



# REGULAR CITY COUNCIL MEETING- Agenda

February 11, 2025 at 6:00 PM

Wheatland Community Center: 101 C Street, Wheatland, CA 95692

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City Council meetings are held in-person and are no longer available via ZOOM.

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, please contact City Hall at (530) 633-2761 or (530) 633-9102 (fax). Requests must be made as early as possible and at least one full business day before the start of the meeting.

## 1. OPENING MATTERS

1.1 Call to Order and Roll Call

1.2 Pledge of Allegiance to the Flag

## 2. PUBLIC COMMENT

At this time, the public is permitted to address the City Council on non-agendized items. **COMMENTS SHOULD NOT EXCEED THREE (3) MINUTES.** In accordance with State Law, however, no action or discussion may take place on any item not appearing on the posted agenda. The Council may respond to statements made or questions asked or may request Staff to report back at a future meeting concerning the matter. Any member of the public may contact the City Clerk's Office related to the proper procedure to place an item on a future City Council agenda. The exceptions under which the Council **MAY** discuss and/or act on items not appearing on the agenda are contained in Government Code §54954.2(b) (1) (2) (3)

## 3. CONSENT CALENDAR

[3.1](#) DRAFT Minutes - Regular City Council Meeting - 01/28/25

[3.2](#) Consideration and Adoption of Resolution Approving Appointments to the Feather River Air Quality Management District Board of Directors

[3.3](#) Consideration and Adoption of Resolution Canceling the Regular City Council Meeting of March 11, 2025

[3.4](#) Proclamation - Honoring the 150th Anniversary of Grace Episcopal Church

## 4. PUBLIC HEARING

## 5. PRESENTATIONS

[5.1](#) Presentation from Sacramento Area Council of Governments

## 6. REGULAR CALENDAR

**6.1** Consideration and Adoption of Resolution Ratifying Agreement with BK Custom Concrete for Emergency Corporation Yard Repairs

**7. REPORTS**

**8. CLOSED SESSION**

**9. ADJOURN**

Any writings or documents provided to a majority of the Wheatland City Council after distribution of the agenda packet are available for public inspection on the City's website, [www.wheatland.ca.gov](http://www.wheatland.ca.gov)

This institution is an equal opportunity provider, and employer.



# Regular City Council Meeting Minutes

January 28, 2025, at 6:00 PM

Wheatland Community Center: 101 C Street, Wheatland, CA 95692

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## 1. OPENING MATTERS

### 1.1 Call to Order and Roll Call

Mayor Angela Teter called the meeting to order at 6:00 p.m.

### 1.2 Pledge of Allegiance to the Flag

Mayor Angela Teter led the Pledge of Allegiance

## 2. PUBLIC COMMENT

At this time, the public is permitted to address the City Council on non-agendized items. **COMMENTS SHOULD NOT EXCEED THREE (3) MINUTES.** In accordance with State Law, however, no action or discussion may take place on any item not appearing on the posted agenda. The Council may respond to statements made or questions asked or may request Staff to report back at a future meeting concerning the matter. Any member of the public may contact the City Clerk’s Office related to the proper procedure to place an item on a future City Council agenda. The exceptions under which the Council **MAY** discuss and/or act on items not appearing on the agenda are contained in Government Code §54954.2(b) (1) (2) (3)

Mariah Stroupe thanked council members for their support with the new basketball court at Spruce Street Park, the new stop light at McDevitt and Highway 65 and new businesses that have opened.

## 3. CONSENT CALENDAR

Motion made by Council Member Coe, Seconded by Council Member Abe.  
Voting Yea: Mayor Teter, Vice Mayor McIntosh, Council Member Coe, Council Member Abe

### 3.1 DRAFT Minutes - Regular City Council Meeting 01-14-25

### 3.2 Consideration and Adoption of Resolution Designating Representatives for Labor Negotiations for the City of Wheatland

## 4. PUBLIC HEARING

**5. PRESENTATIONS**

**6. REGULAR CALENDAR**

**6.1 Council Consideration and Adoption of Resolution Updating Conflict of Interest Code Provisions Concerning Architectural and Engineering Services Administration and Procurement for Federally and State-Funded Transportation Projects**

Vice Mayor L. McIntosh commented on the contract administrator.

Motion made by Council Member Abe, Seconded by Council Member Coe.  
Voting Yea: Mayor Teter, Vice Mayor McIntosh, Council Member Coe, Council Member Abe

**6.2 Consideration and Adoption of Resolution Authorizing the Execution of a Professional Services Agreement with Dokken Engineering for Engineering and Environmental Services for the Wheatland Road Complete Streets Project**

Council Member B. Abe questioned why only one Request For Proposal (RFP) was received. Council Member Abe also questioned if street lights for the project meet specifications by federal law and could the City post a second RFP.

Vice Mayor L. McIntosh questioned if Dokken Engineering has previously done this type of work and if there is a way to include construction of a sidewalk from the Bear Ridge apartments on Spenceville into the City. Vice Mayor McIntosh also questioned if a second RFP were posted could the scope of work include the sidewalk in front of the Bear Ridge Apartments and questioned the timeline on grant funds.

Mayor A. Teter questioned the chances of the project going over budget.

Motion made by Council Member Coe, Seconded by Council Member Abe.  
Voting Yea: Mayor Teter, Vice Mayor McIntosh, Council Member Coe, Council Member Abe

**6.3 South County Infrastructure Project Update**

Terri Daly from the Yuba Water Agency presented council and audience members with a powerpoint presentation for the South County Infrastructure Project Update. The presentation included information on challenges, a map of the project area, solutions and benefits, project schedule, current status, financing strategies and next steps.

Fire Chief Art Paquette questioned if Beale AFB connects to the project, how much capacity would be used at the Olivehurst Public Utilities District (OPUD) facility.

Council Member B. Abe questioned where Beale AFB would connect into the OPUD system. Council Member B. Abe also questioned a connection at South Beale Road.

Vice Mayor L. McIntosh questioned why the City hasn't entered into a Joint Powers Authority (JPA).

Resident Chris Walsh questioned funding from Beale AFb, a potential waste line and imminent domain.

*This was an information item only.*

**7. REPORTS**

Police Chief Brian Wittmer reported on the School District license plate readers, the school district safety grant, and the OTS step grant.

City Engineer Dane Schilling reported on completion of the sinkhole repair in the Public Works corporation yard and stated it is safe now.

City Manager Bill Zenoni reported on a Caltrans meeting to discuss possible options at Dairy Road and Highway 65, flower boxes in C Street park, restroom repairs and solar lights for the parking lot.

Mayor A. Teter reported that Wheatland will hold a SACOG meeting in September.

*Mayor A. Teter announced adjournment to the Closed Session portion of the meeting at 7:01 p.m.*

**8. CLOSED SESSION**

Mayor A. Teter reconvened the regular council meeting at 8:00 p.m. with no reportable action taken during closed session.

8.1 Conference with Labor Negotiator (California Government Code Section 54957.6.) City Designated Representative: Bill Zenoni, City Manager

Employee Organizations: Wheatland General Employees Association, Wheatland Police Officers Association, and Wheatland Sergeants Associations

**9. ADJOURN**

There being no other further business, Mayor A. Teter adjourned the meeting at 8:00 p.m.

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# City Council Meeting Staff Report

Meeting Date: February 11, 2025

**Subject:** Consideration and Adoption of Resolution Approving Appointments to the Feather River Air Quality Management District Board of Directors

**Prepared By:** Bill Zenoni, City Manager

**Recommendation:** Staff recommends that the Wheatland City Council consider adoption of a resolution approving appointments to the Feather River Air Quality Management District Board of Directors for the 2025 calendar year.

**Discussion:** The Feather River Air Quality Management District is a bi-county District that was formed in 1991 to administer local, state and federal air quality management programs for Yuba and Sutter counties. The mission of the Feather River Air Quality Management District is to promote and improve the air quality of Yuba and Sutter counties.

The Feather River Air Quality Management District is governed by a nine-member Board of Directors. One member is appointed from each city and two members are appointed from each county. Annually, each city approves the appointment of the directors of the other participating cities (Marysville, Yuba City and Live Oak).

The Wheatland City Council, on January 14, 2025, approved the appointment of Brian Abe and John Abe as the representative Feather River Air Quality Management District board member and alternate respectively for the City of Wheatland for the 2025 calendar year. The District is now requesting that the Wheatland City Council approve the appointments made by the cities of Marysville, Yuba City and Live Oak. Those three municipalities will in turn consider approval of the board appointments for the other three cities, including Wheatland.

The Feather River Air Quality Management District Board of Directors appointments presented for the Wheatland City Council approval are:

City of Marysville

- Councilmember Stuart Gilchrist (Director)
- Councilmember Bruce Buttacavoli (Alternate)

City of Yuba City

- Councilmember Mike Pasquale (Director)
- Councilmember Wade Kirchner (Alternate)

City of Live Oak

- Councilmember Aaron Pamma (Director)
- Councilmember Jeremy Chapdelaine (Alternate)

**Fiscal Impact:** None

**Attachments:**

1. Letter from Feather River Air Quality Management District
2. Resolution



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Yuba City, CA 95991  
(530) 634-7659  
FAX (530) 634-7660  
www.fraqmd.org

Christopher D. Brown, AICP  
Air Pollution Control Officer

**To:** City of Wheatland Council Members  
**From:** Christopher D. Brown, AICP, Air Pollution Control Officer  
**Subject:** Approval of appointments to the Board of Directors of the Feather River AQMD  
**Date:** 02/11/25

**Recommendation:**

Approve the appointments to the Feather River Air Quality Management District Board of Directors for calendar year 2025.

**Background and Discussion:**

In accordance with the Agreement for Composition of the Feather River AQMD Board of Directors, the following appointments listed below have been made. This action requires the approval of the City of Wheatland Council Members.

Directors/Alternate Directors:

- Councilman Stuart Gilchrist – Director (City of Marysville)
- Councilman Bruce Buttacavoli – Alternate (City of Marysville)
- Councilman Mike Pasquale – Director (City of Yuba City)
- Councilman Wade Kirchner – Alternate (City of Yuba City)
- Councilman Aaron Pamma – Director (City of Live Oak)
- Councilman Jeremy Chapdelaine – Alternate (City of Live Oak)

**Fiscal Impact:**

None

**Committee Action:**

None required.

**RESOLUTION NO. \_\_\_-25**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHEATLAND APPROVING APPOINTMENTS TO THE FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT BOARD OF DIRECTORS**

**WHEREAS**, the Feather River Air Quality Management District is a bi-county District that was formed in 1991 to administer local, state and federal air quality management programs for Yuba and Sutter counties; and

**WHEREAS**, the Feather River Air Quality Management District is governed by a nine-member Board of Directors; and

**WHEREAS**, the Wheatland City Council, on January 14, 2025, approved the appointment of Brian Abe and John Abe as the representative Feather River Air Quality Management District board member and alternate respectively for the City of Wheatland for the 2025 calendar year; and

**WHEREAS**, the Feather River Air Quality Management District has requested that the Wheatland City Council approve the board member appointments made by the cities of Marysville, Yuba City and Live Oak.

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Wheatland approves the following appointments to the Feather River Air Quality Management District Board of Directors for the 2025 calendar year:

City of Marysville

- Councilmember Stuart Gilchrist (Director)
- Councilmember Bruce Buttacavoli (Alternate)

City of Yuba City

- Councilmember Mike Pasquale (Director)
- Councilmember Wade Kirchner (Alternate)

City of Live Oak

- Councilmember Aaron Pamma (Director)
- Councilmember Jeremy Chapdelaine (Alternate)

**PASSED AND ADOPTED** by the City Council of the City of Wheatland on the 11th day of February 2025 by the following vote:

**AYES:**  
**ABSENT:**  
**ABSTAIN:**

**ATTEST:**

\_\_\_\_\_  
Angela Teter, Mayor

\_\_\_\_\_  
Lisa J. Thomason, City Clerk



# City Council Meeting Staff Report

Meeting Date: February 11, 2025

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**Subject:** Consideration and Adoption of Resolution Canceling the Regular City Council Meeting of March 11, 2025

**Prepared By:** Bill Zenoni, City Manager

**Recommendation:** Staff recommends that the Wheatland City Council consider adoption of a resolution canceling the regular City Council meeting of March 11, 2025.

**Discussion:** The City Council conducts regular meetings on the second and fourth Tuesday of each month. Due to a lack of urgent business for the City Council to conduct on March 11, 2025, it is recommended that the regular City Council meeting of March 11, 2025 be canceled.

If approved, a notice of the meeting cancellation will be posted.

**Fiscal Impact:** None

**Attachment:**  
1. Resolution

**RESOLUTION NO. \_\_-25**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHEATLAND CANCELING THE  
REGULAR CITY COUNCIL MEETING OF MARCH 11, 2025**

**WHEREAS**, the regular meetings of the City Council are set for the second and fourth Tuesdays of every month; and

**WHEREAS**, the City Council has the authority to cancel meetings when necessary; and

**WHEREAS**, it has been determined that there is no urgent business for the City Council to conduct on March 11, 2025.

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Wheatland that the March 11, 2025 City Council meeting is canceled.

**PASSED AND ADOPTED** by the City Council of the City of Wheatland on the 11th day of February 2025 by the following vote:

**AYES:**

**ABSENT:**

**ABSTAIN:**

**ATTEST:**

\_\_\_\_\_  
Angela Teter, Mayor

\_\_\_\_\_  
Lisa J. Thomason, City Clerk

**PROCLAMATION OF THE CITY OF WHEATLAND, CALIFORNIA  
HONORING THE 150<sup>TH</sup> ANNIVERSARY OF THE GRACE EPISCOPAL CHURCH**

**WHEREAS**, the Grace Episcopal Church in Wheatland was built in 1874; and

**WHEREAS**, a congregation of 18 worshiped for the first time on Nov. 15, 1874. Now 150 years old, Grace Episcopal Church continues to play a vital role in this historic city; and

**WHEREAS**, Grace Episcopal Church has a thriving congregation and encourages the community to attend Sunday services: and

**WHEREAS**, adding to the history of the Grace Episcopal Church, Pioneer Memorial Hall in Wheatland is also a part of the church. Pioneer Hall was built in 1914. The Wheatland Historical Society, Veterans of Foreign Wars, and other organizations meet in Pioneer Memorial Hall; and

**WHEREAS**, the Grace Episcopal Church welcomes people of all faiths and for them to know they are accepted with much love; and

**WHEREAS**, the Grace Episcopal Church encourages community members to join them for a 10 a.m. Sunday service. For months with five Sundays, the fifth Sunday service may be held either in Grace Episcopal Church, or at an Episcopal or Lutheran church in Marysville, Yuba City or Colusa. This information, and more, is available at the church’s website: [www.gracewheatland.org](http://www.gracewheatland.org)

**NOW THEREFORE BE IT PROCLAIMED**, the City Council of the City of Wheatland hereby joins in honoring and celebrating the 150<sup>th</sup> Anniversary of the Grace Episcopal Church, 610 Third Street, Wheatland, and the positive impact the church has in our community for being strongly engaged with community service and various traditions.

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Angela Teter, Mayor



# City Council Meeting Staff Report

Meeting Date: February 11, 2025

**Subject:** Presentation from Sacramento Area Council of Governments

**Prepared By:** Bill Zenoni, City Manager

**Recommendation:** Staff recommends that the Wheatland City Council receive a presentation from the Sacramento Area Council of Governments.

**Discussion:** The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six county Sacramento region that provides transportation, planning, and funding for the region and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG approves the distribution of affordable housing in the region and assists in planning for transit, bicycle networks, clean air and airport land uses.

SACOG is currently updating its long-range transportation plan, known as the 2025 Blueprint, which aims to integrate multimodal transportation systems and regional land use development. This plan will connect housing to jobs, education, goods, services, and recreational opportunities while protecting the region's natural landscapes. James Corless, SACOG's Executive Director, will make a presentation to the Wheatland City Council to provide information on the 2025 SACOG Blueprint and discuss findings from a recent region-wide transportation and land use analysis. Mr. Corless will also summarize the various programs available to assist public agencies in implementing the SACOG Blueprint locally.

SACOG staff have been advised that Council members may have questions regarding SACOG's support of transportation needs within the City of Wheatland.

**Fiscal Impact:** None

**Attachment:** None



# City Council Meeting Staff Report

Meeting Date: February 11, 2025

**Subject:** Consideration and Adoption of Resolution Ratifying Agreement with BK Custom Concrete for Emergency Corporation Yard Repairs

**Prepared By:** Dane H. Schilling – City Engineer

**Recommendation:**

Adoption of Resolution 08-25 ratifying an agreement with BK Custom Concrete for emergency sinkhole repairs at the City of Wheatland Corporation Yard.

**Discussion:**

On April 11, 2024, City of Wheatland Public Works staff discovered a large and deep void in the ground at the City Corporation Yard at 208 Fourth Street in Wheatland. The subterranean void surfaced adjacent to a steel framed building that houses equipment, machinery, parts and supplies for the City’s public works functions.

On April 12, 2024, investigations involving the City Manager, Public Works Director, City Engineer and a professional geologist began. The City’s insurer, the California Intergovernmental Risk Authority (CIRA), was notified by the City Manager of the potential loss. On May 6, 2024, a property loss claim was filed with CIRA with an estimate cost of \$264,000 for services and construction costs to assess and repair the damage.

On September 24, 2024, the City Council adopted Resolution No. 43-24 which waived the formal bidding processes in accordance with California Public Contract Code Section 20168 and authorized the City Manager to execute any necessary agreements to repair damages.

The City Engineer and consulting geologist Blackburn Consulting worked with Public Works staff to determine probable causes, assess the extent of the damage incurred and develop a repair plan. A repair plan was developed and formulated into a bid package for informal bidding.

In October 2024 an advertisement for bids was posted on CIPlist.com, sent to local bid rooms and contractor associations, and several contractors specializing in foundation repairs and concrete work were directly solicited by the City Engineer. Contractors indicating interest in the work included: Pinnacle Home Services of Sacramento, Webb Construction of Wheatland, Groundworks-Commercial of California, and BK Custom Concrete of Yuba City.

