

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
SPECIFICATIONS

FOR
MRP TRASH CAPTURE FY 2023
SPECIFICATION NO. 23-11556-C

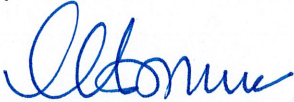
MARCH 2024

PRE-BID MEETING: None
BID OPENING DATE: March 21, 2024

1947 CENTER STREET, 4th FLOOR, BERKELEY, CALIFORNIA 94704
(510) 981-6400

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
SPECIFICATIONS
FOR
MRP TRASH CAPTURE FY 2023
SPECIFICATION NO. 23-11556-C

Prepared under the direction of:



Srinivas Muktevi, P.E.
Supervising Civil Engineer



02/27/2024

Reviewed By:



Ronald A. Nevels, P.E.
City Engineer

Engineering Division
1947 Center Street, 4th Floor
Berkeley, California 94704
Project Engineer: Ricardo Salcedo

ATTENTION

1. THE CONTRACTOR SHALL SUBMIT ALL CONTRACT DOCUMENTS INCLUDING BONDS AND INSURANCE BEFORE:

May 22, 2024
2. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS AND GUIDELINES OF ALL REGULATORY AGENCIES.
3. THE CITY RESERVES THE RIGHT TO REJECT ANY AND ALL PROPOSALS.
4. DURING CONSTRUCTION, THE CONTRACTOR MAY BE REQUIRED TO ATTEND WEEKLY MEETINGS AT THE ENGINEER'S OFFICE.
5. THIS PROJECT IS SUBJECT TO STATE OF CALIFORNIA SB 854 – PUBLIC WORKS REFORM

TENTATIVE SCHEDULE

(DATES SUBJECT TO CHANGE)

- | | | |
|----|---------------------------------------|--------------------|
| 1. | Advertisement | February 28, 2024 |
| 2. | Pre-Bid Meeting | None |
| 3. | Bid Opening | March 21, 2024 |
| 4. | Pre-Award Conference | May 7, 2024 |
| 5. | Council Award | May 14, 2024 |
| 6. | Contract Documents Due | May 22, 2024 |
| 7. | Contract Award
(Notice to Proceed) | June 12, 2024 |
| 8. | Start Construction | July 5, 2024 |
| 9. | Complete Construction | September 13, 2024 |

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INSERT

NOTICE TO BIDDERS

1. Sealed bids will be received by the Finance Department – General Services Division in their office, **2180 Milvia Street, 3rd Floor**, Berkeley, California up to the hour of:

2:00 P.M., Thursday, March 21, 2024

at which time bids will be publicly opened and read by a representative of the General Services Division for the work provided for in the plans and specifications. One (1) full set of originals and two (2) additional original signature pages (Page 9) of the bid must be submitted, on forms which were prepared for this purpose and furnished by the City. Proposals must be submitted in a sealed envelope marked **MRP TRASH CAPTURE FY 2023 SPECIFICATION NO. 23-11556-C**.

Pre-Award Conference: The apparent low bidder will be invited to a pre-award conference scheduled for 11:30 A.M., Tuesday, May 7, 2024 at 1947 Center Street, 4th Floor, Berkeley, CA.

2. Scope of Work:
The work to be performed under these specifications consists of, but is not limited to:

Installation of connector pipe screens, inlet filter devices, retractable inlet screens, construction area signs, vehicular and pedestrian traffic control, drainage structure modifications, and other related work.
3. California Contractor License Classification required:
 A General Engineering
4. Location: Various locations throughout the City of Berkeley.
5. Plans and Specifications will be made available online for download, under the project's listing, at the City of Berkeley's Public Works website under Current Construction Project Bid Opportunities: <https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities>.

Bidders are responsible for notifying Ricardo Salcedo, Associate Civil Engineer, via email at RSalcedo@BerkeleyCA.gov to be included on the Planholders List. Please include the following in the email subject header: "Spec. 23-11556-C – Request to be included in project Planholders List". In the body of the email, please state the Company Name, Address, Telephone Number, and Fax Number.

