDITIONS.
- PVC SEWER LINES SHALL MEET THE REQUIREMENTS OF ASTM D3034 OR F679 AND SHALL HAVE INTEGRAL BELL AND SPIGOT PUSH-ON ELASTOMERIC GASKETED JOINTS MEETING THE REQUIREMENTS OF ASTM F477.
- ALL SEWER FITTINGS SHALL BE FACTORY MANUFACTURED AND CONFORM TO THE PLASTIC PIPE SPECIFICATION ABOVE.
- SEWER LATERALS SHALL CONNECT TO THE SEWER WITH WYE FITTINGS. SADDLE-TYPE FITTINGS SHALL NOT BE USED UNLESS INDICATED ON THE PLANS OR AUTHORIZED BY THE ENGINEER.
- PIPE ENDS SHALL BE CAREFULLY CLEANED BEFORE PIPE IS JOINED. INTERIOR OF PIPE SHALL BE KEPT FREE OF DIRT AND DEBRIS.
- INSTALL NO. 10 COPPER WIRE ALONG TOP OF PIPE. WIRE SHALL EXTEND TO SURFACE AT ALL MANHOLES AND CLEANOUTS, AND SHALL TIE TO TRACER WIRE ALONG EXISTING SANITARY SEWER PIPING.
- INSTALLATION, AND TESTING SHALL BE IN ACCORDANCE WITH THE CITY OR COUNTY STANDARDS.

WATER SERVICE

- INSTALL WATER LINES IN ACCORDANCE WITH PLANS, AND WITH THE CITY OR COUNTY STANDARDS.
- WATER LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651 PRIOR TO PLACING IN SERVICE. HYDROSTATIC TESTING SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C605. BOTH TESTS SHALL BE PERFORMED IN THE PRESENCE OF AN ENGINEER.
- FOLLOWING SUCCESSFUL DISINFECTION, ALL TREATED WATER SHALL BE THOROUGHLY FLUSHED FROM THE PIPELINE UNTIL THE REPLACEMENT WATER HAS BEEN TESTED AND PROVEN BOTH CHEMICALLY AND BIOLOGICALLY EQUAL TO THE TREATED WATER AT THE POINT OF SUPPLY. DISINFECTION SHALL BE REPEATED IF NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- AFTER FLUSHING AND BEFORE PLACING IN SERVICE, WATER LINES SHALL BE SAMPLED AND TESTED BY THE OWNER'S REPRESENTATIVE.
- INSTALL NO. 10 COPPER WIRE ALONG TOP OF PIPE. WIRE SHALL EXTEND TO SURFACE AT ALL VALVES AND METERS.
- TESTING SHALL BE IN ACCORDANCE WITH THE CITY OR COUNTY STANDARDS.

STORM DRAIN

- THE CONTRACTOR SHALL INSTALL ALL STORM DRAIN IMPROVEMENTS TO THE LINES AND GRADES SHOWN ON THE PLANS.
- ALL MATERIALS SHALL BE FROM NEW STOCK AND DELIVERED IN NEW CONDITIONS.
- ALL SEWER FITTINGS SHALL BE FACTORY MANUFACTURED AND CONFORM TO THE PLASTIC PIPE SPECIFICATION ABOVE.
- PIPE ENDS SHALL BE CAREFULLY CLEANED BEFORE PIPE IS JOINED. INTERIOR OF PIPE SHALL BE KEPT FREE OF DIRT AND DEBRIS.
- INSTALLATION, AND TESTING SHALL BE IN ACCORDANCE WITH THE CITY OR COUNTY STANDARDS.
- THE STORM DRAIN PIPE SHALL BE N-12 DOUBLE WALL CORRUGATED HDPE SMOOTH BORE PIPING WITH GASKETED COUPLING JOINTS.

PAVEMENT STRIPING

- THE CONTRACTOR SHALL PLACE PAVEMENT STRIP PER THE PLAN AND FOLLOWING CITY OF UKIAH STANDARD SPECIFICATIONS OR CALTRANS STANDARD SPECIFICATIONS.

EROSION CONTROL NOTES:

- BMP'S SHALL BE INSTALLED PRIOR TO ANY SITE DISTURBANCE AND MAINTAINED SUCH THAT NO VISIBLE SEDIMENT LEAVES THE SITE.
- TRACKING CONTROLS: ENTRANCE/EXIT BMP.
- PAVED AREAS AT THE ACCESS POINTS SHALL BE SWEEPED OR VACUUMED AS OFTEN AS EACH DAY TO ELIMINATE TRACKING SOIL AND DEBRIS BEYOND THE LIMITS OF THE PROJECT SITE. ANY SOILS AND/OR DEBRIS, ROCK, GRAVEL, ETC. TRACKED BEYOND THE LIMITS OF THE PROJECT SITE AS A RESULT OF THIS PROJECT SHALL BE REMOVED IMMEDIATELY.
- DISTURBED AREAS PROTECTED TO EXTENT PRACTICAL DURING CONSTRUCTION.
- STOCKPILE MANAGEMENT TO BE IMPLEMENTED.
- DISTURBED AREA STABILIZED AS SOON AS POSSIBLE.
- THE CONTRACTOR SHALL NOT ALLOW ANY CONSTRUCTION DEBRIS TO ENTER THE STORM DRAIN OR SANITARY SEWER SYSTEMS. THE CONTRACTOR SHALL INSTALL APPROVED PHYSICAL BARRIERS TO ENSURE THAT ALL DEBRIS IS CAPTURED AND REMOVED FROM SURFACE RUNOFF PRIOR TO RELEASING SITE RUNOFF.

SURVEY NOTES:

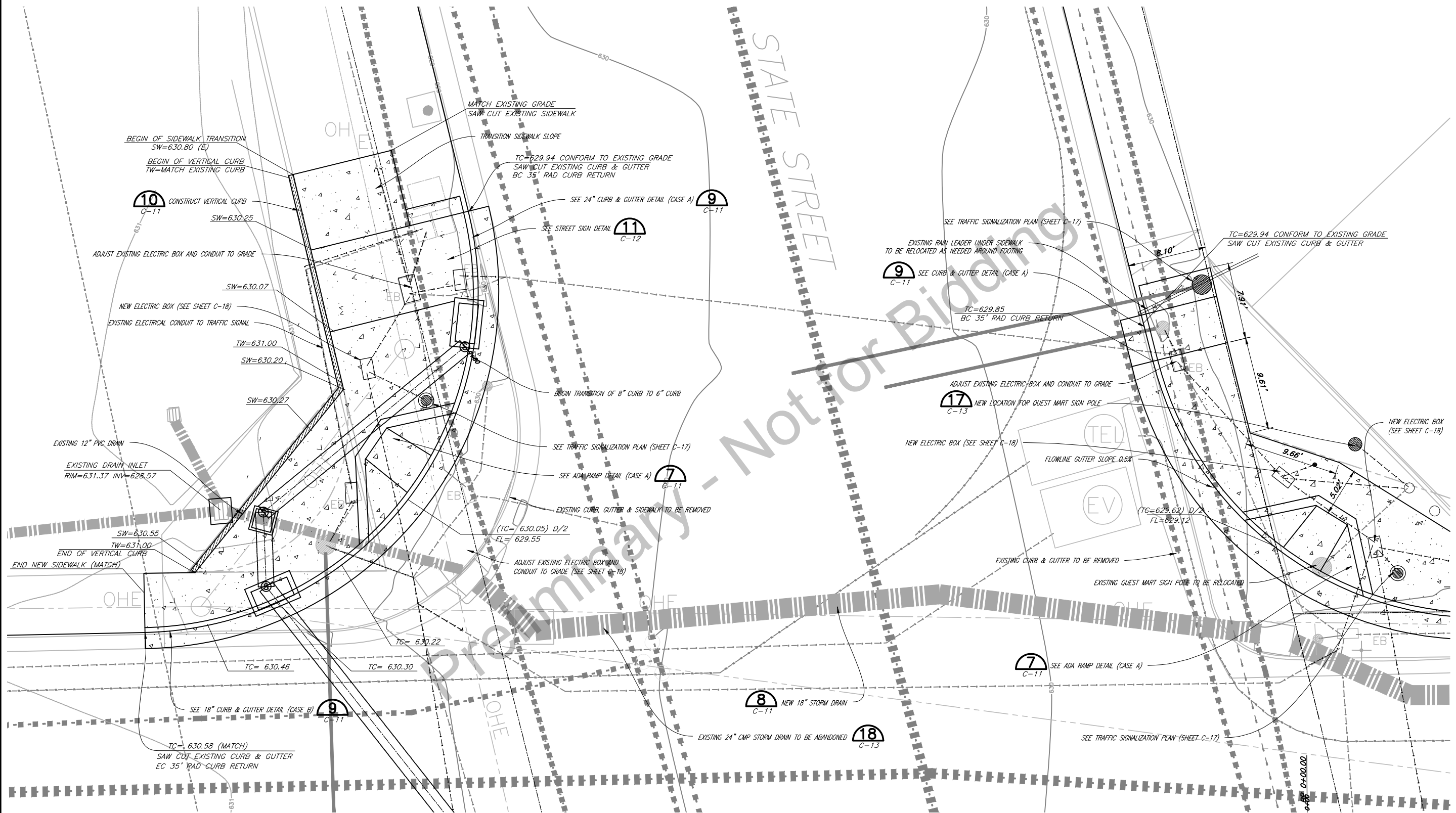
BASIS OF BEARINGS
THE BASIS OF BEARINGS OF THIS SURVEY IS REFERENCED ON SHEET S-1 OF THESE PLANS.

VERTICAL DATUM
THE VERTICAL DATUM IS NGVD29 AS REFERENCED ON SHEET S-1 OF THESE PLANS.



CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD				GENERAL SPECIFICATIONS	
DSGN	TAH	DR	TAH	CHK	JGI
				APVD	
SHEET				C-1	
SEQ				4	
DATE				09/2016	
PROJ. NO.				415080-200	
VERIFY SCALES				BY	
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY				DATE	
CONSULTING ENGINEERS & GEOLOGISTS, INC.				NO.	
WWW.SHA-ENGR.COM				NO.	
335 S. MAIN ST.				NO.	
WILLITS, CA. 95490				NO.	
707-459-4518				NO.	

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NOTE:

THE EXISTING IRRIGATION SYSTEMS IN THE PRIVATE LANDSCAPE PLANTERS BEHIND THE CURB RETURNS SHALL BE MAINTAINED IN THE REMAINING PLANTER AREAS. THE IRRIGATION PIPING SHALL BE RELOCATED OR CAPPED AS NEEDED. THE EXISTING VEGETATION IN THE FOOTPRINT OF THE NEW SIDEWALK SHALL BE REMOVED.

PLAN

 $1''=5'$

(CURB RETURN IMPROVEMENTS—NORTH STATE STREET—LOW GAP ROAD/BRUSH STREET)



0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**CONSULTING ENGINEERS
& GEOLOGISTS, INC.**

335 S. MAIN ST.
WILLITS, CA. 95490

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K/S

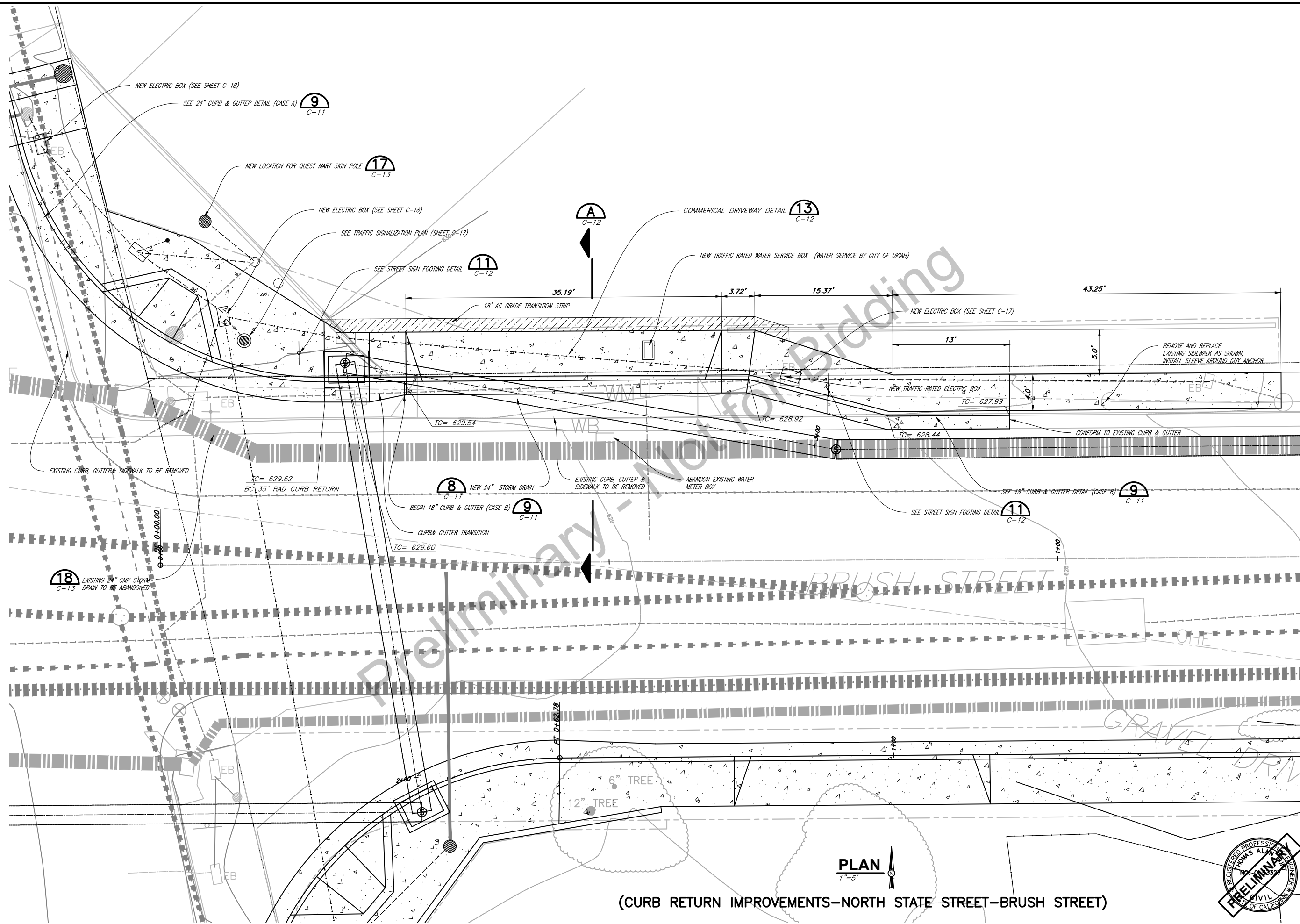
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CHK	JGI				
APVD		NO.	DATE	REVISION	BY

**CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD
NORTHWEST CURB RETURN PLAN**

SHEET
C-2
REQ 5
DATE 09/2016
PROJ. NO.
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(CURB RETURN IMPROVEMENTS-NORTH STATE STREET-BRUSH STREET)



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DSGN	TAH
DR	TAH
CHK	JGI
APVD	APVD
CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD NORTHEAST CURB RETURN PLAN	
SHEET C-3	
SEQ 6	
DATE 09/2016	
PROJ. NO. 415080-200	
NO.	DATE
REVISION	BY

EXISTING CURB, GUTTER & SIDEWALK TO BE REMOVED

TC= 629.62
BC 35' RAD CURB RETURN

TC= 629.54

NEW 24" STORM DRAIN
C-11

BEGIN 18" CURB & GUTTER (CASE B)
C-11

CURB & GUTTER TRANSITION

EXISTING CURB, GUTTER & SIDEWALK TO BE REMOVED

TC= 628.92

TC= 627.99

TC= 628.44

NEW TRAFFIC RATED ELECTRIC BOX

REMOVE AND REPLACE EXISTING SIDEWALK AS SHOWN, INSTALL SLEEVE AROUND GUY ANCHOR

CONFORM TO EXISTING CURB & GUTTER

SEE 18" CURB & GUTTER DETAIL (CASE B)
C-11

SEE STREET SIGN FOOTING DETAIL
C-12

BRUSH STREET

EXISTING 24" CMP STORM DRAIN TO BE ABANDONED
C-13

TC= 629.19

TC= 628.90

COMMERCIAL DRIVEWAY DETAIL
C-12

6" TREE

12" TREE

SEE TRAFFIC SIGNALIZATION PLAN (SHEET C-18)

NEW ELECTRIC BOX (SEE SHEET C-18)

PROPOSED RETAINING WALL AT BACK OF SIDEWALK
C-13

SEE BRUSH STREET CURB PROFILE FOR FLOWLINE GRADES

TC= 630.19

BP 0+00.00

PLAN
1"=5'

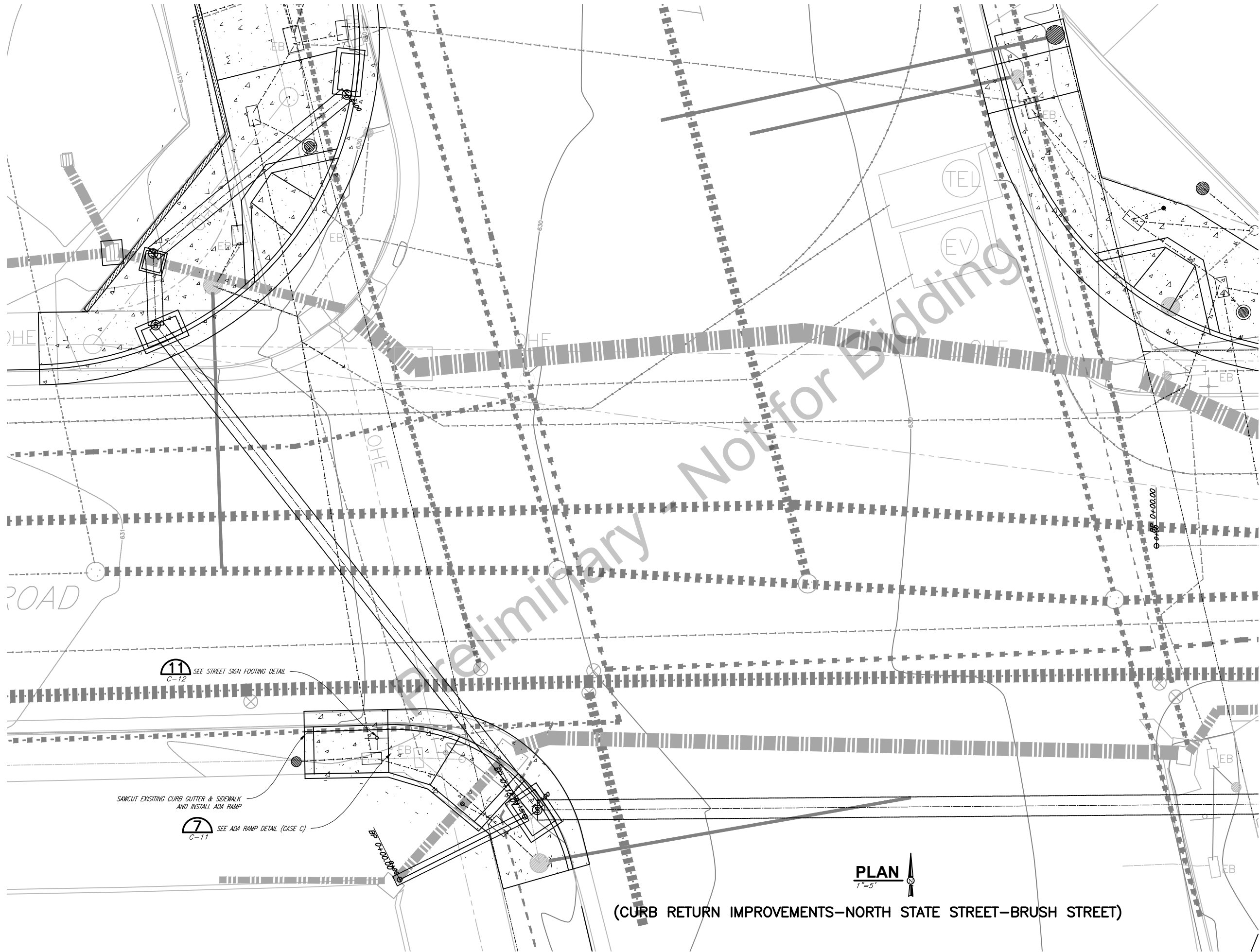
(CURB RETURN IMPROVEMENTS—NORTH STATE STREET—BRUSH STREET)

REGISTERED PROFESSIONAL ENGINEER
THOMAS ALAN
No. 13332
CIVIL
STATE OF CALIFORNIA

$$1'' = 5'$$

CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD	SHEET C-4									CONSULTING ENGINEERS & GEOLOGISTS, INC. www.SHN-ENGR.COM 335 S. MAIN ST. WILLITS, CA. 95490 707-459-4518								
SOUTHEAST CURB RETURN PLAN	SEQ	7																
	DATE	09/2016																
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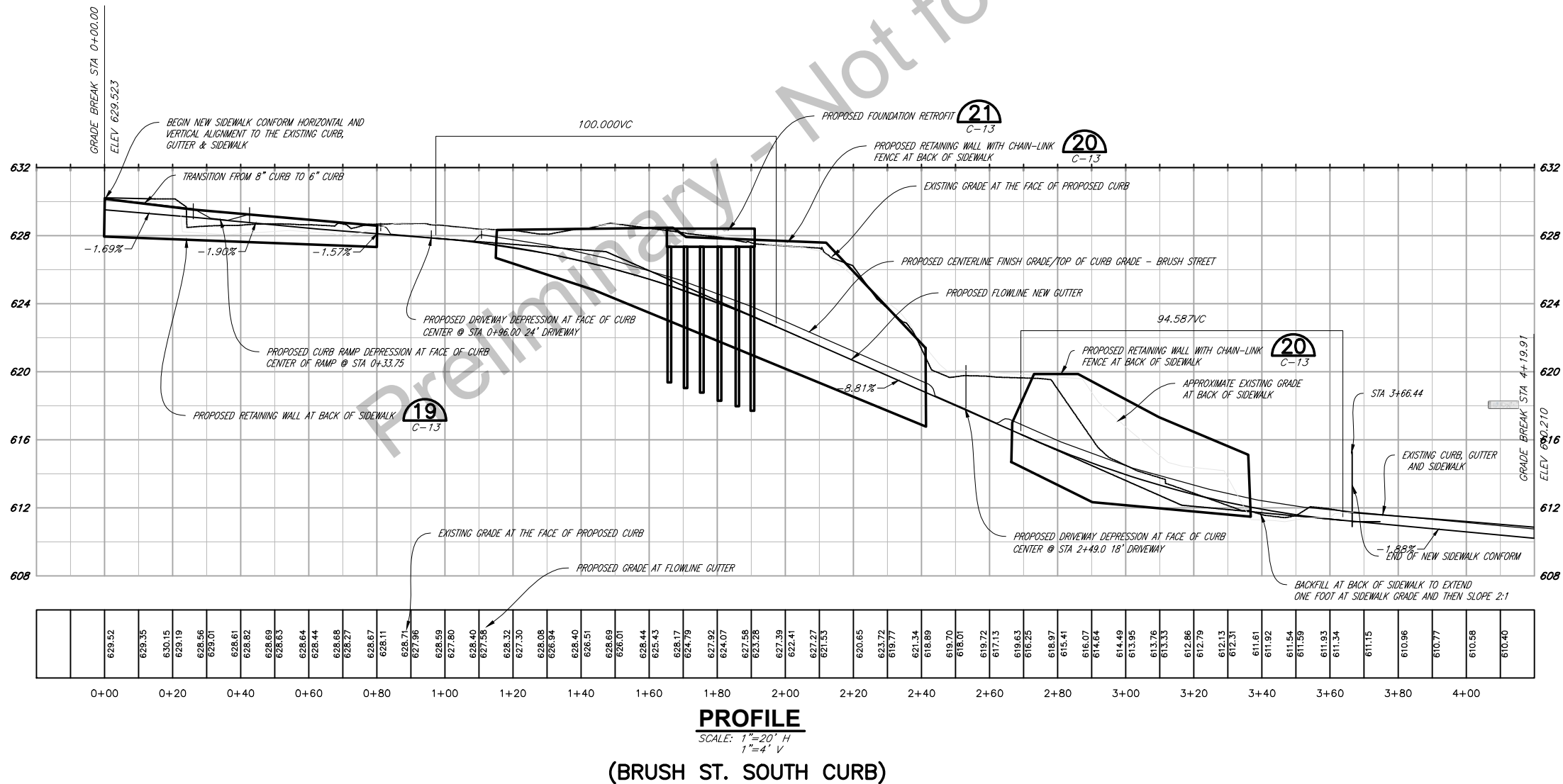
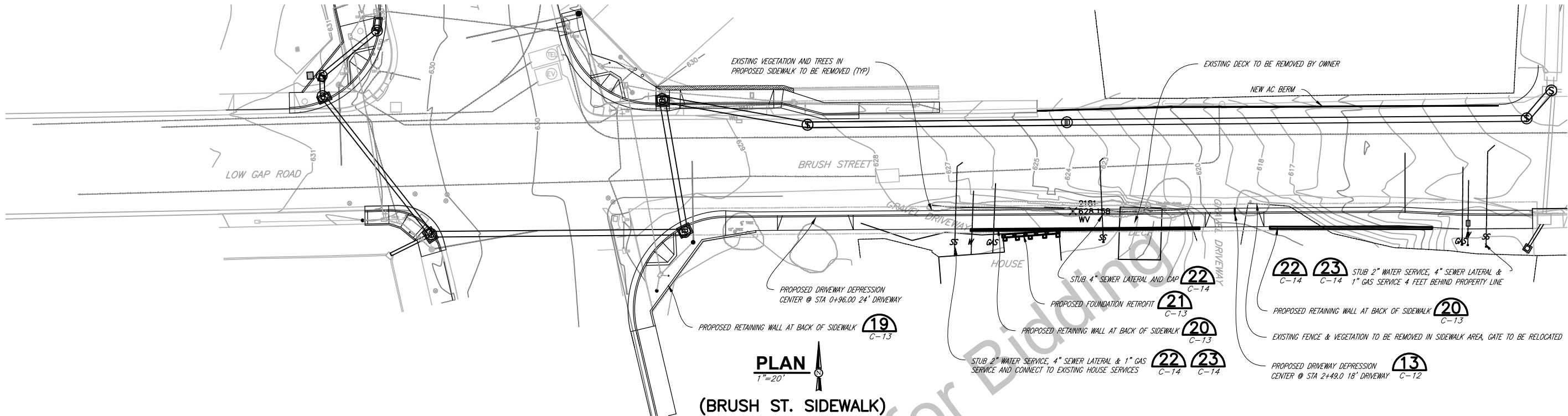


(CURB RETURN IMPROVEMENTS—NORTH STATE STREET—BRUSH STREET)



CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD		DSGN TAH	DR TAH	CHK JGI	APPD	NO.	DATE	REVISION	BY
SHEET C-5									
SEQ 8									
DATE 09/2016									
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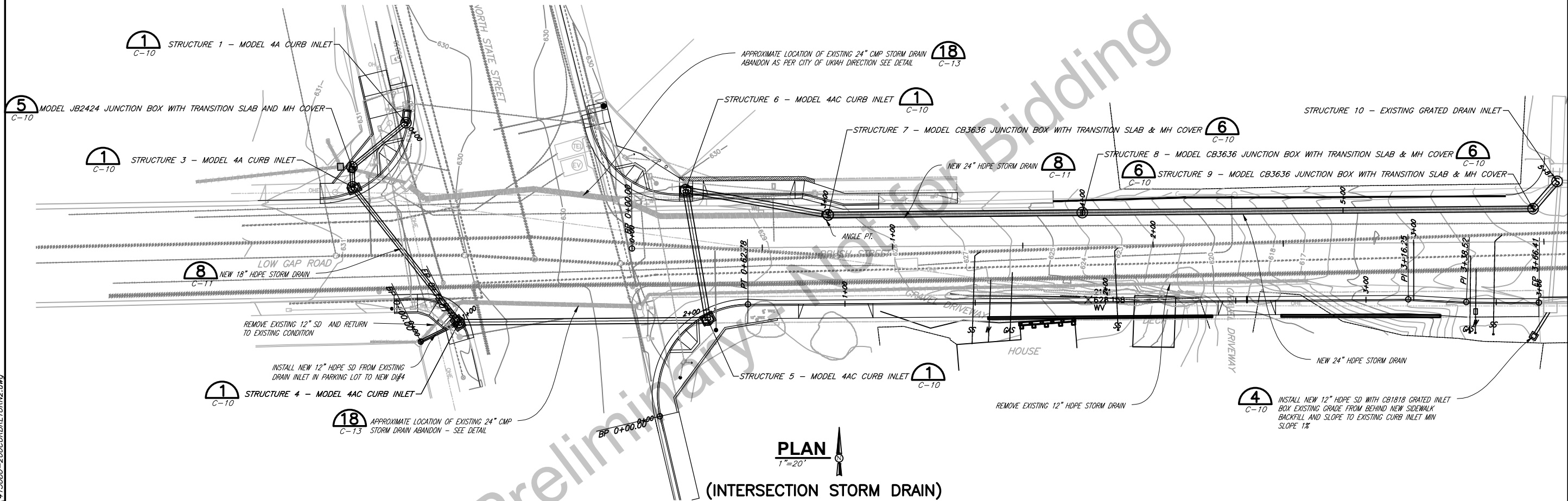
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CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD		DSGN TAH	BY
SIDEWALK PLAN/ BRUSH ST. CURB PROFILE		DR TAH	REVISION
		CHK JGI	DATE
		APVD	NO.
SHEET C-6		VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
SEQ 9		CONSULTING ENGINEERS & GEOLOGISTS, INC. 335 S. MAIN ST. WILLIS, CA. 95490 WWW.SIN-ENGR.COM 707-439-4318	
DATE 09/2016			
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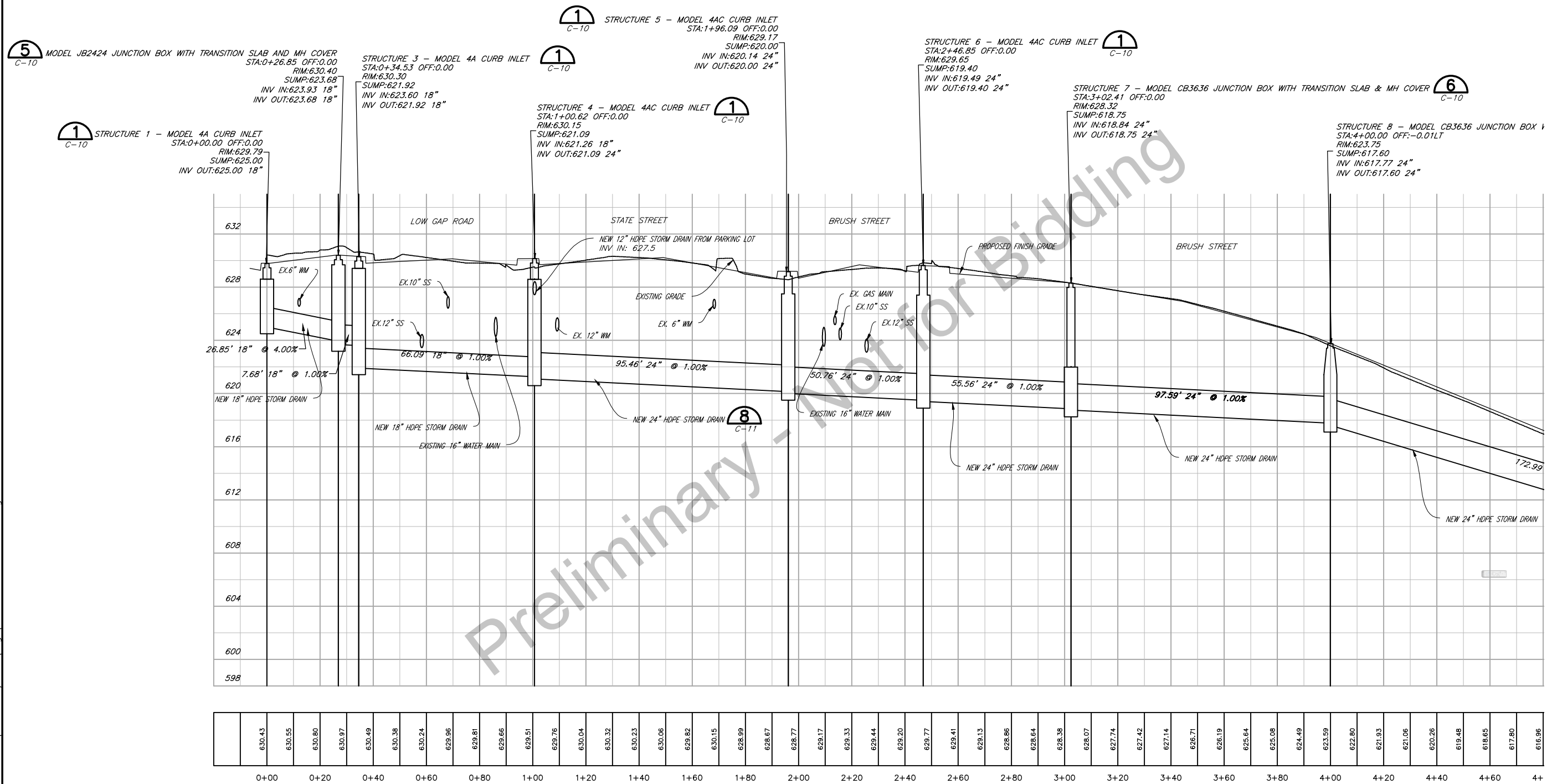
NOTE:

THE HORIZONTAL AND VERTICAL DEPICTION OF EXISTING UTILITY PIPING SHOWN IN PLAN AND PROFILE VIEWS ARE APPROXIMATE ONLY, BASED ON USA MARKINGS AND PLAN RESEARCH. THERE IS NO IMPLIED GUARANTEE THAT ALL OF THE EXISTING OR ABANDON UTILITIES HAVE BEEN SHOWN OR LOCATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND PROTECT ALL UNDERGROUND UTILITIES DURING THE EXECUTION OF THESE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF A FIELD CONFLICT WITH THE PROPOSED STORM DRAIN OR A PROPOSED FOOTINGS, COULD RESULT BASED ON FIELD POT-HOLING AT THE PROPOSED PIPE CROSSINGS.



CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD		CONSULTING ENGINEERS & GEOLOGISTS, INC. 335 S. MAIN ST. WILLITS, CA 95490 WWW.SHN-ENGR.COM 707-459-4518		VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY			
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STORM DRAIN PLAN							BY
REVISION							DATE
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DATE 09/2016							PROJ. NO. 415080-200

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PROFILE
SCALE: 1"=20' H
1"=4' V
(STORM DRAIN)



VERIFY SCALES
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IF NOT ONE INCH ON THIS SHEET, INDICATE SCALES ACCORDINGLY

0 1"

0 1"

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& GEOLOGISTS, INC.
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707-459-4518

NO. DATE REVISION BY

DSGN TAH
DR TAH
CHK JGI
APVD

CITY OF UKIAH
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD
STORM DRAIN PROFILE

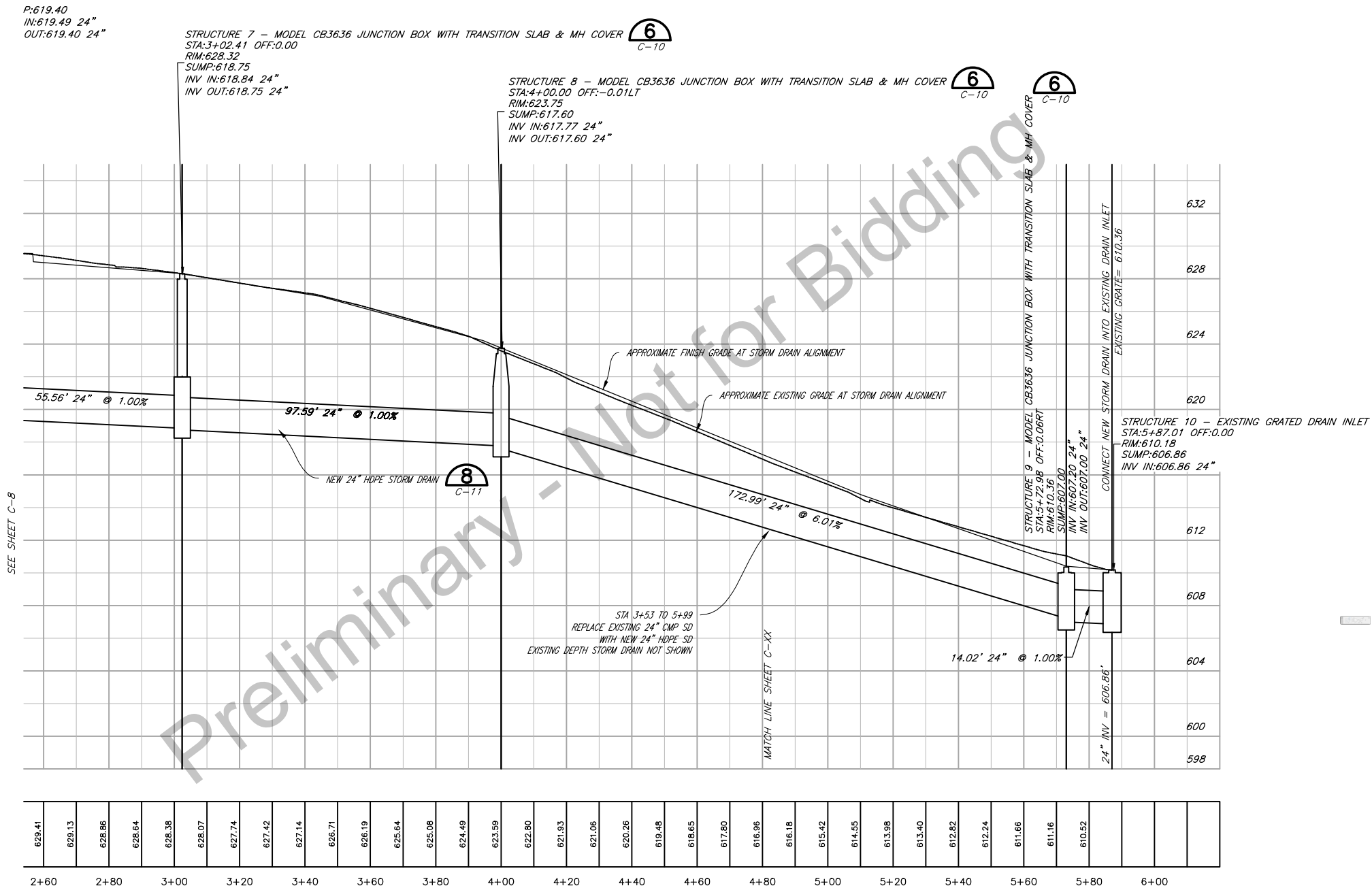
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SEQ 11

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NOTE:

THE HORIZONTAL AND VERTICAL DEPICTION OF EXISTING UTILITY PIPING SHOWN IN PLAN AND PROFILE VIEWS ARE APPROXIMATE ONLY, BASED ON USA MARKINGS AND PLAN RESEARCH. THERE IS NO IMPLIED GUARANTEE THAT ALL OF THE EXISTING OR ABANDON UTILITIES HAVE BEEN SHOWN OR LOCATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND PROTECT ALL UNDERGROUND UTILITIES DURING THE EXECUTION OF THESE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF A FIELD CONFLICT, WITH THE PROPOSED STORM DRAIN OR A PROPOSED FOOTINGS, COULD RESULT BASED ON FIELD POT-HOLING AT THE PROPOSED PIPE CROSSINGS.

PROFILE

SCALE: 1"=20' H
1"=4' V

(STORM DRAIN)



VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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335 S. MAIN ST.
WILLITS, CA. 95490
707-439-4518

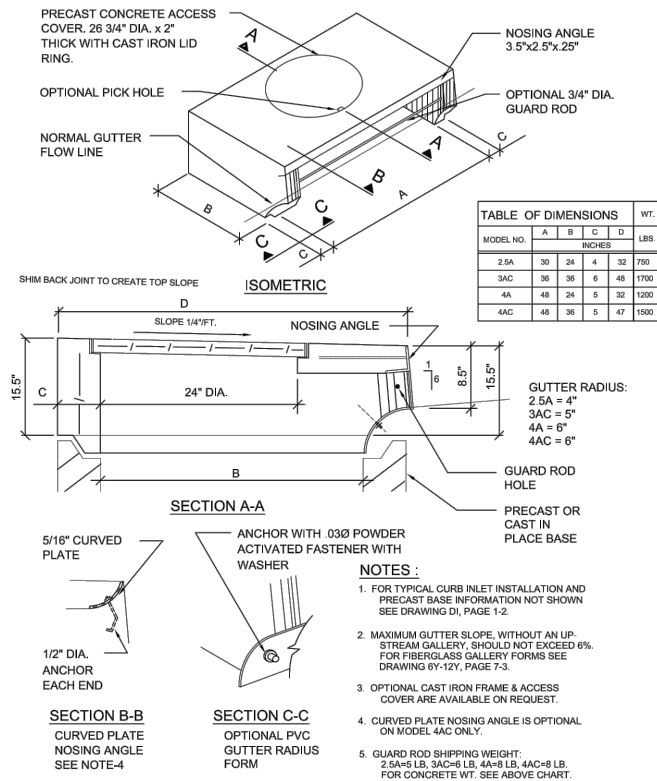
SHIN

DSGN	TAH	DR	TAH	CHK	JGI	APVD	NO.	DATE	REVISION	BY

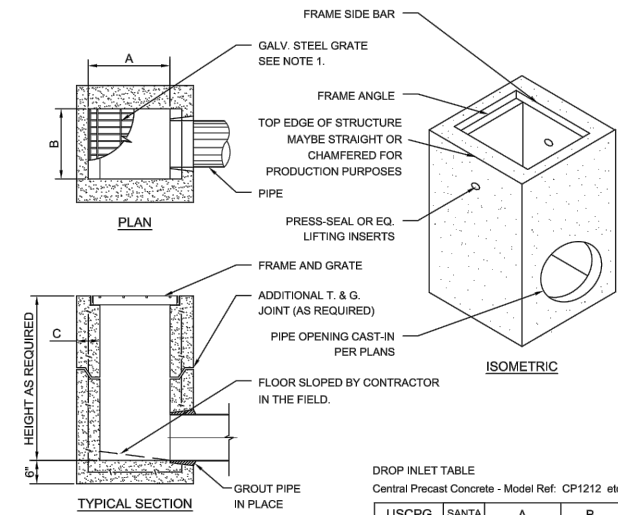
CITY OF UKIAH
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD
STORM DRAIN PROFILE

SHEET
C-9
SEQ 12
DATE 09/2016
PROJ. NO. 415080-200

SAVED: 9/18/2016 10:10 AM SHEATH, PLOTTED: 9/15/2016 8:27 AM SAM R. HEATH
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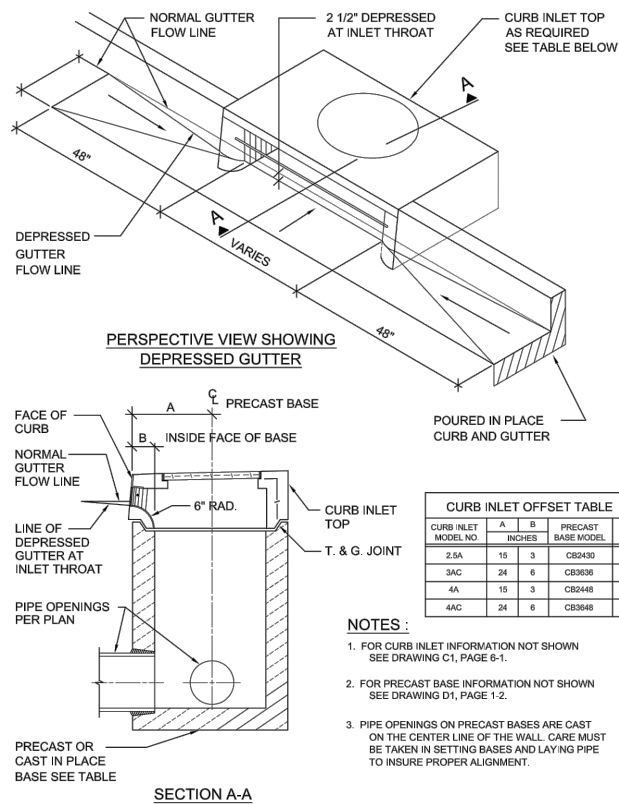


DETAIL 1
NTS
(DRAINAGE INLETS)

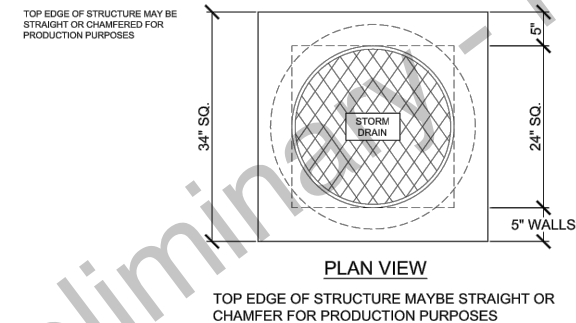


- NOTES:
1. FRAMES AND GRATES MAY BE SPECIFIED FOR PEDESTRIAN OR TRAFFIC LOADING. ALL GRATES ARE BICYCLE PROOF. OPTIONAL GRATE LOOKING DEVICE AVAILABLE ON REQUEST SEE DRAWING "LOOK" ON PAGE 1-7. CLOSED MESH GRATES OR CAST IRON FRAME AND GRATES ARE AVAILABLE ON REQUEST.
 2. FOR SURFACE AND DISCHARGE OPTIONS AVAILABLE SEE DRAWING NO. "DI-SO" PAGE 1-4, 1-6 AND "DI-DO" PAGE 1-5.
 3. FRAMES AND GRATES DETAILS SEE PAGES 1-8, 1-9, AND 1-10. CASTING 1-13, DROP-IN 1-14.
 4. WALL THICKNESS ON SOME D.I.S. CAN BE CHANGED UPON REQUEST. CALL TO VERIFY REQD THICKNESS
 5. 18" WIDE D.I.'S REPLACE THE OLD 18" WIDE BOX BK & 1K *
 6. FOR PIPE / HOLE SCHEDULE SEE DWG. DI-HS PAGE 1-16.
 7. FOR DROP INLET SURFACE OPTIONS SEE DWG. DI-SO PAGE 1-6.

DETAIL 4
NTS
(CATCH BASINS)

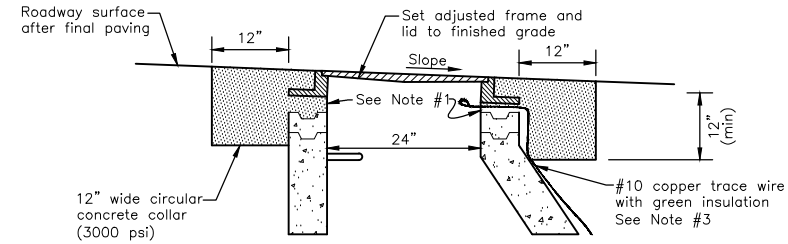


DETAIL 2
NTS
(DRAINAGE INLET INSTALLATION)



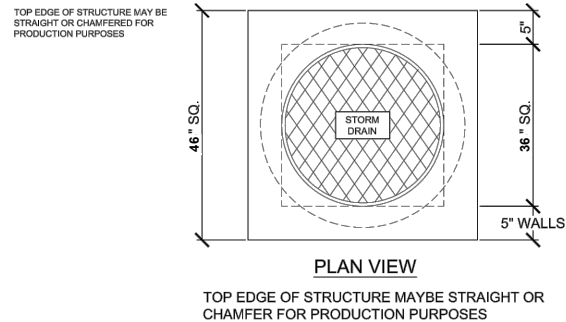
- NOTES:
1. D/S SIZE CAN BE CHANGED UPON REQUEST.
 2. PRECAST UNIT DESIGNED TO BEAR FULL TRAFFIC LOADING.
 3. CONCRETE SHALL CONTAIN 6 SACKS OF PORTLAND CEMENT PER CUBIC YARD AND SHALL HAVE COMPRESSIVE STRENGTH OF 5,000 PSI @ 28 DAYS.

DETAIL 5
NTS
(24" X 24" JUNCTION BOX)



- NOTES:**
1. SHIMS SHALL BE PLACED UNDER THE MANHOLE FRAME AND LID ON TOP OF THE HIGHEST GRADE RING AS NEEDED SUCH THAT THE FRAME AND LID ARE FLUSH WITH THE FINISHED GRADE OF THE STREET. THE MINIMUM SHIM HEIGHT IS 1". CONCRETE SHALL BE PLACED IN BETWEEN THE HIGHEST GRADE RING AND THE SHIMMED FRAME AND LID WHEN THE CONCRETE COLLAR IS CONSTRUCTED, IN EFFECT CREATING A 'CAST-IN-PLACE' GRADE RING OF VARYING THICKNESS.
 2. ALL GRADE RINGS SHALL BE SEALED WITH CLASS B NON-SHRINK GROUT ON BOTH INNER AND OUTER FACES OF EACH JOINT.
 3. #10 COPPER TRACE WIRE WITH GREEN INSULATION SHALL BE INSTALLED AT ALL NEW AND EXISTING MANHOLE LOCATIONS. TRACE WIRE SHALL EITHER BE CONTINUOUS ALONG (N) SANITARY PIPE AND UP TO THE MANHOLE FRAME, OR SHALL BE SECURELY CONNECTED TO THE (E) TRACE WIRE WHERE PIPE REPLACEMENT IS NOT PERFORMED. NOTE THAT TRACE WIRE IS NOT REQUIRED ON MANHOLES WHEN THE (E) STORM DRAIN HAS NO TRACE WIRE.

DETAIL 3
NTS
(MANHOLE FRAME & LID ADJUSTMENT TO GRADE)

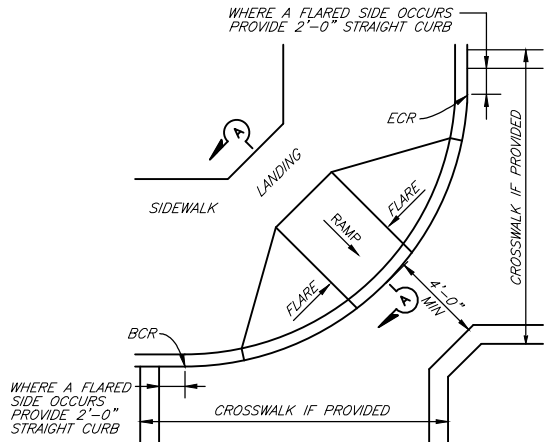
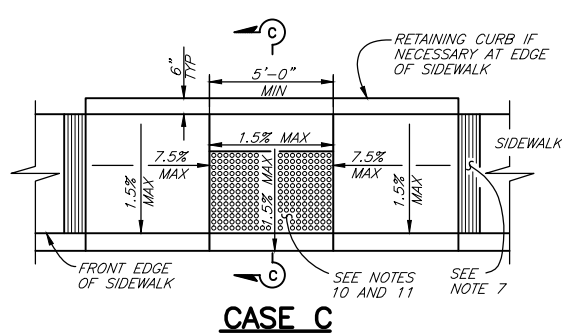
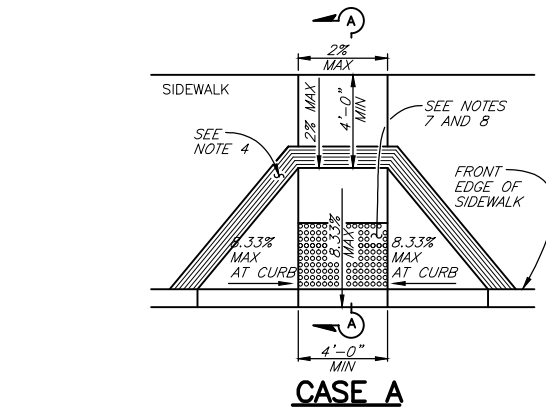


- NOTES:
1. D/S SIZE CAN BE CHANGED UPON REQUEST.
 2. PRECAST UNIT DESIGNED TO BEAR FULL TRAFFIC LOADING.
 3. CONCRETE SHALL CONTAIN 6 SACKS OF PORTLAND CEMENT PER CUBIC YARD AND SHALL HAVE COMPRESSIVE STRENGTH OF 5,000 PSI @ 28 DAYS.

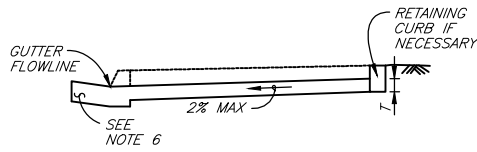
DETAIL 6
NTS
(36" X 36" JUNCTION BOX)



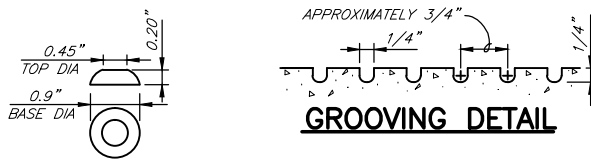
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BAR IS ONE INCH ON ORIGINAL DRAWING		335 S. MAIN ST.		WILKITS, CA 95490	
0 1"		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY			
DSGN	TAH	DR	SRH	CHK	JGI
APVD					
CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD					
DETAILS					
SHEET C-10					
SEQ 13					
DATE 09/2016					
PROJ. NO. 415080-200					



SECTION A-A

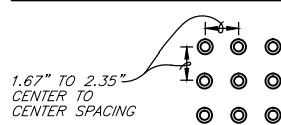


SECTION C-C



GROOVING DETAIL

RAISED TRUNCATED DOME

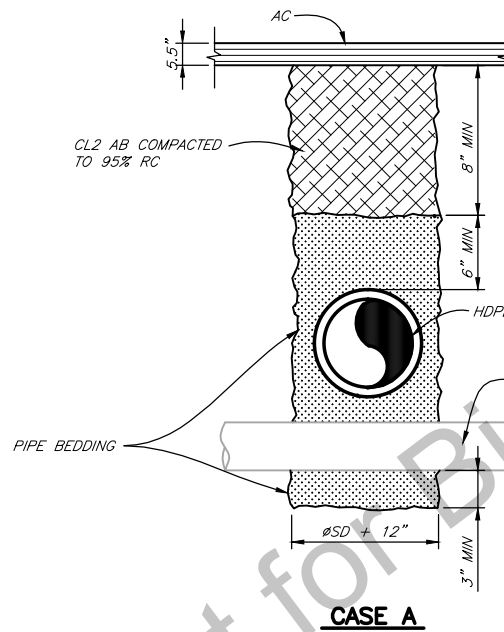


RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE

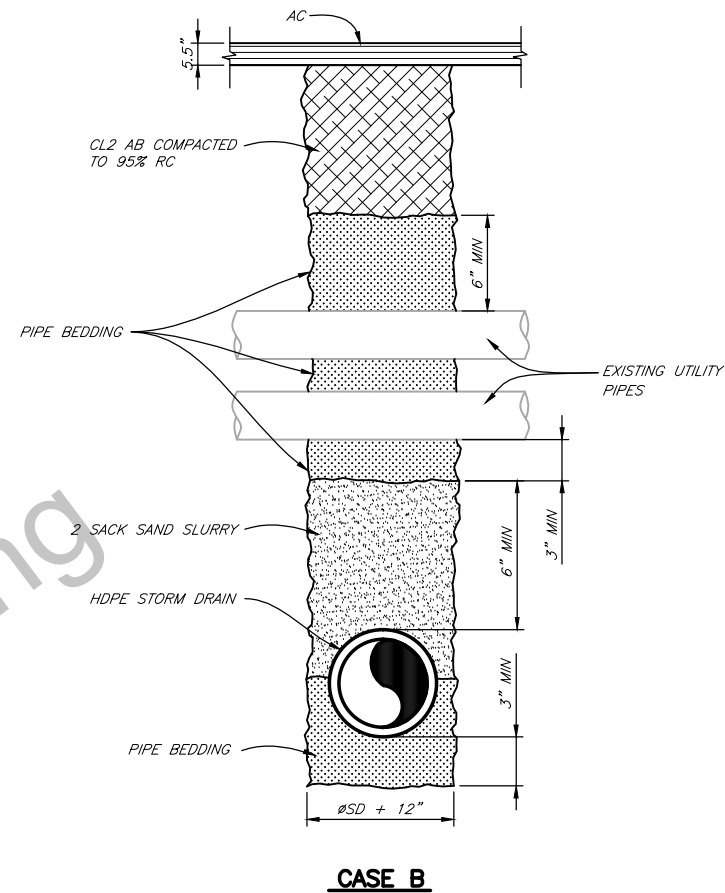
NOTES:

1. WHEN RAMP IS LOCATED IN CENTER OF CURB RETURN, CROSSWALK CONFIGURATION MUST BE SIMILAR TO THAT SHOWN FOR DETAIL B.
2. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP SHALL BE 4'-0".
3. SIDE SLOPE OF RAMP FLARES VARY UNIFORMLY FROM A MAXIMUM OF 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
4. THE CURB RAMP SHALL BE OUTLINED, AS SHOWN, WITH A 1'-0" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 1/4" ON CENTER. SEE GROOVING DETAIL.
5. TRANSITIONS FROM RAMP AND LANDING TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
6. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT EXCEED 5 PERCENT WITHIN 4'-0" OF THE TOP AND BOTTOM OF THE CURB RAMP.
7. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE DETAILS ON THIS PLAN AND THE REQUIREMENTS IN THE SPECIAL PROVISIONS.
8. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.
9. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 3 1/2" MINIMUM.
10. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP WILL BE RELOCATED OR ADJUSTED TO GRADE BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.
11. FOR RETROFIT CONDITIONS, REMOVAL AND REPLACEMENT OF CURB APRON WILL BE AT THE CONTRACTOR'S OPTION, UNLESS OTHERWISE SHOWN ON PROJECT PLANS.