Bid packages were sent to interested contractors. Three contractors performed site investigations in consideration of submitting bids and two declined to bid citing the higher risk associated with the project. One contractor was only willing to go further if the City performed more testing associated with a proprietary method of polyurethane injection which was determined not to be a proven or cost-effective option considering the size of the voids.

By November 11<sup>th</sup> only one contractor, BK Custom Concrete had submitted a bid for the project. The items on the bid form were broken into two phases. Phase 1 included stabilizing the building and higher risk areas such as the ground under the building by filling largest of voids with minimal ground disturbing activities.

Phase 2 work included remediation of lower risk shallow voids, surface level work and site restoration based on negotiated prices and time-and-materials work. All work except the filling of shallow voids directly under the building slab have been completed. The following is a summary of work items and costs:

<b>Summary – BK Custom Concrete Contract</b>	
Phase 1	
Shore Building & Stabilize Main Voids	\$29,226.00
Fill Augured Exploration Holes	\$ 2,325.00
Phase 2	
Fill Shallow Voids & Site Restoration	\$34,780.00
Fill Shallow Voids Under Building Slab*	\$ 8,000.00
<b>TOTAL CONTRACT</b>	<b>\$74,331.00</b>
*estimated cost for time and materials work yet to be performed	

**Fiscal Impact:**

The current estimated total cost of the construction contract with BK Custom Concrete is \$74,331.00 with one item of work remaining to be completed. The City’s insurance deductible of \$25,000 will be paid from the Water, Sewer, General and other associated funds (Project No.190045). The remainder of the costs in the amount of \$49,331.00 will be submitted under the City’s insurance claim to CIRA.

**Attachments**

- Attachment 1 – Resolution 08-25
- Attachment 2 – Contract with BK Custom Concrete

**RESOLUTION NO. 08-25**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHEATLAND  
RATIFYING AN AGREEMENT WITH BK CUSTOM CONCRETE OF YUBA CITY FOR  
CONSTRUCTION OF EMERGENCY CORPORATION YARD REPAIRS**

**WHEREAS**, on April 11, 2024, City of Wheatland Public Works staff discovered a large and deep void in the ground at the City Corporation Yard at 208 Fourth Street in Wheatland that presented a threat to the safety of City staff and the public; and

**WHEREAS**, on September 24, 2024, the City Council adopted Resolution No. 43-24 which waived the formal bidding processes in accordance with California Public Contract Code Section 20168 and authorized the City Manager to execute any necessary agreements to repair damages; and

**WHEREAS**, in October 2024, an advertisement for bids was posted on a public bidding website, sent to local contractor associations and sent to licensed contractors in the vicinity of Wheatland; and

**WHEREAS**, by November 11, 2024, one bid had been received from BK Custom Concrete that was later examined by the City Engineer and recommended to the City Manager for execution.

**NOW, THEREFORE IT IS HEREBY RESOLVED, ORDERED AND FOUND** by the City Council of the City of Wheatland, State of California, to ratify an agreement made by the City Manager with BK Custom Concrete of Yuba City in the amount of \$82,331.00 for the remediation, repair and restoration of a sinkhole and associated damage sustained at the City of Wheatland Corporation Yard located at 208 Fourth Street.

**PASSED AND ADOPTED** by the City Council of the City of Wheatland, State of California this 11<sup>th</sup> day of February 2025, by the following vote:

- AYES:
- NOES:
- ABSTAIN:
- ABSENT:

ATTEST:

\_\_\_\_\_  
Angela Teter, Mayor

\_\_\_\_\_  
Lisa Thomason, City Clerk

**CITY OF WHEATLAND  
SHORT FORM PUBLIC WORKS CONSTRUCTION CONTRACT**

Name of Project	<b>Corp Yard Sinkhole Repair</b>
Contractor Name, Address and Capacity (e.g., corporation, partnership)	B K CUSTOM CONCRETE 4164 MARKLEY RD YUBA CITY, CA 95993 (530) 635-7046 <a href="mailto:bksr_9@hotmail.com">bksr_9@hotmail.com</a> ATTN: Brandon Kesterson, Owner
List and Title of Contract Exhibits	Exhibit A – Bid Proposal Exhibit B – Invitation to Bid
Type of Required California Contractor’s License Classification	C-8 Concrete
Total Contract Price	Phase 1 - \$29,226.00 Phase 2 – Negotiated Change Order Not to Exceed \$53,105
Time of Completion/Contract Time	10-calendar days from Notice to Proceed
Daily Liquidated Damages Amount (insert zero if none)	\$200/calendar day
City Representative Name, Title, and Address	Dane Schilling, City Engineer dschilling@wheatland.ca.gov
Date of Contract	November 12, 2024

This contract is made by and between City of Wheatland and the Contractor named above, who agree as follows:

1. **Scope of Work.** This Public Works Construction Contract, the Contract exhibit(s) listed above, approved Change Orders, and, if applicable, the notice inviting bids, addenda, Contractor’s bid and bid forms constitute the “Contract” between the parties. For purposes of this Contract, the “Work” shall mean the scope of work as described in the exhibit(s).

2. **Time of Completion.** The Work shall be completed by the deadline stated in the exhibit(s) or, if no deadline is stated in the exhibit(s), Contractor shall perform the Work diligently and as expeditiously as possible consistent with good and safe construction practices and the orderly progress of the Work. The parties agree that time is of the essence for the performance of this Contract.

3. Contractor's Performance. Contractor shall construct, install, perform and do the Work, and shall furnish, provide and pay for all labor, equipment, materials, tools, supplies, transportation, permits, sales and taxes, and shop drawings necessary or appropriate to complete the Work. Contractor shall perform in the Work in a good and workmanlike manner, and such Work shall be done to the approval and satisfaction of City.

4. Contract Price and Payments.

(a) If Contractor performs the Work in accordance with this Contract and to the satisfaction of City, City shall pay Contractor in the amount and manner as set forth in the exhibit(s); however, the total Contract price shall not exceed the sum stated above, unless otherwise agreed to in writing by City. No payment, including all progress payments and the final payment, shall be made to Contractor in excess of 95% of the percentage of Work actually completed plus a like percentage of the value of material delivered on the ground or stored subject to, or under the control of, City. The five percent not paid shall be withheld by City until final completion and acceptance of the Work. However, in lieu of withholding of money, and in accordance with the provisions of California Public Contract Code section 22300, Contractor may substitute securities to ensure performance under the Contract.

(b) If payment is to be made by progress payments, then, in accordance with California Public Contract Code section 20104.50, a written payment request from Contractor shall be reviewed by City as soon as practicable in order to determine whether it is proper. If City determines it not to be a proper payment request suitable for payment, then City shall return it to Contractor with a written explanation of the deficiencies as soon as practicable, but not later than seven days after receipt of the payment request. If City determines the payment request to be properly submitted and undisputed, the City shall make the payment to Contractor within 30 days after receipt of the payment request. If City does not pay a properly submitted and undisputed payment request within this 30-day period, then City shall pay interest on the overdue amount to Contractor at the legal rate set forth at California Code of Civil Procedure section 685.010. This subsection shall not apply if City funds are not available for payment of the payment request or if payment is delayed due to an audit inquiry by the financial officer of City.

(c) No progress or final payment shall be considered or construed to be an approval or acceptance of any Work, materials or equipment, or a waiver of any breach or default. Estimated amounts and values of Work done and materials and equipment incorporated into the Work will be conformed with actual amounts and values as they become available in subsequent progress payments and the final payment. All payments will be subject to correction in subsequent progress payments and the final payment.

5. Compliance with Laws. Contractor shall give all notices and comply with all federal, state and local laws, statutes, regulations and ordinances applicable to the performance of the Work. Contractor is responsible for the safety of its workers and Contractor shall comply with, and require its workers to comply with, all applicable federal and state worker and job site safety-related laws and regulations, including, but not limited to, applicable federal Department of Labor, Occupational Safety and Health Administration (“OSHA”) regulations and California Department of Industrial Relations (including the Division of Occupational Safety and Health and Occupational Safety and Health Standards Board (“Cal/OSHA”)) regulations and safety orders.

Contractor shall promptly notify City's Representative in writing of any specification at variance therewith and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to City's Representative, it shall bear all costs arising therefrom.

6. Permits and Licenses. Permits, licenses, and easements necessary for the performance of the Work shall be obtained and paid for by Contractor, unless otherwise provided in the exhibit(s). Contractor must hold the current and valid type of California contractor's license classification described above for the duration of the Work.

7. Certificates of Reported Compliance. This Contract is subject to the California Air Resources Board Off-Road Diesel Regulation (Title 13 CCR § 2449). In order to be eligible to perform the Work under this Contract, Contractor must submit to City copies of valid Certificates of Reported Compliance, as described in section 2449(n), for the fleet selected to perform work under this Contract. If applicable, subcontractors must submit copies of valid Certificates of Reported Compliance, as well. If Contractor does not provide said Certificates, Contractor may not perform work under this Contract.

The California Air Resources Board Off-Road Diesel Regulation applies to all self-propelled offroad diesel vehicles with 25 horsepower or greater and most two-engine vehicles (except on-road two-engine sweepers). This includes vehicles that are rented or leased (rental or leased fleets)

8. Bonds. Promptly upon execution of this Contract and prior to the commencement of any Work, Contractor shall obtain at its sole cost and expense and provide to City a performance bond and payment bond each in the amount of 100% of the amount of this Contract. The bonds must be issued by a surety admitted in California and be in a form acceptable to City. The bonds must comply with California Civil Code sections 9550 and 9554 and applicable provisions of the California Bond and Undertaking Law (Code Civ. Proc. § 995.010 et seq.).

9. Authority of City and City's Representative.

(a) The City's representative listed above is the representative of the City for purposes of this Contract and has full authority to interpret the Contract, to conduct the construction review and inspection of Contractor's performance, and to decide questions which arise during the course of the Work. His/her decisions on these matters shall be final and conclusive. City's Representative has the authority to reject all Work and materials which do not conform to the Contract, and has the authority to stop the Work whenever such stoppage may be necessary to ensure the proper execution of the Contract. City's Representative's right and authority is limited to rejection of unsatisfactory Work or methods. City and the City's Representative do not bear any responsibility for Contractor's safety practices or procedures. Any order given by City's Representative, not otherwise required by the Contract to be in writing shall, on request of Contractor, be given or confirmed by City's Representative in writing. Whenever Work, methods of procedure, or any other matters are made subject to direction or approval of City, such direction or approval will be given by City's Representative.

(b) Except as provided elsewhere in the Contract, neither City nor City's Representative will be responsible for or have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. Except as provided elsewhere in the Contract, neither City nor City's representative will be responsible for or have control or charge over the acts or omissions of Contractor, or any of their subcontractors, agents or employees, or any other persons performing any of the Work. Any general control of the Work exercised by City or its authorized representatives shall not make Contractor an agent of City, and the liability of Contractor for all damages to persons and/or to public or private property arising from Contractor's execution of the Work shall not be lessened because of such general control.

10. Contractor's Understanding. Contractor acknowledges that it has, by careful investigation and inspection, satisfied itself as to the nature and location of the job site; the ground, character, quality and quantity of the materials and conditions to be encountered, including subsoil conditions, if applicable; the character and amount of labor, equipment, supplies and materials needed preliminary to and during the performance of the Work; and all other matters which can in any way affect the Work under this Contract. Contractor further acknowledges that neither City nor City's Representative have made any representations whatsoever concerning job site conditions, except for such representations that may have been made in writing in this Contract.

11. Subcontractors. All subcontractors and suppliers engaged in work will be considered as employees of Contractor, and Contractor shall be held responsible for their work, which shall be subject to the provisions of the Contract. Contractor will provide the following information: (a) the name and the, location of the place of business, and California contractor's license number of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement, and of each subcontractor who, under subcontract to Contractor, is to specifically fabricate and install or provide a portion of the work or improvement according to the Contract, in any amount in excess of 1/2 of 1 percent of the Contract amount. Contractor shall ensure that all subcontractors employed on the work comply with all applicable laws and regulations, including payment of prevailing wages, employment of apprentices, and preparation and submission of accurate and complete payrolls. Contractor shall be fully responsible to City for the acts or omissions of its subcontractors and of the persons either directly or indirectly employed by them. Nothing contained in this Contract shall create any contractual relationship between any subcontractor and City. Each subcontract shall contain a suitable provision for the suspension or termination thereof with or without cause. If a legal action, including arbitration and litigation, against City is initiated by a subcontractor or supplier, Contractor shall reimburse City for the amount of legal, engineering and all other expenses incurred by City in defending itself in said action. City and City's Representative reserve the right to approve all subcontractors.

Contractor shall not utilize, or allow work by, any subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code section 1777.1 or 1777.7. (See California Public Contract Code section 6109.) The California Division of Labor Standards Enforcement publishes a list of debarred contractors and subcontractors on the Internet at [www.dir.ca.gov/DLSE/debar.html](http://www.dir.ca.gov/DLSE/debar.html).

12. Changes in the Work. City may, at any time, by written change order make changes in the Work, or extend the time to complete the Work, as deemed necessary by City. If such changes cause an increase or decrease in Contractor's cost of, or time required for, performance of the Contract, there shall be an equitable adjustment in the Contract price. The price adjustment shall be determined by one of the following methods in the order of precedence listed:

- (a) Based on the unit prices contained in section 4, if applicable.
- (b) Mutually agreed-upon lump sum or unit price adjustment.

(c) Contractor's actual cost of labor (wages and benefits), materials (actual purchase price, sales tax, freight & delivery) and equipment/tools (at actual or fair/prevaling rental rates) directly engaged in the performance of the extra work plus 15% mark-up for overhead and profit. For price adjustments under this section, Contractor shall provide to City an itemized breakdown of the quantities and prices used in the extra work, and it shall make available all source documents, including payroll records, invoices, purchase orders, contracts and lease agreements.

13. Guarantee.

(a) Contractor unconditionally guarantees all materials and workmanship furnished under this Contract, and agrees to replace at its sole cost and expense, and to the satisfaction of City, any and all materials which may be defective or improperly installed. Contractor shall repair or replace to the satisfaction of City any or all such Work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other Work which may be damaged or displaced in so doing. This guarantee shall remain in effect for one year from the date of City's acceptance of the Work. The City shall have the right to call for such inspection or inspections of the work before the end of the one-year guarantee period and Contractor shall attend and participate in such inspection(s) upon request of City. This guarantee does not excuse Contractor for any other liability related to defective Work discovered after the guarantee period. Contractor shall transfer to City all manufacturer and supplier warranties relating to the Work, if any, upon completion of the Work and prior to final payment. Any products/completed operations insurance coverage shall be maintained after completion of the project for the full guarantee period.

(b) In the event of failure to comply with the above stated conditions within a reasonable time, City may have the defect repaired and made good at the expense of Contractor, which shall pay the costs and charges for such repair immediately upon demand, including any reasonable management and administrative costs, and engineering, legal and other consultant fees incurred by City in enforcing this guarantee

14. Suspension of Work. City may suspend the Work wholly or in part, for such period as City may deem necessary, due to unsuitable weather or to any other conditions City considers unfavorable for the suitable performance of the Work, including the improper performance of the Work by Contractor. Contractor shall immediately comply with such written order of City to suspend the Work wholly or in part and shall be paid for the Work performed to the date of suspension, except for improperly performed Work. The suspended Work shall be resumed only when ordered by City.

15. Termination.

(a) This Contract may be terminated with or without cause at any time by City by giving 10 days' advance written notice to Contractor. In the event of such termination, Contractor shall be compensated for actual Work performed to the date of termination as calculated by City based on the Contract price and payment provisions above.

(b) If City terminates the Contract because of Contractor's failure to do the Work with such diligence as will ensure the completion of the Work within the time specified in the Contract, then City may take over the Work and pursue the same to completion by using another contractor or any other method City deems expedient. In this event, City may also take possession and control of, and utilize in completing the Work, any and all materials, supplies, tools and equipment delivered to the site of the Work by Contractor or by its suppliers or subcontractors. The materials, supplies, tools and equipment remaining after completion of the Work shall be returned to Contractor.

16. Prevailing Wages. Contractor agrees to pay all workers employed on this Work not less than the general prevailing rate of per diem wages for Work of a similar character in the locality of City, and not less than the general rate of per diem wages for holiday and overtime work, as established pursuant to the California Labor Code (in particular sections 1770-1780) and applicable regulations and orders. A copy of the applicable prevailing rate of per diem wages is available to the contractor at the administrative offices of City. Contractor shall obtain and post a copy of such prevailing wage rates at the job site. Contractor shall also comply with the provisions of California Labor Code section 1775, including provisions which require Contractor to (a) forfeit as penalty to City not more than \$200 for each calendar day or portion thereof for each worker (whether employed by Contractor or any subcontractor) paid less than the applicable prevailing wage rates for any work done under this Contract in violation of the provisions of the California Labor Code, and (b) pay to each worker the difference between the prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof for which said worker was paid less than the prevailing wage.

17. Labor Nondiscrimination. In accordance with California Labor Code section 1735, throughout the performance of the Contract, Contractor and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age (over 40), or sexual orientation (as those discrimination bases are defined in California Government Code sections 12926 and 12926.1) of such persons, except as provided in California Government Code section 12940. Any contractor violating this nondiscrimination provision shall be subject to penalties that may be imposed pursuant to Division 2, Part 7, Chapter 1 of the California Labor Code.

18. Eight-Hour Day Limitation.

(a) Contractor agrees that 8 hours labor shall constitute a day's work, and no worker, in the employ of the Contractor, or any subcontractor, doing or contracting to do any part of the Work under this Contract, shall be required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week; provided that subject to California Labor

Code section 1815, a worker may perform work in excess of 8 hours per day or 40 hours per week at not less than one and one-half times the basic rate of pay.

(b) Except as provided above for overtime, Contractor shall forfeit as a penalty to City the sum of \$25 for each worker employed in the execution of this Contract by it or by any subcontractor under it for each calendar day during which such worker is required or permitted to Work more than 8 hours in any one day and 40 hours in any one calendar week in violation of California Labor Code sections 1810 through 1815.

19. Payroll Records. Contractor and each subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in connection with the Work, and shall make such payroll record available for inspection, in accordance with the requirements of California Labor Code section 1776. Contractor shall be responsible to ensure compliance with section 1776. Failure to comply with that section may result in the Labor Commissioner's assessment of a penalty of \$100 per day per worker.

20. Employment of Apprentices. Contractor shall comply with, and take such actions as necessary to effectuate, the apprentice employment requirements as set forth at California Labor Code sections 1777.5, 1777.6 and 1777.7.

21. Character of Worker. If any employee of Contractor or any of its subcontractors shall be incompetent or act in a disorderly or improper manner, such employee or subcontractor shall be removed from the Work immediately, and such person or subcontractor shall not again be employed on the Work. Such discharge shall not be the basis for any claim for compensation or damages against City, or any of its officers or agents.

22. Superintendence. Contractor shall designate in writing before starting Work an individual as authorized representative who shall have the authority to represent and act for Contractor. This authorized representative shall be present at the Work site at all times while Work is actually in progress. When Work is not in progress and during periods of Work suspension, arrangements acceptable to City's Representative shall be made for any emergency work that may be required.

23. Inspection and Testing of Work.

(a) Unless otherwise provided, all equipment, supplies, materials, and Work shall be subject to inspection and testing by City's Representative. City's Representative will observe the progress and quality of the Work and determine, in general, if the Work is proceeding in accordance with the Contract. City's Representative shall not be required to make comprehensive or continuous inspections to check the quality of the Work, and he or she shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work. Observations, inspections or testing by City's Representative shall not relieve Contractor of its obligation to conduct comprehensive inspections of the Work and to furnish proper materials, labor, equipment and tools, and perform acceptable Work, and to provide adequate safety precautions, in conformity with the Contract.

(b) Contractor shall provide access to City’s Representative and other agents of City, and agents of the federal, state, or local governments at all reasonable hours for inspection and testing to ascertain compliance with the Contract and applicable laws and regulations. Contractor shall cooperate in providing such access, and shall, upon request by City’s Representative, promptly provide safe and convenient facilities, labor and materials reasonably needed by City’s Representative for performing all inspection and tests.

(c) If, after any inspection or testing by City’s Representative, City finds any of the Work to be unacceptable, defective or nonconforming, then Contractor at its sole cost and expense shall replace or repair the Work to the satisfaction of City’s Representative. If any Work required to be tested or inspected was installed, covered, or buried without inspection or testing, then, upon request by City’s Representative, Contractor shall at its sole cost and expense remove or uncover the Work such that it may be inspected or tested, and replace the Work after completion of the inspection or testing. Upon failure of Contractor to comply with any order of City’s Representative made under this section, City may cause the unacceptable, defective or nonconforming Work to be remedied, removed, or replaced, and may deduct the costs therefor from any monies due or to become due Contractor.

24. Trade Names and Alternatives. For convenience in designation in the Contract, certain articles or materials to be incorporated in the Work may be designated under a trade name or the name of a manufacturer. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, so long as Contractor shows to the satisfaction of City’s Representative that the acceptable quality and suitability of the alternative(s).

25. Protection of Work and Safety.

(a) Contractor shall be responsible for the care of all Work until its completion and final acceptance by City; and it shall at its own expense replace damaged or lost materials or supplies and repair damaged parts of the Work.

(b) City’s Representative’s construction review and inspection of Contractor’s performance shall not include any review of the adequacy of Contractor’s work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the job site.

(c) Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety procedures and practices shall conform to all applicable federal, state, and local laws, ordinances, and codes. Contractor shall carefully instruct all personnel as to potential dangers and shall provide such necessary safety equipment and instruction as may be necessary to prevent injury to personnel and damage to property. Contractor shall provide and maintain, in accordance with California Labor Code section 6708, OSHA and Cal/OSHA requirements, adequate emergency first aid treatment for its employees and anyone else who may be injured in connection with the work.

(d) Contractor shall have an Injury/Illness Prevention Program (IIPP) in place to protect the safety of its employees and ensure that its subcontractors also have an IIPP or comply

with Contractor's program. The Contractor's IIPP shall comply with and be at least as effective as the requirements of section 3203 of Title 8 of the California Code of Regulations. The Contractor and subcontractors must implement all requirements of the Injury and Illness Prevention Program regulation, unless they can demonstrate that they are exempt from certain specific provisions in the regulation. The Contractor shall submit a copy of its IIPP to the City prior to any work being performed on City property.

(e) If the Work includes the construction, alteration, improvement, or maintenance of electric power generation, control, transformation, transmission or distribution lines or equipment within the meaning of Code of Federal Regulations title 29, section 1910.269 or 1926.950, then the Contractor will implement and comply with the requirements of the "contract employer" as described and set forth in sections 1910.269 and 1926.950, including, but not limited to, the obligations to properly train the Contractor workers on safety-related work practices and procedures, exchange information with the City concerning unique hazardous conditions presented by the Work, instruct the Contractor workers about the hazardous conditions relevant to the Work, and coordinate with the City on safety-related work rules and procedures. The Contractor also shall be responsible for transmitting safety-related information under sections 1910.269 and 1926.950 with any subcontractors retained by it to perform electrical-related Work under the Contract.

26. Protection of Public and Property.

(a) Contractor shall take all necessary or appropriate precautions to prevent damage to all existing improvements, including above ground and underground utilities, pipelines, conduits, trees, shrubbery, fences, signs, mailboxes, driveways, sidewalks, gutters, streets, parking lots or other pavement, levees or embankments, survey markers and monuments, buildings, structures, City's property, adjacent property, and any other improvements or facilities within or adjacent to the job site. If any such improvement or property is damaged or destroyed by reason of Contractor's operations, it shall be replaced or restored, at Contractor's sole cost and expense, to a condition at least as good as that prior to the start of Contractor's performance under this Contract.

(b) Contractor shall adopt all practical means to minimize interference to traffic and public inconvenience, discomfort or damage from the Work. All obstructions to traffic shall be guarded by barriers illuminated at night. For any Work on, adjacent to, or interfering with any street, the conditions and limitations applicable to such Work shall be determined by those public agencies or other entities responsible for maintenance of the affected street. Contractor shall determine the nature and extent of all such requirements, and shall comply with all permit and other requirements. As required at any street crossing, Contractor shall provide all necessary flag persons, guardrails, barricades, signals, warning signs and lighting to provide for the safety of existing roads and detours. Immediately after the need for temporary detours ceases, or when directed, Contractor shall remove such detours and perform all necessary cleanup work, including replacement of fences, removal of pavement, necessary replacement of existing roadway appurtenances, grading, soil stabilization and dust control measures.

27. Clean-Up. During the progress of the Work, Contractor shall maintain the job site and related structures, grounds and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of Work and before final payment, Contractor shall at

its own cost and expense clean-up and remove from the vicinity of the Work all rubbish, debris, trash, unused materials and supplies, concrete forms, and temporary bridging and other like materials, belonging to it or used under its direction during the construction of the Work. Where the construction has crossed yards or driveways, they shall be restored by Contractor to the complete satisfaction of City's Representative, at Contractor's sole expense.

28. Water Pollution. Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, and canals from pollution with fuels, oils, bitumens, calcium chloride, and other harmful materials and shall conduct and schedule its operations so as to avoid or minimize muddying and silting of said streams, lakes, reservoirs, and canals. Care shall be exercised to preserve vegetation beyond the limits of construction. Contractor shall comply with California Fish and Game Code section 5650 and all other applicable statutes and regulations relating to the prevention and abatement of water pollution. If the Work is subject to the NPDES general permit for stormwater discharges from construction activities, Contractor will comply with all terms and conditions of any applicable special condition, specification or addendum issued by City related to implementation of the Storm Water Pollution Prevention Plan for the Work.

29. Underground Work. If the Work includes excavation and/or trenching deeper than four feet underground, then the following provisions shall apply:

(a) Protection of Underground Utilities. Prior to conducting any excavation or trenching, Contractor shall contact the appropriate regional notification center as required by California Government Code sections 4216 and following. In accordance with California Government Code section 4215, City shall be responsible for the timely removal, relocation or protection of existing main or trunkline utility facilities located on the project site and not shown on the plans and drawings. Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated on the plans and drawings with reasonable accuracy, and for the equipment on the project necessarily idled during such work; provided that Contractor shall first notify City before commencing work on locating, repairing damage to, removing or relocating the utilities. Contractor shall not be assessed liquidated damages for delay in completion of the project, when the delay was caused by the failure of City or the owner of the utility to provide for removal or relocation of the utility facilities not shown on the plans and drawings.

(b) Sheeting and Shoring Plan. If the total amount of the Contract exceeds \$25,000 and the Work involves the excavation of any trench or trenches five feet or more in depth, then, in accordance with California Labor Code section 6705, Contractor shall submit to City for acceptance, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any such trench or trenches. The plan shall comply with applicable United States Department of Labor regulations (29 C.F.R. 1926) and OSHA and Cal/OSHA construction safety orders and shoring system standards, or be prepared by a registered civil or structural engineer who certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the construction safety orders and shoring system standards.

(c) Unusual Underground Conditions. In accordance with California Public Contract Code section 7104, the following provisions shall apply to any work that involves digging trenches or other excavations:

(i) If, during any such digging or excavation, Contractor discovers (a) material Contractor believes may be material that is hazardous waste, as defined in California Health & Safety Code section 25117, that is required to be removed to a Class I, II or III disposal site, (b) subsurface or latent physical conditions at the site differing from those indicated, or (c) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided in the Contract, then Contractor shall promptly notify City’s Representative in writing and shall not disturb the area of the subject digging or excavation until notified by City’s Representative.

(ii) Upon receipt of any notice pursuant to the foregoing subsection, City’s Representative shall promptly investigate the conditions, and if he or she finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in Contractor’s cost of, or the time required for, performance of the Work, or any part of the Work, it shall issue a change order pursuant to this Contract.

(iii) If there is a dispute between City and Contractor over whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Contractor’s cost of, or time required for, performance of any part of the Work, Contractor shall not be excused for the scheduled completion date, but shall proceed with all work to be performed under the Contract. Contractor shall retain any and all rights provided by this Contract or by law that pertain to the resolution of disputes and protests between the parties.

30. Hazardous Materials; Hazard Communication.

(a) Proposition 65 and the California Health and Safety Code require businesses to provide warnings prior to exposing individuals to materials listed by the Governor as chemicals “known to cause cancer or reproductive toxicity.” City may use chemicals on the Governor’s list at many of its facilities. In addition, many of these chemicals are present at non-City-owned facilities and locations. Accordingly, in performing the Work under this Contract, Contractor, its employees, agents, and subcontractors may be exposed to chemicals on the Governor’s list. Except as provided in subsection (b), Contractor is responsible for notifying its employees, agents, and subcontractors that work performed hereunder may result in exposures to chemicals on the Governor’s list.

(b) Before starting work, Contractor shall have a written Hazard Communication Program (“HCP”) in place that complies with the requirements of section 5194 of Title 8 of the California Code of Regulations, including the requirements of 8 C.C.R. section 5194(e). The information in Contractor’s HCP must include the methods by which Contractor shall communicate to City which hazardous substances it will use and store on the job site(s) to which City’s and Contractor’s employees and subcontractors may be exposed. Contractor shall submit its HCP to City at the same time as submittal of its initial project schedules or other time designated by City. Contractor will provide copies of safety data sheets (“SDS”) for all hazardous substances brought onto and used or stored on the job site(s). Contractor also will ensure that all

hazardous substances are marked with Proposition 65 and any other visible warning labels as required by law. Whenever possible, Contractor shall provide SDS for all hazardous substances to City prior to bringing a hazardous substance onto a job site, but will provide all SDS by no later than the time the hazardous substance is physically brought onto the site. City will communicate Contractor's HCP and SDS information to City's employees who work on or will enter the job site. City will provide Contractor with a copy of City's HCP and SDS information specific to City operations on the job site. Contractor shall, in turn, convey this information to its employees and subcontractors. During the course of the work, Contractor will keep copies of both its and City's HCP, SDS and other relevant information at Contractor's job site office.

31. Contractor's License Notice. Statement required by California Business & Professions Code section 7030: "Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826."

32. Indemnification. To the fullest extent permitted by law, Contractor shall protect, defend, indemnify and hold harmless City and, if applicable, City's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards, and consultants from and against all penalties and fines imposed by law and all loss, claim, cause of action, demand, suit, judgment, cost, damage, expense, and liability (including but not limited to court or arbitration costs and reasonable attorneys' and expert witness fees) resulting from injury to or death of persons, including without limitation employees of the City, City's Representative and Contractor, or damage to or loss of property, caused by, arising out of or in any way connected with the Contractor's or its subcontractors' or suppliers' performance, operations or activities under this Contract, except to the extent the sole negligence, active negligence or willful misconduct of an indemnified party proximately causes the loss, claim, demand, cost, suit, judgment, penalty, fine, cause of action, damage, expense, or liability.

(a) Contractor's duty to defend is a separate and distinct obligation from Contractor's duty to indemnify. Upon the request of an indemnified party hereunder, Contractor shall defend any suit asserting a claim covered by this indemnity and shall pay any costs and expenses that may be incurred by an indemnified party in enforcing this indemnity. Contractor shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, the City and, if applicable, City's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards, and consultants, immediately upon tender to Contractor of the claim in any form or at any stage of an action or proceeding, whether or not liability has been established. The obligation to defend extends through final judgment, including exhaustion of any appeals. In all cases, City shall have the right to approve counsel selected by Contractor in the defense of any legal action or with respect to any claim, which approval shall not be unreasonably withheld. In addition, the indemnified party shall have the right to participate in and be represented by counsel of its own choice and at its own expense in any legal action or with respect to any claim.

(b) In any and all claims against the City or City's Representative, and each of their officers, directors, employees and agents by any employee of 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 under this section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable under Workers' Compensation statutes, disability benefit statutes or other employee benefit statutes.

(c) Neither termination of this Contract, completion of the acts to be performed under this Contract, nor City's Representative's approval or City's acceptance of the work shall release Contractor from its obligations to indemnify and defend City and City's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards, and consultants.

(d) Submission of insurance certificates or submission of other proof of compliance with the insurance requirements in this Contract does not relieve Contractor from liability under this indemnification provision. The obligations of this section shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

33. Insurance.

(a) The Contractor shall procure and maintain for the duration of the Contract, and for five years thereafter, the following 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, its agents, representatives, employees or subcontractors.

(i) General Liability - Commercial General Liability (CGL) - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least five million dollars (\$5,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to City) or the general aggregate limit shall be twice the required occurrence limit.

(ii) Automobile Liability - Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) with limit of five million dollars (\$5,000,000) for bodily injury and property damage each accident.

(iii) Workers' Compensation Insurance - The Contractor shall provide workers' compensation coverage as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than one million dollars (\$1,000,000) per accident for bodily injury or disease.

(iv) Builder's Risk – (Course of Construction) - insurance utilizing an "All Risk" (Special Perils) coverage form with limits equal to the completed value of the project and no coinsurance penalty provision.

The above minimum insurance coverage limits can be met through provision of umbrella or excess policy insurance coverage consistent with the provisions of this section.

(b) If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum of insurance and coverage shall be available to the City. Furthermore, the above minimum insurance coverage limits can be met through provision of umbrella or excess policy insurance coverage consistent with the provisions of this section 33.

(c) Any deductibles or self-insured retentions must be declared to and approved by City. At the option of City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its officers, officials, employees and volunteers; or Contractor shall procure a bond or other security guaranteeing payment of losses and related investigations, claim administration and defense fees, costs and expenses. All policies that include a self-insured retention shall include a provision that payments of defense costs and damages (for bodily injury, property damage, personal injury or any other coverages included in the policy) by any party, including additional insureds and insurers, shall satisfy the self-insured retention limits.

(d) The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

(i) Waiver of Subrogation (also known as Transfer of Rights of Recovery Against Others to Us): The Contractor hereby agrees to waive rights of subrogation to obtain endorsement necessary to affect this waiver of subrogation in favor of the City, its directors, officers, employees, and authorized volunteers, for losses paid under the terms of this coverage which arise from work performed by the Named Insured for the City; this provision applies regardless of whether or not the City has received a waiver of subrogation from the insurer.

(ii) City, and its officers, officials, employees, agents and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of Contractor, products and completed operations of Contractor; premises owned, occupied or used by Contractor; or automobiles owned, leased, hired or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, officials, employees, agents or volunteers. The additional insured coverage or endorsement shall comply with California Insurance Code section 11580.04.

(iii) For any claims related to this project, Contractor's general and automobile liability coverage shall be primary insurance as respects City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees, agents or volunteers shall be excess to Contractor's insurance and shall not contribute with it.

(iv) Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to City, and its officers, officials, employees, agents or volunteers.

(v) Contractor'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.

(vi) Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after 30 days' prior written notice by U.S. mail has been given to City, or after 10 days' written notice in the case of cancellation for non-payment of premium.

(e) Course of construction policies shall contain, or be endorsed to contain, the following provisions: (a) City shall be named as loss payee; and (b) the insurer shall waive all rights of subrogation against City.

(f) Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII or equivalent and that are authorized to do business in California, unless otherwise approved by City. In the case of Workers' Compensation and Employer's Liability insurance, coverage provided by the California State Compensation Insurance Fund is acceptable.

(g) Before commencing work, Contractor shall provide to City the following proof of insurance: (a) certificate(s) of insurance on ACORD Form 25-S (or insurer's equivalent) evidencing the required insurance coverages; and (b) endorsement(s) on ISO Form CG 20 10 (or insurer's equivalent), signed by a person authorized to bind coverage on behalf of the insurer(s) and certifying the additional insured coverages, or equivalent additional insured blanket endorsement. City reserves the right to require complete copies of all required insurance policies and/or endorsements affecting required insurance coverage at any time.

(h) Contractor shall include all actions and activities of its subcontractors as insureds under its policies, or shall require each subcontractor to provide insurance coverage consistent with the foregoing and to furnish separate endorsements or certificates to City. All coverages for subcontractors shall be subject to all of the requirements stated in this section.