DETAIL 7
(ADA SIDEWALK RAMP)

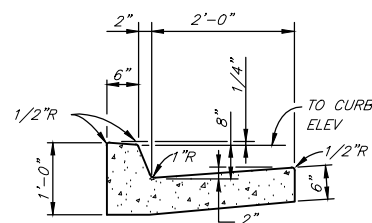


CASE A

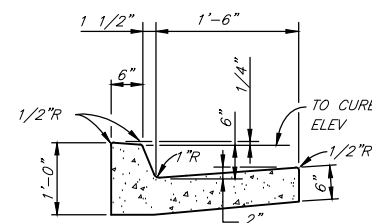


CASE B

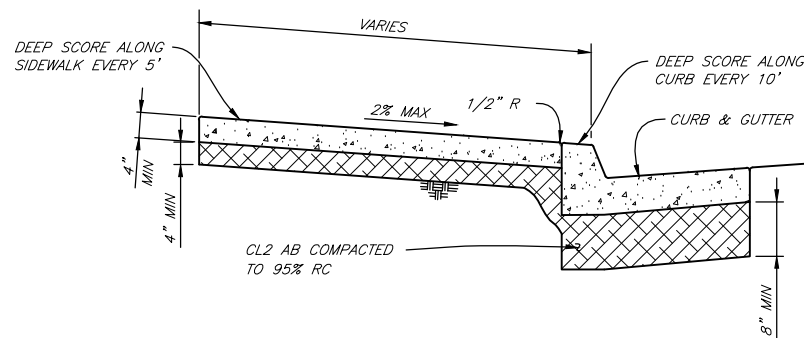
DETAIL 8
(STORM DRAIN TRENCHES)



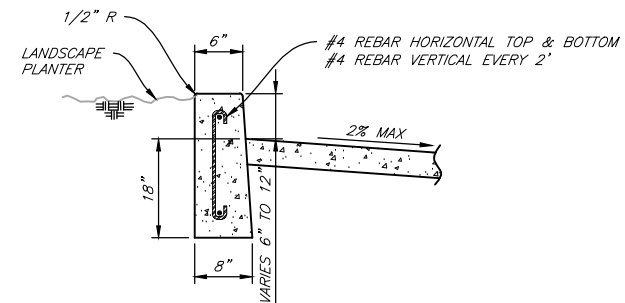
CASE A



CASE B



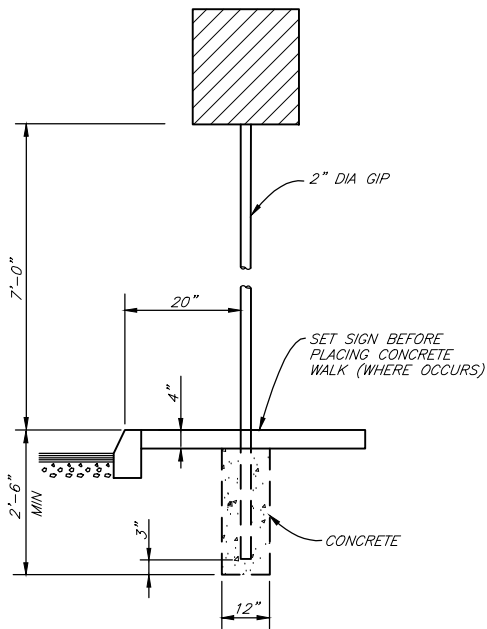
DETAIL 9
(CURB, GUTTER, & SIDEWALK)



DETAIL 10
(VERTICAL CURB)

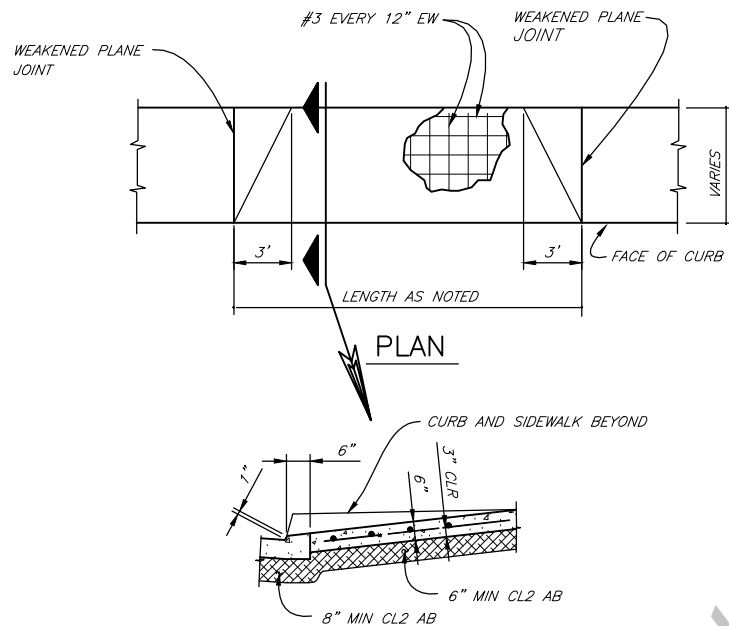


VERIFY SCALES		BAR IS ONE INCH ON ORIGINAL DRAWING		IF NOT ONE INCH ON THIS SHEET, SCALES ACCORDINGLY	
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335 S. MAIN ST.		WILLITS, CA. 95490			
BY		REVISION		DATE	
NO.		DATE		NO.	
USGN	TAH	DR	SRH	CHK	JGI
APVD					
CITY OF UKIAH					
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR					
NORTH STATE STREET AND LOW GAP ROAD					
DETAILS					
SHEET C-11					
SEQ 14					
DATE 09/2016					
PROJ. NO. 415080-200					

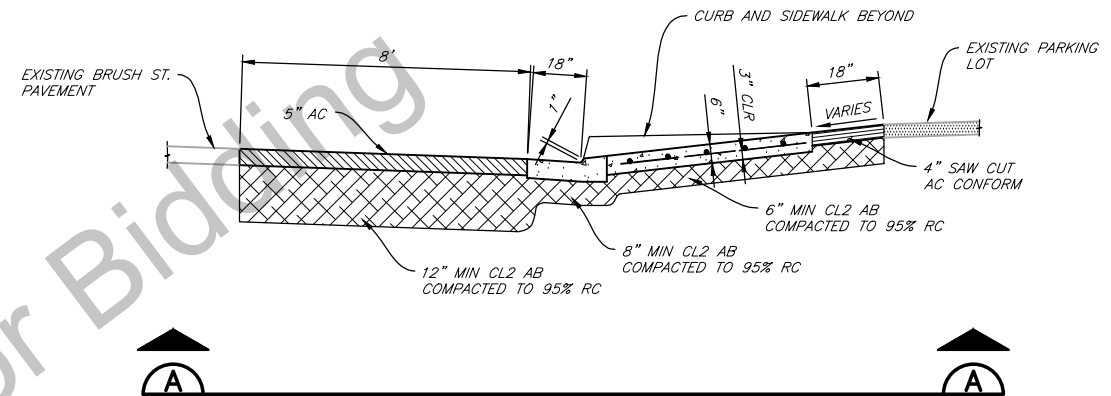


NOTE:
SIGNS AND POSTS SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION TRAFFIC MANUAL AND STANDARD SPECIFICATIONS.

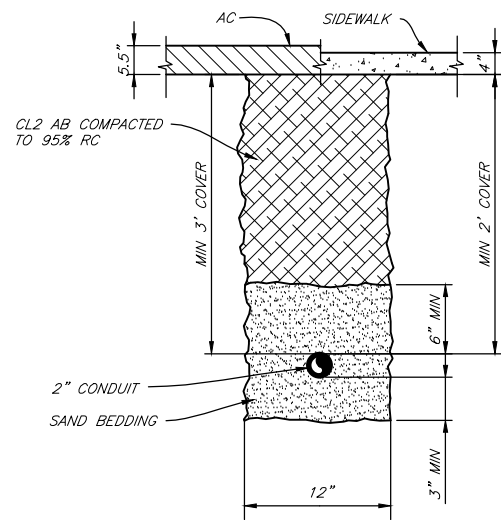
DETAIL 11
NTS
(STREET SIGN FOUNDATION)



DETAIL 13
NTS
(COMMERCIAL DRIVEWAY)

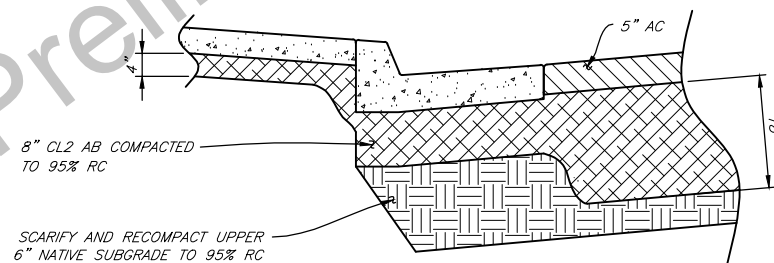


SECTION A
NTS
(BRUSH ST. DRIVEWAY SECTION)

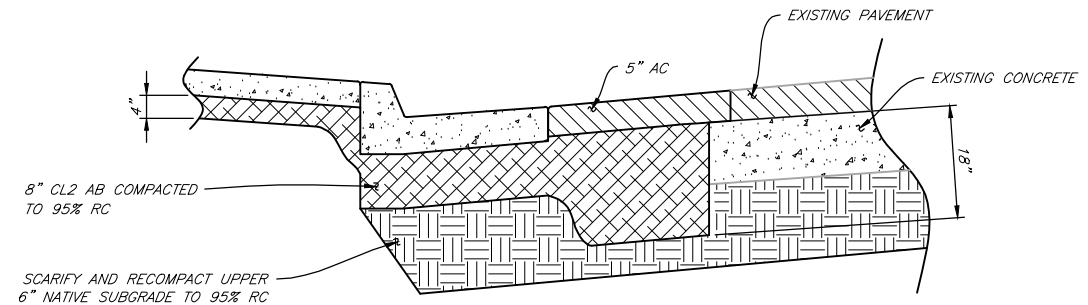


DETAIL 14
NTS
(ELECTRICAL CONDUIT TRENCH)

NOTE:
NOTE: TYPICAL PULL BOXES SIZES
15"X25", 18"X27", 22"X35"
SEE NOTES ON SHEET C-1 AND SHEET C-17
REGARDING THE ELECTRICAL SYSTEM FOR THE
TRAFFIC SIGNALS.



CASE A



CASE B

DETAIL 15
NTS
(N. STATE ST. PAVEMENT)



VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCORDINGLY

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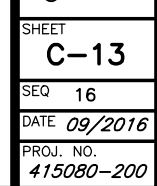
SHIN

NO.	DATE	REVISION	BY

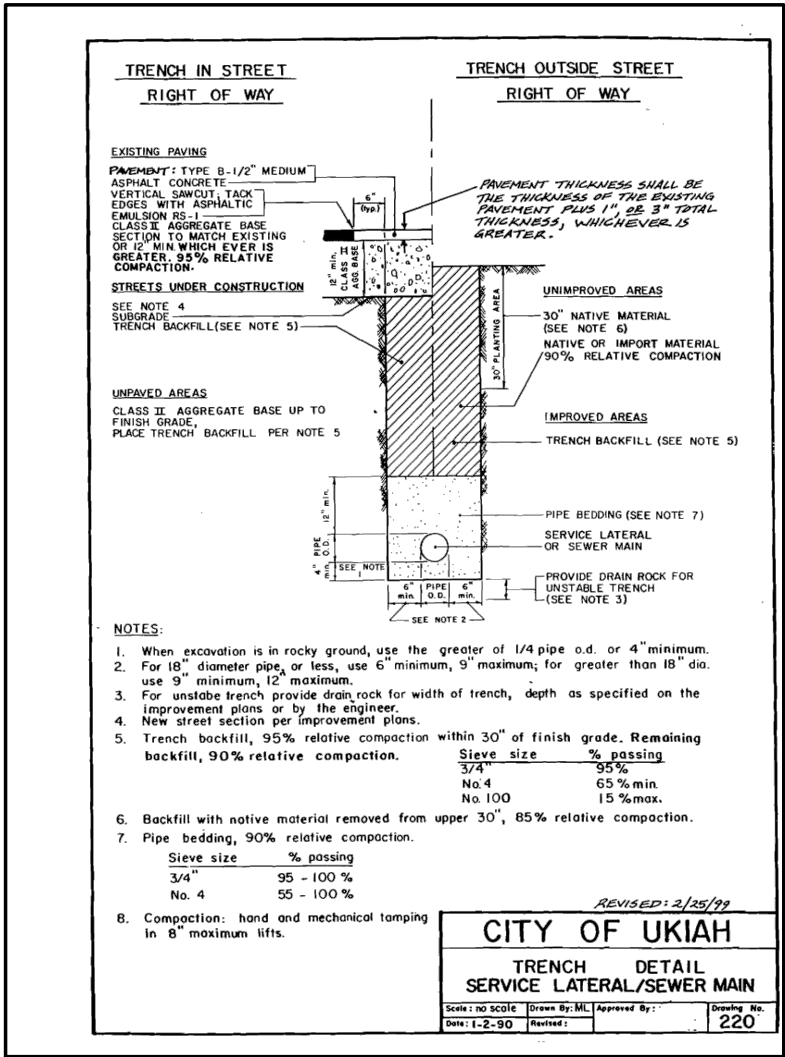
DESIGN	TAH
DR	SRH
CHK	JGI
APVD	

CITY OF UKIAH
CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
NORTH STATE STREET AND LOW GAP ROAD

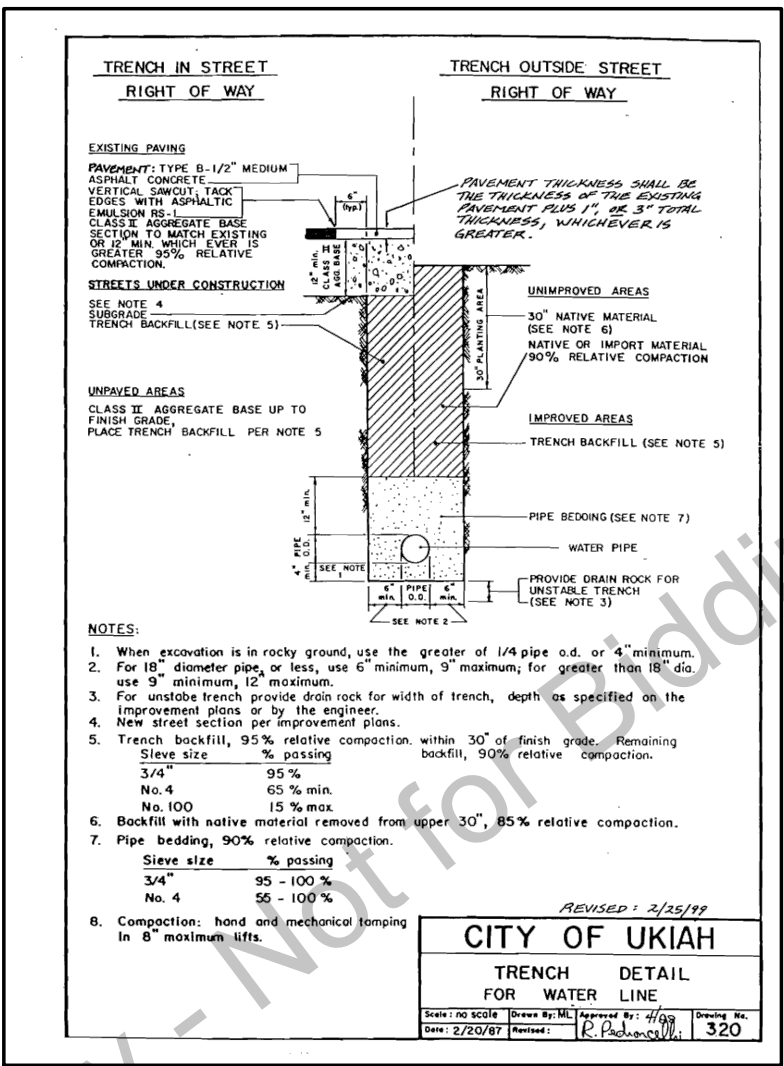
DETAILS
SHEET C-12
SEQ 15
DATE 09/2016
PROJ. NO. 415080-200



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DETAIL 22
 NTS
 (SEWER LATERAL TRENCH)

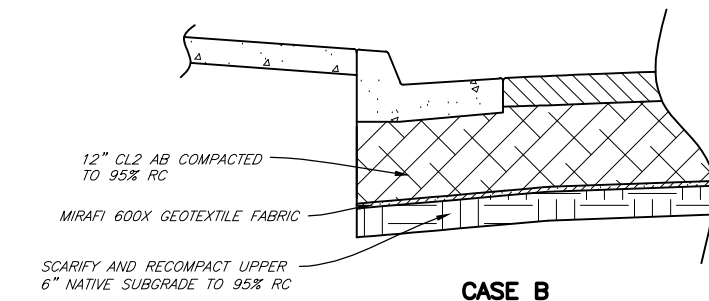


DETAIL 23
 NTS
 (WATER LATERAL TRENCH)



VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		CONSULTING ENGINEERS & GEOLOGISTS, INC. WWW.SHN-ENG.COM 335 S. MAIN ST. WILLITS, CA. 95490 707-459-4518	
DSGN	TAH	NO.	DATE
DR	SRH	REVISION	BY
CHK	JGI		
APVD			
CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD DETAILS			
SHEET C-14		SEQ 17	
DATE 09/2016		PROJ. NO. 415080-200	

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(BRUSH STREET PAVEMENT)



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& GEOLOGISTS, INC.**

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WILLITS, CA. 95490

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707-459-4518

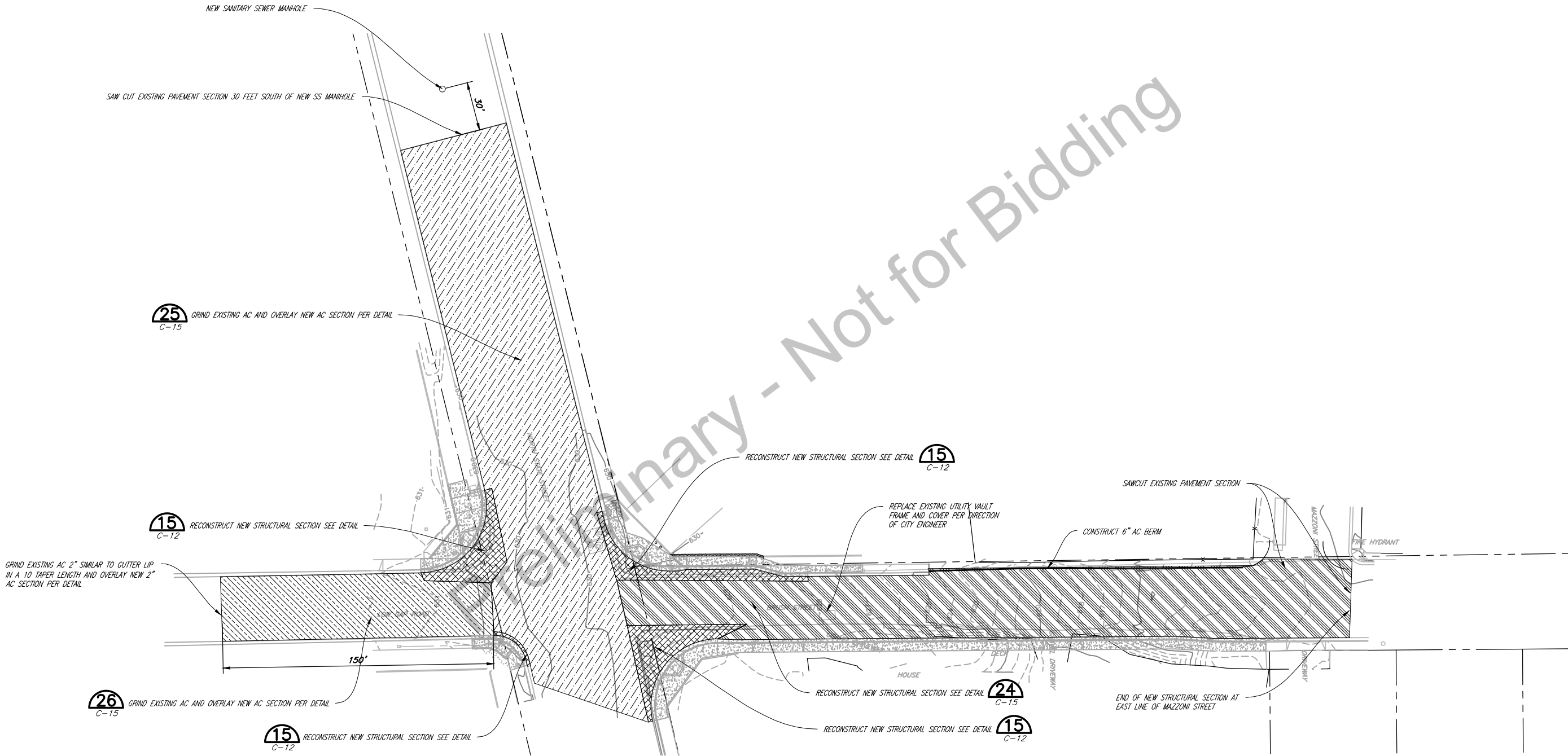
**CONSULTING ENGINEERS
& GEOLOGISTS, INC.**

MS

APVD	NO.	DATE	REVISION	BY	TAH
					DR
					SRH
					CHK
JGI					

UKIAH CITY OF Curb Return, ADA Ramp, & Storm Drain Repair North State Street and Low Gap Road	SHEET	C-15
	REQ	18
	DATE	09/2016
	PROJ. NO.	415080-200
	DETAILS	

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PLAN
1"=30'

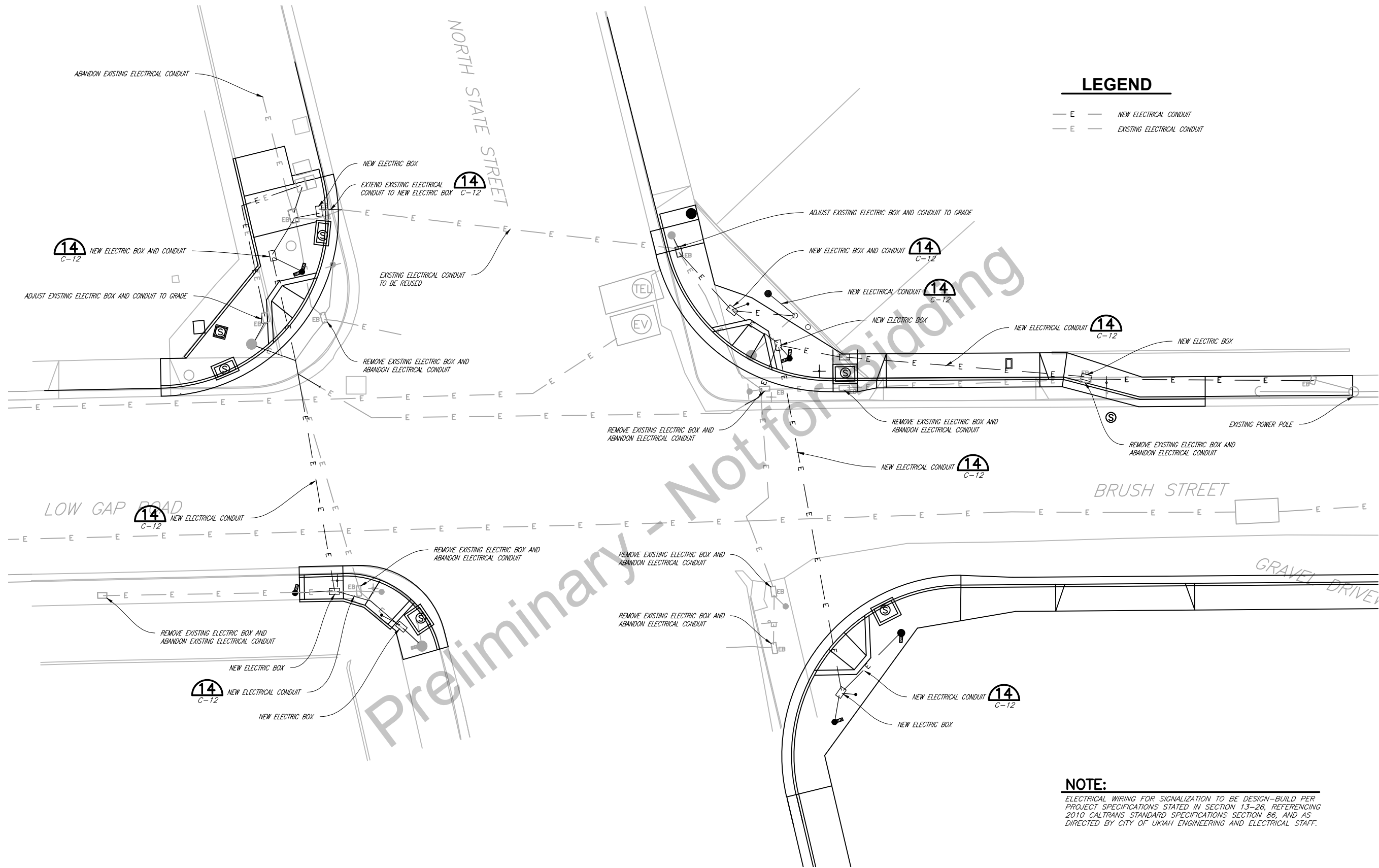


CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD										DSGN	TAH									CONSULTING ENGINEERS & GEOLOGISTS, INC.		WWW.SHIN-ENGR.COM 335 S. MAIN ST. WILLITS, CA. 95490 707-459-4518		VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
FINAL PAVEMENT PLAN										CHK	JGI														
SHEET										APVD			NO.		DATE		REVISION		BY						
C-16										SEQ		19		DATE		09/2016		PROJ. NO.		415080-200					



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LEGEND

- E — NEW ELECTRICAL CONDUIT
- E — EXISTING ELECTRICAL CONDUIT

NOTE:

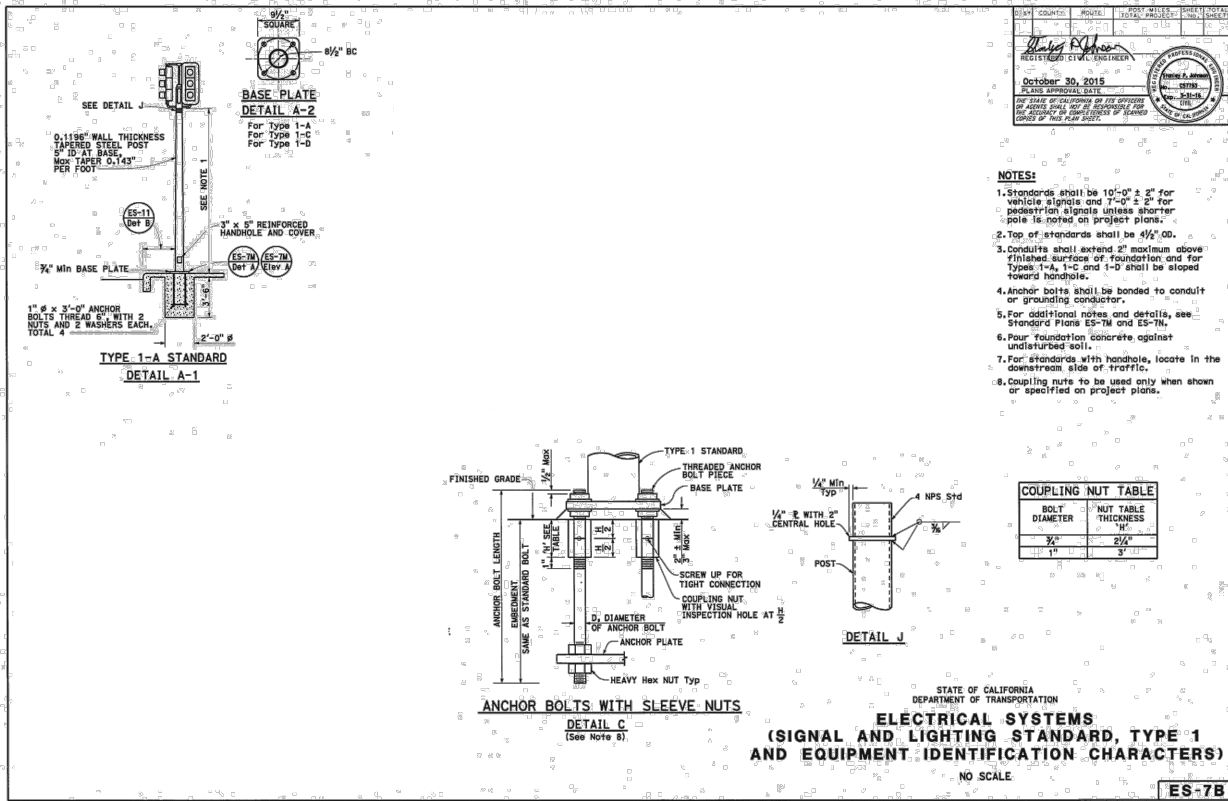
ELECTRICAL WIRING FOR SIGNALIZATION TO BE DESIGN-BUILD PER PROJECT SPECIFICATIONS STATED IN SECTION 13-26, REFERENCING 2010 CALTRANS STANDARD SPECIFICATIONS SECTION 86, AND AS DIRECTED BY CITY OF UKIAH ENGINEERING AND ELECTRICAL STAFF.

PLAN
1"=10'

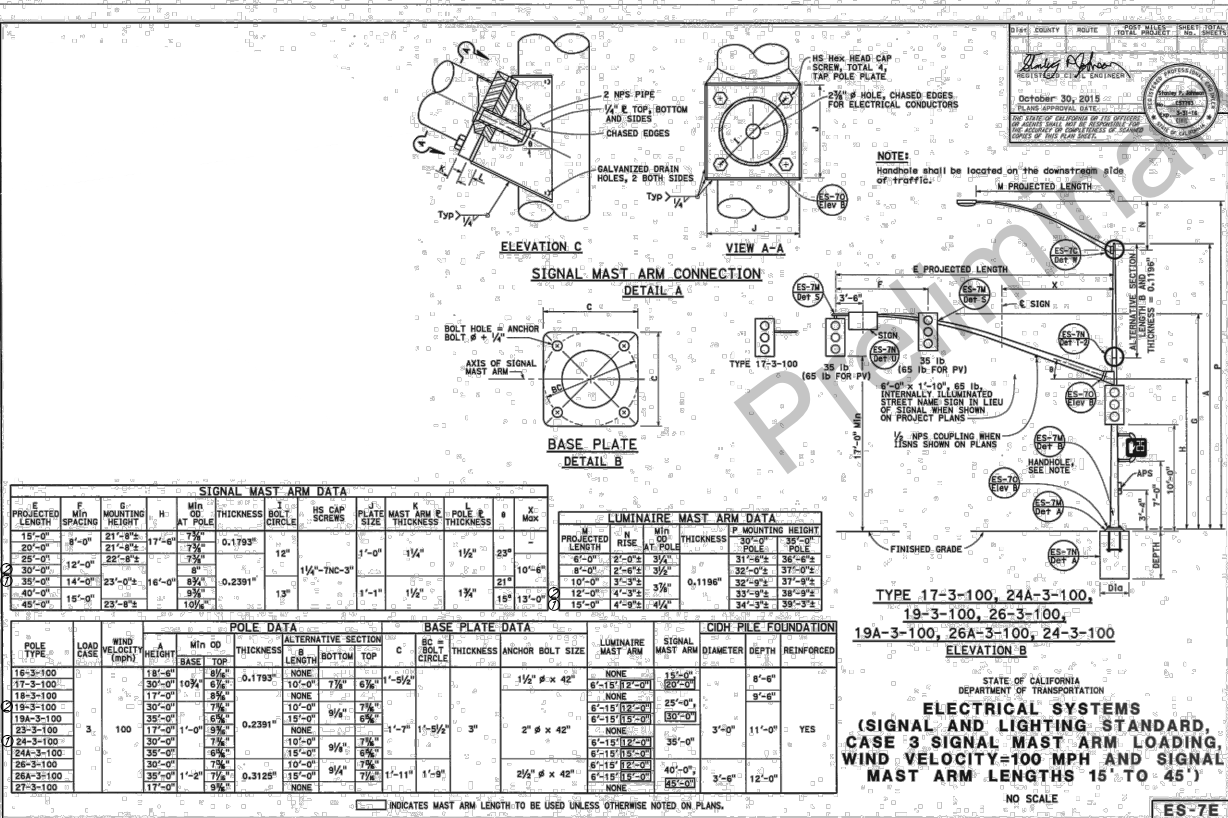


CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD		ELECTRICAL PLAN	
DSGN	TAH	NO.	DATE
DR	TAH	REVISION	BY
CHK	JGI		
APVD	APVD		
SHEET C-18		SEQ 21	
DATE 09/2016		PROJ. NO. 415080-200	
CONSULTING ENGINEERS & GEOLOGISTS, INC. 335 S. MAIN ST. WILKITS, CA. 95490 WWW.SHN-ENGR.COM 707-459-4518			
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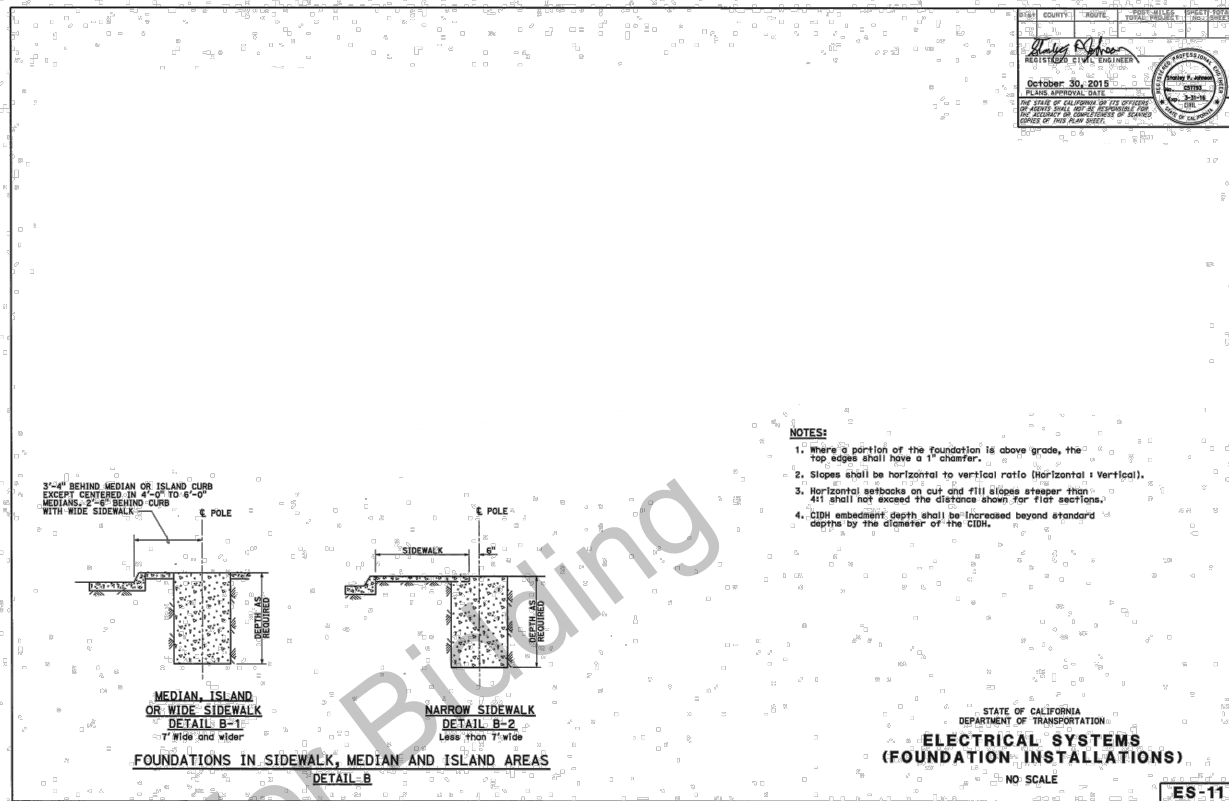
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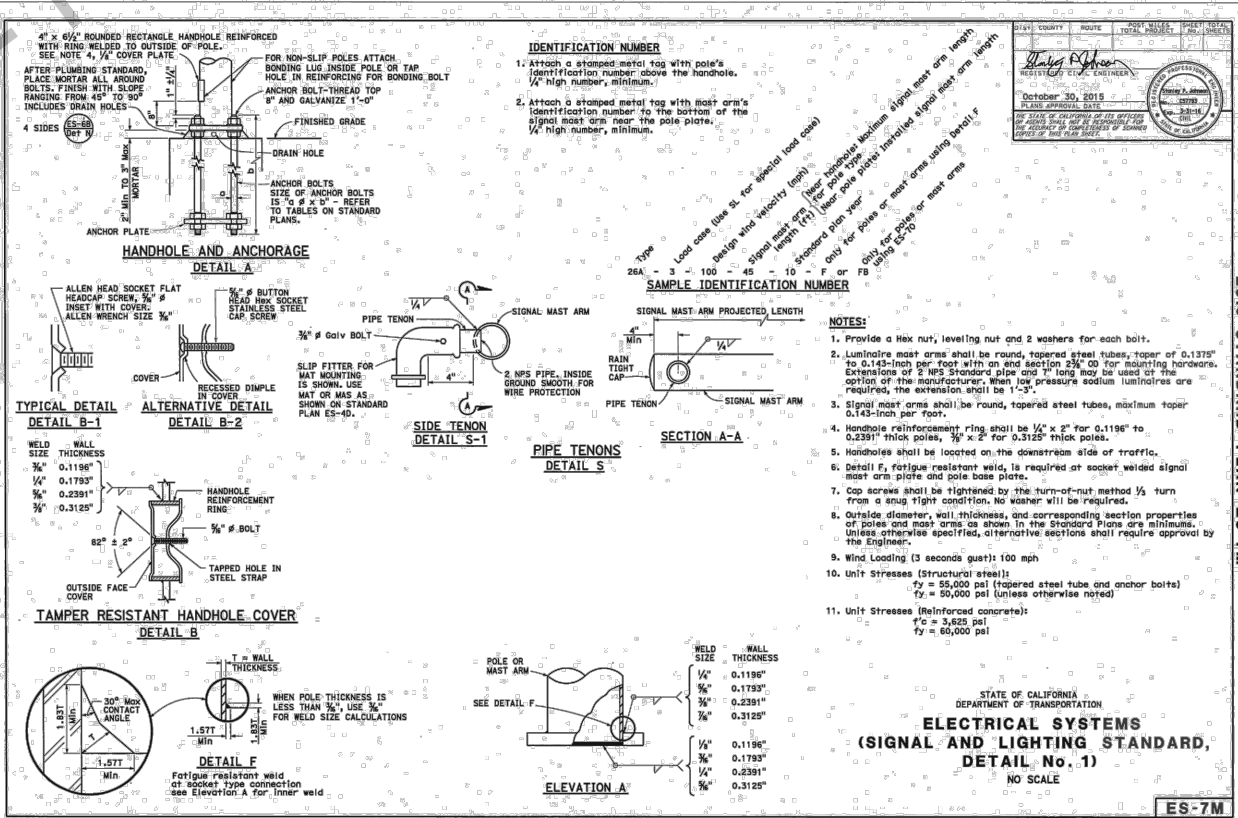
DETAIL 27
NTS
(CALTRANS STANDARD DETAIL ES-7B)



DETAIL 29
NTS
(CALTRANS STANDARD DETAIL ES-7E)

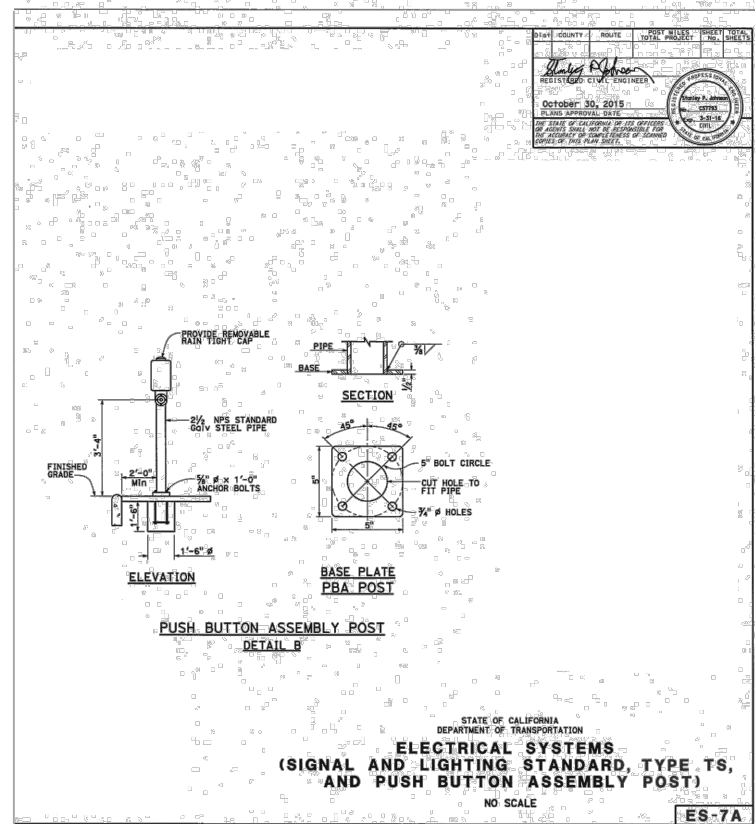
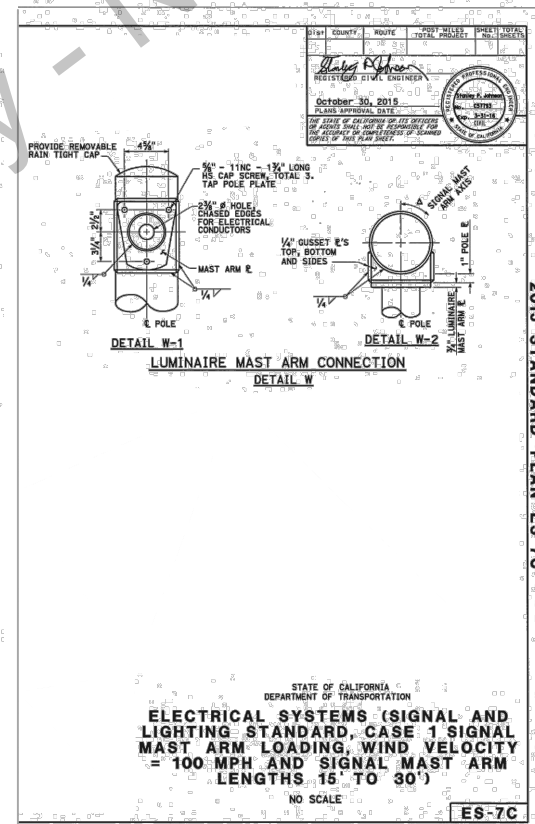
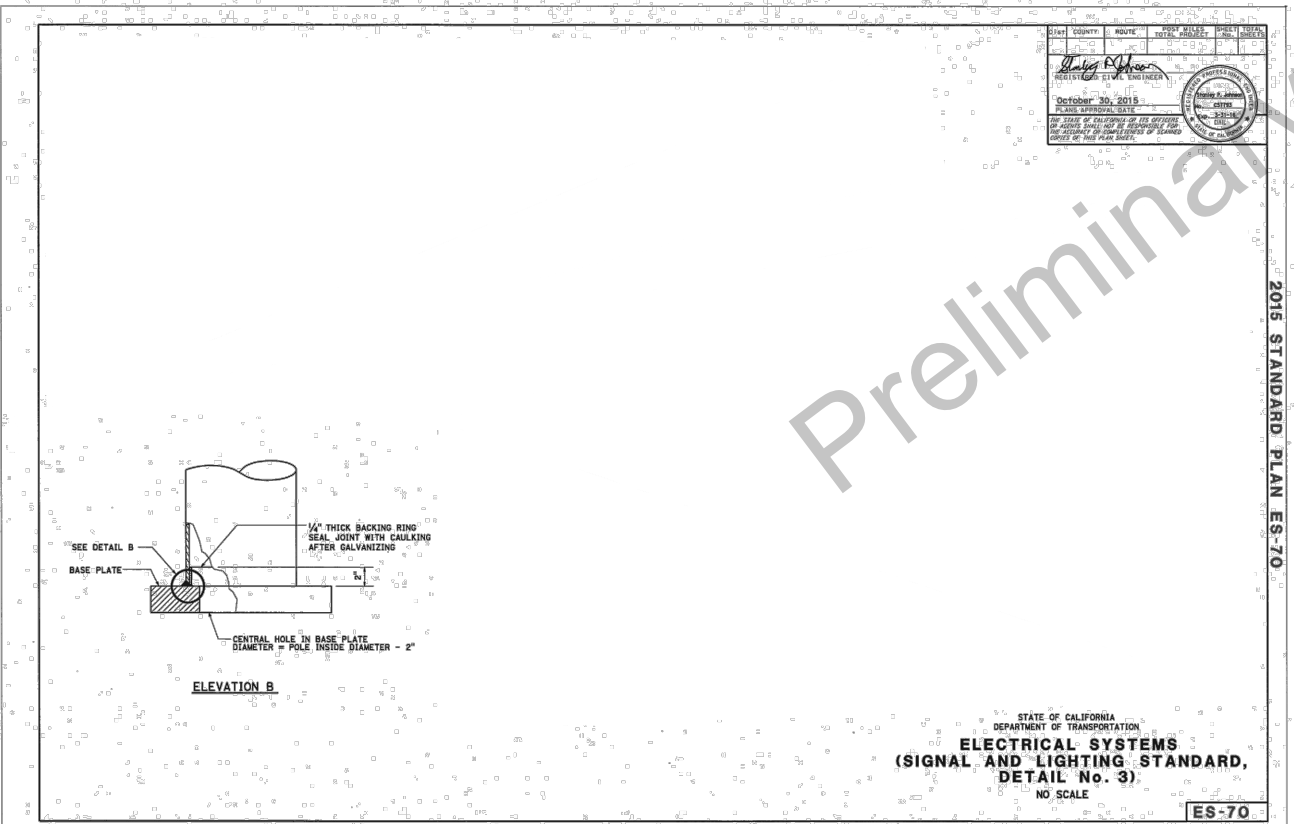
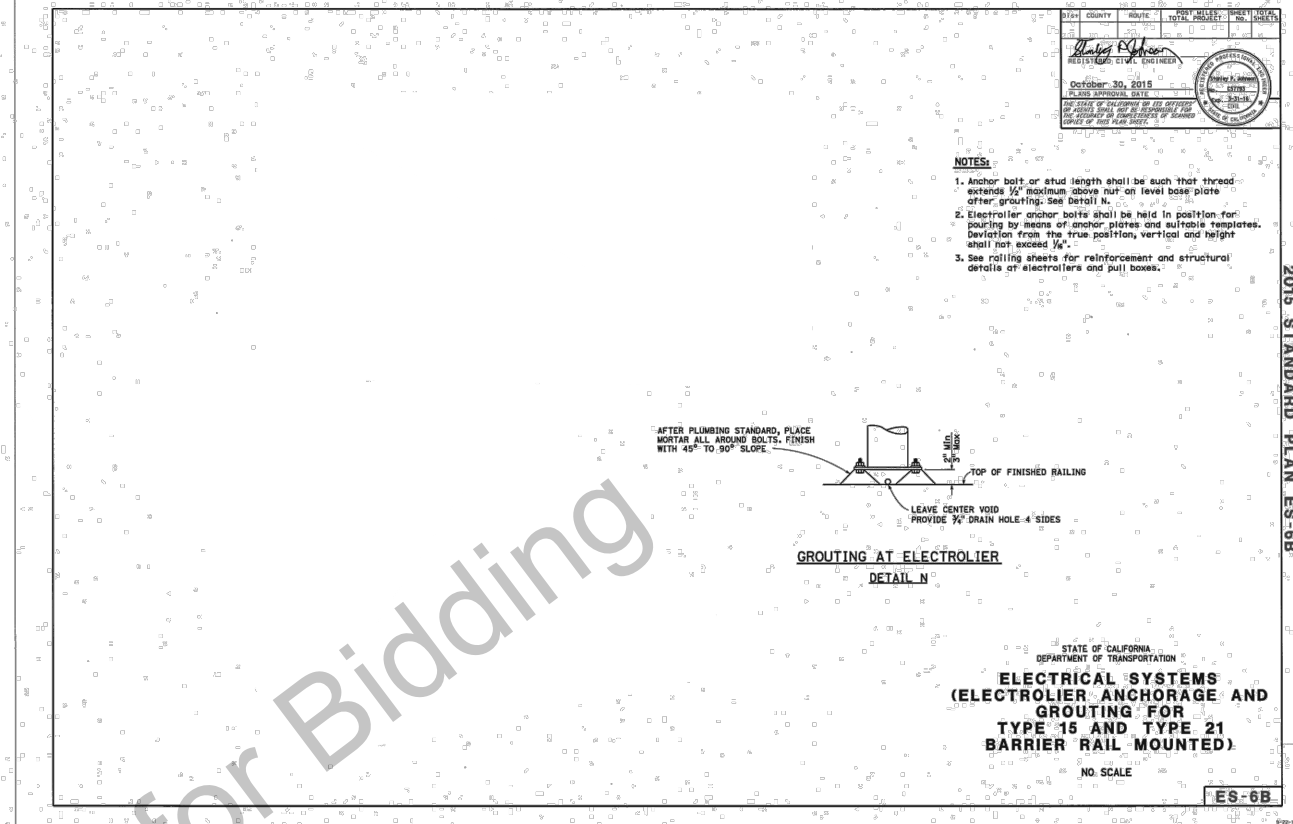
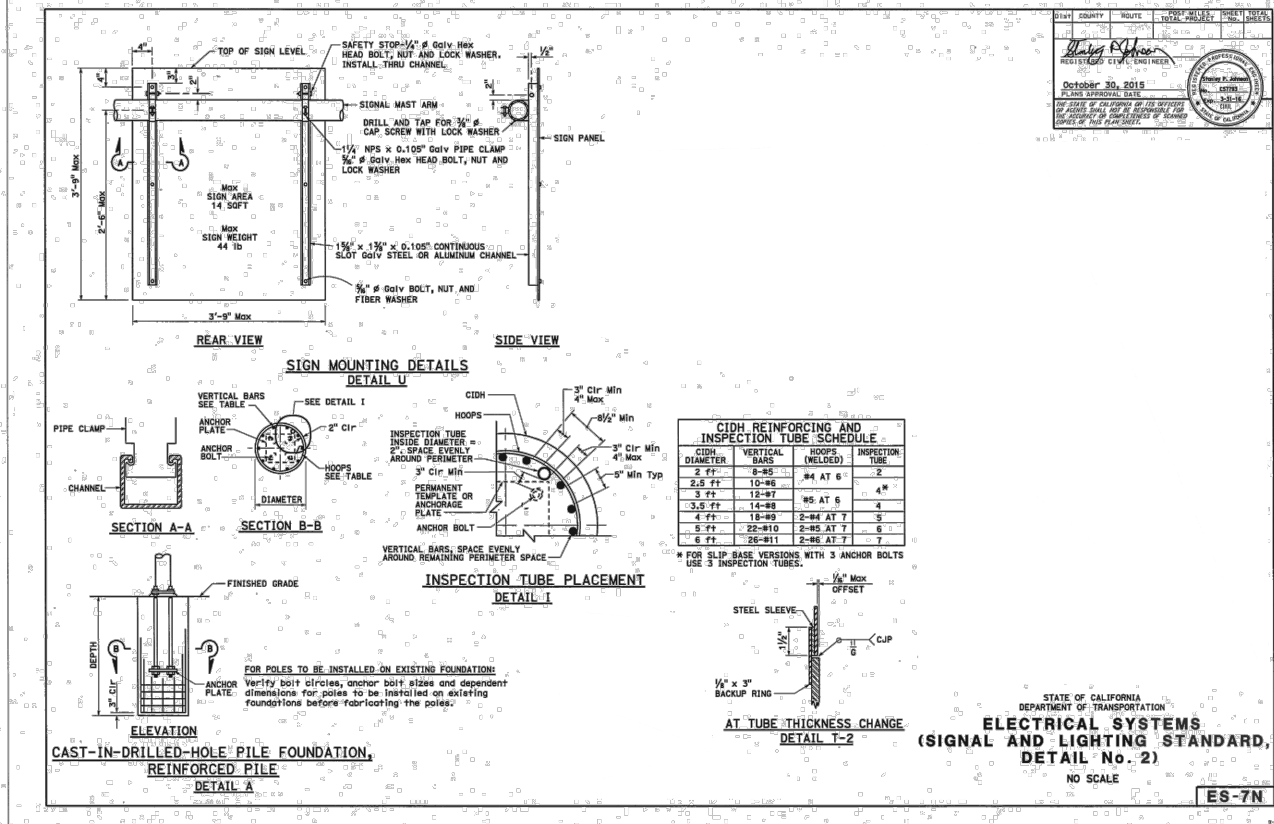


DETAIL 28
NTS
(CALTRANS STANDARD DETAIL ES-11)

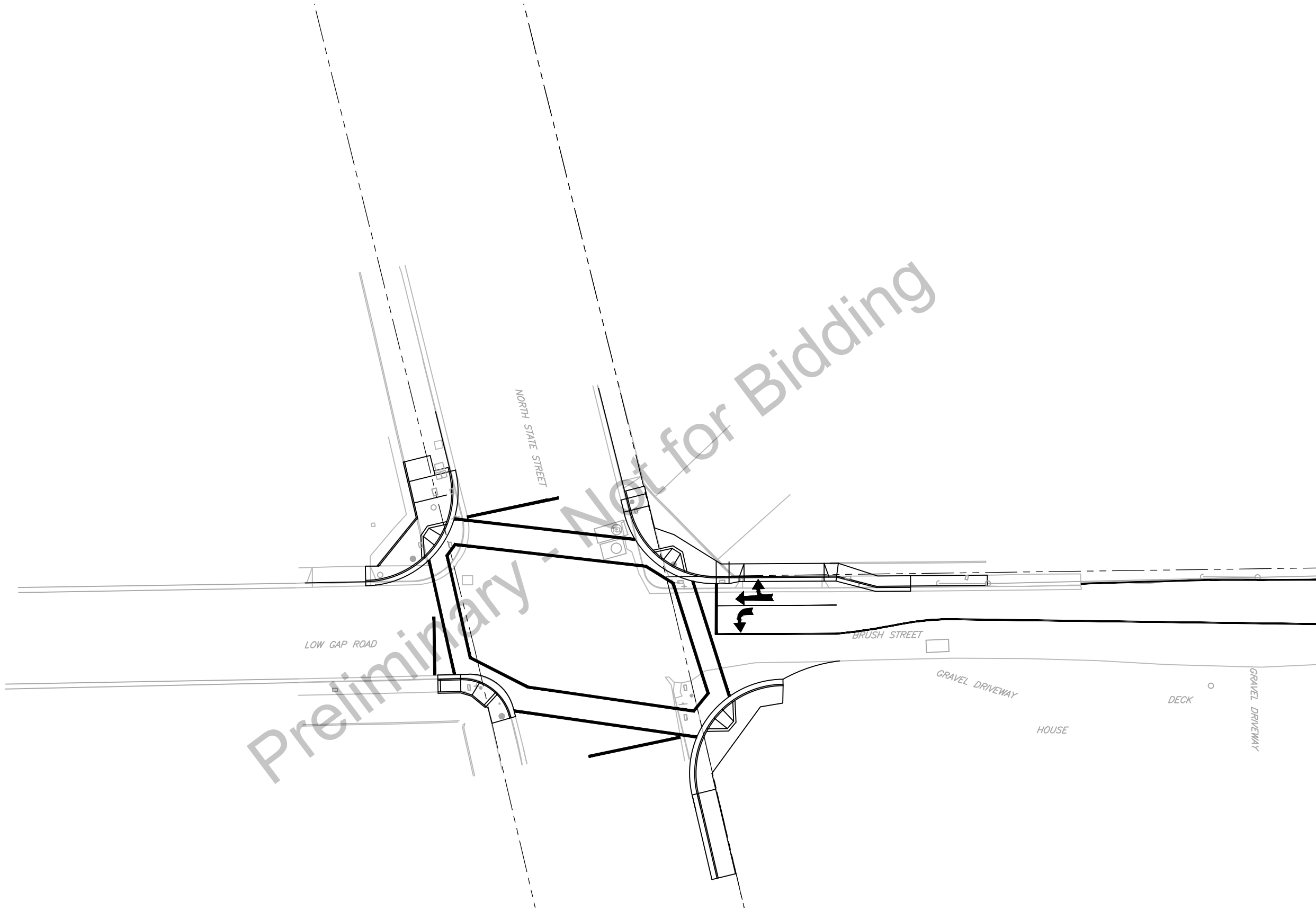


DETAIL 30
NTS
(CALTRANS STANDARD DETAIL ES-7M)

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 \\Willisrsv\Projects\2015\415080-COUNStateSew 200-LowGap\Prints\Draws\415080-200SIGNAL STRIPING.dwg



PLAN

1"=20'



CITY OF UKIAH
 CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR
 NORTH STATE STREET AND LOW GAP ROAD
 STRIPING PLAN - PHASE 1

SHEET C-21

SEQ 24

DATE 09/2016

PROJ. NO. 415080-200

DSGN TA
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 APVD

NO.

DATE

REVISION

BY

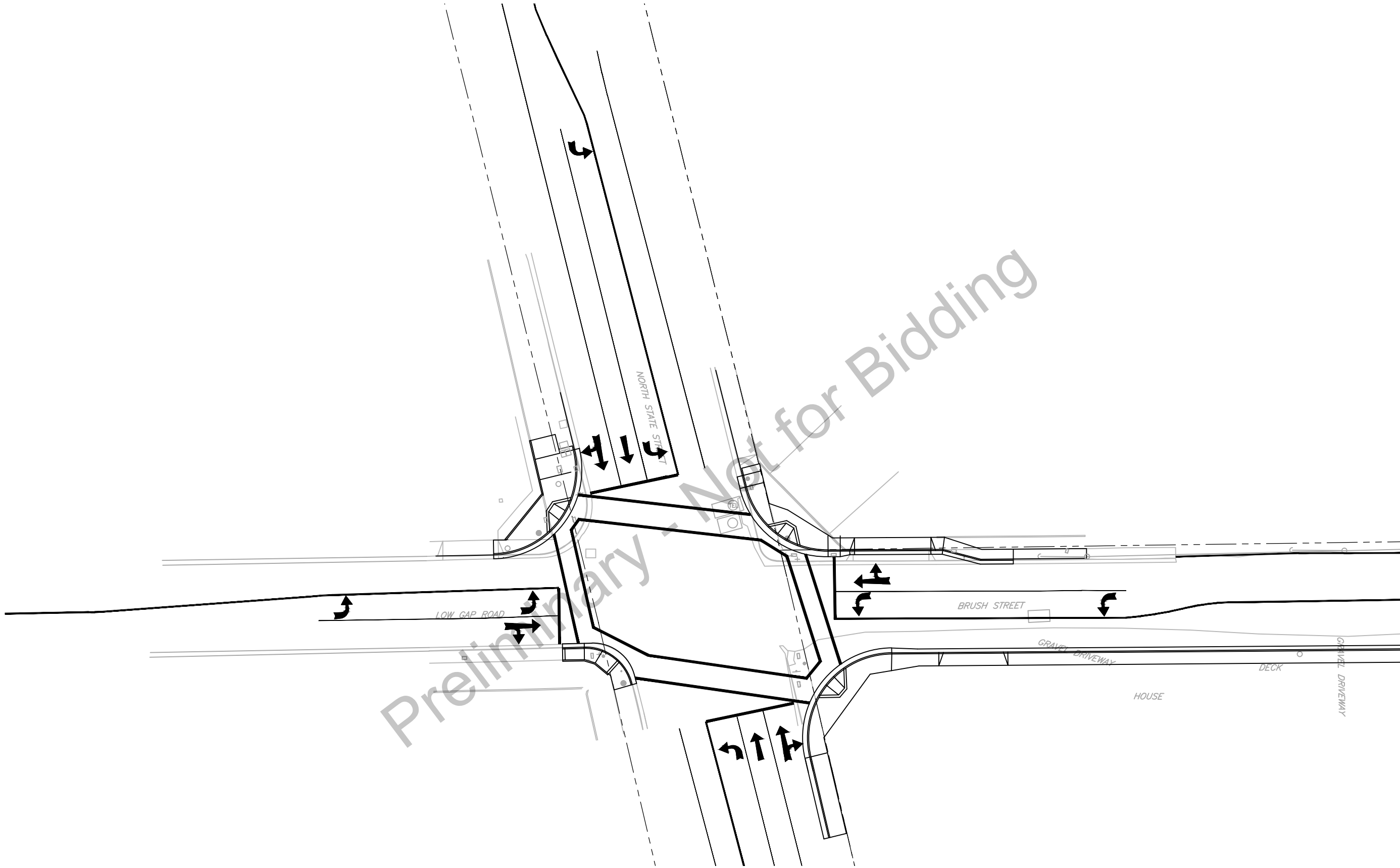


CONSULTING ENGINEERS
 & GEOLOGISTS, INC.
 335 S. MAIN ST.
 WILLITS, CA. 95490

WWW.SHN-ENGR.COM
 707-459-4518

VERIFY SCALES
 BAR IS ONE INCH ON
 ORIGINAL DRAWING
 IF NOT ONE INCH ON
 THIS PRINT, ALL
 SCALES ACCORDINGLY

SAVED: 9/15/2016 8:44 AM SHEATH, PLOTTED: 9/15/2016 8:47 AM SAM R. HEATH
\\willisvr\Projects\2015\415080-COUNSTATESEW 200-LowGapPrints\Draws\415080-200SIGNAL STRIPING.dwg



PLAN
1"=20'



CITY OF UKIAH CURB RETURN, ADA RAMP, & STORM DRAIN REPAIR NORTH STATE STREET AND LOW GAP ROAD		STRIPING PLAN - PHASE 2	
SHEET		C-22	
SEQ		25	
DATE		09/2016	
PROJ. NO.		415080-200	
DSGN	TAH		
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NO.	DATE	REVISION	BY
			
CONSULTING ENGINEERS & GEOLOGISTS, INC.			
335 S. MAIN ST. WILLITS, CA. 95490			
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ITEM NO.: 13a

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: APPROVAL OF CONTRACT WITH SHN CONSULTING ENGINEERS AND GEOLOGISTS, INC. FOR THE PRESSURE ZONE 2 SOUTH RESERVOIR REHABILITATION/REPLACEMENT PROJECT IN THE AMOUNT OF \$84,472

Summary: Council will consider awarding a contract to SHN Consulting Engineers and Geologists, Inc. (SHN) for the Pressure Zone 2 South Reservoir Rehabilitation/Replacement Project.