(i) Contractor shall maintain all required insurance coverages for the period provided in this section. If any of the required coverages expire during the coverage period, Contractor shall obtain renewal or replacement coverages and deliver certificates for the renewed or replacement coverages and any required endorsements to City at least 10 days before the expiration date of the existing coverage.

(j) Any products/completed operations insurance coverage shall be maintained after completion of the Work for the full guarantee period.

(k) The requirements as to the types, limits, and City's approval of insurance coverage to be maintained by Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under the Contract.

(l) In addition to any other remedy City may have, if Contractor or any of its subcontractors fails to maintain the insurance coverage as required in this section, City may obtain such insurance coverage as is not being maintained, in form and amount substantially the same as required herein, and City may deduct the cost of such insurance from any amounts due or which may become due Contractor under this Contract.

(m) Contractor shall execute and file with City the attached Contractor's Workers' Compensation Certificate in accordance with California Labor Code section 1861.

34. Final Acceptance and Date of Completion.

(a) Whenever Contractor shall deem all Work under this Contract to have been completed, it shall so notify City's Representative in writing, and City's Representative or other City representative shall promptly ascertain whether the Work has been satisfactorily completed and, if not, shall advise Contractor in writing of specific defects and any additional Work required.

(b) Neither the final payment nor any part of the retained percentage shall become due until Contractor, if required, shall deliver to City, a complete release of all liens and claims arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien or claim could be filed; but Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to City, to indemnify the City against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, Contractor shall refund to City all monies that the latter may be compelled to pay in discharging such a lien, or claim, including all costs and reasonable attorneys' fees.

(c) When all the provisions of the Contract have been fully complied with to the satisfaction of City, City will accept the Work in writing and make the final payment to Contractor. As a condition of receiving the final payment, Contractor must execute and deliver to City, as appropriate, a Conditional Waiver and Release Upon Final Payment or Unconditional Waiver and Release Upon Final Payment in the form provided in Civil Code sections 8136 or 8138, respectively.

(d) Except for any sum required to be withheld by law or allowed to be held under this Contract, the 5% retention shall be paid 35 days after City's acceptance of the Work. In accordance with California Public Contract Code section 7107(c), in the event of a dispute between the parties, City may withhold from the final payment to Contractor an amount not to exceed 150% of the disputed amount.

35. Right to Withhold Payments.

(a) In addition to all other rights and remedies of City provided by law and this Contract, City may withhold the whole or any part of any progress or final payment to such extent as may reasonably be necessary to protect City from loss on account of: (a) unacceptable, defective or nonconforming Work not remedied; (b) claims or liens filed or reasonable evidence indicating probable filing of claims or liens including, but not limited to, claims under sections 1775, 1776 and 1777.7 of the California Labor Code or the public works stop notice provisions in the California Civil Code; (c) failure of Contractor to make payments properly for labor, materials,

equipment, or other facilities, or to subcontractors and/or suppliers; (d) a reasonable doubt that the Work can be completed for the balance then unearned; (e) failure of Contractor to clean up the job site, repair or replace damaged or affected improvements or property; or (f) damage to job site, completed Work, or other real or personal property.

(b) Whenever City withholds any monies pursuant to this paragraph, written notice of the amount withheld and the reasons for the withholding will be given to Contractor. After Contractor has corrected the enumerated deficiencies to the satisfaction of City, City will promptly pay to Contractor the amount so withheld. When City withholds monies to protect City against claims under the public works stop payment notice provisions of the California Civil Code, City may at its discretion permit Contractor to deliver a surety bond in terms and amount satisfactory to City, indemnifying City against any loss or expense, and upon acceptance thereof by City, City shall release to Contractor monies so withheld.

36. State Audit Contingency. Contractor acknowledges that this Contract, and performance and payments under this Contract, are subject to examination and audit by the State Auditor General for three years following final payment under this Contract pursuant to California Government Code section 8546.7.

37. Liquidated Damages. If Contractor does not complete the Work, as determined by City, before the expiration of the Contract time limit, or within any time extension granted by City, then City will sustain damage, and that it may be impracticable to determine the actual amount of damage by reason of the delay. The parties therefore agree that Contractor shall pay City as damages the daily liquidated damages amount stated above for each and every day's delay in finishing the Work beyond the Work completion deadline. The parties agree that this liquidated damages provision is reasonable under the circumstances existing at the time the Contract was made. City shall have the right to deduct the amount of liquidated damages from any money due or to become due Contractor.

38. Waiver of Interest. City shall have no obligation to pay and Contractor hereby waives the right to recover interest with regard to monies which City must withhold by reason of judgment, order, statute or judicial process, or which it may withhold pursuant to this Contract.

39. Claims and Resolution of Disputes.

(a) General. The parties intend that differences between the parties, arising under the Contract, be brought to the attention of the City at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The parties agree to initially strive to resolve all disputes amicably and in an informal manner. Any dispute resolved informally shall be documented by the City, and if the dispute resolution involves a change in the contract work, increase or decrease in the compensation due the Contractor, or adjustment in the time of completion of the Work, then the informal dispute resolution shall be confirmed by a Change Order pursuant to section 12. Informal discussions or negotiations with the City or its representatives concerning informal resolution of a dispute shall not toll or suspend the claim filing and other deadlines provided below, unless so provided by the City in writing. Willingness of the City to engage in any such discussions is not a waiver of the City's right to deny a claim or dispute based on lack of merit, or procedural deficiency, or both.

(b) **Compliance Required.** Contractor shall not be entitled to any additional time to complete Work or to the payment of any additional compensation for claimed extra work (or otherwise on account of any claim, cause, act, failure to act, or happening of any event or occurrence) unless either City has issued a Change Order pursuant to section 12 or a claim has been timely filed and approved pursuant to this section. If the Contractor fails to file a written claim within the claim deadline in section 39(d), then the Contractor agrees that it has waived any right or remedy to thereafter pursue the claim against the City in any administrative, arbitration or litigation proceeding, and the City may elect to document this waiver.

(c) **Scope of Claims.** A claim for purposes of this section means a separate demand by the Contractor for (a) a time extension (including a demand for relief from damages or penalties for delay assessed by the City under the Contract), (b) payment of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the Contractor is not otherwise entitled to, or (c) an amount the payment of which is disputed by the City.

(d) **Filing of Contract Claim; Contents; Filing Deadline**

(i) The Contractor shall file any "Contract Claim" with the City. A Contract Claim must (a) be in writing, (b) be labeled or clearly indicated as a claim under the Contract, (c) set forth in detail the reasons why the Contractor believes additional compensation or a time extension is or may be due, the nature of the costs involved, and, insofar as possible, the amount of the claim, and (d) include (or reference earlier provided) documents that support and substantiate the claim as both entitlement and quantification of time, money, or both.

(ii) A Contract Claim must be submitted to the City within the following claim filing deadlines:

- A. if a deadline is set forth in the Contract for filing of the particular claim, then the claim must be filed by the specified time;
- B. if the claim relates to extra, additional or unforeseen work for which the Contractor intends to demand additional compensation, a time extension, or both, notice shall be given to the City prior to the time that the Contractor commences performance of the work giving rise to the potential claim for additional compensation or time extension, and Contractor shall not proceed with that work until so directed by the City; and
- C. for all other claims not included within (a) or (b), the claim must be filed on or before 15 days after the date of the occurrence, event or circumstance giving rise to the claim. In no event shall a Contract Claim be filed later than the date of final payment.

(e) **Processing of Claims, Generally.** This Contract provides for two types of Contract Claims, which will be processed and resolved under different subsections. Any claim for money or damages or for a time extension (i.e., any claim subject to Public Contract Code section 20104) shall be processed and resolved in accordance with section 39(f). Any Contract Claim sent

to City by registered mail or certified mail with return receipt requested (i.e., any claim subject to Public Contract Code section 9204) shall be processed and resolved pursuant to section 39(g).

(f) Claims for Money, Damages or for Time Extension

(i) City Response to Contract Claim. The City shall respond in writing to the Contract Claim within 60 days of receipt of the claim (or within 45 days of receipt for claims of less than \$50,000), or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the City and the Contractor. The City's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days after receipt (or 15 days after receipt for claims of less than \$50,000) of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater. The City shall not fail to pay money as to any portion of a Contract Claim that is undisputed except as otherwise provided in the Contract.

(ii) Meet and Confer. If the Contractor disputes the City's written response, or the City fails to respond within the time prescribed, the Contractor may notify the City, in writing, either within 15 days of receipt of the City's response or within 15 days of the City's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such a demand, the City shall schedule a meet and confer conference within 30 days for the parties to consider settlement of the dispute. If the Contractor fails to timely demand a meet and confer conference within the applicable 15-day period, then the Contractor shall be deemed not to dispute the City's written response to the Contract Claim and the City's decision on the Contract Claim shall be final, conclusive and binding, and the Contractor shall be deemed to have waived all its rights to further protest, judicial or otherwise.

(iii) Government Code Claim. Following the meet and confer conference, if the Contract Claim or any portion remains in dispute, the Contractor may file a Government Code Claim as provided in Government Code title 1, division 3.6, part 3, chapters 1 (commencing with section 900) and 2 (commencing with section 910). The running of the period of time within which Contractor must file a Government Code Claim shall be tolled from the time the Contractor submits a timely Contract Claim pursuant to section 39(d) until the time that the Contract Claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process. The City shall respond to any Government Code Claim in accordance with the Government Claims Act.

(iv) Lawsuit. If the claim is not resolved pursuant to this section, the Contractor may file a lawsuit on the claim within the limitations period provided by the Government Claims Act. If the Contractor fails to timely file a lawsuit within the limitations period of the Government Claims Act, then the City's response to the Government Code Claim shall be final, conclusive and binding on the Contractor, and the Contractor thereafter shall be barred from filing a lawsuit on the claim.

(v) Mediation. If the Contractor timely files a lawsuit, then within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to non-binding mediation (unless waived by mutual stipulation of both parties). The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator. The mediator's fees and expenses shall be split and paid equally between the parties. The court may, upon request by any party, order any witnesses to participate in the mediation process.

(vi) Arbitration. If the matter remains in dispute following the mediation or if the parties waive the mediation, then the case shall be submitted to judicial arbitration pursuant to Code of Civil Procedure part 3, title 3, chapter 2.5 (commencing with section 1141.10), notwithstanding section 1141.11 of that code. The Civil Discovery Act of 1986 (Code of Civil Procedure part 4, title 3, chapter 3, article 3 (commencing with section 2016.010)) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration. The arbitrator shall be experienced in public works construction law. The arbitrator's fees and expenses shall be split and paid equally by the parties, except where the arbitrator, for good cause, determines a different division. The court may, upon request by any party, order any witnesses to participate in the arbitration process. Any party who, after receiving an arbitration award, requests a trial de novo but does not obtain a more favorable judgment shall (in addition to payment of any costs and fees under Code of Civil Procedure part 3, title 3, chapter 2.5 (commencing with section 1141.10)) pay the attorney's fees of the other party arising out of the trial de novo.

(vii) Interest. In any lawsuit filed under this subsection, City shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the lawsuit is filed in court.

(g) Claims Subject to Public Contract Code section 9204

(i) The Contract Claim will be processed and resolved pursuant to Public Contract Code section 9204, which is summarized here:

- A. City Review of Claim. Within 45 days after receiving a complete Contract Claim, City shall review the claim and provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. City will pay any undisputed portion of the claim within 60 days from the date of the written statement. If City fails to timely issue a written statement, the claim shall be deemed rejected in its entirety.
- B. Meet and Confer Conference. If the Contractor disputes the City's written statement or if the Contract Claim is deemed rejected, the Contractor may demand and the parties will conduct an informal conference to meet and confer regarding settlement in accordance with section 9204, subsection

(d)(2). Within 10 business days following the conclusion of the meet and confer conference, City shall provide Contractor a written statement identifying the portion (if any) of the claim remaining in dispute and any undisputed portion will be paid by City within 60 days after this written statement.

- C. Non-Binding Mediation. Any remaining disputed portion of the claim shall be submitted to nonbinding mediation in accordance with section 9204, subsection (d)(2).
- D. Interest. Any amount not paid in a timely manner as required by this subsection shall bear interest at a rate of 7 percent per annum until paid.

The foregoing is a summary of section 9204. In the event of any conflict between the summary and section 9204, the statute will govern.

(ii) Lawsuit and Judicial Reference. If mediation is unsuccessful and all or parts of the Contract Claim remain in dispute, then the Contractor may pursue a lawsuit. If the Contractor timely files a lawsuit, the case shall be submitted to judicial reference pursuant to California Code of Civil Procedure sections 638 and 640 through 645.1 (or any successor statute) and California Rules of Court title 3, division 9 (commencing with section 3.900). As authorized by Code of Civil Procedure section 638, a referee will consider and decide all factual and legal issues in the action. Each party acknowledges that it will not have any right to a jury trial or to have any judicial officer besides the referee hear or decide the action. When Contractor initiates the superior court lawsuit, it will, at the same time it files the complaint in the action, also file a motion for appointment of a single referee.

- A. Appointment of a referee shall be by mutual agreement within 30 days between the parties, and if unsuccessful, then by the court and will be governed by Code of Civil Procedure section 640, and subject to objection by either party as provided by Code of Civil Procedure section 641. The referee must be a retired judge or a licensed attorney with at least ten years substantive experience in public works construction matters.
- B. The parties shall be entitled to discovery and the referee shall oversee discovery and may enforce all discovery orders in the same manner as a superior court judge. The referee shall have the authority to consider and rule on appropriate pre-hearing and post-hearing motions in the same manner as a superior court judge. The referee will have the authority to set a briefing and hearing schedule for any such motion or for a hearing on the merits.
- C. The referee's statement of decision shall include findings of fact and conclusions of law. The statement of decision will stand as the decision of the superior court and, upon filing of the statement with the clerk of the court, judgment may be entered pursuant to Code of Civil Procedure section

644, subsection (a). The parties will have rights to appeal the final judgment so entered.

D. Each Party will pay half of the costs of the referee and the administrative fees of the reference proceeding, and each party will bear its own costs, expenses and attorney fees for the reference proceeding.

(h) **Contract Work Pending Claim Resolution.** Unless otherwise directed in writing by the City, pending resolution of a claim under this section, the Contractor shall continue to diligently prosecute the Work in accordance with the Contract and the instructions of the City.

(i) **Tort Claims.** The provisions of this section apply only to contract-based claims and they shall not apply to tort claims, and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Government Code title 1, division 3.6, part 3, chapters 1 (commencing with section 900) and 2 (commencing with section 910).

40. **Assignment of Anti-Trust Claims.** In entering into this Contract, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S. Code, section 15) or under the Cartwright Act (chapter 2 (commencing with section 16700) of part 2 of division 7 of the California Business and Professions Code), arising from purchases of goods, services or materials pursuant to this Contract. The assignment shall be made and become effective at the time City tenders final payment to Contractor, without further acknowledgement by the parties.

41. **Integration.** This Contract constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this contract among the parties concerning the subject matter addressed herein, and supersedes all prior negotiations, representations or agreements, either oral or written, that may be related to the subject matter of this Contract, except those other documents that are expressly referenced in this Contract.

42. **Counterparts and Electronic Signatures.** This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute the same instrument. Counterparts may be delivered by facsimile, electronic mail (including PDF or any electronic signature complying with California's Uniform Electronic Transactions Act (Civ. Code, §1633.1, et seq.) or any other applicable law) or other transmission method. The parties agree that any electronic signatures appearing on the Contract are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility.

43. **Independent Contractor.** The relationship between City and Contractor is that of an owner and independent contractor, and all persons hired or employed by Contractor shall be Contractor's employees, agents or subcontractors.

44. **Governing Law.** This Contract shall be construed and enforced in accordance with, and the validity and performance of this Contract shall be governed by, the laws of the State of California.

45. Waiver; Remedies. Any waiver at any time by either party of its rights with respect to a breach or default or any other matter arising in connection with this Contract shall not be deemed to be a waiver with respect to any other breach, default or matter. The rights and remedies provided in this Contract are in addition to any of the rights and remedies provided by law.

46. Severability. The illegality or unenforceability of any provision of this Contract shall not render the other provisions unenforceable, invalid or illegal.

47. Binding on Successors. This Contract shall bind and inure to the benefit of the heirs, successors, assigns, and successor companies of the parties; however, Contractor shall not assign or transfer any rights, obligations or interest in the Contract without the prior written consent of City.

48. Notices. Any invoice, payment, notice, demand, request, consent, approval or notification of change of address that either party to this Contract may or is required to give to the other party will be in writing and signed for the party by an authorized officer and addressed to the addresses set forth above. All such notices will be deemed to have been received on the date of delivery if either personally delivered or sent by recognized national overnight courier service or three days after mailing if enclosed in a properly addressed and stamped envelope and deposited in a United States post office for first-class delivery. Either party may change its address at any time by notifying the other party in writing of the change of address in accordance with this section.

The parties enter into and execute this Contract effective on the date written above.

**For City:**

Bill Zenoni

Name: Bill Zenoni

Title: City Manager

**For Contractor:**

BK Custom Concrete

Name: B. Keil

Title: Owner

**CONTRACTOR'S WORKERS' COMPENSATION CERTIFICATE  
(LABOR CODE SECTION 1861)**

To: City of Wheatland

I am aware of the provisions of section 3700 of the Labor Code, which require every employer to be insured against liability for workers' compensation or to 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 under this Contract.