Background: During the course of the Water Rate Study, Capital Improvement Projects were prioritized and are funded through the Water System Rates.

During this process staff identified the immediate need to rehabilitate or replace the existing 100,000-gallon water reservoir in Pressure Zone 2 South (PZ2S). This reservoir has several leaks in the side. Staff has repaired the leaks numerous times, however the overall condition of the tank does not allow for the repairs to be long-lasting and the patches eventually leak again. Photos of the current condition are shown in the Request for Proposals which is included as Attachment #1.

Request for Proposals (RFPs) were sent to Engineering firms on July 5, 2016, and received at the Public Works Department until July 28, 2016. Three engineering firms submitted proposals.

Discussion: The review team, consisted of Sean White, Director of Water and Sewer; Lyle Valador, Water Treatment Plant Supervisor; and Ben Kageyama, Senior Civil Engineer. After discussion, it was determined that SHN Consulting Engineers and Geologists, Inc. were qualified to perform the work and their price was deemed reasonable (SHN Proposal as attachment #2). The other two firms not selected were GHD (\$138,022) and Sierra West (\$79,600 not including inspections).

The Engineering firm selected will meet with staff and make an external inspection and will have divers conduct an inspection on the interior, if needed, in order to determine the current condition of the tank. A memorandum will be prepared on the final recommendation to rehabilitate the existing tank or whether it should be replaced. Staff will return to Council when the memorandum is prepared with a recommended direction. At that point design will begin for either scenario, bid documents will be prepared, solicited and a contract will be awarded for the construction portion. This contract with SHN also includes construction management and inspection services.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
\$1,000,000	Water Capital	82224413.80230	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Approve contract with SHN Consulting Engineers and Geologists, Inc. in the amount of \$84,472 for the Pressure Zone 2 South Reservoir Rehabilitation/Replacement Project.

ALTERNATIVES: Do not approve contract and provide direction to staff.

Citizens advised: Tom Hunt, SHN Consulting Engineers and Geologists, Inc.
Requested by: Sean White, Director of Water and Sewer
Prepared by: Jarod Thiele, Public Works Project Analyst
Coordinated with: Tim Eriksen, Director of Public Works/City Engineer
Presenters: Sean White, Director of Water and Sewer and Jarod Thiele, Public Works Project Analyst
Attachments: 1. Request for Proposal, 2. SHN Proposal

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager



**PUBLIC WORKS DEPARTMENT
REQUEST FOR PROPOSAL**

**ENGINEERING DESIGN, GEOTECHNICAL AND
CONSTRUCTION OVERSIGHT
SERVICES FOR
PZ2S WATER TANK REHABILITATION/REPLACEMENT
PROJECT**

PROPOSAL DUE: JULY 28, 2016

GENERAL INFORMATION / PROJECT LOCATION

The City of Ukiah with a population of 16,075 people, is located approximately 115 miles north of San Francisco, CA on the US Highway 101 corridor. Ukiah is the retail service hub to an area reaching a 50 mile perimeter and experiences a daytime service population exceeding 35,000 people. The City of Ukiah is planning to rehabilitate or replace an existing 150,000 gallon steel water storage tank. This tank is located in Pressure Zone 2 of the City's water system and is the southern most of the two tanks in that zone. It is referred to as the PZ2S Reservoir. The City would like an analysis of the existing tank and to determine if rehabilitation is an option or if replacement is needed.

The site conditions and existing condition of the tank and foundation are shown in photos in Attachment "C".

The City of Ukiah requests proposals from qualified firms to provide professional services for the tank rehabilitation or replacement project.

SCOPE OF SERVICES

The scope of services for the analysis, design and construction management for the project shall include tasks described below, as well as other elements or modifications, which may be suggested by consultants presenting proposals to better meet the needs of the City. All services shall be provided in accordance with the City's draft professional services agreement, a sample of which is attached as Attachment "A". The Consultant's proposal shall include, but not be limited to the following:

- Conduct an initial site visit and coordination meeting with City of Ukiah staff.
- Review the condition of the existing tank and its foundation including any geotechnical investigation necessary to determine if the existing structures are acceptable or will need to be replaced.
- Prepare a Technical Memoranda describing the conditions found in the assessment and meet with the City for a presentation of findings and make a recommendation on rehabilitation or replacement.
- Perform field surveys as required to prepare final construction plans ready for bid advertising, prepare technical specifications and quantity estimates for the work, provide a detailed engineering estimate of cost at the completion of design, provide a time line estimate, and assist with technical assistance during the bid phase. City will print and issue bidding documents to prospective contractors.
- Prepare 75 percent and 95 percent draft drawings and technical specifications (in PDF format) for City review and comment and incorporate comments into final bid documents and technical specifications for the project.
- Provide services during bidding including answering technical questions and requests for information, as directed by the City; preparing draft addenda as required for City distribution to bidders; review received bids and provide recommendations to the City.
- Provide daily inspections during the course of the project and coordinate with City and Contractor.

- Provide one set of reproducible Mylar plans and one copy-ready set of specifications.
- Provide one copy of contract documents, plans and specifications in digital format.
- Provide 20 bound copies of specifications and 20 sets of full size plans.
- Provide one set of reproducible Mylar “AS-BUILT” drawings after completion of the construction projects.

SCHEDULE

- Proposals for the PZ2S Water Tank Rehabilitation/Replacement Project for the City of Ukiah will be received until 2:00 PM on July 28, 2016.
- City reviews, interviews (if necessary) and recommends consultant: August 12, 2016
- City Council award of professional services agreement to selected consultant: August 18, 2016
- Consultant analyzes condition of existing tank and foundation to prepare a Technical Memoranda and make a recommendation on whether to rehabilitate or replace the tank and foundation: August 18, 2016 to September 23, 2016
- Consultant initiates and completes design for PZ2S Water Tank Rehabilitation/Replacement Project: December 16, 2016
- Consultant submits draft plans and specifications for PZ2S Water Tank Rehabilitation/Replacement Project for review: December 20, 2016
- City reviews and comments on draft plans and specifications for PZ2S Water Tank Rehabilitation/Replacement Project: January 20, 2017
- Consultant makes final revisions to plans & specifications of bid package for PZ2S Water Tank Rehabilitation/Replacement Project for advertisement: February 8, 2017
- City Council approval of Plans and Specifications for PZ2S Water Tank Rehabilitation/Replacement Project: February 16, 2017
- Advertise PZ2S Water Tank Rehabilitation/Replacement Project for bid: February 21, 2017
- Open bids for PZ2S Water Tank Rehabilitation/Replacement Project: March 30, 2017

CONSULTANT'S PROPOSAL

Proposals shall be labeled “Proposal - PZ2S Water Tank Rehabilitation/Replacement Project”.

Proposals shall be submitted to:

Jarod Thiele, Project Analyst
City of Ukiah, Department of Public Works
300 Seminary Avenue
Ukiah, CA 95482-5400

Three (3) copies of the PROPOSAL are required. Proposals must be received prior to 2:00 PM, July 28, 2016.

Proposals shall include as a minimum the following:

Project approach and schedule

Describe the proposed approach and procedures to be used in completing the tasks described in the Scope of Services. Include a proposed schedule showing completion of the various tasks.

Cover letter

The cover letter should include a brief overview of the specific approach and procedures the firm proposes to complete the tasks described in the Scope of Services. An explanation of why the specific plan detailed in the proposal is the best plan for the City should be included. The cover letter must be signed by an official authorized to bind the successful firm contractually and shall contain a statement to the effect that the proposal is a firm offer for a minimum period of thirty (30) days after the submittal date. The letter accompanying the proposal shall also provide the following: name, title, address, and telephone number of individuals with the authority to negotiate a contract and bind the consultant to the terms of the contract.

Project team

Describe the qualifications and experience of the firm as related to the project, and the proposed staff to be assigned to this project. Describe the qualifications and experience of any proposed sub-consultants and identify the work they will accomplish. Firms, sub-consultants and proposed staff must demonstrate experience with similar projects. Staff proposed to be in charge of the project must demonstrate significant experience supervising similar work. Describe the proposed team organization, current and previous work assignments, and man-hours budgeted for each team member. Provide the name and brief resume of the individual who will be in responsible charge of the project along with the names and brief resumes of the firm's staff who will be assigned to the project.

Fee proposal

Provide a fee proposal based on an hourly rate schedule with a "not to exceed" maximum cost for all work identified in the Scope of Services. Indicate if travel time, mileage, and per diem will be charged. Include any sub-consultant or sub-contractor cost. Additionally, please identify miscellaneous costs associated with this proposal. Submit a copy of your firm's current itemized hourly rate fee schedule. Fee schedule should include full design and construction management costs for a tank and foundation replacement project. It should also be understood that the total contract price paid could be less than submitted depending on the recommendation in the Technical Memoranda.

References

Provide a list of similar projects for which the firm has completed similar projects with a list of at least three client references associated with these projects. Include client references for any proposed sub-consultants. Provide names of contact person, addresses and telephone

numbers for all client references.

Exceptions

Identify any exceptions you are proposing with respect to the Scope of Services. Additionally, if there are any exceptions to the City's insurance requirements and/or the City's draft professional services agreement as shown in the attachments, the Consultant should list the exceptions in the proposal.

SPECIAL PROPOSAL REQUIREMENT

Proposal documents shall be produced on recycled paper, when practicable. The proposal front cover shall be labeled in such a way as to identify that the document was produced on recycled paper and the pages of the proposal shall be produced double sided, where feasible.

INSURANCE REQUIREMENTS

The insurance requirements are set forth in Attachment "B".

EVALUATION OF CONSULTANT'S PROPOSAL

The following evaluation criteria will be used in evaluating and selecting candidates:

1. Candidate's specialized experience and technical competence as applicable to the services required. Resumes must be furnished for the proposed team members and team leader.
2. Candidate's past record of performance, on similar projects, including control of costs, quality of work, and completion in a timely manner.
3. Candidate's capacity to perform the work in a timely fashion. A proposed work plan and organization chart should be included.
4. Candidate's familiarity with the type of problems applicable to the project.
5. Candidate's demonstrated experience in design of water tank projects.

RIGHT OF REFUSAL

The City reserves the right to reject any and all proposals without qualifications. Proposals will be considered only in their entirety. The City reserves the right to negotiate the specific requirements and costs using the selected proposal as a basis.

QUESTIONS

Questions shall be directed to Jarod Thiele, Project Analyst, City of Ukiah, Department of Public Works, 300 Seminary Avenue, Ukiah, CA 95482-5400, voice phone: (707) 463-6755, fax phone: (707) 463-6204, email (preferred contact method): jthiele@cityofukiah.com

ATTACHMENT "A"

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES [Design Professional]

This Agreement, made and entered into this ____ day of _____, 2016 ("Effective Date"), by and between CITY OF UKIAH, CALIFORNIA, hereinafter referred to as "City" and _____, a _____ [sole proprietorship, corporation, partnership, limited partnership, limited liability company, etc] organized and in good standing under the laws of the state of _____, hereinafter referred to as "Consultant".

RECITALS

This Agreement is predicated on the following facts:

- a. City requires consulting services related to _____.
- b. Consultant represents that it has the qualifications, skills, experience and properly licensed to provide these services, and is willing to provide them according to the terms of this Agreement.
- c. City and Consultant agree upon the Scope-of-Work and Work Schedule attached hereto as Attachment "A", describing contract provisions for the project and setting forth the completion dates for the various services to be provided pursuant to this Agreement.

TERMS OF AGREEMENT

1.0 DESCRIPTION OF PROJECT

- 1.1 The Project is described in detail in the attached Scope-of-Work (Attachment "A").

2.0 SCOPE OF SERVICES

- 2.1 As set forth in Attachment "A".
- 2.2. Additional Services. Additional services, if any, shall only proceed upon written agreement between City and Consultant. The written Agreement shall be in the form of an Amendment to this Agreement.

3.0 CONDUCT OF WORK

- 3.1 Time of Completion. Consultant shall commence performance of services as required by the Scope-of-Work upon receipt of a Notice to Proceed from City and shall complete such services within _____ from receipt of the Notice to Proceed. Consultant shall complete the work to the City's reasonable satisfaction, even if contract disputes arise or Consultant contends it is entitled to further compensation.

4.0 COMPENSATION FOR SERVICES

- 4.1 Basis for Compensation. For the performance of the professional services of this Agreement, Consultant shall be compensated on a time and expense basis not to exceed a guaranteed maximum dollar amount of \$---. Labor charges shall be based upon hourly billing rates for the various classifications of personnel employed by Consultant to perform the Scope of Work as set forth in the attached Attachment B, which shall

include all indirect costs and expenses of every kind or nature, except direct expenses. The direct expenses and the fees to be charged for same shall be as set forth in Attachment B. Consultant shall complete the Scope of Work for the not-to-exceed guaranteed maximum, even if actual time and expenses exceed that amount.

- 4.2 Changes. Should changes in compensation be required because of changes to the Scope-of-Work of this Agreement, the parties shall agree in writing to any changes in compensation. "Changes to the Scope-of-Work" means different activities than those described in Attachment "A" and not additional time to complete those activities than the parties anticipated on the date they entered this Agreement.
- 4.3 Sub-contractor Payment. The use of sub-consultants or other services to perform a portion of the work of this Agreement shall be approved by City prior to commencement of work. The cost of sub-consultants shall be included within guaranteed not-to-exceed amount set forth in Section 4.1.
- 4.4 Terms of Payment. Payment to Consultant for services rendered in accordance with this contract shall be based upon submission of monthly invoices for the work satisfactorily performed prior to the date of invoice less any amount already paid to Consultant, which amounts shall be due and payable thirty (30) days after receipt by City. The invoices shall provide a description of each item of work performed, the time expended to perform each task, the fees charged for that task, and the direct expenses incurred and billed for. Invoices shall be accompanied by documentation sufficient to enable City to determine progress made and the expenses claimed.

5.0 ASSURANCES OF CONSULTANT

- 5.1 Independent Contractor. Consultant is an independent contractor and is solely responsible for its acts or omissions. Consultant (including its agents, servants, and employees) is not City's agent, employee, or representative for any purpose.

It is the express intention of the parties hereto that Consultant is an independent contractor and not an employee, joint venturer, or partner of City for any purpose whatsoever. City shall have no right to, and shall not control the manner or prescribe the method of accomplishing those services contracted to and performed by Consultant under this Agreement, and the general public and all governmental agencies regulating such activity shall be so informed.

Those provisions of this Agreement that reserve ultimate authority in City have been inserted solely to achieve compliance with federal and state laws, rules, regulations, and interpretations thereof. No such provisions and no other provisions of this Agreement shall be interpreted or construed as creating or establishing the relationship of employer and employee between Consultant and City.

Consultant shall pay all estimated and actual federal and state income and self-employment taxes that are due the state and federal government and shall furnish and pay worker's compensation insurance, unemployment insurance and any other benefits required by law for himself and his employees, if any. Consultant agrees to indemnify and hold City and its officers, agents and employees harmless from and against any claims or demands by federal, state or local government agencies for any such taxes or benefits due but not paid by Consultant, including the legal costs associated with defending against any audit, claim, demand or law suit.

Consultant warrants and represents that it is a properly licensed professional or professional organization with a substantial investment in its business and that it maintains its own offices and staff which it will use in performing under this Agreement.

- 5.2 Conflict of Interest. Consultant understands that its professional responsibility is solely to City. Consultant has no interest and will not acquire any direct or indirect interest that would conflict with its performance of

the Agreement. Consultant shall not in the performance of this Agreement employ a person having such an interest. If the City Manager determines that the Consultant has a disclosure obligation under the City's local conflict of interest code, the Consultant shall file the required disclosure form with the City Clerk within 10 days of being notified of the City Manager's determination.

6.0 INDEMNIFICATION

6.1 Insurance Liability. Without limiting Consultant's obligations arising under Paragraph 6.2 Consultant shall not begin work under this Agreement until it procures and maintains for the full period of time allowed by law, surviving the termination of this Agreement insurance against claims for injuries to persons or damages to property, which may arise from or in connection with its performance under this Agreement.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office ("ISO) Commercial General Liability Coverage Form No. CG 20 10 10 01 and Commercial General Liability Coverage – Completed Operations Form No. CG 20 37 10 01.
2. ISO Form No. CA 0001 (Ed. 1/87) covering Automobile Liability, Code 1 "any auto" or Code 8, 9 if no owned autos and endorsement CA 0025.
3. Worker's Compensation Insurance as required by the Labor Code of the State of California and Employers Liability Insurance.
4. Errors and Omissions liability insurance appropriate to the consultant's profession. Architects' and engineers' coverage is to be endorsed to include contractual liability.

B. Minimum Limits of Insurance

Consultant shall maintain limits no less than:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage including operations, products and completed operations. If Commercial General Liability Insurance or other form with a general aggregate limit is used, the general aggregate limit shall apply separately to the work performed under this Agreement, or the aggregate limit shall be twice the prescribed per occurrence limit.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage.
3. Worker's Compensation and Employers Liability: Worker's compensation limits as required by the Labor Code of the State of California and Employers Liability limits of \$1,000,000 per accident.
4. Errors and Omissions liability: \$1,000,000 per occurrence.

C. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the

ENGINEERING DESIGN, GEOTECHNICAL AND CONSTRUCTION OVERSIGHT SERVICES FOR PZ2S WATER TANK
REHABILITATION/REPLACEMENT PROJECT

option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to the City, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

D. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverages

- a. The City, its officers, officials, employees and volunteers are to be covered as additional insureds as respects; liability arising out of activities performed by or on behalf of the Consultant, products and completed operations of the Consultant, premises owned, occupied or used by the Consultant, or automobiles owned, hired or borrowed by the Consultant for the full period of time allowed by law, surviving the termination of this Agreement. The coverage shall contain no special limitations on the scope-of-protection afforded to the City, its officers, officials, employees or volunteers.
- b. The Consultant's insurance coverage shall be primary insurance as respects to the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be in excess of the Consultant's insurance and shall not contribute with it.
- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers.
- d. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. Worker's Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from Consultant's performance of the work, pursuant to this Agreement.

3. Professional Liability Coverage

If written on a claims-made basis, the retroactivity date shall be the effective date of this Agreement. The policy period shall extend from ----- to -----.

4. All Coverages

Each Insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

E. Acceptability of Insurers

Insurance is to be placed with admitted California insurers with an A.M. Best's rating of no less than A- for financial strength, AA for long-term credit rating and AMB-1 for short-term credit rating.

F. Verification of Coverage

Consultant shall furnish the City with Certificates of Insurance and with original Endorsements effecting coverage required by this Agreement. The Certificates and Endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Certificates and Endorsements are to be on forms provided or approved by the City. All Certificates and Endorsements are to be received and approved by the City before Consultant begins the work of this Agreement. The City reserves the right to require complete, certified copies of all required insurance policies, at any time. If Consultant fails to provide the coverages required herein, the City shall have the right, but not the obligation, to purchase any or all of them. In that event, after notice to Consultant that City has paid the premium, the cost of insurance may be deducted from the compensation otherwise due the contractor under the terms of this Contract.

G. Subcontractors

Consultant shall include all sub-contractors or sub-consultants as insured under its policies or shall furnish separate certificates and endorsements for each sub-contractor or sub-consultant. All coverage for sub-contractors or sub-consultants shall be subject to all insurance requirements set forth in this Paragraph 6.1.

- 6.2 Indemnification. Notwithstanding the foregoing insurance requirements, and in addition thereto, Consultant agrees, for the full period of time allowed by law, surviving the termination of this Agreement, to indemnify the City for any claim, cost or liability that arises out of, or pertains to, or relates to any negligent act or omission or the willful misconduct of Consultant and its agents in the performance of services under this contract, but this indemnity does not apply to liability for damages for death or bodily injury to persons, injury to property, or other loss, arising from the sole negligence, willful misconduct or defects in design by the City, or arising from the active negligence of the City.

"Indemnify," as used herein includes the expenses of defending against a claim and the payment of any settlement or judgment arising out of the claim. Defense costs include all costs associated with defending the claim, including, but not limited to, the fees of attorneys, investigators, consultants, experts and expert witnesses, and litigation expenses.

References in this paragraph to City or Consultant, include their officers, employees, agents, and subcontractors.

7.0 CONTRACT PROVISIONS

- 7.1 Documents and Ownership of Work. All documents furnished to Consultant by City and all documents or reports and supportive data prepared by Consultant under this Agreement are owned and become the property of the City upon their creation and shall be given to City immediately upon demand and at the completion of Consultant's services at no additional cost to City. Deliverables are identified in the Scope-of-Work, Attachment "A". All documents produced by Consultant shall be furnished to City in digital format and hardcopy. Consultant shall produce the digital format, using software and media approved by City.

- 7.2 Governing Law. Consultant shall comply with the laws and regulations of the United States, the State of

California, and all local governments having jurisdiction over this Agreement. The interpretation and enforcement of this Agreement shall be governed by California law and any action arising under or in connection with this Agreement must be filed in a Court of competent jurisdiction in Mendocino County.

- 7.3 Entire Agreement. This Agreement plus its Attachment(s) and executed Amendments set forth the entire understanding between the parties.
- 7.4 Severability. If any term of this Agreement is held invalid by a court of competent jurisdiction, the remainder of this Agreement shall remain in effect.
- 7.5 Modification. No modification of this Agreement is valid unless made with the agreement of both parties in writing.
- 7.6 Assignment. Consultant's services are considered unique and personal. Consultant shall not assign, transfer, or sub-contract its interest or obligation under all or any portion of this Agreement without City's prior written consent.
- 7.7 Waiver. No waiver of a breach of any covenant, term, or condition of this Agreement shall be a waiver of any other or subsequent breach of the same or any other covenant, term or condition or a waiver of the covenant, term or condition itself.
- 7.8 Termination. This Agreement may only be terminated by either party: 1) for breach of the Agreement; 2) because funds are no longer available to pay Consultant for services provided under this Agreement; or 3) City has abandoned and does not wish to complete the project for which Consultant was retained. A party shall notify the other party of any alleged breach of the Agreement and of the action required to cure the breach. If the breaching party fails to cure the breach within the time specified in the notice, the contract shall be terminated as of that time. If terminated for lack of funds or abandonment of the project, the contract shall terminate on the date notice of termination is given to Consultant. City shall pay the Consultant only for services performed and expenses incurred as of the effective termination date. In such event, as a condition to payment, Consultant shall provide to City all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by the Consultant under this Agreement. Consultant shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder, subject to off-set for any direct or consequential damages City may incur as a result of Consultant's breach of contract.
- 7.9 Duplicate Originals. This Agreement may be executed in duplicate originals, each bearing the original signature of the parties. When so signed, each such document shall be admissible in administrative or judicial proceedings as proof of the terms of the Agreement between the parties.
- 8.0 NOTICES
Any notice given under this Agreement shall be in writing and deemed given when personally delivered or deposited in the mail (certified or registered) addressed to the parties as follows:

CITY OF UKIAH -----
DEPT. OF PUBLIC WORKS -----
300 SEMINARY AVENUE -----
UKIAH, CALIFORNIA 95482-5400

9.0 SIGNATURES

IN WITNESS WHEREOF, the parties have executed this Agreement the Effective Date:

CONSULTANT

BY: _____

Date

PRINT NAME: _____

IRS IDN Number

CITY OF UKIAH

BY: _____

SAGE SANGIACOMO
CITY MANAGER

Date

ATTEST

KRISTINE LAWLER
CITY CLERK

Date

ATTACHMENT “B”

INSURANCE REQUIREMENTS FOR CONSULTANTS

Consultant(s) shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant(s), his agents, representatives, or employees.

I. Minimum Scope of Insurance

Coverage shall be at least as broad as:

- A. Insurance Services Office **Commercial General Liability** coverage (Form No. CG 20 10 10 01 and Commercial General Liability – Completed Operations Form No. CG 20 37 10 01).
- B. Insurance Services Office form number CA 0001 (Ed. 1/87) covering **Automobile Liability**, code 1 (any auto).
- C. **Workers’ Compensation** insurance as required by the State of California and Employer’s Liability Insurance.
- D. **Errors and Omissions liability** insurance appropriate to the consultant’s profession. Architects’ and engineers’ coverage is to be endorsed to include contractual liability.

II. Minimum Limits of Insurance

Consultant shall maintain limits no less than:

- A. General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage including **operations, products and completed operations**, as applicable. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Insurance must be written on an occurrence basis.
- B. Automobile Liability: \$1,000,000 per accident for bodily injury and property damage. Insurance must be written on an occurrence basis.
- C. Workman’s Compensation Employer’s Liability: \$1,000,000 per accident for bodily injury or disease.
- D. Errors and Omissions liability: \$1,000,000 per occurrence. If written on a claims-made basis, insurance coverage must cover claims filed within 3 years after contract work completed.

III. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the insurer to reduce or eliminate such deductibles or self-insured retentions with respect to the City, its officers, officials, employees and volunteers; or the Consultant to provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses; or to approve the deductible without a guarantee.

IV. REQUIRED Insurance Provisions

Proof of **general liability and automobile liability** policies are to contain, or **be endorsed** to contain, the following provisions:

- A. The City, its officers, officials, employees, and volunteers are to be covered as **ADDITIONAL INSURED** with respect to liability arising out of automobiles owned, leased, hired or borrowed by

ENGINEERING DESIGN, GEOTECHNICAL AND CONSTRUCTION OVERSIGHT SERVICES FOR PZ2S WATER TANK
REHABILITATION/REPLACEMENT PROJECT

or on behalf of the contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment, furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance, or as a separate owner's policy.

B. The workers' compensation policy is to be endorsed with a waiver of subrogation. The insurance company, in its endorsement, agrees to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses paid under the terms of this policy which arises from the work performed by the named insured for the City. NOTE: You cannot be added as an additional insured on a workers' compensation policy.

C. For any claims related to this project, the Consultant's insurance coverage shall be **primary insurance** with respect to the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be in excess of the Consultant's insurance and shall not contribute with it.

D. Each insurance policy required by this clause shall be endorsed to state that coverage shall **not be canceled** by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

V. RATING - Acceptability of Insurers

Insurance is to be placed with admitted California insurers with a current A.M. Best's rating of no less than A- for financial strength, AA for long-term credit rating and AMB-1 for short-term credit rating.

VI. Verification of Coverage

Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be **on forms provided by the City**. If endorsements are on forms other than the City's forms, those endorsements must provide coverage that is equivalent to or better than the forms requested by the City. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.