**For Contractor**

Authorized Signature: *Brandon Kesterson*  
Printed Name: Brandon Kesterson  
Title: Owner  
Company Name: BK Custom Concrete  
Date: 2/5/25

**City of Wheatland - Corp Yard Sinkhole Repair**

**BID FORM - BK Custom Concrete**

ITEM	CONSTRUCTION	QTY	UNITS	UNIT COST	TOTAL
1	MOBILIZATION AND DEMOBILIZATION	1	LS		Phase 1 - Lump Sum
2	TRENCH SHORING AND BRACING	1	LS		Phase 1 - Lump Sum
3	SHORE EXISTING BUILDING FOUNDATIONS	1	LS		Phase 1 - Lump Sum
4	LOCATE EXISTING ABANDONED WELL	1	LS		Phase 2**
5	EXTRACT LOOSE MATERIAL IN VOIDS	1	LS		Phase 1 - Lump Sum
6	SLURRY BACKFILL WELL & VOIDS	30	CY		Phase 1 - Lump Sum
7a	INJECTION GROUT CONC. BLDG. SLAB	15	CY		Phase 2**
or 7b	REMOVE AND REPLACE CONC. BLDG. SLAB	600	SF		Phase 2**
8	REMOVE EXISTING PAVEMENT	1,400	SF		Phase 2**
9	PREPARE SUBGRADE & REGRADE TO DRAIN	1,400	SF		Phase 2**
10	ASPHALT PAVEMENT (4" THICK, 1/2" TYPE A)	34	TON		Phase 2**

**TOTAL** **Phase 1\* \$29,226.00**

Written Amount: **Twenty nine thousand two hundred twenty six and zero cents**

\* Phase 1 items as also indicated on attached BK Custom Concrete Proposal #1117.

\*\* Phase 2 items to be accomplished by negotiated change order.

Submission Date: November 8, 2024

Company Name: BK Custom Concrete

Address: 4164 Markley Road, Yuba City, CA 95993

Phone No.: (530) 635-7046

Email: bksr\_9@hotmail.com

CSLB License No(s): 877095

Bidder Signature: 

# Proposal

Ca Lic #877095  
 DIR# 2023/ 1000029851



4164 Markley Rd  
 Yuba City Ca 95993

<b>Name/Address</b>
City of Wheatland Public Works 208 4th Street Wheatland Ca 95692

<b>Date</b>	<b>Proposal No.</b>
11/05/24	1117

Item	Description	Quantity	Cost	Total
04 Concrete	<p>Project: City Yard Sink Hole            Location: 208 4th St Wheatland Ca 95692            Prevailing Wage Rates Apply            Phase 1 (5 Working Days Only)</p> <ul style="list-style-type: none"> <li>- Remove remaining asphalt to open up the existing sink hole</li> <li>- Remove existing dirt with vacuum excavation that is unstable and falling into sink hole</li> <li>- Secure south east corner of the foundation with high strength grout 4000 psi to stabilize foundation corner prior to excavation</li> <li>- Inspect existing conditions</li> <li>- Sand slurry sink hole after approvals from the City Management Team</li> </ul> <p>Projection for Phase 1 completion 5 working days            Labor 160 hrs @ \$99.85 = \$15,976.00            Equipment Rate \$900.00 per day x 5 days = \$4500.00            Material - Demo material off haul to dump \$50.00 per trailer load                Sand Slurry back fill material 2 sack conc mix estimation 30 yards @ \$125.00 per yard = \$3750.00                High Strength Grout Material estimation \$650.00                Bottle Jacks and cribbing material estimation \$550.00</p>	1	26,826.00	26,826.00
			<b>Total</b>	

Customer Signature: \_\_\_\_\_

BKCC Signature: \_\_\_\_\_ Page 1

# Proposal

Section 6, Item # 6.1

Ca Lic #877095  
DIR# 2023/ 1000029851



4164 Markley Rd  
Yuba City Ca 95993

Name/Address
City of Wheatland Public Works 208 4th Street Wheatland Ca 95692

Date	Proposal No.
11/05/24	1117

Item	Description	Quantity	Cost	Total
04 Concrete	Line Pump Service	1	1,400.00	1,400.00
Mobilization	Mobile of equipment and tools to job location	1	1,000.00	1,000.00
	* Time and Materials is based on a 1 week (5 days) period anything above and beyond will be documented and submitted for approvals for a change order in order for BK Concrete to proceed * All underground pipe if damaged will be replaced or fixed by others			
			Total	\$29,226.00

Customer Signature: \_\_\_\_\_

BKCC Signature: \_\_\_\_\_ Page 2



# City of Wheatland

111 C Street Wheatland, California 95692

TELEPHONE (530) 633-2761

FAX (530) 633-9102

October 2024

## Invitation to Bid Wheatland Corporation Yard Sinkhole Repair Project

The City of Wheatland, California is informally seeking bids for this emergency repair project to repair damage due to an abandon well under a City maintenance building located at 208 Fourth Street in Wheatland.

Proposals will be received electronically by the City Engineer at [dschilling@wheatland.ca.gov](mailto:dschilling@wheatland.ca.gov) until a sufficient response is received. In General, the Project consists of demolition, shoring, excavating loose soils, CLSM backfill, injection grouting, minor grading and asphalt paving. The anticipates a Notice to Proceed on November 13, 2024, and work shall be performed within 30 calendar days.

This is an informal bidding process. There will be no pre-bid conference for this project. Each bid must be submitted on the prescribed forms. The successful bidder will be required to furnish a payment bond and faithful performance bond each in the full amount of the contract price, and insurance with certificates and endorsements of insurance, as provided in the Contract Documents.

The successful bidder must possess the following classification or type of contractor's license issued by the California Contractors State License Board: **Class A OR Class B.** To be qualified to bid on this Project, bidders must be registered and qualified to perform public work with the Department of Industrial Relations pursuant section 1725.5 of the Labor Code. All subcontractors listed in a qualified bidder's bid as performing any portion of the work also must be registered and qualified with the Department of Industrial Relations.

Bidders are directed to the requirements and conditions of employment to be observed and prevailing wage rates to be paid to all workers employed under the Contract in accordance with Labor Code sections 1770 and following.

The City reserves the right to reject all bids. Any bid not conforming to the intent and purpose of the Contract Documents may be rejected.

A handwritten signature in black ink, appearing to read "D. Schilling", with a long horizontal line extending to the right.

Dane Schilling, PE  
City Engineer

## City of Wheatland - Corp Yard Sinkhole Repair

### DESCRIPTION OF WORK ITEMS

ITEM	DESCRIPTION
1	<p><b>MOBILIZATION AND DEMOBILIZATION</b></p> <p>5% max. allowance based on the sum of all other costs. Also includes site security, house keeping and final clean-up.</p>
2	<p><b>TRENCH SHORING AND BRACING</b></p> <p>Contractor to provide as-needed to meet OSHA requirements.</p>
3	<p><b>SHORE EXISTING BUILDING FOUNDATIONS</b></p> <p>The southeasterly corner of the building foundation is unsupported/hanging (approximately 10- to 12-linear feet, see photos in report). Work includes placing jacks, shoring and/or cribbing to safely support edge of building during construction. Solid concrete and steel shoring materials may be abandoned in-place at the discretion of the City Engineer.</p>
4	<p><b>LOCATE EXISTING ABANDONED WELL</b></p> <p>Mark the location of the well on the ground using remote field measurements taken from the opening in the largest void to the visible portion of the brick well structure. Measurements can be electronic or direct physical measurements using tools to reach into the void. Once located, core hole(s) in slab or asphalt pavement over the well, auger through subgrade soils (if any). The City will document the conditions with photos and ascertain the depth.</p>
5	<p><b>EXTRACT LOOSE MATERIAL IN VOIDS</b></p> <p>Work involves removing any loose soils from voids that are accessible from the ground surface without entering the voids. It is assumed that a crew and equipment will perform soil extraction over the period of one 8-hr work day. Additional work days may be added at the discretion of the City. The City's expected work sequence and equipment includes:</p> <p><u>Method:</u> Reach into the void from the surface level (no excavations over the void) by inserting a vacuum hose/pipe with a floor attachment from a vactor truck down the invert of the void, insert air lance with circular diffuser to dislodge loose soils from the walls of the void, send the tube back down retrieve loose soil; repeat as necessary.</p> <p><u>Equipment:</u></p> <ul style="list-style-type: none"> <li>- Vacuum truck with positive displacement of 18" Hg @ 3,500-cfm, 8" diameter pick-up hose and articulated boom with minimum 20-ft reach; 8" diameter pipe extensions and 8" flat floor attachment; and misc. rigging.</li> <li>- Compressor and air lance operating with 100- to 249-psi range with 360-degree dispersion nozzle, and ridged extensions as needed.</li> </ul>
6	<p><b>SLURRY BACKFILL WELL &amp; VOIDS</b></p> <p>Work involves placing controlled low strength material (CLSM) in voids from the ground level. Deliver CLSM by tremie methods to fill well and voids from the bottom up. CLSM should have a minimum 28-day unconfined compressive strength between 200 and 500 pounds per square inch (psi).</p>

## City of Wheatland - Corp Yard Sinkhole Repair

7a **INJECTION GROUT CONC. BLDG. SLAB**

Work involves injection grouting below the floor slab and along edge of CLSM by drilling injection locations throughout the eastern 600-sf of the existing floor slabs and along the eastern edge of the void . The grout should have a minimum 28-day unconfined compressive strength of at least 100 psi but not greater than 500 psi.

Contractor to determine the number, location, and layout of the injection points. Grout should be injected into each port until grout return is observed from adjacent injection holes, slab cracks, or ground surface, and/or the slab/foundation lifts more than acceptable. Multiple stages of injection grouting may be required to adequately fill the void below the floor slab and foundations. See attachment for injection grouting material specifications.

or 7b **REMOVE AND REPLACE CONC. BLDG. SLAB**

Work involves saw cutting and removal of 600-sf of existing reinforced concrete slab (excluding perimeter foundations); backfilling any voids under the slab; doweling reinforcing bar into remaining concrete; and pouring an in-kind reinforced concrete replacement slab.

8 **REMOVE EXISTING PAVEMENT**

After the voids have been filled and CLSM has achieved 14-day strength, saw cut and remove a 20'x70' section of asphalt paving beginning at the back of the public sidewalk/driveway and continuing alongside the building.

9 **PREPARE SUBGRADE & REGRADE TO DRAIN**

Work includes adjusting grades to slope pavement away from building to form a slight V-gutter in the re-paved area.

10 **ASPHALT PAVEMENT (4" THICK, 1/2" TYPE A)**

Work includes minor adjustments to existing utility boxes and covers (3 estimated). The paved area is 20' x 70' extending from the existing back of sidewalk/driveway and continues southeasterly alongside the buildings.

## City of Wheatland - Corp Yard Sinkhole Repair

### BID FORM

ITEM	CONSTRUCTION	QTY	UNITS	UNIT COST	TOTAL
1	MOBILIZATION AND DEMOBILIZATION	5	%	-	
2	TRENCH SHORING AND BRACING	1	LS		
3	SHORE EXISTING BUILDING FOUNDATIONS	1	LS		
4	LOCATE EXISTING ABANDONED WELL	1	LS		
5	EXTRACT LOOSE MATERIAL IN VOIDS	1	DAY		
6	SLURRY BACKFILL WELL & VOIDS	42	CY		
7a	INJECTION GROUT CONC. BLDG. SLAB	15	CY		
or 7b	REMOVE AND REPLACE CONC. BLDG. SLAB	600	SF		
8	REMOVE EXISTING PAVEMENT	1,400	SF		
9	PREPARE SUBGRADE & REGRADE TO DRAIN	1,400	SF		
10	ASPHALT PAVEMENT (4" THICK, 1/2" TYPE A)	34	TON		

**TOTAL** \$ \_\_\_\_\_

Written Amount: \_\_\_\_\_

Submission Date: \_\_\_\_\_ Bidder Signature: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Email: \_\_\_\_\_

CSLB License No(s): \_\_\_\_\_



File No. 4782.X  
October 23, 2024

City of Wheatland  
Mr. Bill Zenoni  
City Manager  
111 C street  
Wheatland, CA 95692

**Subject: GEOTECHNICAL CONSULTATION – REVISION 1**  
**208 4<sup>th</sup> Street**  
Wheatland, California

Dear Mr. Zenoni,

Blackburn Consulting (Blackburn) appreciates the opportunity to provide geotechnical consultation services for the void that has formed below the City of Wheatland (City) Water Department Operations Building at 208 4<sup>th</sup> Street in Wheatland, California. Blackburn prepared a letter dated April 17, 2024, presenting preliminary conclusions, and recommendations. Below is a summary of site observations, review of available information, conclusions, recommendations for filling the void, and limitations. The recommendations in this updated letter supersede recommendations presented previously.

## **SITE DESCRIPTION AND PURPOSE**

The site is occupied by the City’s Water Department and Public Works operations building and shop/warehouse. Site improvements include:

- Single-story concrete masonry unit (CMU) operations building supported on shallow concrete spread footings.
- A Single-story steel framed shop/warehouse supported on shallow concrete spread footings.
- Asphalt pavements.
- Water pumps and pipelines.
- Water tanks (elevated and at grade), and
- Emergency backup generators.

Photo 1 shows the conditions near the shop/warehouse.

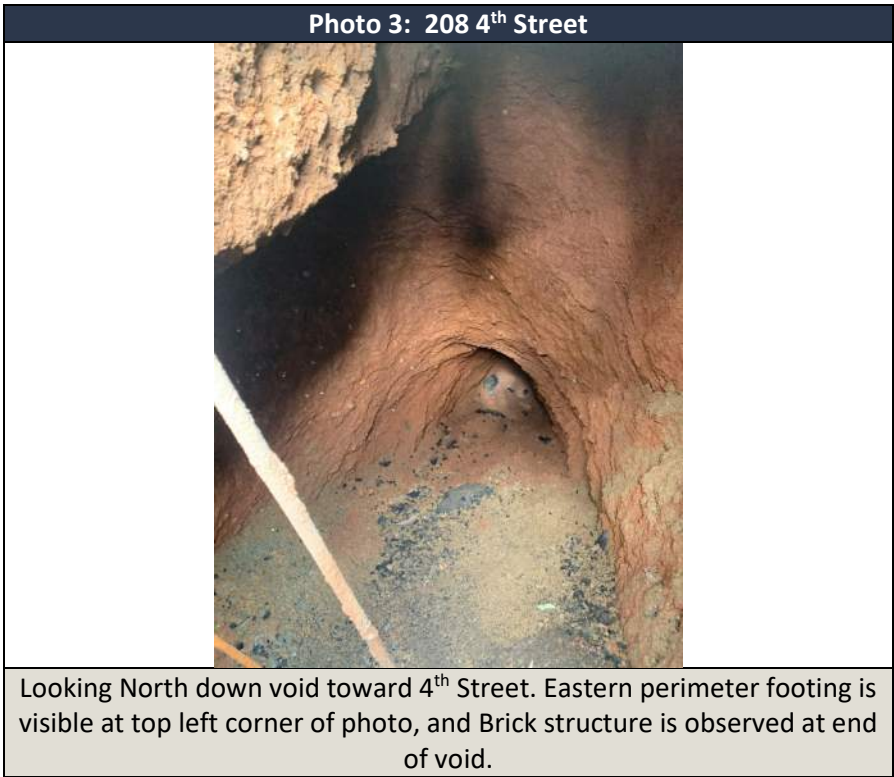


We understand City employees found a hole in the pavement near the southeast corner of the shop/warehouse building (coned area in Photo 1) on Thursday April 11, 2024, while moving a fuel storage cabinet (yellow cabinet on east side of shop/warehouse in Photo 1). The City contacted Coastland Engineering who requested Blackburn visit the site to observe the conditions, provide a professional opinion regarding likely cause(s) of the void, and preliminary recommendations to mitigate/ fill the void. We prepared this memo to summarize our observations, conclusions, and preliminary recommendations.

## **SUMMARY OF SITE OBSERVATIONS**

Blackburn’s engineer Haze Rodgers visited the site on April 12, 2024. Photos 2 through 4 show some of the void conditions observed during the site visit. Haze observed:

- A hole approximately 4 feet in diameter in the asphalt pavement near the southeast corner of the shop/warehouse building.
- Approximately 1 foot of the pavement laterally around the hole was depressed and undermined.
- The southeastern corner, eastern perimeter footing, and floor slab of the shop/warehouse building was undermined (Photo 3 and 4).
- The void extended to the north (Photo 3), and to the south and southwest (Photo 4).
- A brick structure was observed at the northern end of the void (Photo 3).
- The base of the void is covered with loose soil, Aggregate Base, and debris (AC pieces, leaves, etc.).
- The depth and horizontal extents of the void are unknown but estimated to extend to a depth of at least 20 feet below the ground surface at the northern end.
- Significant distress was not observed inside the shop/warehouse building at the southeastern corner; however, some cracks were observed in the floor slab near the northeast corner.





Blackburn's engineer Luke Morrell visited the site on July 10, 2024, with Subtronic corporation to survey the area around the existing buildings for underground utilities. Subtronic marked the locations of the detected underground utilities with paint in the field. Subtronic's report is included as Attachment A and includes pictures of the underground utilities detected and marked by Subtronic.

## REVIEW OF AVAILABLE INFORMATION

Blackburn reviewed:

- Publicly available geological, topographic, and historic aerial photos,
- Contacted the Yolo County Environmental Health Department, and
- Reviewed the City of Wheatland Letter titled: *Sink hole at Wheatland Corporation Yard, 208, 4<sup>th</sup> Street, Wheatland, California*, dated 22 April 2024.

The publicly available geologic and topographic maps do not identify former mine works, quarries, or other past uses or geologic formation that would be conducive to the formation of the void.

The historic aerial photos show the site has been occupied by the City of Wheatland Water Company/Department since before 1900. Excerpts of the 1899 Sanborn map (Figure 1 and Exhibit C of Attachment B) show a well below the northern portion of the existing shop building approximately above the brick observed at the base of the void (Photo 3). Yuba County Environmental Health does not have any records or information about the presence or abandonment of the well shown on the 1899 Sanborn map. The City concluded (Attachment B):

- The brick observed in the void could be the casing of the former well.
- The former well would be at least 30 feet deep, and
- Have a diameter of approximately 4 to 6 feet.

Coastland Engineering attempted to map the extents of the void and location of the brick structure. Exhibits A and B of the City’s letter (Attachment B) show the results of Coastland’s mapping.

## **CONCLUSIONS**

Based on our observations, review of available historical information, we conclude the void is likely caused by backward erosion piping of soil into the improperly abandoned well. The soil is likely being transported by surface water (from storm water, irrigation, etc.) that seeps into the soil and flows to the historic well. On-site stormwater could also enter the ground at the cold joint between the pavement and perimeter building foundations.