VII. Subcontractors

If Consultant uses subcontractors or sub-consultants, it shall cover them under its policies or require them to separately comply with the insurance requirements set forth in Paragraph 6.1 of Attachment "A"

If you have questions regarding our insurance requirements contact:

**Risk Manager
(707) 463-6287 or FAX (707) 463-6204**

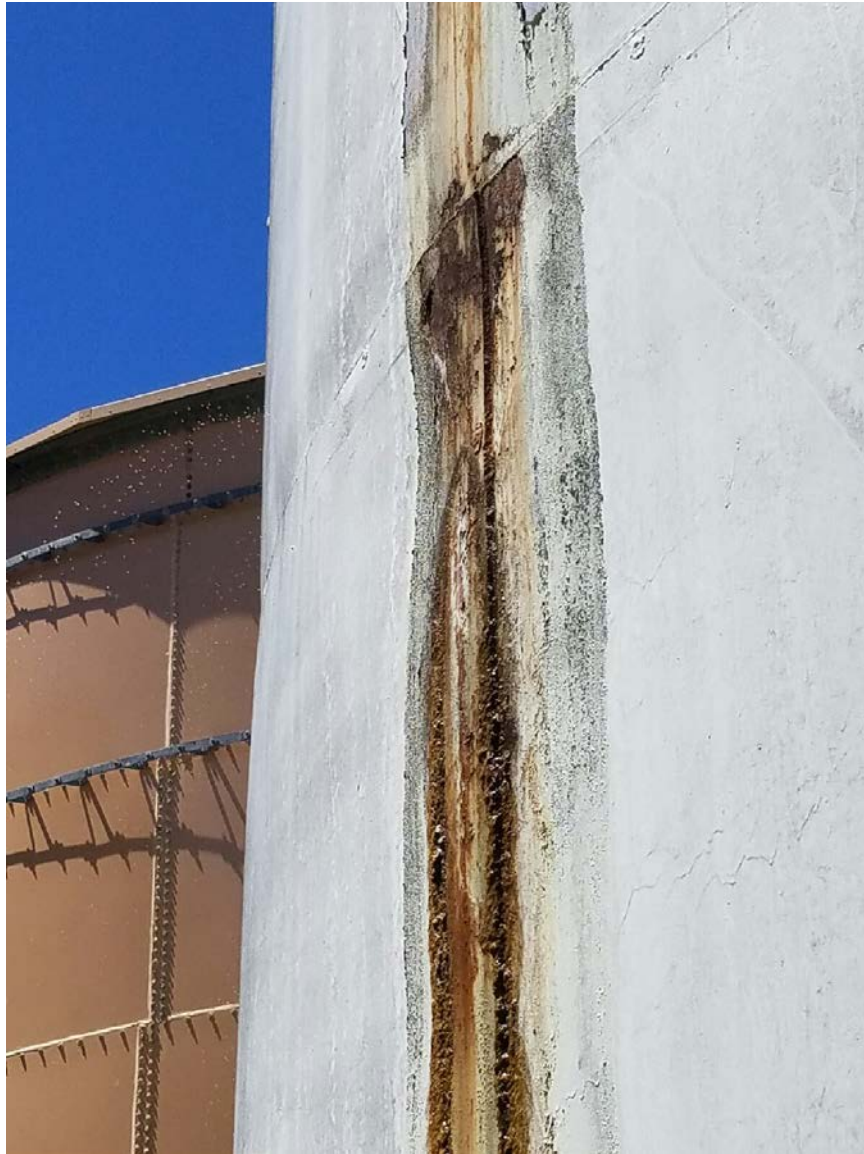
Revised: 11/20/08

ATTACHMENT "C"

EXISTING SITE AND TANK CONDITIONS















Prepared for



City of Ukiah

Engineering Design



*Geotechnical and
Construction Oversight
Services for
PZ2S Water Tank
Rehabilitation/
Replacement Project*



Prepared by:



416000.066
July 2016



Printed on Recycled Paper



Reference: 416000.066

July 27, 2016

Mr. Jarod Thiele, Project Analyst
City of Ukiah, Department of Public Works
300 Seminary Avenue
Ukiah, CA 95482-5400

Subject: Proposal – PZ2S Water Tank Rehabilitation/Replacement Project

Dear Mr. Thiele

It is with great pleasure that SHN Consulting Engineers & Geologists, Inc. (SHN) again has the opportunity to be of service to the City of Ukiah (City) for the Rehabilitation/Replacement of Water Tank PZ2S (Project). SHN's staff of engineers, geologists, surveyors, construction inspectors and construction managers teamed with Potable Divers, Inc. has the unique ability to analyze the existing condition of the PZ2S Water Tank (Tank) and provide a recommendation to the City for the most cost effective and best life cycle target for the completion of the Project.

We propose to initiate work on the Project with Potable Divers, Inc. and our staff performing an in and out of water analysis of the condition of the Tank to assess its future life and ability to perform effectively in the City water system. This assessment will be presented to the City with recommendations for the final determination whether to rehabilitate or replace the Tank. If the decision is to rehabilitate, SHN's team will provide plans, specifications, contract documents, and construction management and inspection for the rehabilitation process. Should the decision be to replace the Tank, our staff will provide geotechnical, survey and engineering services to develop plans, specifications and contract documents for the construction of the Project. In addition, we will provide bidding assistance, construction administration/management and construction inspection to facilitate the completion of the Project on time and within budgetary limits.

Because we are a local consulting firm and of our recent success providing similar services to the City on the North State Street Sewer Main Replacement Project and the breadth of services to be provided by the SHN team, we feel confident that we have the best approach for the successful completion of the project.

Following is a more in depth discussion of our understanding and approach to the requirements of the Project. In addition, our proposal provides the City with a definitive breakdown of the proposed costs including the staff hours and rates for our services. Our cost proposal is a firm offer for a minimum period of 30 days after the submittal date.

Mr. Jarod Thiele

Proposal – PZ2S Water Tank Rehabilitation/Replacement Project

July 27, 2016

Page 2

I, Thomas M. Herman, am a Principal with SHN and am authorized to negotiate a contract with the City and to bind our company to the terms of a contract for the Project. In addition I am the Regional Manager of the Willits office of SHN, located at 335 South Main Street, Willits, CA 95490.

Please review the following proposal and should you have questions or need additional information regarding our approach to the successful completion of the Project, please do not hesitate contact me. We are excited about the opportunity to participate in this important project and, as we have in the past, will provide the City our first priority. We will provide competent and dedicated service for the Project, so put us to work.

Sincerely,

SHN Consulting Engineers & Geologists, Inc.

Thomas M. Herman

Thomas M. Herman
Regional Principal

TMH:alh

Enclosures: Proposal to Provide Engineering Services for the PZ2S Water Tank
Rehabilitation/Replacement Project

PZ2S Water Tank Rehabilitation/ Replacement Project

Proposal to Provide Engineering Design, Geotechnical and Construction Oversight Services

Prepared for:

**City of Ukiah
Public Works Department**

300 Seminary Avenue
Ukiah, CA 95482

July 27, 2016

Prepared by:



Eureka, Redding, and Willits, California
Coos Bay and Klamath Falls, Oregon

QA/QC:

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Project Understanding and Approach

The City of Ukiah is requesting Engineering Services to assist with the assessment of the condition of an existing 150,000 gallon welded steel water tank which is located in pressure zone 2 of the City's water system. The subject water tank is situated on a pad above the municipal golf course with a bolted steel water tank that serves the same pressure zone. These tanks are two of the four major water tanks that provide gravity flow in the water distribution system that serves a daytime population exceeding 35,000 people. The welded steel tank currently has two major leaks that have necessitated the inspection of the tank to analyze the condition of the interior protective coatings, and the degree of metal corrosion that has occurred to date. The initial goal will be to perform an exterior visual inspection of the tank and foundation and a detailed interior inspection of the water tank to determine the feasibility of performing rehabilitation repairs on the existing tank or the need for replacement. Upon formalizing the findings of the inspections the next phase of work will be to prepare contract specifications and plans as needed for the repair or replacement of the tank. Upon award of a construction contract, construction management and inspection services for quality control and contract management during the performance of repairs or new construction will be required.

This proposal identifies how SHN will approach performing the necessary tasks to assist the City with the successful rehabilitation or replacement of the existing 150,000 gallon welded steel water tank. The critical elements of our project approach will

be to perform an initial on-site visual inspection of the water tank and foundation and coordinate the timely inspection of the interior of the water tank. SHN staff would also anticipate meeting with City staff and reviewing existing plans and documentation about the tanks and distribution piping in the vicinity of the pad. We have included a highly experienced sub-consultant that specializes in the inspection of the interior and exterior of water tanks, performing video documentation, and measurements of metal thickness, pitting depths, joint weld integrity, and sampling of metal coating.

The following is the Project Approach and Scope of Services. A more detailed description of services by Potable Divers, Inc. can be found in Attachment A.

Exceptions

SHN has extensive experience contracting with the City of Ukiah and has no exceptions to the terms and conditions described in the Scope of Services.

Scope of Services

Phase One - Tank Assessment

SHN and Potable Divers Inc. will perform the following services relative to the inspection of the existing PZ2S welded steel water tank and foundation, together with the preparation of a Technical Memorandum with comments and recommendations as to the condition of the existing tank. (See Attachment A for a complete description of the services and procedures of Potable Divers, Inc.)

- Conduct initial site visit and coordination meeting with City staff.
- Conduct surficial geotechnical investigation to determine if the existing tank foundation is acceptable for reuse or will require replacement.
- Conduct an exterior visual inspection of the welded steel water tank to determine if a more in depth inspection of the tank's interior is warranted.
- Coordinate an extensive tank inspection to be performed by diving and conducting under water video documentation, thickness measurements, and sampling of coatings.
- Potable Divers Inc. will perform an in-depth inspection of the interior and exterior of the welded steel tank and prepare a report with photographs and video documentation.
- Prepare a Technical Memorandum summarizing the geotechnical investigation and tank inspection, with recommendations for rehabilitation or replacement of the existing foundation and water tank.
- Meet with City staff to review our

recommendations submitted in the technical memorandum.

Phase Two - Preparation of Construction Documents

SHN will perform engineering services for the preparation of plans for rehabilitation or replacement of the existing welded steel water tank, new tank foundation, and associated yard piping, and technical specifications for the bidding of work to be performed as follows:

- Perform a field survey of the water tank pad, the existing water tanks and the existing inflow piping; drain piping, and any water system telemetry.
- Perform a subsurface geotechnical investigation consisting of two test holes for the analysis of soils under the tank pad to facilitate the design of a new tank foundation per the latest building and seismic design codes and American Water Works Association (AWWA) standards.
- Prepare plans and technical specifications based on the recommended alternative noted in the Technical Memorandum.
- Prepare and submit 75 percent plans and technical specifications to the City staff for review and comment.
- Incorporate City comments; prepare and submit 95 percent plans and technical specifications for review and comment.
- Prepare a finalized set of plans and technical specifications for final approval and advertising for bids.
- Prepare a detailed bid schedule with

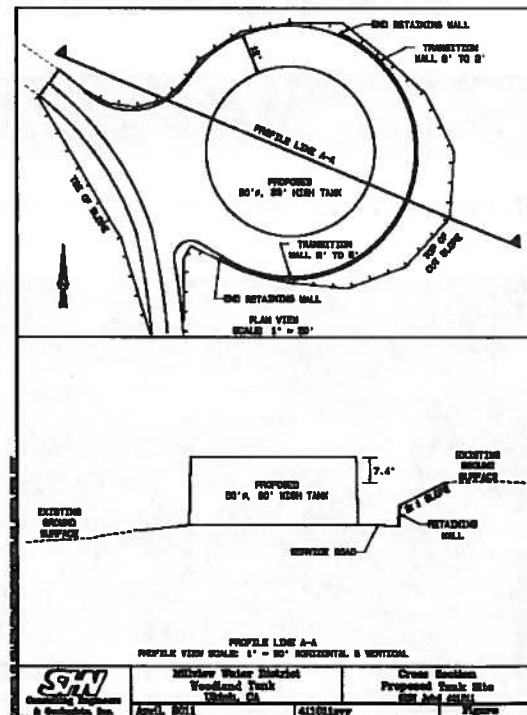
- quantities for incorporation into the contract documents.
- Prepare a detailed engineer's opinion of cost of the water tank improvements.
- Provide one set of reproducible Mylar plans and one copy-ready set of contract documents and technical specifications.
- Provide one copy of contract documents, and plans and specifications in digital format.

Phase Three - Bidding Assistance, Inspection, and Construction Management

SHN will provide the City with assistance during bidding of the construction project, perform construction inspection, materials testing, and construction management during construction of water tank improvements as follows:

- SHN will provide services during bidding to answer technical questions and requests for information, as directed by the City.
- Prepare a draft addenda as required for the City for distribution to bidders
- Review bids received and provide recommendations to the City
- Conduct a pre-construction conference with the Contractor awarded the project.
- Review submittals provided by the Contractor.
- Provide daily inspections during the course of the project and coordinate with the City and the Contractor.
- Maintain a field record of any modifications to the contract drawings.

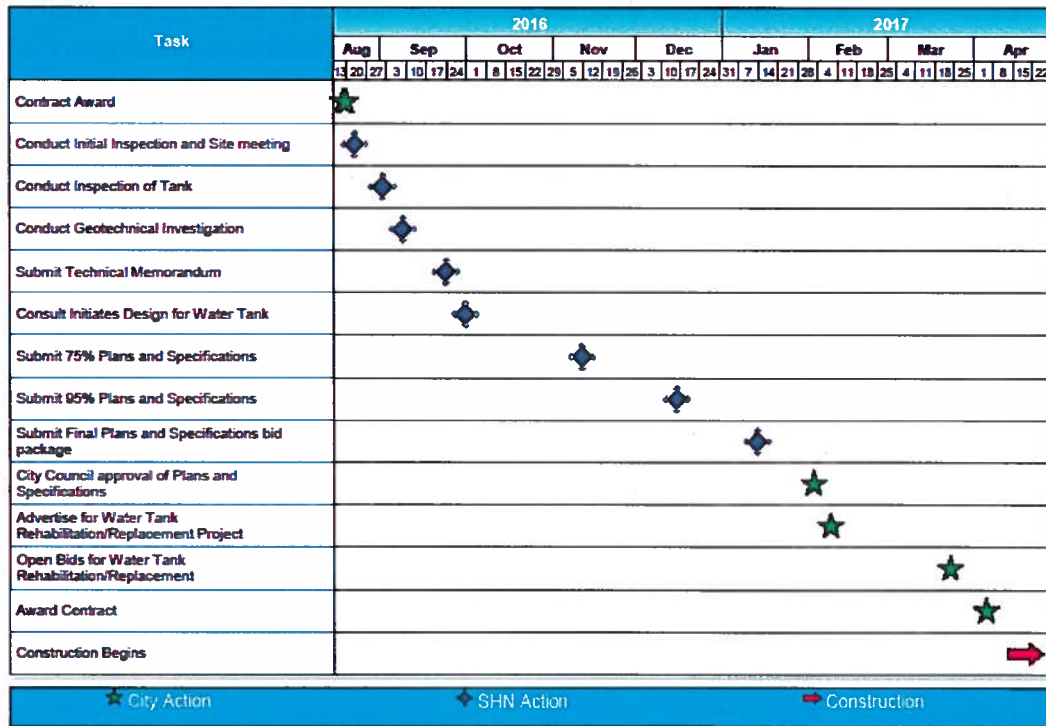
- Review certified payroll documentation provided by the Contractor to assure that they are in compliance with State and Federal labor laws and provide to the City at close of project.
- Review progress payment invoices submitted by the Contractor and make recommendations for payment.
- Provide materials testing as needed during construction of the water tank and foundation.
- Provide copies of inspection and testing reports to the City for their records.
- Provide one set of reproducible Mylar "AS-BUILT" drawings after the completion of the construction project.



SHN provided geotechnical investigation and topographic mapping to Millview County Water District for the Woodland water tank replacement site.

Schedule

**Schedule
City of Ukiah Water Tank Project**



Fee Proposal

SHN proposes to complete the work on an hourly rate with a "not to exceed maximum" cost for each Phase.

Phase 1	- Perform an inspection of the existing PZ2S welded steel water tank and foundation. - Prepare a Technical Memorandum with comments and recommendations as to the condition of the existing tank.	\$ 8,614
Phase 2	- Prepare plans for rehabilitation or replacement of the existing welded steel water tank, new tank foundation, and associated yard piping - Prepare technical specifications for the bidding of work to be performed.	\$ 37,008
Phase 3	- Provide assistance during bidding of the construction project. - Perform construction inspection, materials testing. - Construction management during construction of water tank improvements.	\$ 30,850

See Attachment B for a full breakdown of costs and man-hours budgeted for each team member. An itemized hourly rate schedule can be found in Attachment D.

Project Manager Qualifications

Thomas Hunt, PE, PLS

**Project Manager and Senior Civil Engineer
(50% Project Availability)**

A California-licensed civil engineer, Mr. Hunt has more than 28 years of experience providing civil engineering for public and private development projects in Lake and Mendocino Counties. He has served as the Project Manager or Project Engineer for design, analysis, construction inspection, and contract administration on many public works, commercial, and large residential development projects, roadway and pedestrian enhancement projects, together water system design, and treatment plant improvement projects.

For this project, Mr. Hunt will serve as the Project Manager and he will be responsible for overseeing field work and ensuring that the preparation of the deliverables and Feasibility Report meets the City's requirements and schedule. Mr. Hunt will be SHN's primary contact for the City and other stake holders involved with the project and as a resident of the City of Ukiah he will be immediately available. He will maintain tight control on the schedule to ensure that the SHN team meets the project submittal deadlines.

One of Mr. Hunt's strengths is his ability to work with the various agencies associated with the project. His local knowledge, problem solving ability, attention to detail and quality control, and project leadership will be key to the successful completion of this project.

SHN considers the City's proposed PZ2S Water Tank Rehabilitation/Replacement to be a priority project, and Mr. Hunt will assure a significant commitment to this project. His projected availability will be at 50%.

Spring Valley Water Treatment Improvement Clearlake Oaks, CA

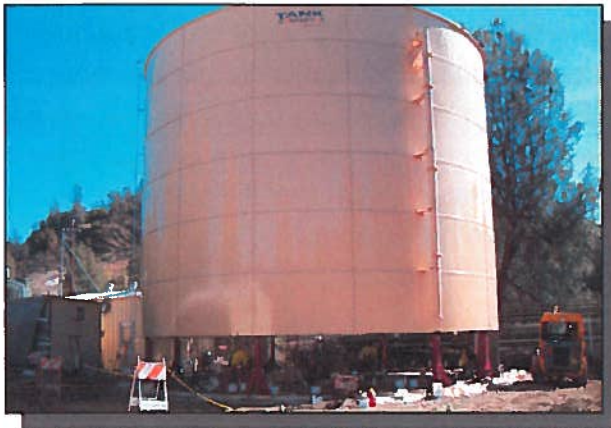
Mr. Hunt provided project management of consultant teams and design during the preparation of the mapping, design, plans, and technical specifications and contract documents for Water Treatment Plant Improvements for CSA #2 Lake County Special Districts.

Mr. Hunt prepared the site mapping, yard piping and underground conduit layout for the treatment plant, and performed design and prepared details of the foundation for a 375,000-gallon bolted steel water tank. He also prepared the project cost estimate and construction documents that were approved for bidding and construction by State of California Department of Water Resources, Division of Drinking Water (DDW). During the bidding phase, Mr. Hunt was responsible for posting of documents on the Builders Exchange Websites for contractor review. All contractor bid questions were coordinated with consultant team members and answered by Mr. Hunt.

During the construction phase, Mr. Hunt conducted bi-weekly construction inspection, quality control testing, contract administration, and led regularly-scheduled contractor conference calls or site meetings. Upon completion of this project and inspection approval by Sheri Miller, an engineer from DDW, the final project construction cost after value engineering negotiations, extra work, and change orders was less than the original construction bid.



Water tank foundation concrete placement activities for the Spring Valley Water Improvement project.



The new 375,000-gallon bolted steel water tank installation. Funding for this project was a 100% grant from the State of California Clean Water Act Revolving Fund.

Project Relevance:

- Project Management of water system improvements project
- Successful completion of State of California-sponsored grant funding
- Mapping, design, plans, and technical specifications
- Coordination with and approval by DDW

Project Contacts:

Mark Dellinger, Administrator
 John Sparks, Superintendent
 Lake County Special Districts
 707-263-0119
mark.dellinger@lakecountyca.gov
john.sparks@lakecountyca.gov

Bell Hill Road Water Main Improvements Kelseyville, CA

Mr. Hunt provided design and project management for the plan preparation; and prepared technical specifications, and contract documents for the water main upgrade between Bell Hill Road and Oak Park Court for the Kelseyville Water Works No. 2, Lake County Special Districts.

The water main upgrade consisted of using a 10-inch high density polyethylene (HDPE) welded pipe to replace the existing 6-inch AC pipe under State Highway 29, and connect to an existing main in Bell Hill Road with a new 8-inch main to replace an old 6-inch AC pipe and 4-inch steel pipe that had been abandoned due leaking.



Welded HDPE water main pipe to be installed underneath Highway 29 for the Bell Hill Road project.

Main Street Water Main Improvements Kelseyville, CA (2012)

Mr. Hunt performed design and prepared plans and contract documents for water main upgrade on Main Street for the Kelseyville Water Works Lake County Special Districts.

Project Relevance:

- Project Management of water main improvements project
- Water main upgrade because of old and poorly performing water infrastructure

Project Contact:

Stan Schubert
Lake County Special Districts
707-263-0119
stan.schubert@lakecountyca.gov

Project Relevance:

- Design, plan preparation, and contract documents of water main improvements project

Project Contact:

Stan Schubert
Lake County Special Districts
707-263-0119
stan.schubert@lakecountyca.gov

Team Qualifications

This section briefly details the proposed project team. Team resumes which show total years of experience and years experience with SHN are included as Attachment C.

John Dailey, PE, GE
Project Geotechnical Engineer
(10 % Availability)

Mr. Dailey has more than 40 years of experience in geotechnical, civil, and environmental engineering while working with federal, state, and local regulatory agencies, as well as the private sector. His experience includes project management, subsurface geotechnical and environmental investigations, site remediation, plan and procedure development, specification and bid preparation, permitting, and subcontractor selection.

Mr. Dailey's field experience includes excavation and drilling for geotechnical and environmental investigations, including soil and groundwater sampling; monitoring well design and installation; field and laboratory soil testing; and design and installation of remediation systems, including soil vapor extraction, pump and treat, and ozone sparging. Mr. Dailey has also performed investigations of landslides and structural damage due to landslides, settlement, undermined foundations, expansive soils and pavement evaluation and rehabilitation, with recommendations for repair to damage and correction of causes.

Jared O'Barr, PE
Project Engineer
(20% Project Availability)

Mr. O'Barr has more than 8 years of engineering, construction management, and inspection experience. His engineering expertise includes the design of water tanks, floating docks, foundations, site civil, as well as slope stability analysis. He is proficient with AutoCAD® drafting and design and has extensive field testing experience.

Matthew Herman, PLS
Project Surveyor
(20 % Project Availability)

Mr. Herman has extensive experience providing land surveying, civil engineering and planning services throughout the California North Coast, as well as serving 3 years as a field surveyor for the U.S. Army. He has been the responsible surveyor in charge of field crews involved in collecting and processing raw field data into boundary, utility, and topographic maps. He was also involved in acquiring data and preparing the City of Willits Geographic Information System. Mr. Herman participates in construction staking, topographic mapping, boundary determination, record searches and deed preparation, analyzing and preparing Subdivision Maps and Record of Surveys performed by Willits staff.

Steve Peckham
Project Construction Inspector
(50 % Project Availability)

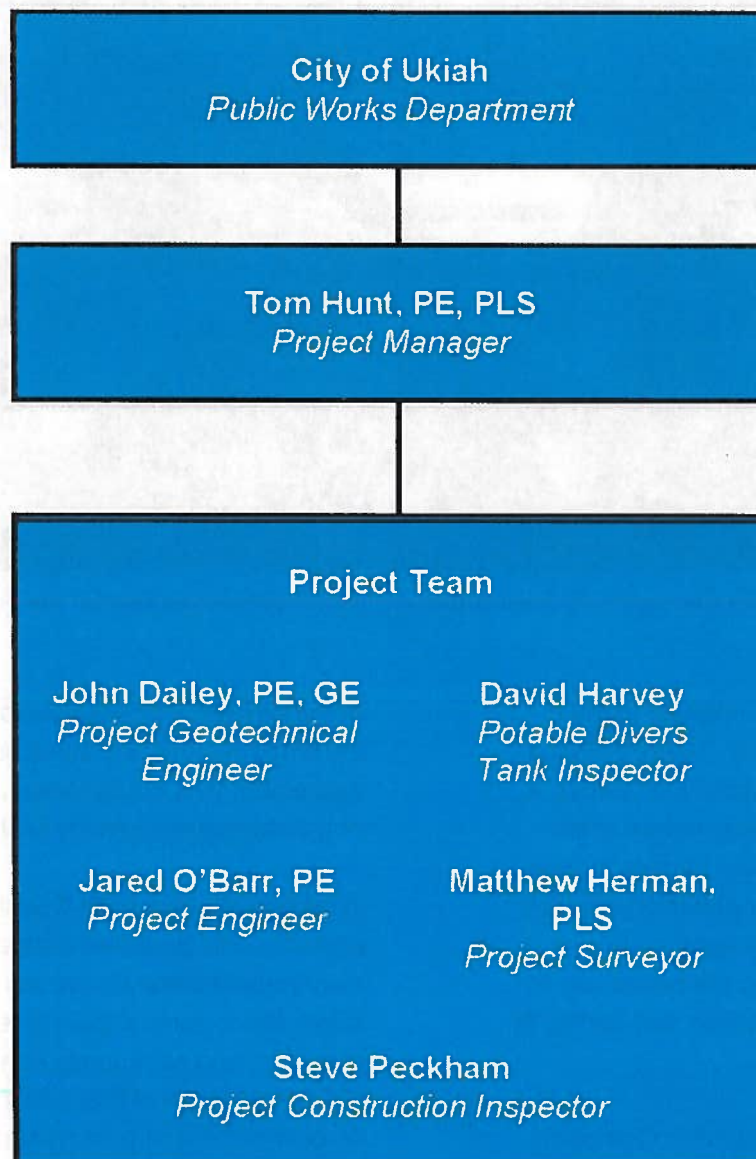
Mr. Peckham has more than 36 years of construction experience including installation of utilities, supervising construction crews and inspection of public works projects. Steve's areas of inspection expertise are underground water and sewer system projects, repair and reconstruction of roadways and sidewalks. Mr. Peckham has a strong background in construction materials such as aggregate base, concrete, asphalt and general building experience and is proficient in reading plans and specifications.

David Harvey
Tank Inspector

Mr. Harvey has over 16 years of experience as owner/operator of Potable Divers, Inc. Proficient in providing cleaning, inspection and repairs in steel, concrete and redwood reservoirs ranging in size from 5,000-20 million gallon water tanks. Mr. Harvey has the experience, ingenuity and equipment to complete the most difficult underwater challenges.

Organization Chart

SHN realizes the success of any project depends primarily on the capabilities and attitudes of the people assigned to the project. SHN has assembled a group of highly qualified staff, with proven capabilities and documented experience in working together and on complex multi-discipline projects. The project team is looking forward to ensuring that the City of Ukiah's PZ2S Water Tank Project is a success. Below is the team's organizational structure



Relevant Project Experience

Formation of the Community Services District, Subdivision, General Plan Amendment, Rezoning, and Water System Replacement of a Former Company Town
Town of Scotia, CA
(2005 – Ongoing)



SHN planning efforts laid the framework for the eventual complete utilities overhaul for the Town of Scotia.

Scotia is one of the last company lumber towns. The present owner, Town of Scotia, LLC (formerly Pacific Lumber Company), is trying to maintain its historic nature while subdividing it into individual parcels for sale to individual owners and for provision of public utilities and facilities. A general plan amendment and rezoning are necessary to change land use designations and zoning to match existing land uses.

On behalf of the Pacific Lumber Company, SHN participated in several scoping meetings with the City of Rio Dell to discuss possible annexation. This involved reviewing preliminary engineering and zoning to

determine the potential feasibility of combining the infrastructure and services. Ultimately, an agreement was not achieved, so the formation of a Community Services District was pursued.

Working with Humboldt County as the lead agency, SHN prepared draft and final program environmental impact reports (EIRs) for the subdivision, general plan amendment, rezoning, and community services district (CSD) formation of this existing company town. As part of the analysis, SHN conducted several special studies, including a traffic analysis, geologic hazard evaluation report, and an environmental sound assessment to measure the existing level of service (traffic)

**Town of Scotia
(continued)**

and non-conformance with existing noise sources from the mill. SHN also worked with historical resources specialist, Gerry Takano, to address the unique historical resources that are associated with a former company town. The goal was to create design guidelines and a combining ordinance to preserve the unique social character of Scotia, while establishing flexible guidelines that would allow the continuing operation and maintenance of this former company town.

During the planning process, SHN prepared a detailed engineering analysis of infrastructure for incorporation into the municipal service review (MSR) and sphere of influence (SOI) prepared by SHN's engineers and planners. The municipal review prepared by SHN outlined the process of determining which services would be provided by the Scotia CSD.

SHN's multidisciplinary team of planners and engineers worked with agency staff to accomplish project approvals throughout the project. In November 2009, the Humboldt County Board of Supervisors unanimously approved the tentative subdivision map, rezoning, general plan amendment, planned development permit, urban boundary expansion, and certified the Program EIR. In September 2010, working with the contract Executive Officer, Pacific Municipal Consultants, the Local Agency Formation Commission approved the formation of the community services district.

This project includes replacement of 11,000 lineal feet of water distribution system and replacement of water supply pumps. Since the planning approvals in 2009 and 2010, SHN has been working on modeling infrastructure (water, stormwater, and wastewater) and preparing plans and specifications for construction of improvements to address realigned utilities to the public rights-of-way. These improvements are proposed in phases; once the construction of these facilities has been completed and the subdivision recorded, the sale of individual parcels will commence.

SHN provided construction management and oversight of the first phase of construction and the current phase in 2016.

Project Relevance:

- Complete infrastructure overhaul of a community's wet utilities
- Program Environmental Impact Report
- Analysis of impacts to infrastructure
- Civil engineering design
- LAFCO
- CEQA
- Municipal Service Review
- Sphere of Influence

Project Contact:

Frank Bacik, President
Town of Scotia, LLC
707-764-4131
fbacik@townofscotia.com

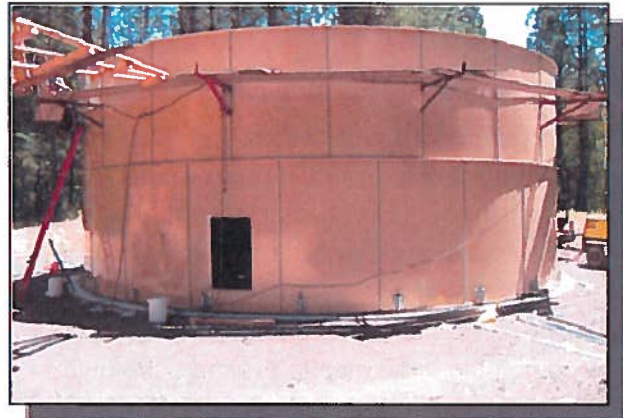
Sherwood Valley Rancheria Northern Circle Indian Housing Authority

SHN provided consulting services for infrastructure and roadway design, construction drawings and specifications to serve 15 residential sites of the Sherwood Valley Pomo Eastside Road Development Project. The work included planning, grant funding assistance, site investigations, studies, and design activities.