## **RECOMMENDATIONS**

Based on our observations, available information, and experience with similar projects we recommend:

- Remove the loose soil and debris from the void to expose firm native soil.
- Backfill the void and well in at least two stages:
  - o Stage 1: Place controlled Low Strength material (CLSM) in the well and void by tremie methods to fill the void and well from the bottom up. CLSM should have a minimum 28-day unconfined compressive strength between 200 and 500 pounds per square inch (psi).
  - o Stage 2: Injection grout below the floor slab and along edge of CLSM. The grout should have a minimum 28-day unconfined compressive strength of at least 100 psi but not greater than 500 psi.

The contractor might need to drill through the floor slab within the existing building to extend the tremie pipe to bottom of the well and completely fill the well.

Injection grouting uses a fluid like (low viscosity) cementitious or polymer grout placed under pressure using a probe/nozzle to fill voids in confined areas, small voids/fissures, and can be used to re-level floor slabs and foundations of light structures. The contractor should determine the number, location, and layout of the injection points; however, we recommend injections locations be placed throughout the eastern half of the existing floor slabs and along the eastern edge of the void. Grout should be injected into each port until grout return is observed from adjacent injection holes, slab cracks, or ground surface, and/or the slab/foundation lifts more than acceptable. Multiple stages of injection grouting may be required to adequately fill the void below the floor slab and foundations. Attachment C includes a draft specification for injection grouting.



## SERVICES DURING CONSTRUCTION

Blackburn should provide the following services during Repair:

- Review design specifications and plans prepared by others.
- Review contractor submittals, RFI's, and workplans.
- Full-time observation and documentation during placement of CLSM and injection grouting. Specifically, observe and record the following:
  - Batch tickets/Mix Proportions
  - Injection/ placement locations
  - Material volumes (take)
  - Injection pressures
  - Grout specific gravity
- Collect CLSM and grout samples for compression testing.
- Perform compression tests on CLSM and grout samples.

## LIMITATIONS

Do not use the information in this memorandum for design or construction on this site. We prepared this memo based on our site observations, information provided by others, and published data. Do not use or rely on the information for different locations or repairs/improvements without Blackburn's written consent.

Our scope does not include subsurface exploration or laboratory testing. Blackburn has not reviewed or performed a geotechnical investigation, laboratory testing, or engineering calculations for the project. Our conclusions and recommendations are based on the results of our review, a brief site visit, and information provided. A geotechnical exploration, laboratory testing, and engineering analyses must be performed to properly design and construct the repair.

Thank you for contacting us to help. Please call if you have questions or require additional information.

Sincerely,

**BLACKBURN CONSULTING**

Haze m. Rodgers, P.E., G.E.  
Geotechnical Director



Reviewed by:

Richard D. Rodgers, P.E., G.E.  
Senior Consultant

- Attachments: A – Subtronic Utility Survey report  
B – City of Wheatland Letter  
C – Injection Grout Sample Specification

**GEOTECHNICAL CONSULTATION  
MEMORANDUM  
208 4th Street, Wheatland, CA**

**Attachment A:**

Subtronic Utility Survey report

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**Personal Pre-Work Check**

Locator has Correct/Special Equipment

Meeting client

Correctly defined area of work

-Map Below-

---

**Job Safety Analysis**

Client:Blackburn Consulting
Job / Estimate #:39441
Date / Time:7/10 @ 930
Client Representative:Luke
Completed by:ryan
Lead Person:Ryan
<b>Type of Job</b>
<input checked="" type="checkbox"/> Locating <input checked="" type="checkbox"/> Surveying <input type="checkbox"/> CCTV

<input type="checkbox"/> Potholing <input type="checkbox"/> Leak Detection <input type="checkbox"/> Geophysical Survey
<b>Description of Work</b>
(2) 20'x20' areas  Upon arrival Luke has increased size of scope to one 30'x75' area and one 15'x30' area. He has ok'd any extra time this increase in scope will cause

**Roster:** (By signing, employees acknowledge they reviewed all hazards and controls identified)

1	
2	
3	
4	
5	
6	

Emergency Action Plan

Emergency phone No.: <b>911</b>
---------------------------------

First Aid Station:in truck

Location of Phone:on person

Equipment Shut Down Procedure:na

**General Hazard Assessment**

**Potential Hazard(s) & Methods to control / eliminate hazards identified**

- [x]Hand Injury:** Wear correct gloves, use proper tools, identify pinch points
- [x]Fall / Trip:** Manholes are out of harm’s way / protect open holes, uneven surfaces.
- [x]Eye Injury:** Wear safety glasses, upgrade to face shield when needed
- [ ]Lifting Hazards:** Know your limits, use buddy system, use lifting / carrying devices
- [ ]Falling Objects:** Rope off areas if needed, wear hard hat
- [ ]Head Injury:** Wear hard hat, beware of surroundings
- [ ]Excessive Noise:** Wear appropriate hearing protection, (ear plugs / muffs or both)
- [x]Foot Injury:** Wear steal toed boots, identify uneven surfaces, take measures to eliminate hazards
- [ ]Slippery Surfaces:** Wet areas, asphalt, grass, concrete, rocks, gravel, warn others
- [x]Heat Stress:** Drink plenty of water, utilize work-rest cycle, limit exposure to sun, use sunscreen, use buddy system
- [ ]Cold Stress:** Ensure adequate clothing, construct wind / rain barriers, wear proper rain gear
- [ ]Hot / Cold Surfaces:** Wear proper gloves, apply proper barriers, avoid line of fire
- [ ]Respiratory Protection:** Determine IDLH atmosphere, monitor air quality, determine proper respiratory protection. Ventilate areas

**[ ] Confined Space:** Identify ALL hazards of space per confined space entry form and follow.

**[ ] Traffic Road Control:** Follow permit instructions, be aware of vehicles, correct road signs.

**[x] Pedestrian Control:** Be Aware of people at all times,

**[x] Electrical Hazard:** Use GFCI, ensure proper grounding

**[ ] Stored Energy (LO/TO):** Verify isolation of energy sources with authorized personnel before beginning work, ensure affected personnel are notified

**[x] Hazwopper:** Training and valid certifications

**COVID-19 Hazard Assessment**

**[ ] Hands:** Wear correct protective gloves. Latex. Use disinfected wipes and sanitizer. Wash frequently at least 20 seconds with soap and water. Avoid touching common areas with bare hands

**[ ] Face:** Avoid touching face, nose, mouth, or head area until proper cleaning is done

**[ ] Social Distancing:** Maintain at least 6 feet distance, do not group, do not carpool.

**[ ] Eye Protection:** Wear safety glasses always, disinfect before and after each use.

**[ ] Disinfecting Equipment:** Use disinfected wipes, disinfecting spray on equipment after use.

**[ ] Cleaning Vehicle:** Use disinfecting wipes on steering wheel, inside vehicle, handles inside and out, etc.

**[ ] Cough/Sneeze:** Do not cough or sneeze into hands, cough or sneeze into cloth or tissue, arm of elbow

**[ ] Phones:** Do Not share, disinfect regularly.

**[ ] Respiratory Protection:** Wear cotton masks, Bandana's, etc, N-95 masks when needed for inside work.

**[x] Symptoms:** Any employees with symptoms (Fever, Cough, Shortness of breath) are directed to stay home if recognized before arriving, or will be sent home if symptoms come up after their arrival.

<b>Additional Hazards</b>		
<b><u>TASK</u></b>	<b><u>HAZARD</u></b>	<b><u>CONTROL METHOD</u></b>

---

CONFINED SPACE ENTRY PERMIT (If Required):

**LOCATING - JOB SITE LOG & PROGRESS REPORT**

Job / Estimate #:

<b>Time</b>	<b>Notes</b>
930-	Locate utilities



























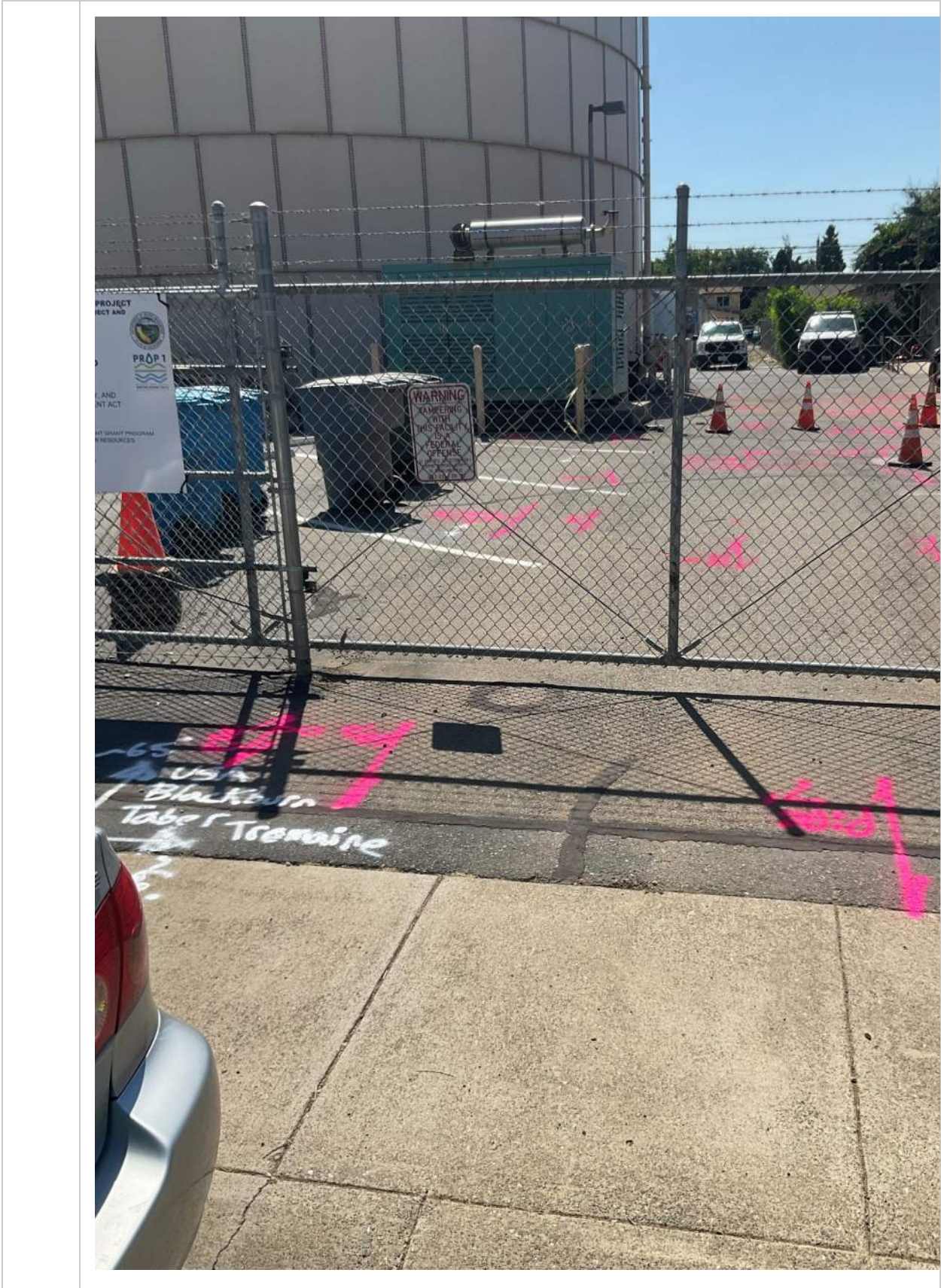




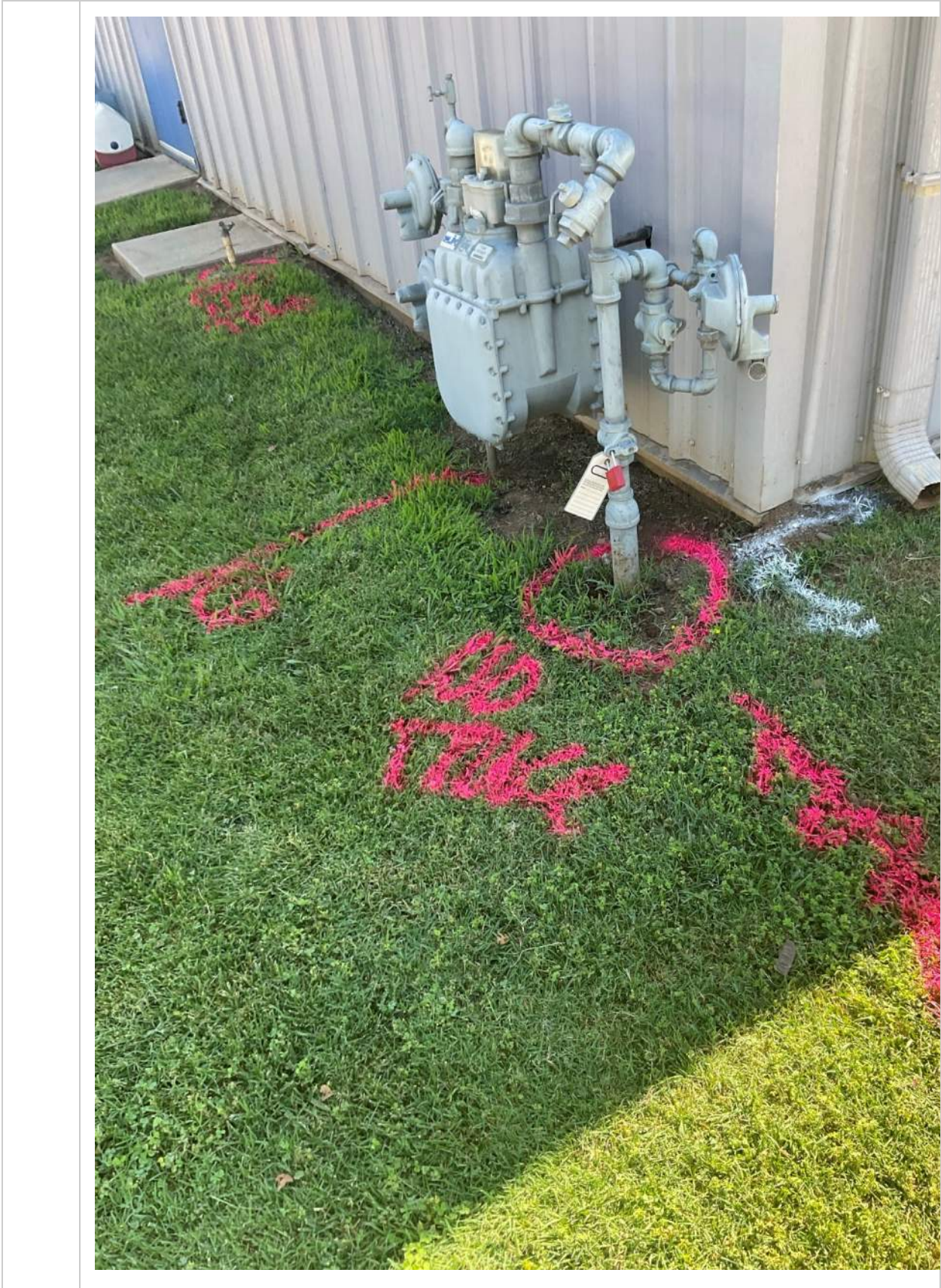




















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**Utilities Not Located/Not Locatable**

<b>Utility</b>	<b>Notes</b>
[ ]Electrical	
[ ]Communications	
[x]Water	Parts of water are PVC, and cannot be located electronically
[x]Gas	Poor trace on private side gas at meter, no trace on gas at generator separate from com and electric runs. Either gas is non conductive and signal is bleeding onto other utilities, or it is joint trenched with the Electric and Communication lines to the generator
[ ]Storm Drain	
[x]Sanitary Sewer	Unable to locate cleanout to confirm sewer location
[x]Other	Site is heavily congested with plant, piping, electric communication, etc., requested print to help sort out which utility is which was told that that is not available. Clamp to all nearby piping and conduits and marked pathways. It is unable to be determined the number or type of utility in each pathway, or if all pathways have been accounted for as they all share common bonds.

**Post-Locate Checklist**

**Active Locating**

- Measure Valves to Top of Nut if Required
- Measure Clean-Out Inverts
- Pictures of Work Completed in Notes

**Passive Scanning**

- Power
- Radio
- GPR
- Twinbox

**SITE WORK COMPLETION**

Job / Estimate #:

All Equipment Accounted For

**Customer Feedback Survey**

	Strongly Disagree	Disagree	Agree	Strongly Agree	I do not know
All safety measures were in place prior to start of Job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The technician was knowledgeable in the service provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The technician was professional and courteous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The equipment provided was clean and in excellent working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The job was completed within scope/estimate/contract.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I received final reports in a timely matter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel the office personnel was helpful and answered all my questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would you recommend Subtonic for your next project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional Comments:					

-On-Site Signature of Client Representative-

**GEOTECHNICAL CONSULTATION  
MEMORANDUM  
208 4th Street, Wheatland, CA**

**Attachment B:**

City of Wheatland Letter



# City of Wheatland

111 C Street Wheatland, California 95692

TELEPHONE (530) 633-2761

FAX (530) 633-9102

April 22, 2024

Erike Young - Deputy General Manager

CIRA

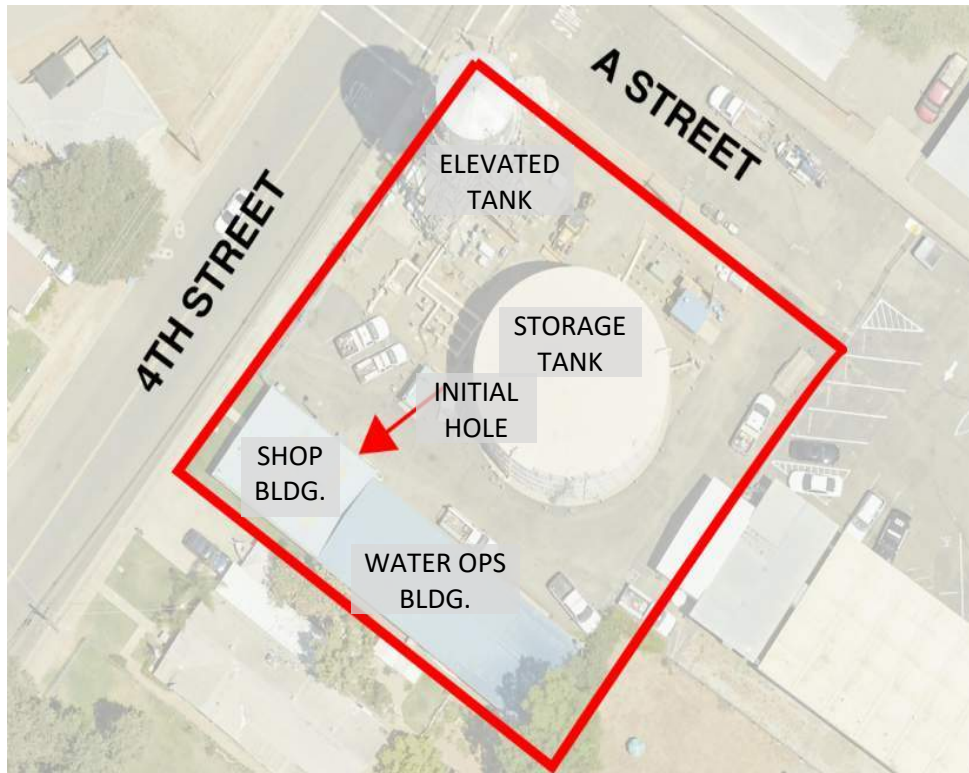
2330 E. Bidwell Street

Folsom, CA 95630

Subject: Sink Hole at Wheatland Corporation Yard; 208 4<sup>th</sup> Street, Wheatland, CA

Dear Mr. Young:

On the afternoon of April 11, 2024, the City's Public Works staff was working at the City's Corporation Yard ("Site") and discovered a hole in the pavement just outside of a shop building located at the northwest corner of the Site (see Photo 1) that revealed a large underground void.



*Photo 1: Aerial View of Wheatland's Corp Yard*

Structures at the Site include a water operations control building, shop building, parking area, a 660,000-gallon water storage tank, a 70,000-gallon elevated tank, a diesel generator, water pumps, piping and a municipal well (Well #3) at the northeast corner of the site. The City also stores vehicles and equipment at the Site. The steel-framed shop building was constructed circa 1950's with a concrete slab-on-grade, concrete foundation, and concrete spread footings at each of its structural columns. The water operations building, consisting of masonry walls and metal roof, was constructed circa 2002 as part of the City's USDA water system modernization project.

After discovering the hole and void, Staff carefully removed a 3-ft x 5-ft area asphalt paving around the original hole which revealed a very large and deep void with tunnels extending in two directions: beneath the shop building foundation and slab; and extending under the asphalt road into the yard. Photo 2 shows the location of the hole in the asphalt. The white line on the pavement in Photo 2 shows the approximate limit of the void beyond the building.



*Photo 2: Location of Hole in Pavement (facing northwest towards 4<sup>th</sup> Street)*

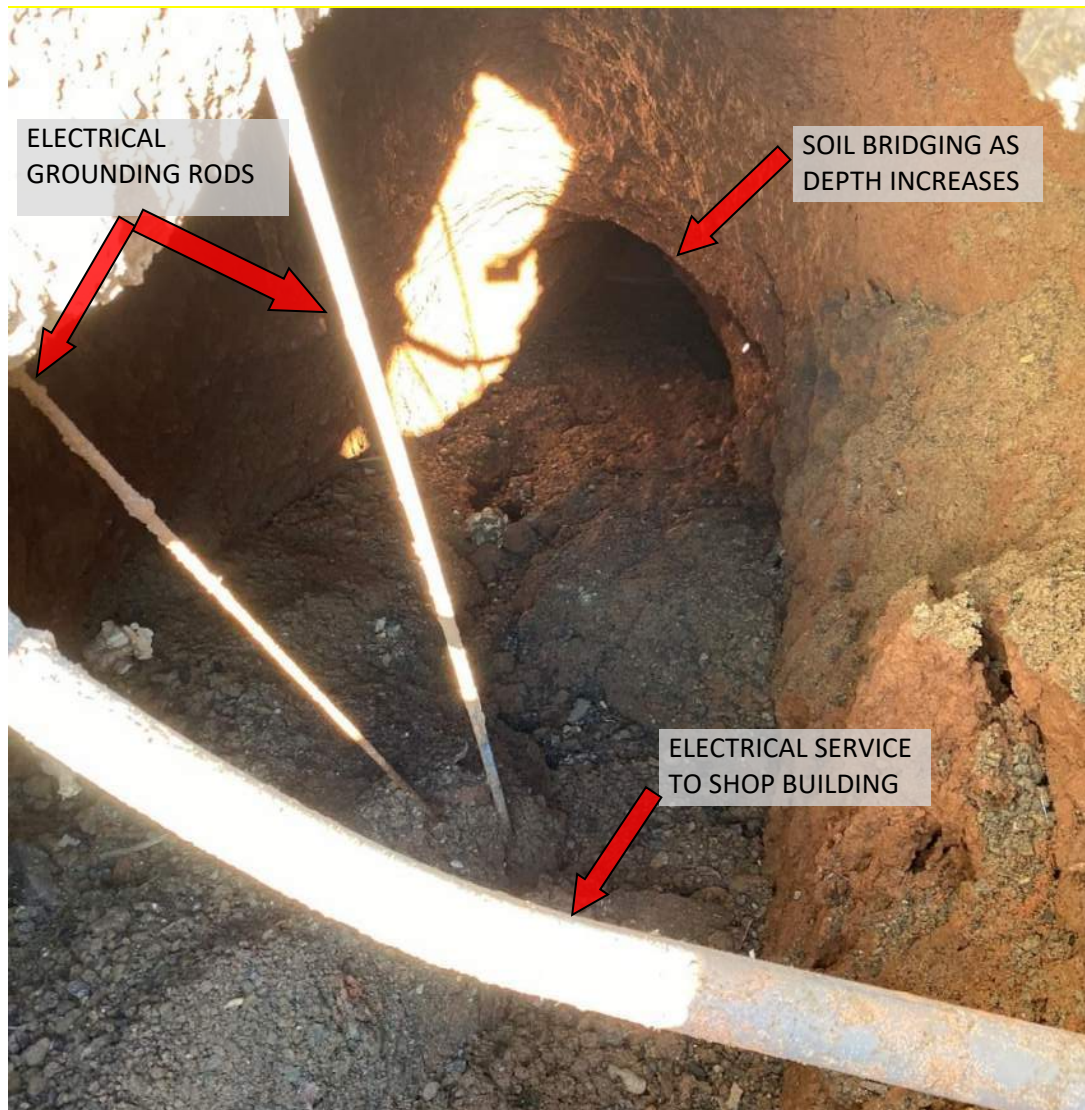
Initial estimates indicate that building foundation has been undercut by the void leaving at much as 25-ft of the east side of the building foundation and slab unsupported. Photo 3 shows the exposed void and the unsupported spread footing.



*Photo 3: Exposed Foundation and Spread Footing, Tunnel to the Southeast of the Hole*

On the following day City Manager Bill Zenoni, City Engineer Dane Schilling with Coastland Engineering and consulting engineering geologist Haze Rodgers with Blackburn Consulting visited the site to examine and document the damage.

In the following week, Public Works Staff further explored the void using underground utility cameras which revealed the smaller void is a tunnel that extends to the southeast of the surface hole and is 1- to 3-ft in diameter and approximately 20-ft in length (see Exhibits A and B). The larger void extends along the easterly edge of the shop building and angles to the northwest for approximately 25-feet to a depth of approximately 25-ft and ranges from 3- to 6-ft in diameter. Approximately 15-feet from the opening in the asphalt, the void turns into a tunnel with approximately 6'-8' of material bridging over the void (see Photo 4).



*Photo 4: Tunnel Facing Northwest of the Hole*

At the farthest/deepest part of the large void a brick structure is barely visible and appears to be arranged in a convex configuration such as the outside edge of a cylindrical structure (see Photo 5).



*Photo 5: Brick Exposed at End of Tunnel*

A 1899 Sandborn Map (Figure 1 and Exhibit C) indicates that a well was present near the turn of the century along with two storage tanks. Apparently, the well was abandoned in-place but the means and extent of the abandonment cannot be ascertained at this time. It is known from recent work in the area that ground water that would be available for municipal use is available at depths of 30- to 40-feet below ground surface. Therefore, it is estimated that the abandoned well is at least 30-feet in depth.

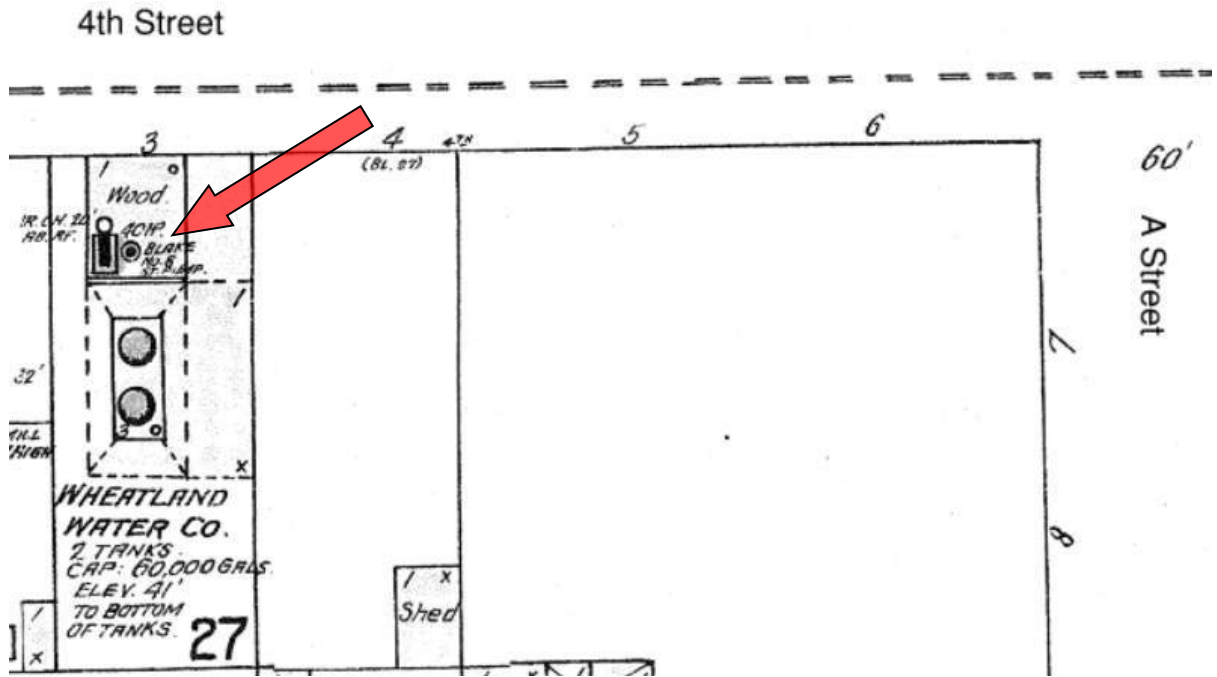


Figure 1: Portion of 1899 Sandborn Map at Corp Yard site with well indicated by arrow

The Shop Building appears to have been built over of a portion of the historic well. The brick that is visible from looking into the void is expected to be the outside of the well casing. If the brick structure is indeed the old well, it would likely be approximately 4-6 feet in diameter and it is expected that it would have been at least 30-feet in depth to reach groundwater and supply the 40-horse power pump shown on the map.

On April 19, 2024, the City and Coastland attempted to map the limits and depth of the void based on what can be safely seen from the opening in the pavement. The resulting map and profile views of the approximate limits of damage are included as Exhibits A and B.

Preliminary Assessment and Causation

Preliminary information indicates that surface storm water from the improvements at the Corp Yard site, including roof downspouts and pavement draining to the easterly side of the Shop Building, have found a pathway to the abandoned historic well which was able to receive and drain the water. In the process of the stormwater draining to the well, soil was eroded and transported toward the well – a condition in geotechnical engineering known as “piping”. Soils are “piped” when saturated soils under hydrostatic pressure flow to areas of lower pressure. Although the initial flows begin as water moving through the soil matrix, the situation can progress to include the erosion of soils in the areas of highest hydrostatic pressure and lower soil strength which eventually leads to acute soil erosion in the form of “pipes” that lead to an outlet for the hydrostatic pressure and soil. The size of the pipes can increase as

water flows more freely and more soil is transported away. Also, recent storms in the Sacramento region have been notably more intense in terms of inches of rainfall per hour which would likely cause sustained periods of runoff and, therefore, caused more and possibly accelerated erosion at the Site due to piping.

In addition, based on the volume of lost or displaced soil material that is large enough to create the size and depth of the void that is visible, it is likely that soil has been displaced or transported away via bottom the well. At this point in time, the apparent cause of the soil loss and resulting void is due to the occurrence heavy rains resulting in erosion and transportation of soil material. The pavement where the original hole developed is in a low-lying spot relative to the surrounding pavement and buildings, so any runoff from the paved area collects near the low spot. The Water Operations and Shop Buildings collect runoff in downspouts that outlet on to the pavement along the easterly sides of both buildings and runoff is directed toward the sink hole and initial hole in the asphalt.

#### Action Items

The following are suggested next steps and considerations in response to the situation:

1. Protect the area from any sources of storm water by covering and diverting water away from the immediate area prior to future rain events. This may be accomplished with plastic sheeting, supporting plywood, sandbags and diversion pipes from the building downspouts to 4<sup>th</sup> Street.
2. Suspend use of the main entry driveway, portions of the yard area, the Shop Building and possibly the use of the public sidewalk on 4<sup>th</sup> Street as needed and establish a safety zone to protect City staff and the public from hazards associated with the void.
3. As more information becomes available, re-evaluate and adjust the safety-zone and cordon off any unsafe areas outside and inside the buildings.
4. De energize and lock-out/tag-out the electrical service to the Shop Building.
5. Prevent any loads or vibrations in the immediate area including vehicles, equipment, motors and the large generator adjacent to the void.
6. Ascertain the depth and measures originally used to abandon the well (if any) by exploring the well with a video camera.
7. Search County records for any additional information on the well.
8. To the extent safely possible, remove existing racks, equipment, tools, hardware, flammables and supplies in and around the shop building. This should be accomplished without additional loads to the ground within the hazard areas.

9. Establish a scope of work, plans and specifications for:
- a. Securing the Shop Building from further damage by temporarily supporting/shoring the exposed foundations;
  - b. Abandoning the well to modern standards;
  - c. Removing loose soils and properly filling the void to provide adequate support for the buildings, large water mains, vehicles and activities at the yard;
  - d. Restore damaged/altered/removed facilities, buildings, pavement, concrete slabs, electrical, etc.;
  - e. Ensure that drainage pathways from the buildings and yard are properly and safely draining to existing storm drain systems.

The City anticipates that the expenses for securing the site, further investigations and engineering work, and remediation and repair of damages will exceed the City's \$25,000 deductible. Therefore, this letter serves as the City's notice of potential claim to CIRA for this incident. Please let me know if you have any further informational needs or questions on this matter.

Sincerely,

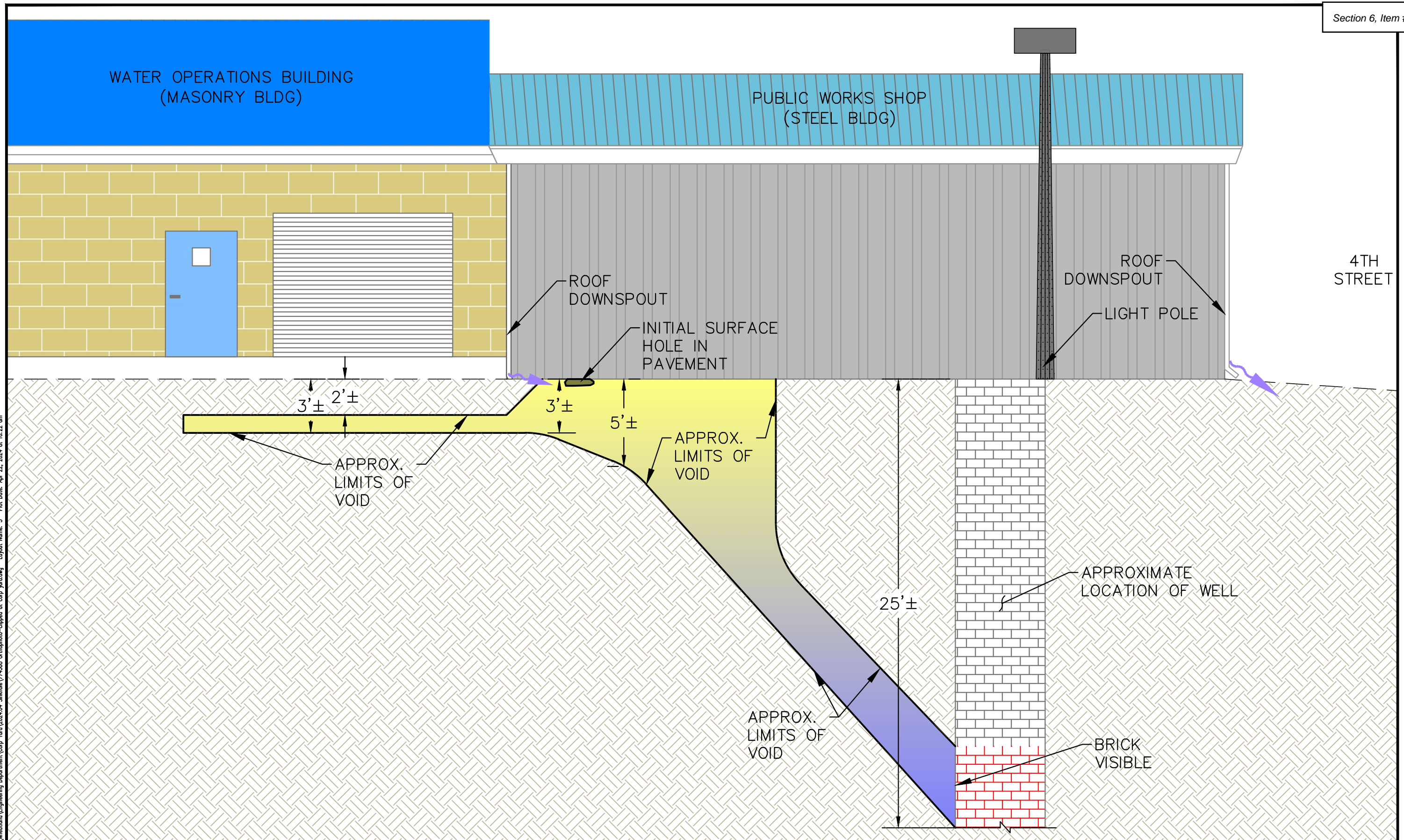
Bil Zenoni  
City Manager

Attachments:

- Exhibit A – Plan of Corp Yard Sink Hole Limits
- Exhibit B – Profile of Corp Yard Sink Hole Limits
- Exhibit C – Overlay of 1899 Sandborn Map on Corp Yard Site
- Letter from Blackburn Consulting to Dane Schilling, April 17, 2024

Copy: Jennifer Buckman – City Attorney  
Dale Klever – Public Works Director  
Dane H. Schilling – City Engineer





Path: I:\004\_Municipal Services\Wheatland\Engineering Department\Corp Yard\2024\04 Sinkhole\74508 Orthophoto-clipped at corp\_yard.dwg Layout Name: 3 Plot Date: Apr 22, 2024 at 10:22 am

**COASTLAND | DCCM**

COASTLAND | DCCM  
11641 Blocker Dr, Ste 170  
Auburn, CA 95603  
530.888.9929 | coastlandcivil.com

# EXHIBIT B

CITY OF WHEATLAND CORP YARD  
SINKHOLE PROFILE VIEW - APPROX. LIMITS  
APRIL 22, 2024  
REVISION 1



Path: I:\004\_Municipal Services\Wheatland\Engineering Department\Corp\_Yard\2024\04\_Sinkhole\74508\_Orthophoto-clipped at corp\_yard.dwg Layout Name: 2 Plot Date: Apr 22, 2024 at 10:23 am

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# EXHIBIT C

CITY OF WHEATLAND CORP YARD  
SANDBORN MAP OVERLAY

APRIL 22, 2024  
REVISION 1

File No. 2871.X 007  
April 17, 2024

Coastland Engineering  
Mr. Dane Schilling  
11641 Blocker Dr. Suite 170  
Auburn, CA 95603

**Subject: GEOTECHNICAL CONSULTATION**  
**208 4<sup>th</sup> Street**  
Wheatland, California

Dear Mr. Schilling,

Blackburn Consulting (Blackburn) appreciates the opportunity to provide geotechnical consultation services for the void that has formed below the City of Wheatland Water Department Operations Building at 208 4<sup>th</sup> Street in Wheatland, California. Below is a summary of site observations, conclusions, preliminary recommendations, and limitations.

### **SITE DESCRIPTION AND PURPOSE**

The site is occupied by the City of Wheatland Water Department and Public Works operations building and shop/warehouse. Site improvements include:

- Single-story concrete masonry unit (CMU) operations building supported on shallow concrete spread footings.
- A Single-story steel framed shop/warehouse supported on shallow concrete spread footings.
- Asphalt pavements.
- Water pumps and pipelines.
- Water tanks (elevated and at grade), and
- Emergency backup generators.

Photo 1 shows the conditions near the shop/warehouse.



We understand City of Wheatland employees found a hole in the pavement near the southeast corner of the shop/warehouse building (coned area in Photo 1) on Thursday April 11, 2024, while moving a fuel storage cabinet (yellow cabinet on east side of shop/warehouse in Photo 1). The City contacted Coastland Engineering who requested Blackburn visit the site to observe the conditions, provide a professional opinion regarding likely cause(s) of the void, and preliminary recommendations to mitigate/ fill the void. We prepared this memo to summarize our observations, conclusions, and preliminary recommendations.

## **SUMMARY OF SITE OBSERVATIONS**

Blackburn’s engineer Haze Rodgers visited the site on April 12, 2024. Photos 2 through 4 show some of the void conditions observed during the site visit. Haze observed:

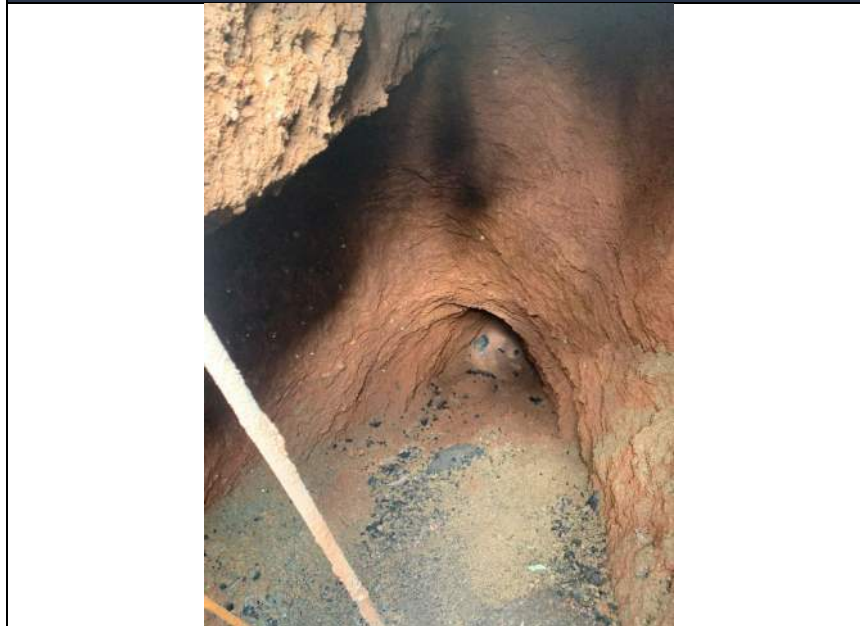
- A hole approximately 4 feet in diameter in the asphalt pavement near the southeast corner of the shop/warehouse building.
- Approximately 1 foot of the pavement around the hole was depressed and undermined.
- The southeastern corner, eastern perimeter footing, and floor slab of the shop/warehouse building was undermined (Photo 2).
- The void extended to the north (Photo 3), and to the south and southwest (Photo 4).
- A brick structure was observed at the northern end of the void (Photo 3).
- The base of the void is covered with loose soil, Aggregate Base and debris (AC pieces, leaves, etc.).
- The depth and horizontal extents of the void are unknown but estimated to extend to a depth of at least 20 feet below the ground surface at the northern end.
- Significant distress was not observed inside the shop/warehouse building at the southeastern corner; however, some cracks were observed in the floor slab near the northeast corner.

Photo 2: 208 4<sup>th</sup> Street



Undermined asphalt pavement at east edge of void. Bottom of AC is observed at top of photo.

Photo 3: 208 4<sup>th</sup> Street



Looking North down void toward 4<sup>th</sup> Street. Eastern perimeter footing is visible at top left corner of photo, and Brick structure is observed at end of void.



Mr. Dane Schilling (Coastland) was present and had access to historical Sanborn maps. According to Dane, one of the Sanborn maps shows water tanks and a well near the location of current shop/warehouse building. The depth and size of the well were not reported on the map.

## CONCLUSIONS

Based on our observations, available historical information, we conclude the void is likely caused by backward erosion piping of soil into an improperly abandoned well. The soil is likely being transported by surface water (from storm water, irrigation, etc.) that seeps into the soil and flows to the historic well. On-site stormwater could also enter the ground at the cold joint between the pavement and perimeter building foundations.

### Preliminary Recommendations

Based on our observations, available information, and experience with similar projects we provide the following preliminary repair recommendations:

- A “No-access”/exclusion zone (for both the interior and exterior) within 20 feet of the eastern edge of the shop/warehouse building should be established. No equipment or material storage should be allowed within the exclusion zone. Equipment, vehicles and materials stored within the exclusion area should be relocated outside the exclusion zone.
- Determine and map the depth and horizontal extents of the void, and location of the suspected well.
- Expose the suspected well and observe and measure the depth and size of the well (or other feature if different).

- Remove the loose soil and debris from the base of the mapped void and well/feature to expose firm native soil.
- Backfill the void and well with CLSM. CLSM should have a minimum 28-day unconfined compressive strength between 200 and 500 pounds per square inch (psi).

Due to the depth and extent of undermining below the building foundations we anticipate shoring and underpinning will be required. The type and design of the underpinning and shoring depend on the subsurface conditions, contractor means and methods, and actual extent and depth of the void. To provide the geotechnical information necessary to provide recommendations for a contractor to determine and design the shoring and underpinning we recommend a geotechnical subsurface investigation be performed. The subsurface investigation should include:

- Review of available subsurface information
- Drilling, sampling, and logging two borings near the void. The borings should be advanced at least 10 feet below the bottom of the void.
- Geotechnical laboratory testing to provide engineering properties of the in-situ native soil, and recommendations for use in the design of shoring and underpinning.
- Engineering evaluations and recommendations for:
  - Void excavation and backfill, including clean out, appropriate materials, and criteria.
  - Lateral earth pressures (active, at rest, and passive) for design of shoring.
  - Allowable bearing pressures for underpinning elements.
  - Temporary slopes.
  - Floor slab repair.
  - Additional services during construction.
- A summary letter presenting the results of the geotechnical investigation and evaluations.

## **LIMITATIONS**

Do not use the information in this memorandum for design or construction on this site. We prepared this memo based on our site observations, information provided by others, and published data. Do not use or rely on the information for different locations or repairs/improvements without Blackburn's written consent.

Our scope does not include subsurface exploration or laboratory testing. Blackburn has not reviewed or performed a geotechnical investigation, laboratory testing, or engineering calculations for the project. Our conclusions and recommendations are based on the results of our review, a brief site visit, and information provided. A geotechnical exploration, laboratory testing, and engineering analyses must be performed to properly design and construct the repair.

**GEOTECHNICAL CONSULTATION MEMORANDUM**

**208 4<sup>th</sup> Street, Wheatland, CA**

April 17, 2024

Section 6, Item # 6.1



Thank you for contacting us to help. Please call if you have questions or require additional information.

Sincerely,

**BLACKBURN CONSULTING**

A handwritten signature in black ink, appearing to read "Haze Rodgers".

Haze Rodgers, P.E., G.E.  
Geotechnical Director

Reviewed by:

A handwritten signature in blue ink, appearing to read "Rob Pickard".

Rob Pickard, P.G., C.E.G  
Senior Engineering Geologist

**GEOTECHNICAL CONSULTATION  
MEMORANDUM  
208 4th Street, Wheatland, CA**

**Attachment C:**

**Injection Grout Sample Specification**

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**SECTION 02800**  
**INJECTION GROUTING**

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**PART 1: GENERAL**

**1.01 SUMMARY**

A. Furnish all labor, material, equipment, transportation, and services necessary for the completion of all injection grouting work indicated in the project documents.

B. The contractor shall review the available project and site information.

**1.02 INJECTION GROUT**

A. Definition: "Injection Grout," as referred to herein, is a relatively non-viscous grout that is injected into the ground or a void. The grout can consist of cementitious and chemical (polymer) materials that undergo a reaction that results in solidification of the injected for the purpose of filling voids in the soil and below surface improvements, and reestablishing support if the surface improvements.

B. The materials used shall be so proportioned and mixed as to produce a grout that contains no solids, may be pumped without difficulty, will penetrate and fill the voids in the soil mass, and will result in a stable solid material of the required strength and stability.

C. The Contractor shall submit, for approval by the Geotechnical Engineer, detailed sketches of the intended injection techniques and patterns and shall submit, for approval by the Geotechnical Engineer, necessary data to prove that the grout mixture contemplated will meet in all respects the requirements as to properties and qualities required by these Specifications.

D. Authorization of use under license must be filed with Engineer for the use of any chemical system that is covered with a current patent.

**1.03 DETERMINATION OF ACTUAL WORK LIMITS**

A. Voids beneath the existing floor slab and designated areas surrounding CSLM (to be placed under this contract prior to injection grouting) shall be grouted. Depth of grouting shall be determined based on field conditions. For estimation purposes, an average depth of 10 feet should be assumed and unit prices shall be provided on a cost-per-unit volume basis.

B. Grouting beneath existing foundations shall be thorough and complete and shall extend to the boundary between the soil and the bottom of existing foundation.

**PART 2: PRODUCTS**

**2.01 MATERIALS**

A. Grout shall be composed of a uniform mixture of polymer, cement, or other proprietary material. The grout mix proportions are to be determined by the contractor and submitted for review and approval to the City.

B. Grout mix can include cement, polymers, or other chemical binders.

C. Water used shall be compatible with the binder/cement used.

D. Considering the chemistry of the grout and the conditions known at the site, the chemical system shall produce a stable grout. The chemical system used shall be permanent and shall have a proven record of stability.

E. Chemicals mixed into primary solutions, before final batching, may be held only in accordance with the manufacturer's recommendations and must not be injected or held beyond the specified time, exposed to critical temperatures, exposed to sunlight, or other limiting factors imposed by the manufacturer. Any solutions deemed unsuitable to be used for the injection shall be immediately disposed of to the satisfaction of the Engineer.

F. The unconfined compressive strength of grout shall be at least 100 pounds per square inch (psi) at 28 days but not greater than 500 psi.

**2.02 EQUIPMENT**

A. The grout plant shall be capable of supplying, mixing, stirring, and pumping the grout. Mixing and pumping equipment used in the preparation and handling the grout shall be maintained in first-class operating condition at all times.

B. Mixing equipment shall be capable of thoroughly mixing the primary constituents to the proper solution strength and shall be capable of thoroughly mixing these constituents in the final batching. In the event that temperatures fall to a critical temperature for the required solution strengths, provision shall be made to heat solutions, in accordance with the material manufacturer's recommendations, or grouting shall be suspended until proper temperatures and re-mix occur. Under no conditions will compressed air "bubble mixing" be allowed.

C. Drilling Equipment: Injection points shall be installed by either rotary drilling methods or by percussion. If rotary drilling methods are used, the injection pipes shall be installed in the hole in such a way as to form a tight seal around the pipe and confine the grout to the required injection depth. The injection ports shall be of sufficient clear inside diameter and strength to accommodate the maximum grout pressure and flow rates.

D. Pumping equipment shall be reciprocating pumps, preferably of the air-operated type, capable of developing at least 200 psi. Pumping rates and pressures shall be readily controlled. Under no conditions will "static head" type pumps be allowed.

E. Metals used for the construction of the mixers and pumps shall be compatible with the chemical system used in accordance with the chemical manufacturer's recommendations.

F. All equipment shall be cleaned of oil or other rust inhibitors prior to its contact with the grout constituents.

### **PART 3: EXECUTION**

#### **3.01 PREPARATION**

A. Core or drill through existing interior slab-on-grade where required for placement of injection points.

#### **3.02 MIXING AND PUMPING**

A. All material shall be accurately measured by weight or volume for mixing. If a proportioning pump system is used, positive controls shall be incorporated to ensure accurate proportioning.

B. Care shall be taken not to contaminate mixing vessels with reactive chemicals by spillage, splash, etc.

C. A fast check reaction shall be made by the Contractor with each new primary batch. A test sample shall be made of every injection batch. If a proportioning system is used, a test sample shall be made periodically as required by the City or Engineer. The contractor shall keep records to establish the point of injection for each sample.

D. If any sample fails to show the proper stabilization, the potential area of failure shall be reinjected as directed by the Engineer.

E. Care shall be taken in the placing of injection points to secure accurate injection and the proper overlapping of injection cylinders.

F. Grouting Method: Injection grouting shall be done by the split-spaced, descending stage method. Grout injection points will be installed at the angles, depths, and spacing required to achieve permeation within the lines and grades shown on the drawings. Primary injection points shall be installed midway between the primary points. Injection points shall be grouted in stages at intervals and depths selected by the contractor. Grouting will not be permitted in a secondary point until the adjacent primary points are completed.

If the contractor elects to grout using the sleeve pipe method, the injection tubes shall be installed and grouted first. After the grout around the pipe gains sufficient strength, chemical grouting may proceed.

G. Injection rates and pressures shall be closely controlled to prevent blowout, localized "quick" conditions, movement of immediately adjacent structures, and to ensure proper filling of voids to attain the desired stabilized section.

H. Quantities of grout injected at each point shall be governed by calculated volume, back pressure, or a combination of these two factors. If it appears at any point that a large void exists, proper steps shall be taken to assure penetration of the desired soil section.

I. If any injection batches begin to show signs of gelation, increased viscosity before injection, they shall immediately be discarded and equipment cleaned before proceeding further.

### **3.03 PATCHING**

A. Replace floor slab to match existing dimensions.

**3.04 QUALITY CONTROL AND MONITORING**

A. One sample injection shall be made at a location designated by the engineer, and after suitable curing time, the sample shall be cored to collect samples for confirmation strength tests.

The contractor shall keep a daily log of grouting operations which shall contain the point number, location, grouting pressure, depth, grout mix proportions, and grout quantity.

B. Contractor shall monitor the existing building foundation and slab for excessive vertical movement. If excessive movement is observed the contractor shall stop injection at that location.

**3.05 SUBMITALS**

Contractor shall submit to the City and Engineer for review and approval the following submittals at least 7 days prior to start of injection grouting:

A) Grout mix design. Includes material data sheets, and laboratory compression tests on samples demonstrating the proposed mix will results in the required unconfined compressive strength.

B) Grouting plan. Plan should include as a minimum:

- Description of the mixing and proportioning methods and equipment.
- Layout of grouting locations.
- Description of monitoring and quality control.
- Grouting procedure.

**3.06 MEASUREMENT AND PAYMENT**

A. Provide lump sum base bid based on total volume of grout below half the existing building and along the exterior edge of CLSM to an average depth of 10 feet below the floor slab. A unit price on a per-volume basis shall be provided for grouting for more than 10 feet.

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