The design included water production and storage system, including well head improvements, water treatment system, and 75,000-gallon epoxy coated steel bolted water storage tank, and all piping, appurtenances and controls; water distribution system including water service lines and meters, hydrants, and all piping, appurtenances and controls; sewage collection system including collection main, laterals, septic tanks, sewage lift station, and all piping, appurtenances and controls; sewage treatment and disposal system including wastewater treatment equipment, wastewater disposal mound, and all piping, appurtenances and controls; CMU block treatment building; and two emergency backup generators, automatic transfer switches and fuel tanks, and all piping, wiring, appurtenances and controls.

Design also included cut-and-fill earth grading activities for the access road, future building pads, and drainage features; culvert piping; inlet and outlet structures; and the realignment of the existing access road to neighboring parcels. Utility work included design of joint utility trenches including primary and secondary electrical conduits and service connections, streetlight conduits and foundations, phone conduit, cable TV conduit, and service risers. Erosion control work included design of sedimentation ponds, preparation of the project Stormwater Pollution Prevention Plan (SWPPP) and related work.

SHN was responsible for obtaining permits and the improvement plans and specifications for this 15-unit subdivision project. This included plans and specifications for erosion control,



Installation of Sherwood Valley Rancheria's new 75,000 gallon epoxy coated steel bolted water tank

grading and drainage, on-site wastewater disposal facilities, water distribution system, fire protections system, and road design in compliance with Bureau of Indian Affairs.

Project Relevance:

- Water Production and Storage
- Plans and Specifications
- Civil engineering design
- Construction Inspection

Project Contact:

Darlene Tooley, Executive Director
Northern Circle Indian Housing Authority
695 Pinoleville Drive
Ukiah, CA 95482
707-468-1336

Woodlake Water Tank Millview County Water District



SHN performed topographic survey and geotechnical evaluation for a proposed new water tank for Millview in the Deerwood Subdivision in Ukiah.

Project Relevance:

- Geotechnical report
- Recommendations for site development
- Topographic survey of tank site

Project Contact:

Millview County Water District
3081 N. State Street
Ukiah, CA 95482

Irish Beach Water Tank Replacement Irish Beach Water District

SHN provided field investigation, laboratory testing and the preparation of a geotechnical report for the replacement of a 40-year old tank with a new 210,000 gallon tank in the same location.



SHN's field inspection included the drilling of two geotechnical borings on the outboard edge of the tank site. A small track-mounted drill rig was used due to limited accessibility.

Project Relevance:

- Geotechnical Investigation
- Tank Foundation Design

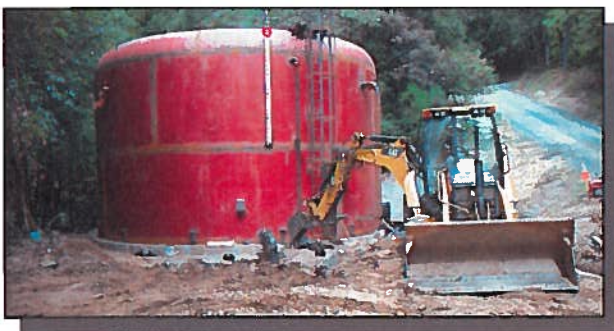
Project Contact:

Charlie Acker, Operations Manager
Irish Beach Water District
P.O. Box 67
Manchester, CA 95432
707-877-1800

Phillipsville Water System Improvements Humboldt County, CA

In order to comply with safe drinking water standards, provide emergency storage capacity, and meet an expected increase in demand, upgrades to the existing Phillipsville water transmission, treatment, and storage facilities were necessary. The project involved rehabilitation of the existing supply well; replacement of the force main from the well pump to the new storage reservoir; rehabilitation of the primary water source springhead to prevent contamination by installing an impervious geo-membrane cover; installation of a new 5,000-gallon chlorine contact basin and bag filter treatment system at the treatment site; construction of a new 140,000-gallon reservoir for additional storage and peak service demand; installation of a new buried pipeline from the treatment site to the new storage reservoir site; and replacement of the transmission lines, water services, and related components along several local roads and the Avenue of the Giants.

Work on the project also included coordination with SHN's engineers to avoid sensitive habitats and coordination with funding and approving agencies, including the California Department of Public Health.



SHN provided services to help complete various water systems improvements, which included the installation of a new 140,000-gallon reservoir.



Phillipsville Community Service District's new water reservoir, after repainting.

Project Relevance:

- Project completed on time and within budget
- Mitigated Negative Declaration
- California Department of Public Health (now Division of Drinking Water) approval
- Stable, continuous flows to system
- Compliance with current State of California water works standards
- Project subject to State and County regulatory review
- Coordination with funding agencies

Project Contact:

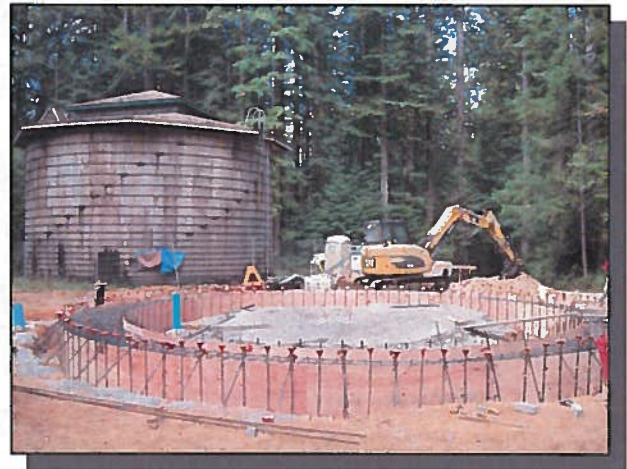
Tom Lasbury, Operator
Phillipsville Community Services District
707-943-3959
lasbury@asis.com

Arcata Water Storage Tanks City of Arcata, CA

SHN first conducted a general evaluation of four potential sites for two new water storage tanks for the City of Arcata. Because of site-specific complexities, which included timber harvesting, land acquisition, foundation requirements, environmental permit compliance issues, and contractor ease of access and staging, SHN was able to eliminate two of the proposed sites quickly. SHN then needed to locate a third site for an emergency replacement tank; consequently,

SHN conducted an in-depth evaluation of the three viable sites:

1. Upper Panorama Court 250,000-Gallon Tank. Site constraints include tank placement and construction staging, potential conflicts with high voltage transmission lines, young trees in the Community Forest need to be cut, and site access.
2. Lower Panorama Court 750,000-Gallon Tank. On hold, pending project funding.
3. Emergency Replacement California Avenue Tank No. 7 Water Storage Tank. SHN designed a new 150,000-gallon reservoir for the replacement of the deteriorating redwood storage tank where staves were rotting and the interior liner was pushing outward. Tasks included determining site layout, working with City staff for defining tank and accessory components, site geotechnical evaluation, site survey, tank design, and preparation of bid documents. Construction was completed in 2012.



SHN designed a new 150,000-gallon reservoir to replace the deteriorating redwood storage tank. Construction activities for the replacement tank are pictured in the foreground.

Project Relevance:

- Rural county community water tank project
- Completed on time and within budget
- Site layout and tank design
- Preparation of bid documents
- Division of Drinking Water (formerly California Department of Public Health) involvement
- Compliance with current State of California water works standards

Project Contact:

Karen Diemer, Assistant Director
Environmental Services Department
City of Arcata
707-825-2200
kdiemer@arcatacityhall.org

Firm Qualifications



This project will be managed from SHN's office located in Willits, California.



SHN Engineers & Geologists,

is a science-based consulting firm providing civil engineering (including water-related), planning and permitting, geosciences, surveying, and environmental services throughout Northern California and Southern Oregon. Founded in 1979, SHN is comprised of more than 90 professional engineers, planners, regulatory specialists, geologists, environmental scientists and surveyors

SHN Overview

- SHN Consulting Engineers & Geologists, Inc., was founded in 1979.
- SHN is a C Corporation and a Certified California Small Business Enterprise
- Five regional offices (Eureka, Willits, Redding, CA; Coos Bay & Klamath Falls, OR).

SHN Knows Water

SHN has accumulated a vast amount of water system experience in a variety of fields including groundwater investigations, source and supply expansion, water system modeling and analysis, design water storage facilities, water treatment plant analysis and design, surface water intake design, water line design, and planning and permitting of water-related projects. Our recent experiences have kept us abreast of current in-water work restrictions, permitting requirements, raw water pumping requirements, and the complex nature of river way construction. In short, we know water, and our array of technical expertise can identify solutions that lead to project success.

SHN has provided municipal water supply services throughout northern California and southern Oregon for over 30 years.

Subconsultant Qualifications

With several dive teams located in the western states, and a dive team dedicated only to emergency responses we can be anywhere in the 12 western states in 24 hours or less.

PDI complies with all AWWA, and OSHA standards and requirements. We are insured, licensed, and bonded, and will comply with the insurance and indemnity terms without exception.

The combined staff has more than 35 years of experience, in the last year alone Potable Divers has serviced over 100 different clients ranging from Colorado to California, projects consisting of potable water reservoir cleaning, inspection, repair, cathodic protection installation and maintenance, dredging river intakes, inspection and rehabilitation of those intakes, dam gate, valve and stem retrofitting, dam trash rack removal and cleaning and general inspection, sediment removal and disposal in pipelines, vessels, and water tanks. With experienced office and diving staff Potable Divers is available 24/7, with a dive team dedicated only to emergency response we can be anywhere in the twelve western states within 24 hours, or less.

All divers are ACDE certified having graduated from an accredited school with a minimum of 700 hours of training, in addition to first aid, CPR, oxygen administration. Divers are certified in NACE and ASNT NDT, and with the American Concrete Institute. Divers are required to have these certifications with them at all times while on the job site. All our services are provided with unbroken color video, color photos, and uninterrupted voice communications. We offer our clients the ability and convenience of leaving their facilities on line, and in full service without interruption, while we clean the floor, walls, support columns and appurtenances.



Subconsultant's References

City of Newport Beach

100 Civic Center Dr.
Newport Beach, CA 92660
Mr. Casey Parks
714-717-7608

Valley Center Municipal Water District

29300 Valley Center Rd
Valley Center, CA 92082
Mr. Chris Kratz
760-522-5651

Groveland Community Services District

18966 Ferretti Rd.
Groveland, CA 95321
Mr. John Sterling
209-962-1761

City of Yuba

1201 Civic Center Blvd.
Yuba City, CA 95993
Mr. John Westhouse
530-822-4637

City of Gilroy

7351 Rosanna St.
Gilroy, CA 95020
Mr. Dan Aldridge
408-846-0271

West Kern Water District

800 Kern St.
Taft, CA 93268
Mr. Doug Jameson
661-763-3151



A Final Word

SHN has a long history of working with communities like the City of Ukiah. We pride ourselves on being a valuable part of the consultant/community team. It is always our goal to provide our clients with a thoughtful and practical project approach that maximizes effectiveness and yet is sensitive to budgetary constraints.

We trust that our proposal is consistent with the Project requirements and goals. We are proud to have the opportunity to again work

with the City on this important project. Our relationship with our clients is foremost in our approach to project development and implementation, so please consider our proposal and should you have questions about our project approach or our cost analysis we are always willing to entertain potential change in project scope and budget.

Thank you for your consideration...

Please put us to work!

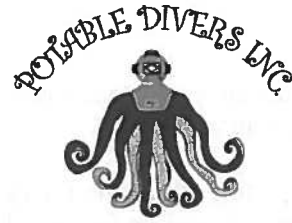
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Potable Divers, Inc.

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2.0 PROCEDURES FOR PERFORMING SERVICES

2.1 METHOD OF APPROACH



Scope of Work:

The inspection of each tank will include the extent of coating and materials deterioration, area by area within each structure. The principle areas of consideration are the roof, the exterior wall and appurtenances, the interior underside of the roof and supporting columns and the non-immersed areas of the interior wall and appurtenances. To perform a complete inspection of the floor, cleaning of the sediment accumulation up to 1" in depth from the tank floor is highly recommended. Video documentation of the floor will be obtained prior to cleaning, which will indicate the amount of silt and sediment present. During the time of inspection, Water personnel shall raise and maintain water level to near overflow. This allows the divers headroom, yet enables easy access to document the interior roof, columns, etc. Interior inspection, both over and underwater, will be conducted to determine coating condition of the tanks' interior walls, roof beams, columns, ladder, interior coating, depth monitoring equipment, cathodic protection equipment, etc.

Tank interior air sampling shall be performed and PDI confined space entry permit(s) will be completed prior to diver entry to the tank. Diver(s) shall be decontaminated per ANSI/AWWA C652-02 prior to entry.

A hi-resolution color video camera will be attached to the divers helmet and monitored at the surface dive station by the dive supervisor and, if desired, by representatives of the Water company. Direct communications with the diver will be maintained at all times.

Potable Divers Inc will offer the color still-photographs and video. Accordingly, information will be documented using a separate color videotape. However, CD, or DVD format are available at the Clients' option.

A typed report will be generated on the team's findings referencing video related inspection information to location diagrams and an inspection overview. The report will include the existing condition of the interior and exterior of each reservoir and provide recommendations for repairs, if necessary and an evaluation of ongoing maintenance needs.

Safety Program:

Included for your review is a very brief summary of our safety policies and practices manual, this is due to the size and volume of the 300 plus page manual. A complete manual is available at each job site for the clients review.

The Policy of Potable Divers Inc, herein after called the "Company", is to maintain the highest standards for the Safety and Health of all the Company employees and to conduct all activities with appropriate safeguards against exposure of the general public to risks against their safety and health. In order to meet this criterion the Company provides and maintains safe and healthy working conditions, equipment, and safe systems of work for all its employees, and to provide such information, training, and supervision, as they need for this purpose.

The Company accepts its obligations to seek to reduce the incidence of accidents, dangerous occurrences and hazards to the safety and health of its employees and other people who may be affected by our activities.

The Company requires that all employees shall regard safe working as a prime objective and take all possible steps to achieve it. Safety is the condition for the protection of life, property, and/or equipment against failure, breakage, or accidental loss. To aid in achieving this objective, every person involved must realize the

potential consequences of accidents and comply fully with the Company Safety Procedures and applicable legislation.

In putting this Safety Policy into practice, the Safety Group is authorized to require the cessation of work where they deem Safety to have been compromised.

Potable Divers Inc is totally committed to SAFETY; it is the primary priority of the Company and shall not be compromised. The management and staff of the Company have adopted a "multi-faceted approach" to safety management in order to provide and maintain a safe and healthy working environment on all operations, while ensuring the objectives of the operation are achieved efficiently and with a minimum of risk to personnel.

In order to implement these goals, various policies, procedures, and guidance are promulgated in Company manuals. It is the intent that the Diving Operations Manuals will provide Codes of Practice for all Potable Divers Inc diving operations and it is a mandatory requirement that all personnel involved with diving operations familiarize themselves with the instructions contained therein.

Where National or Local Government legislation exists applicable to diving operations, it is intended that the procedures and practices quoted in the Diving Operations Manual will take precedence to the Government legislation, only in circumstances where the company policy is more stringent.

The wide scope of diving operations and variety of equipment used inevitably means those specific instructions for every situation and circumstance is not possible. These instructions, however, form the basis from which every operation will develop its individual procedures applicable to that operation.

Supervisors are directly responsible for the implementation of these policies and are to ensure that no unjustified deviations occur.

All personnel working on Potable Divers Inc diving operations will, in addition to any statutory obligation, comply with these policies except where authorized dispensation has been given.

No person may willfully, or without reasonable cause, do anything liable to endanger the safety of themselves, other personnel, plant, or equipment.

Diving is a potentially hazardous occupation, which requires constant alertness, discipline, and dedication to ensure the safety of all concerned.

Any persons discovering a hazard or equipment malfunction at their work place must report the fact immediately to their supervisor, who will report it to the Safety Department if necessary.



2.2 DOCUMENTATION OF STORAGE TANKS, PROPERTY, AND CATHODIC PROTECTION

All findings found are documented before, after, and during cleaning and inspection on the video report as well as still photos. Items to be documented will be any area of concern, corrosion, holidays, cracking, blistering, pitting, inconsistency, all tank/reservoir plumbing, fittings, joints, seams, columns, panels, interior coating, floor plates/bases and so forth. A video in a format chosen by the client such as DVD, VHS, SVCD, CD, will be provided as part of the report along with still photos, and a computer generated report of all findings. Video and audio will be live while the diver is in the water this is for the divers' safety as well as the clients' convenience.

Video camera is mounted to the divers' helmet, to provide uninterrupted video for the topside personnel. The video camera has high resolution and fixed focus technology with lighting. Inspection will begin at the 12:00 o'clock position and will proceed with the inspection in a clockwise manner.

3.0 EQUIPMENT

3.1 VACUUM-CLEANING HEAD

For the last few years Potable Divers Inc. has put a lot of time and research into our underwater vacuum system, saving our clients more time, water, and money. Our system being made of glass gives us several unique capabilities, glass can be decontaminated more efficiently than a porous metal, glass also allows our clients and our divers to observe both inside and outside the vacuum system, thus assuring the floor is completely cleaned during the "scrubbing" process with the brush. The "scrubbing" process is the most critical part of the cleaning, as experience has proven the vacuum system must be able to provide adequate power for the scrubbing process. Suction driven and in some cases motor driven vacuum heads do not provide adequate power when introduced to heavier sediments such as mud, sand, or clay. Even small amounts of silt and small debris (such as rocks) can cause the brush to slow down not providing the vigorous scrubbing needed to remove the bacteria bio film that lives under the sediment. Potable Divers' proprietary vacuum has the capability to be controlled by the diver and/or top side personnel to increase the power of the vacuum-cleaning head. To make sure the brushing is adequate it is observed through the glass housing by our divers as well as our clients, and can be adjusted accordingly. The brush can be controlled to revolve from 50 revolutions per minute to 5000 revolutions per minute. The proprietary vacuum system was designed to create no turbidity, as all sediment is enclosed in the glass housing and removed with high power suction as it is vigorously brushed.

3.2 DIVERS EQUIPMENT

1. All equipment and clothing used is dedicated to potable water.
 - A. Equipment and clothing used is stored in a manner that prevents both chemical and bacteriological contamination.
 - B. Dive hoses "umbilical's" will be hydraulically twisted or of braided construction using no tape or other adhesives.
 - C. Only dry diving helmets will be used.
 - D. Only vulcanized rubber dry suits will be used, free from tears, scrapes, and un-repaired areas of other imperfections that may impair the integrity of the suit. Dry suits shall be variable volume with push button air inflation and shall have automatic over-inflation/exhaust valve.
 - E. Only surface supplied air equipment shall be used, with a secondary bottle back up with 8 hour minimum storage capacity. Accompanied by a diver carried back up bottle.



2. Disinfection of all Equipment

- A. All equipment used will be disinfected using a minimum of 200ppm+ Chlorine immediately prior to entering system
- B. Method of equipment disinfection will be spraying with and/or scrubbing disinfection solution.
- C. The disinfection solution shall have a minimum of 200mg/L free available chlorine. The strength of the disinfectant solution shall be verified with a HACH model CN21P 10-200 mg/L Chlorine test kit.

3.3 VIDEO AND VOICE COMMUNICATION EQUIPMENT

1. Communications

- A. Communications between divers and tender shall be by full time four way conference hardwired systems with two way push to talk hardwire system as a backup.

Never will a push to talk be used as a primary communications system.

2. Video Recorded on DVD HDD

- A. Uninterrupted video will ensure the quality of the water and cleaning procedure is satisfactory.
- B. Helmet mounted video Cameras with adequate lighting have infinite focus as to show the entire view of the tank as to make sure all areas are cleaned.
- C. Video is high resolution color video with real time imprint and time log so areas of concern are easily identified.
- D. Video is narrated live by divers, on-site support personnel, or by client personnel at time video is recorded.
- E. Still color photos will have time stamp on them as to refer to the location on the video.

3. Dive Hat

- A. Only on demand breathing hats mated to the dry suit with positive pressure will be used. This is to reduce background noise caused from free flow hats and to ensure diver safety.

4.0 REPAIR, UNDERWATER COATING PROCEDURES AND MATERIALS

Potable Divers Underwater coating procedures are performed in accordance with SSPC-SP-1 being wire brushed with a pneumatic die grinder down to white metal. Special consideration for underwater environments and the surrounding intact coating shall be feathered and abraded to provide an anchor profile for the epoxy. The epoxy is applied in accordance with the manufactures specifications being applied by brush and or roller techniques at 8-10 mils thick.

Epoxy Specifications

AquataPoxy™ A-6 and AquataPoxy A-6 Thick are solvent-free, 100% solids, corrosion resistant epoxy coatings that can be applied to dry or wet surfaces. Formulated for broad range corrosion protection as well as certified safe for potable water (NSF/ANSI Std. 61)

NSF: AquataPoxy A-6 and A-6 Thick are certified to the requirements of NSF/ANSI Standard 61-Drinking Water System Components.

USDA: AquataPoxy A-6 and A-6 Thick are acceptable as coatings for application to surfaces where there is a possibility of incidental food contact.

AWWA: AquataPoxy A-6 and A-6 Thick meet the physical and performance requirements of ANSI/AWWA C 210-92, "Liquid- Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines".

Hydroactive Grout

A NSF approved hydroactive grout can be injected into concrete voids and cracks. The grout when mixed with water expands and fills cracks and voids giving strength back to the concrete and sealing the concrete. Divers can inject the grout underwater into these voids; the grout can also be injected from the outside of the tank into cracks on the roof and walls.



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Cost Proposal

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City of Ukiah Water Tank Project - Cost Proposal
SHN Consulting Engineers & Geologists

			PRINCIPAL	SR. CIVIL ENGINEER PROJECT MANAGER	GEOTECHNICAL ENGINEER	PROJECT SURVEYOR	SURVEY CREW PW	ENGINEERING & SURVEYING TECHNICIAN	CLERICAL	CONSTRUCTION INSPECTOR (PW)	MATERIAL TESTING & LABORATORY EXPENSES MILEAGE	OUTSIDE SERVICES	FEE TOTAL FOR INITIAL SCOPE
BILLING RATE			\$ 150	\$ 145	\$ 145	\$ 135	\$ 170	\$ 85	\$ 60	\$ 110	LUMP		Task
		DESCRIPTION	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	SUM FEE		TOTAL
Phase 1	Technical Memorandum- Water Tank Inspection												
Task 1	PERFORM FIELD RECONNAISSANCE & CLIENT MEETING			4							\$ 28		\$ 608
Task 2	PRELIMINARY GEOTECHNICAL INVESTIGATION		2		4						\$ 28		\$ 908
Task 3	CONDUCT EXTERIOR VISUAL TANK INSPECTION			4									\$ 580
Task 4	COORDINATE INSPECTION BY POTABLE DIVERS			4									\$ 580
Task 5	POTABLE DIVERS INSPECTION			2							\$ 28	\$ 2,000	\$ 2,318
Task 6	PREPARE TECHNICAL MEMORANDUM		2	10	2		4	4					\$ 2,620
Task 7	REVIEW MEMORANDUM WITH CITY OF UKIAH STAFF		2	4					2				\$ 1,000
		MAN HOURS BY DISCIPLINE	6	28	6	0	0	4	6	0			
		SUBTOTAL BY DISCIPLINE/PHASE TOTAL	\$ 900	\$ 4,060	\$ 870	\$ -	\$ -	\$ 340	\$ 360	\$ -	\$ 84	\$ 2,000	\$ 8,614
Phase 2	Plans & Specifications												
Task 1	PERFORM FIELD SURVEY OF SITE		2	2		4	8	8			\$ 28		\$ 3,198
Task 2	PERFORM GEOTECHNICAL SUBSURFACE INVESTIGATION			2	18			4	4		\$ 700	\$ 2,000	\$ 6,180
Task 3	PREPARE PLANS AND TECHNICAL SPECIFICATIONS		4	36				32	8				\$ 9,020
Task 4	SUBMIT 75% PLANS AND TECHNICAL SPECIFICATIONS		2	16				16	8				\$ 4,460
Task 5	PERFORM UPDATING AND SUBMIT 95% PLANS AND SPECIFICATIONS		2	16				16	6				\$ 4,340
Task 6	PREPARE FINALIZED SET OF PLANS AND TECHNICAL SPECIFICATIONS		2	12				16	8				\$ 3,880
Task 7	PREPARE A BID SCHEDULE WITH QUANTITIES			8				4					\$ 1,500
Task 8	PREPARE AN ENGINEER'S OPINION OF COST		2	10				2					\$ 1,920
Task 9	PROVIDE A SET OF MYLAR PLANS AND CONTRACT DOCUMENTS			4				4					\$ 920
Task 10	PROVIDE DIGITAL PLANS AND TECHNICAL SPECIFICATIONS			2					4				\$ 530
Task 11	PROVIDE 20 SETS OF PLANS & TECHNICAL SPECIFICATIONS			4					8				\$ 1,060
													\$ -
		MAN HOURS BY DISCIPLINE/TOTAL HOURS	14	112	18	4	8	102	46	0			
		SUBTOTAL BY DISCIPLINE/PHASE TOTAL	\$ 2,100	\$ 16,240	\$ 2,610	\$ 540	\$ 1,360	\$ 8,670	\$ 2,760	\$ -	\$ 728	\$ 2,000	\$ 37,008
Phase 3	Construction Management												
Task 1	BIDDING ASSISTANCE		2	16					6				\$ 2,980
Task 2	PREPARE DRAFT AGENDA FOR PRE-BID MEETING			2					2				\$ 410
Task 3	REVIEW BIDS AND PROVIDE RECOMMENDATIONS TO CITY			8									\$ 1,160
Task 4	CONDUCT PRE-CONSTRUCTION MEETING			4						2			\$ 800
Task 5	REVIEW SUBMITTALS FROM CONTRACTOR			16									\$ 2,320
Task 6	PROVIDE DAILY INSPECTIONS DURING CONSTRUCTION			24						44			\$ 8,320
Task 7	MAINTAIN A RECORD OF PROJECT MODIFICATIONS			12				8					\$ 2,420
Task 8	REVIEW CERTIFIED PAYROLL			8					2				\$ 1,280
Task 9	REVIEW CONTRACTOR PROGRESS PAYMENT INVOICE			12				4					\$ 2,080
Task 10	PROVIDE MATERIALS TESTING AS NEEDED			4							\$ 1,500		\$ 2,080
Task 11	PROVIDE MATERIALS TESTING REPORTS		2	12				12	4		\$ 500		\$ 3,800
Task 12	PREPARE AND PROVIDE RECORD DRAWINGS AFTER COMPLETION			8				24					\$ 3,200
		MAN HOURS BY DISCIPLINE/TOTAL HOURS	4	126	0	0	0	48	14	46			
		SUBTOTAL BY DISCIPLINE/PHASE TOTAL	\$ 600	\$ 18,270	\$ -	\$ -	\$ -	\$ 4,080	\$ 840	\$ 5,060	\$ 2,000	\$ -	\$ 30,850
Total Outside Services												\$ 4,000	
Total Project Cost - Inspection, Engineering, Geotechnical, Surveying, & Construction Management													\$ 84,472

C Resumes

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Distinguishing Qualifications

- Over 29 years civil engineering experience
- Project and Construction Management
- Water, Sewer & Roadway Design
- Hydrologic and Hydraulic analysis
- Storm Drainage & Erosion Control Design
- Subdivision Design
- Structural Engineering
- Field Survey & Topographic Mapping

Years of Experience: 29

Years with SHN: 1

Education

M.S., Environmental Resources Engineering; Humboldt State University, Arcata, CA; 1987

Professional Registrations

Registered Civil Engineer, CA #53327; 1995

Professional Land Surveyor, CA #8978; 2012

Professional Affiliations

California Land Surveyors Association

American Society of Civil Engineers

Lake Mendocino Engineers Association

Public Service

Volunteer-Ukiah Valley Trail Group

Thomas A. Hunt, PE, PLS

Project Manager/Senior Civil Engineer

Relevant Experience

Mr. Hunt has over 29 years of experience in the civil engineering field. He has served as the Project Manager or Project Engineer for design, analysis, construction inspection and contract administration on many Public Works, commercial and residential development projects, water system, sewer systems, storm drainage, and pedestrian enhancement projects.

Representative Public Facility Projects

South Main Street/Soda Bay Road Water System Improvements, Lakeport, CA. Senior Engineer. Performed preliminary design for a new water main, services, and fire hydrants, together with the feasibility study for water supply options to existing water main infrastructure or new well and water treatment and storage system.

Bell Hill Road Water Main Improvements, Kelseyville, CA. Project Manager and Senior Engineer. In addition to serving as Project Manager, performed design of plan preparation, and prepared contract documents for the water main upgrade between Bell Hill Road and Oak Park Court for the Kelseyville Water Works, Lake County Special Districts.

Spring Valley Water Treatment Plant Improvements, Lake County Service Area 2 (CSA#2), CA. Project Manager and Senior Engineer. Performed project management of construction plans and contract document preparation; performed design of 375,000 gallon water tank foundation, yard piping, and tank specifications for the Lake County Special Districts.

Main Street Water Main Improvements, Kelseyville, CA. Senior Engineer. Performed design and prepared plans and contract documents for water main upgrade on Main Street for the Kelseyville Water Works Lake County Special Districts.

Sutter Lakeside Hospital Emergency Room Expansion, Lake County, CA. Senior Engineer. Performed design of water, sewer, site grades, storm drainage and storm water detention system, parking lot and driveway, and relocation of existing utilities, and design of heliport pad and access to emergency room. Performed project inspection and coordination during construction.

Representative Subdivision Projects

Big Valley Rancheria Senior Housing, Lakeport, CA. Senior Engineer. Prepared subdivision plans for 11 lot housing development, which included street improvements, lot grading plans, water and sewer system design, storm drainage system design for the Rancheria, with Indian Health Services review and approval.

Vichy Springs Subdivision, Ukiah, CA. Senior Engineer. Provided the design of street improvements, lot grading, storm water drainage distribution system, and wastewater transmission systems. Prepared final subdivision map for County approval. Performed volume analysis for the potential sanitary sewer service area and prepared plans for sanitary sewer transmission main, pump station, and force main from the Vichy Springs Subdivision to the Ukiah City limits.

RH Landing Subdivision, Lakeport, CA. Senior Engineer. Prepared tentative subdivision map and utility design and provided project management of plan preparation of the final road, sanitary sewer, water distribution, storm drainage and utility infrastructure for the 137 lot subdivision.

Terrace Middle School & Clear Lake High School, Lakeport, CA. Senior Engineer. Prepared plan for water main improvements for Terrace Middle School multi-purpose building and the Clear Lake High School.

Sierra Sunset Subdivision Units 1&2, Ukiah, California. Senior Engineer. Street improvements, lot grading, storm drainage, and utility infrastructure together with water system and sewer collection system design. Performed construction survey staking of utilities and street grading

Representative Construction Inspection, Testing, and Contract Administration Projects

Spring Valley Water Treatment Plant Improvements, Spring Valley, Lake County CSA#2, CA. Provided bidding assistance, construction administration, inspection, change order and value engineering review and negotiations, and performed quality control testing for the Lake County Special Districts.

Big Valley Rancheria Senior Housing, Lakeport, CA. Performed construction inspection and quality control testing services of the site improvements and the water, sewer, underground utilities, and storm drainage system.

Sutter Lakeside Hospital, Lakeport, CA. Performed design, construction inspection and coordination of utility improvements, storm drainage collection and detention system and parking lot.

Nice Mutual Water District, Nice, CA. Provided compaction testing during water main construction.



David G. Harvey
Operations Manager
Field Inspector
Report Preparer
2000-2015

PO Box 474
Vernal, UT 84078-0474
Telephone: 866-789-3483

QUALIFICATIONS

Graduated number one from Divers Institute of Technology with honors in academics, and attendance. Entrepreneur in the diving industry owning and operating Potable Divers Inc. Potable Divers established in late 2000 is now in its twelfth year of operation, servicing over 1000 different clients. Projects ranging from water tank inspections and cleanings to dam gate/stem replacements, river dredging, aqueducts, and pipe penetrations. With clients ranging from Colorado to California our reputation has grown and is well known for quality, safety, and reliability. Development in training programs, and writing safe practice manuals. Preparation and writing of legal documents, contracts and reports.

EXPERIENCE

2000-Present

Potable Divers Inc. – Owner

Supervision of personnel, equipment and dive operations, including air dives up to 150 feet with two divers, six man teams. Establishing and executing plans and procedures for a corporation. Writing policies, manuals, legal documents, and procedures as the company administrator. Hiring, training, and supervision of all personnel. Implementing and executing marketing plans and procedures. Writing business plans and projections for investors and stock holders. Developing and manufacturing specialized proprietary underwater equipment. Establishing consumer relations while overseeing specialized client needs. Overseeing the accounting departments including accounts receivable, payable, and payroll. Writing proposals and bid documents for municipalities, cities, counties, and water companies. Generating over 1,000 reports of water tank inspections, documents, reports and videos, in multiple formats (i.e. PDF, PowerPoint, DVD, vcd, internet etc.) for city, county, and state agencies and governments, both for legal and informational purposes.

Providing instruction seminar teaching for Utah Rural Water Association, and the Arizona small Utilities Association.

EDUCATION and TRAINING

- Diploma

Divers Institute of Technology
Utah State University

Certifications in

NDT - Ultra Sound	NDT - Mag.Particle	Industrial Paint Coating Consultant
HazMat	First Aid/CPR	U/W Video and Photo
Welding	Rigging	U/W Survival
Salvage	Hydraulic Tools	ASNT Certifications
Heliox Dives	Technical Service Cert	PEC Safety Awareness

Distinguishing Qualifications

- Retaining Wall Design
- Site Civil
- Floating Dock Design
- Foundation Design
- Pile Analysis
- Slope Stability Analysis
- Horizontal Directional Drilling – Hydraulic Fracture Analysis
- AutoCAD® drafting/design

Years of Experience: 9

Years w/ SHN: 9

Education

B.S., Civil Engineering,
University of Washington; 2005

Professional Registrations

Professional Engineer (P.E.), CA
License #76125, 2010

Continuing Education

Design and Installation of Buried
Pipes, ASCE, February 2007

Geotechnical & Foundation
Engineering, University of
Wisconsin, April 2008

PSMJ Project Management
Bootcamp, May 2008

Soil Nail Wall Design, Federal
Highway Administration,
February 2009

Mechanically Stabilized Earth
Walls and Reinforced Soil
Slopes, ADAMA Engineering,
2011

WESTT Regional No-Dig
Conference, 2011

Certificates

Licensed Nuclear Gauge
Operator, CA, 2006

ACI Concrete Field Testing
Technician-Grade 1, American
Concrete Institute, May 2008

Jared O'Barr, PE

Staff Engineer

Relevant Experience

Mr. O'Barr has more than 9 years of engineering, construction management, and inspection experience. His engineering expertise includes the design of retaining walls, floating docks, foundations, site civil, and water tanks, as well as slope stability analysis. He is an expert at hydraulic fracture analysis for horizontal directional drilling operations. He is proficient at AutoCAD® drafting and design and has extensive field testing experience.

Representative Site Civil Projects

Water Tank No. 7 Replacement, City of Arcata, CA. Design engineer and assistant project manager for design of a new 150,000-gallon welded-steel water tank for the City of Arcata. Responsibilities included coordination of site survey and a geotechnical investigation; coordination with tank manufacturers; and preparation of plans and specifications. Also provided bidding assistance, submittal review, and support to the City's efforts to resolving issues related to the tank's inner coating.

Stewart Street Water Reservoir and Pump Station, City of Fortuna, CA.

Assistant project engineer for new 2.0-million gallon concrete storage reservoir that enables the City to provide adequate water storage for domestic and fire demands. Primary responsibilities included site grading plans for both the construction and finished grades, as well as the design of a temporary soil nail wall used to minimize the amount of excavation required during construction.

Eastside Road Housing Project, Sherwood Valley Band of Pomo, Northern Circle of Indian Housing Authority, Willits, CA. Assistant design engineer for a pipe network analysis for both the water and wastewater systems for a 15-unit subdivision with an on-site wastewater disposal system. Primary responsibilities included determining the most cost-effective pumping systems, as well as the sizing of pumps for optimum efficiency. The project was constructed in 2007.

Water Treatment Facility Upgrades, Garberville Community Services District, Garberville, CA.

Assistant design engineer prepared the site grading and excavation plan to facilitate the construction of a 1,000,000-gallon concrete water storage tank. This task required coordination with potential tank manufacturers in order to ensure constructability. Responsibilities on this project also included providing geotechnical assistance for an addendum to the geotechnical report for the site, providing soil bearing capacity values, analyzing the stability of a large cut slope, and providing recommendations for subgrade preparation during construction. Also prepared a cost estimate to evaluate different grading alternatives.

Water Storage Tank Sites, City of Arcata, CA. Design engineer and project manager of a new 150,000-gallon welded steel tank to replace an existing redwood tank that was showing signs of failure. This tank provides domestic water and fire protection to over 30 customers on California Avenue.

Distinguishing Qualifications

- Geotechnical Engineering
- Project Management
- Civil Engineering Design of Underground Structures
- Environmental Investigations
- Remediation Systems Design

Years of Experience: 39

Years with SHN: 6

Education

B.S., Civil Engineering,
University of California, Davis;
1975

Graduate Studies, University of
California, Davis; 1975-1976

Graduate Studies, California
State University, Fullerton; 1977

Certificate in Environmental Site
Assessment & Remediation, UC
Berkeley Extension; 1998

Professional Registrations

Registered Civil Engineer,
California; No. 30345

Registered Geotechnical
Engineer; California;
No. 256

Professional Engineer / Civil and
Geotechnical, Oregon; No.
79564

Professional Civil Engineer,
Washington, No. 46060

Qualified SWPPP Developer
(QSD) / SWPPP Practitioner
(QSP) No.24360

Memberships

American Society of Civil
Engineers

Association of Engineering
Geologists

International Society of Soil
Mechanics and Foundation
Engineers

John H. Dailey, PE, GE

Senior Geotechnical Engineer

Relevant Experience

Mr. Dailey has more than 40 years of experience in geotechnical, civil, and environmental engineering while working with federal, state, and local regulatory agencies, as well as the private sector. His experience includes project management, subsurface geotechnical and environmental investigations, site remediation, plan and procedure development, specification and bid preparation, permitting, and subcontractor selection.

Mr. Dailey's field experience includes excavation and drilling for geotechnical and environmental investigations, including soil and groundwater sampling; monitoring well design and installation; field and laboratory soil testing; and design and installation of remediation systems, including soil vapor extraction, pump and treat, and ozone sparging. Mr. Dailey has also performed investigations of landslides and structural damage due to landslides, settlement, undermined foundations, expansive soils and pavement evaluation and rehabilitation, with recommendations for repair to damage and correction of causes.

Representative Projects

Geotechnical Investigation & Geologic Hazard Evaluation, Water Tank Replacement at High Rock Conservation Camp, CAL FIRE, Weott, Humboldt County, CA. Geotechnical Engineer. SHN provided DGS' design team with findings, conclusions, and recommendations regarding the geologic setting and geotechnical engineering criteria for design and construction of a new water storage tank. The purpose of SHN's geotechnical investigation was to evaluate the physical and engineering properties of the site subsurface materials in order to provide site -specific geotechnical design criteria for tank foundation support and related earthwork and seismic design criteria in accordance with the American Water Works Association (AWWA) Standard D103-09 and the current edition of the California Building Code. Based on the results of SHN's field exploration, laboratory testing, and engineering analysis, SHN recommended that the project site was suitable for support of the proposed new water tank, provided the recommendations presented in the report were to be incorporated into the project design and construction.

Upper Lake Reservation Sewer Line Extension, Upper Lake, CA. Project engineer during geotechnical investigation and evaluation for a force main sewer extension using Horizontal Directional Drilling (HDD) methods. Evaluation included estimating maximum allowable drilling fluid pressures and minimum required drilling fluid pressures to minimize potential hydrofracture during drilling of pilot hole, reaming, and pullback operations.

Mendocino Transit Authority, Ukiah, CA. Project engineer during geotechnical investigation and design of an Administration/Operations Building and Solar Canopy supported on drilled pier foundation systems.

Noyo Harbor Mooring Basin Dock Replacement, Fort Bragg, CA. Project engineer during over-water geotechnical investigation for design of new piles for a proposed dock replacement. Responsibilities included engineering analyses to determine embedment depth and lateral capacities of various steel pipe and concrete piles in order to develop full moment capacity of the piles.

Distinguishing Qualifications

- Over 24 years of land surveying experience
- Topographic Mapping
- Construction Staking
- GPS Surveying
- Boundary and Right-of-way Surveying and determination
- Proficient in Terramodel and use of various AutoCAD platforms
- Preparation of Subdivision Maps, Record of Surveys, ALTA maps, LAFCO mapping and Legal Descriptions

Years of Experience: 24

With SHN: 13

Education

Santa Rosa Junior College, Civil Engineering Technology; 1990-1991

Professional Registrations

California Professional Land Surveyor #8335, 2007

Professional Affiliations

California Land Surveyors Association (CLSA), Vice President

Professional Practices Committee, Member

Matthew T. Herman, PLS

Project Surveyor

Relevant Experience

Mr. Herman has extensive experience providing land surveying, civil engineering and planning services throughout the California North Coast, as well as serving 3 years as a field surveyor for the U.S. Army. He has been the responsible surveyor in charge of field crews involved in collecting and processing raw field data into boundary, utility, and topographic maps. He was also involved in acquiring data and preparing the City of Willits Geographic Information System. Mr. Herman participates in construction staking, topographic mapping, boundary determination, record searches and deed preparation, analyzing and preparing Subdivision Maps and Record of Surveys performed by Willits staff.

Representative Projects

County of Mendocino On-Call Surveyor, Various Locations Mendocino County, California. Surveyor in responsible charge and project manager responsible for coordinating with County staff for project scoping and billings. Also responsible for scheduling to ensure project deadlines, records research, boundary & right of way resolution, quality control of field efforts as well as office product deliverables. Preparation of right of way acquisition documents & survey plats and ready to record Records of Surveys.

Willits Unified School District – Boundary Survey and Existing Conditions Mapping, Willits, California. Project manager and project surveyor responsible for client communication, scheduling, boundary records research, boundary determination, quality control of existing conditions mapping and establishing photo control for aerial mapping for the Willits High School, Baechtel Grove Middle School, Brookside Elementary School and Blosser Lane Elementary School. Boundary records research consisting of researching existing vesting deeds, historical survey mapping, railroad right of way mapping and communicating with Cal-Trans to have a working understanding of the existing Highway 101 right of way.

Mendocino County Office of Education – New Beginnings School, Ukiah, California. Mr. Herman served as the Supervising Project Surveyor for the development of a new school campus for the Mendocino County Office of Education. He was responsible for overseeing the field crews providing the existing conditions and boundary survey on an existing campus to be reconstructed. He compiled the site topography and boundaries for use by the project architects. After completion of the design he prepared a series of easements that were necessary to provide utilities and access to the two parcels included in the rehabilitated campus. During construction, Mr. Herman provided the field crews with staking calculations for the construction of the project.

Northern Circle Indian Housing Authority, Sherwood Valley Rancheria Housing Project, Willits, California. Project surveyor responsible for boundary, topographic and construction surveys for a 15 unit residential housing development project. Preparation of topographic mapping in AutoCAD format for inclusion in the Improvement Plans, construction staking calculations and various construction related documents. Participated in various design related tasks and plan preparations.

Wastewater Treatment Plant Improvements, City of Ukiah, California. Project Surveyor responsible for aerial photogrammetric control, boundary determination, and site specific topographic surveys. Mr. Herman prepared boundary plats and topographic mapping in AutoCAD format as subconsultant to Brown and Caldwell for the City's treatment plant improvements..

Willits Wastewater Treatment Plant Improvements Stages 2 & 3, City of Willits, California. Project surveyor responsible for planning, scheduling and performing QA/QC of primary project control survey. Also responsibly for monument preservation, verifying contractors line and grade controls, temporary benchmarks and assisted contractor with interpretation of survey control data. .

Municipal Airport Storm Drainage System Rehabilitation, City of Ukiah, California. Project Manager and Surveyor. Established ground photo control flight panels, produced detailed base mapping of the project site based on aerial photography, performed site-specific field surveys for 50 structures to obtain storm drain structure and pipe invert elevations, and incorporated site specific survey data into aerial base-mapping.

Distinguishing Qualifications

- Construction materials
- Construction Materials Testing – Field and Soils Laboratory
- Project Scheduling
- Reading and interpreting plans and specifications

Years of Experience: 37

Years w/ SHN: 7

Professional Registrations

ACI Int'l. Concrete Field Testing Technician Grade I

ACI Int'l. Concrete Strength Testing Technician

Caltrans Proficiency Certificate
CT105, 125, 201, 202, 216, 217,
226, 231, 375, 504, 518, 521,
533, 539, 540, 556, 557.

Hazwoper Certified

Continued Studies

Various Institute of
Transportation Studies
courses.

Steven L. Peckham

Civil Engineering Technician/ Construction Inspector

Relevant Experience

Mr. Peckham has more than 36 years of construction experience including installation of utilities, supervising construction crews and inspection of public works projects. Steve's areas of inspection expertise are underground water and sewer system projects, repair and re-construction of roadways and sidewalks. Mr. Peckham has a strong background in construction materials such as gravel, concrete, and asphalt experience and is proficient in reading plans and specifications.

Representative Construction Inspection Experience

Mr. Peckham has provided construction inspection services and support for the following projects:

Public Works:

- Resident Project Representative for the City of Willits Wastewater Treatment Project Phase 2 & 3. Responsible for inspection, material testing and reporting for Phase 2 & 3 mitigated enhanced wetlands, irrigation pump station/outfall, aeration basins and clarifiers. Mr. Peckham reviewed monthly progress billing for accuracy and assisted engineering staff in the completion of the Project.
- Inspector for street and sidewalk improvements for the Point Arena Safe Routes to Schools Project
- Construction materials testing for various phases of the Fort Bragg Unified School District Modernization Projects.
- Resident Project Representative for the City of Willits Wastewater Treatment Project Phase I. Responsible for inspection, testing, and reporting for Stage I Headworks, Influent Pump Structure and plant electrical service. Mr. Peckham reviewed progress billing for accuracy and assisted engineering staff in problem solving.
- Resident Inspector for City of Ukiah's Orchard Avenue Bridge and Related Street Improvements Project. Provided complete inspection services for re-enforcing steel, concrete placement, and construction observation. Acted as liaison between engineering staff and contractor. Provided daily reporting and construction photos for the project.
- Resident Inspector for City of Ukiah's Oak Manor Trail Project. Responsible for inspections, materials testing and reviewing progress payments for accuracy. Provided daily construction reports and photos for the project. Acted as liaison between the contractor and engineer to resolve construction problems.
- Inspector for street reconstruction projects, new subdivisions, pump station improvements, water main and sewer main expansion and improvements; Fort Bragg, CA
- Supervisor of construction crew in the repair and construction of water and wastewater lines, streets, sidewalks, parks and buildings; Fort Bragg, CA

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Fee Schedule



Consulting Engineers & Geologists, Inc.

Fee Schedule January 1, 2016

When accurate definition of the proposed work is not possible, an hourly charge out rate for determining compensation shall be used. Hourly charge rates include payroll costs, overhead, and profit. Hourly services are billed portal to portal and are subject to a 2-hour minimum. Current rates are as follows:

Hourly Charge Rates			
Position ¹	Hourly Rates		
Principal Engineer	\$ 135.00	-	\$180.00
Principal Engineering Geologist	\$ 125.00	-	\$155.00
Principal Surveyor	\$ 125.00	-	\$155.00
Project Manager	\$ 85.00	-	\$155.00
Senior Planner	\$ 100.00	-	\$140.00
Senior Engineer	\$ 115.00	-	\$150.00
Senior Geotechnical Engineer	\$ 125.00	-	\$155.00
Senior Geologist	\$ 115.00	-	\$145.00
Senior Surveyor	\$ 105.00	-	\$135.00
Engineer	\$ 85.00	-	\$120.00
Traffic Engineer	\$ 85.00	-	\$140.00
Geologist	\$ 85.00	-	\$115.00
Certified Industrial Hygienist	\$ 95.00	-	\$140.00
Environmental Specialist	\$ 75.00	-	\$130.00
Environmental Planner	\$ 75.00	-	\$115.00
Staff Surveyor ³	\$ 75.00	-	\$105.00
Assistant Engineer	\$ 75.00	-	\$120.00
Survey Party Chief ³	\$ 75.00	-	\$105.00
Junior Engineer	\$ 65.00	-	\$ 90.00
Engineering Technician/Draftsperson ³	\$ 65.00	-	\$ 90.00
Lab/Field Technician ³	\$ 65.00	-	\$100.00
Survey Technician ³	\$ 65.00	-	\$ 90.00
Technical Writer	\$ 55.00	-	\$ 70.00
Clerical	\$ 50.00	-	\$ 70.00
Expert Witness ^{2,4}	\$155.00	-	\$255.00
¹ Incidental expenses, i.e., lodging, meals, airplane tickets, etc., are billed at cost plus 15%.			
² Minimum daily charge is four hours.			
³ Rates depend on the specific personnel assigned and if prevailing wage rates are required in the area of work.			
⁴ Rates for Expert Witness are charged for preparation and testimony for both deposition(s) and trial(s).			

Reimbursables

The following direct charges are charged in addition to the hourly charge rates set forth above.

Direct Charges:

CADD plots (black & white)	\$ 4.00/ea.
CADD plots (color)	\$ 20.00/ea.
Copies	\$.15/ea.
Equipment and other expenditures (required for projects)	Cost + 15%
FAX	\$ 2.00/sheet
Field office	Cost + 15%
Filing fees, telephone expense, etc.	Cost + 15%
Iron pipe, monuments, flagging, etc.	Cost + 15%
Mylars	\$ 2.50/sq. ft.
Services of other consultants	Cost + 15%
Stakes, hubs, lath, etc.	Cost + 15%
Subsistence, air travel, etc.	Cost + 15%
Vehicles	\$ 50.00/day

Field Testing and Equipment:

Anchor bolt tension testing	\$ 80.00/day plus operator
CO ₂ Meter	\$ 10.00/day
Concrete Compression Impact Hammer	\$ 25.00/day*+
Core Drilling Machine	\$ 75.00/day + \$3.00/inch cored
Dissolved Oxygen Meter	\$ 53.00/day*+
Expendable Supplies	\$ 40.00/day*+
Fyrite Meter	\$ 33.00/day*+
Generator	\$ 53.00/day*+
Geophysical Equipment	By Quotation
Grundfos Controller & Pump	\$275.00/day
Hand Auger	\$ 33.00/day
Health & Safety Level D	\$ 35.00/day*+
Health & Safety Level C	\$ 60.00/day*+
High Pressure Controller	\$ 60.00/day*+
Inclinometer	\$200.00/day*
LEL Meter	\$ 66.00/day*+
Nuclear Density Testing	\$ 25.00/hour plus operator
Other equipment including drill rigs, backhoes, etc.	Cost + 15%
ORP Meter	\$ 15.00/day
OVA	\$132.00/day*+
Ozone Sparge Trailer	\$2,000.00/day
Peristaltic Pump	\$ 50.00/day*+
pH/Conductivity Meter	\$ 53.00/day*+
Power Auger	\$100.00/day*+
Pumps	\$ 45.00/day*+
Quad (ATV)	\$150.00/day
Rebar Locating Device	\$ 40.00/day plus operator

* 1/2 Day Minimum Charge.

+ 25% Weekly Discount, 40% Monthly Discount.

(1) If concrete is sampled and delivered to SHN lab by outside contractor, add \$5.00/ea. for processing and curing per ASTM C-31.

Reimbursables, Continued

Field Testing and Equipment, Continued:

Roto-hammer	\$ 50.00/day*+
Skidmore-Wilhelm Bolt Tension Calibration	\$ 50.00/day
Soil/Gas Purge Pumps	\$ 30.00/day*+
Soil Gas Probes	\$200.00/day*+
Torque Wrench (0 to 250 ft lbs)	\$ 25.00/day
Torque Wrench (250 to 1,000 ft lbs)	\$ 50.00/day
Turbidity Meter	\$ 26.00/day*+
Ultrasonic Test Device	\$ 20.00/hour plus operator
Vapor Extraction System	\$500.00/day*+
Water Level Data Logger	\$ 60.00/day*+
Water Level Meter	\$ 33.00/day*+
Well Point	\$ 50.00/day
Well Wizard	\$100.00/day*+

Survey Equipment:

GPS Station	\$300.00/day*
Level	\$ 25.00/day*
Robotic Total Station	\$ 200.00/day
Total Station	\$ 7.50/hour
Total Station w/Data Collector	\$ 100.00/day

Laboratory Tests:

Asphalt Briquette Compaction	\$ 50.00/ea. ⁽¹⁾
Asphalt Bulk Specific Gravity	\$ 30.00/ea.
Asphalt Content by Nuclear Method	\$ 75.00/test
Asphalt Content Gauge Calibration	\$190.00/ea.
Asphalt Extraction (% Bitumen)	On Request
Asphalt (Hveem) Mix Design	On Request
Brass Tube (Liner)	\$ 5.00/ea.
Cleanness Value (CT 227)	\$ 75.00/ea.
Compaction Curves (ASTM D 1557 or Caltrans CT216):	
4-inch Mold	\$150.00/ea.
6-inch Mold	\$150.00/ea.
Check Point	\$ 50.00/ea.
Concrete Compressive Strength (CT 521 or ASTM C39)	\$ 25.00/ea. ⁽²⁾
Concrete Linear Shrinkage (3 Bars)	\$200.00
Concrete Moisture	\$ 25.00/test (floor test)
Consolidation Test	\$300.00/ea.
Direct Shear, per point: (ASTM D3080)	
Consolidated-Drained (CD)	\$130.00/point
Unconsolidated-Undrained (UU) (Modified ASTM)	\$100.00/point
Consolidated-Undrained (CU) (Modified ASTM)	\$115.00/point
Additional cycles (each)	\$ 50.00/ea.
Disposable Concrete Molds	\$ 2.00/ea.

* 1/2 Day Minimum Charge.

+ 25% Weekly Discount, 40% Monthly Discount.

(1) If asphalt is delivered to SHN lab unmixed, add \$75.00/ea. for processing and mixing per Caltrans CT304.

(2) If concrete is sampled and delivered to SHN lab by outside contractor, add \$5.00/ea. for processing and curing per ASTM C-31.

Reimbursables, Continued

Laboratory Tests, Continued:

Durability Index	\$ 75.00/ea.
Expansion Index	\$150.00/test
Fireproofing Density	\$ 50.00/ea.
Grout Compressive Strength	\$ 40.00/ea.
LA Rattler (abrasion resistance)	\$150.00/test
Liquid Limit	\$ 75.00/ea.
Masonry Block Compressive Strength	\$ 65.00/ea.
Masonry Block Linear Shrinkage	\$ 85.00/ea.
Masonry Block Prism Compressive Strength	\$125.00/ea.
Masonry Core Shear Test	\$ 50.00/core
Moisture Content	\$ 15.00/ea.
Moisture-Density Test	\$ 25.00/ea.
Particle Size Analysis (ASTM 422)	\$100.00/ea.
Percent Crushed Particles	\$125.00/ea.
Percent Entrained Air In Concrete	\$ 10.00/ea.
Percent Organics	\$ 50.00/ea.
Plastic Limit	\$ 50.00/ea.
Plasticity Index	\$125.00/ea.
R-Value	\$250.00/ea.
Rice Specific Gravity of Asphalt (ASTM D2041)	\$ 70.00/ea.
Sand Equivalent	\$ 50.00/ea.
Sawing Rocks and Concrete Cores	\$ 30.00/unit
Sieve Analysis--Coarse	\$ 45.00/ea.
Sieve Analysis--Fine	\$ 55.00/ea.
Sieve Analysis--Passing 200	\$ 45.00/ea.
Specific Gravity, Rock	\$ 45.00/ea.
Stabilometer of Premixed AC	\$ 75.00/ea.
Sulfate Soundness	\$ 80.00/cycle
Swell Test	\$ 55.00/point
Triaxial Compression	
Unconsolidated Undrained (TXUU) (ASTM D2850)	\$115.00/point
Consolidated Undrained (TXCU) (ASTM D4767)	\$385.00/point
Consolidated Drained (TXCD) (ACOE)	\$500.00/point
Consolidated Undrained (TXCU-3 stage) (ASTM D4767)	\$810.00/test
Consolidated Drained (TXCD-3 stage) (ACOE)	\$860.00/test
USDA Bulk Density Test	\$ 30.00/ea.
USDA Textural Suitability Test	\$ 50.00/ea.
Unconfined Compression	\$ 50.00/ea.
Unit Weight of Lightweight Concrete	\$ 50.00/unit

Notes:

All samples of soil or rock from physical testing are discarded 30 days after submission of final report unless prior arrangements are made. Samples of soil or rock submitted for testing for hazardous substances will be returned to the Client, who is responsible for proper disposal.

This fee schedule is subject to review and adjustment, as required.

Certain services may require prevailing wages or overtime at premium pay to SHN employees. In such circumstances, fees will be adjusted to reflect increased labor costs.



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ITEM NO.: 13b

MEETING DATE: October 5, 2016

AGENDA SUMMARY REPORT

SUBJECT: CONSIDER APPOINTMENT OF AD HOC COMMITTEE FOR LITIGATION ENTITLED, "COUNTY OF MENDOCINO V. SOLID WASTES SYSTEMS" – CASE NO. SCUK-CVG-11-59459.

Summary: Council may consider appointing an ad hoc committee to work with the County's ad hoc committee regarding the litigation case of the *County of Mendocino v. Solid Wastes Systems*.

Background and Discussion: At their September 13, 2016 meeting, the County of Mendocino's Board of Supervisors appointed Supervisor John McCowen and Supervisor Dan Hamburg as the (reformed) Ad Hoc Committee for Litigation Entitled, "County of Mendocino v. Solid Wastes Systems" - Case No. SCUKCVG-11-59459.

If necessary, Council may consider appointing an ad hoc committee to work with the County's ad hoc committee regarding the litigation case of the *County of Mendocino v. Solid Wastes Systems*. Note: the City Council may adjourn to Closed Session for consultation with the City Attorney prior to considering this matter.

FISCAL IMPACT:				
Budgeted Amount in 16-17 FY	New Appropriation Source of Funds (Title & No.)	Account Number	Budget Amendment Required	Previous Contract or Purchase Order No.
N/A	N/A	N/A	Yes ☐ No ☒	N/A

RECOMMENDED ACTION(S): Consider appointing a City Council ad hoc committee to work with the County's ad hoc committee for litigation entitled, "County of Mendocino v. Solid Wastes Systems" – Case No. SCUK-CVG-11-59459.

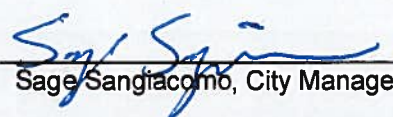
ALTERNATIVES: Do not appoint an ad hoc committee.

Citizens advised: N/A
Requested by: Sage Sangiacomo, City Manager
Prepared by: Kristine Lawler, City Clerk
Coordinated with: David Rapport, City Attorney and Sage Sangiacomo, City Manager
Presenters: Sage Sangiacomo, City Manager and David Rapport, City Attorney
Attachment: None

COUNCIL ACTION DATE: _____: ☐ Approved ☐ Continued to _____ ☐ Other _____

RECORDS APPROVED: ☐ Agreement: _____ ☐ Resolution: _____ ☐ Ordinance: _____

Note: Please write Agreement No. in upper right corner of agreement when drafted.

Approved: 
Sage Sangiacomo, City Manager