6. Compliance with SB 854: Public Works Reform: No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

7. The plans and specifications may be examined by appointment at the Engineering Office, 1947 Center Street, 4th Floor, Berkeley, California. Hard copies are no longer available for purchase or shipping. Bid documents are available online for download at the web address shown above.
8. Each proposal must be accompanied by an unconditionally certified or cashier's check or bid bond made payable to the City of Berkeley, and such check or bond shall be in an amount equal to at least 10% of the amount of the bid.
9. Pursuant to City Council Resolution No. 59,853-N.S., each proposal must include a signed copy of the Oppressive States Resolution Disclosure Form regarding the Contractor's relationships with certain entities in Oppressive States.
10. Each proposal must include a signed copy of the Nuclear Free Zone Disclosure Form.
11. Each proposal must include a signed copy of the Equal Benefits Ordinance Disclosure Form.
12. Each proposal must include a signed copy of the Sanctuary City compliance Statement Form
13. Each proposal must include a signed copy of the Experience and Financial Qualifications and Taxpayer Identification Report.
14. This project is not subject to the City of Berkeley CWA Program. However, the First Source Program applies.
15. Prior to starting work, the Contractor must furnish the following:
 - a. Faithful Performance Bond in an amount not less than 100% of the amount of the contract, executed on the City of Berkeley Standard Performance Bond agreement form.
 - b. Labor and Material Bond in the sum of not less than 100% of the amount of the contract.
 - c. A certificate of Worker's Compensation Insurance with waiver of subrogation in favor of the City of Berkeley.
 - d. Commercial general liability insurance coverage of no less than \$2 million each occurrence Bodily Injury and \$2 million each occurrence Property Damage, with

- defense costs payable in addition to policy limits.
- e. Comprehensive automobile liability insurance of no less than \$2 million each occurrence Bodily Injury and \$2 million each occurrence Property Damage.
 - f. Insurance policies shall contain an endorsement naming the City, their employees, representatives and agents as additional insureds, but only with respect to liability arising out of the activities of the named insured.
 - g. The policies shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.
 - h. Written notice of cancellation or of any limits reduction or change in said policy shall be mailed to the City and the Project Manager thirty (30) days in advance of the effective date thereof.
 - i. Contractor's insurance shall be primary insurance and no other insurance or self-insured retention carried or held by City shall be called upon to contribute to a loss covered by insurance for the named insured.
16. All forms and insurance certificates must have original signatures in blue ink.
 17. See attached BIDDER'S AND CONTRACTOR'S CHECK LIST for additional items to be submitted.
 18. In accordance with California State Labor Code, the wage scale is on file with the Engineering Office, or is attached herewith.
 19. Award will be made by the City Council at a meeting within 75 days subsequent to the date set for bid opening. The Council reserves the right to reject any or all bids or any combination of bids.
 20. Questions and Addendums:
 - a. General information or plan holder's list: (510) 981-6400.
 - b. Questions concerning the anticipated work or scope of the project should be directed to Ricardo Salcedo, Associate Civil Engineer, via email at RSalcedo@BerkeleyCA.gov, **no later than 12:00 P.M., Thursday, March 14, 2024.**
 - c. It is the bidder's responsibility to check for answers to questions or any addenda on the City of Berkeley's website at:
<https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities>.

General Services Manager

BIDDER'S AND CONTRACTOR'S CHECK LIST

Items Required at Bid Opening: 2:00 pm, Thursday, March 21, 2024

- Bidder's Proposals (One full set of originals, Pages 5-8; and two additional original signature pages, Page 8, signed in BLUE ink)
- Addenda (if any)
- Bid Bond – At least 10% of Total Base Bid
- Experience and Financial Qualifications
- Taxpayer Identification Report
- Nuclear Free Zone Disclosure Form
- Oppressive States Compliance Statement
- Sanctuary City Compliance Statement
- Equal Benefits Ordinance Disclosure Form

Items Required at Pre-Award (Non-Discrimination and Contract Compliance) Conference:

11:30 A.M., Tuesday, May 7, 2024

- Memorandum of Understanding
- Work Force Composition Form
- Agreement for Change in Sub-Contractors
- Right to Audit Form
- Certification of Compliance with Equal Benefits Ordinance (Form EBO-1)
- First Source Agreement (Engineer's Estimate less than \$500,000)
- OR**
- Community Workforce Agreement To Be Bound and Hiring Plan (Engineer's Estimate of \$500,000 or greater)
- MBE/WBE Certification from Caltrans, Oakland, or San Francisco
- Proof of Compliance with SB 854

Items Required After Contract Award by City Council and Prior to Construction:

- Commercial General and Automobile Liability Endorsement form
- Worker's Compensation Insurance - Statutory Amount
- Liability Insurance - \$2,000,000
- Performance Bond - 100% (executed on enclosed Performance Bond form)
- Labor and Material Bond- 100%
- Copy of City of Berkeley Business License
- Copy of State of California Contractor's License
- Work Schedule
- Submittals required at pre-construction meeting

Items Required During Construction:

- Work Schedule updates
- Weekly Payroll Statement (Fed Form WH-347 or equivalent)
- Community Workforce – Agreement – Agreements to be Bound and Hiring Plans for any subcontractors added to project:
- Correspondence with unions and minority/female organizations

Items Required Upon Completion of Project:

- Guarantee Bond - 10%
- As-Built Drawings

* This project is subject to the First Source Agreement

** DPR-State Department of Parks and Recreation

BIDDER'S PROPOSAL

Bidders submitting proposals shall be very careful to follow all requirements in connection therewith. A checklist has been attached for guidance in complying with all phases of the bid process and project. Any proposal not complying with all these requirements may be rejected.

TO THE HONORABLE MAYOR AND
MEMBERS OF THE CITY COUNCIL

Pursuant to the provisions of the plans, specifications and contract documents, the undersigned proposed to perform the work as described therein a manner satisfactory to the responsible City official. All material, equipment, tools, labor and services necessary to the work will be furnished by the undersigned. All laws and ordinances relating to the work will be complied with, and a business license to do business in the City will be obtained. The undersigned declares that the plans, specifications, contract documents and the site of the work have been thoroughly examined and that this proposal is made without collusion with any person, firm, or corporation.

Execution of the proposal by the undersigned bidder shall become a binding contract on the parties when the award of a contract pursuant to said proposal is authorized by resolution of the City Council, where or as required by the Charter of the City of Berkeley, and the proposal is executed in writing in the name of the City by the City Manager, or an officer who is his/her authorized representative.

The undersigned agrees that when his proposal is executed he will furnish specified bonds and insurance, and he will begin work within the time specified, and complete work within the contract period or agree to the assessment of liquidated damages, all as stipulated in the attached pages of the Bidder's Proposal.

As a guaranty that the terms of this proposal will be complied with, the undersigned submits herewith a proposal guaranty for an amount equal to at least Ten Percent (10%) of his total bid.

All subcontractors who will perform work for the bidder on this project in the amount in excess of one-half of one percent (0.5%) of the total bid, including labor, materials and equipment, or work specifically fabricated off the job site according to detailed drawings contained in the plans, shall be listed, pursuant to Sections 4100 to 4113, inclusive of the California Government Code.

BIDDER'S PROPOSAL
(continued)

Name of Subcontractor and address	Subcontractor License No.	Type of Work	\$ Amount

Contractors California License Number: _____

License Expiration Date: _____

I declare that representations made in this bid are under penalty of perjury.

Signature

Title

**THIS FORM SHALL BE COMPLETED AND SUBMITTED
WITH BID PROPOSAL**

BIDDER'S PROPOSAL
(continued)

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL COST
1.	Mobilization and demobilization	1	LS	\$	\$
2.	Traffic Control	1	LS	\$	\$
3.	Stormwater Pollution Controls	1	LS	\$	\$
4.	Connector Pipe Screen (outlet diameter ≤ 12-inch)	89	EA	\$	\$
5.	Connector Pipe Screen (outlet diameter > 12-inch and ≤ 18-inch)	45	EA	\$	\$
6.	Connector Pipe Screen (outlet diameter > 18-inch and ≤ 24-inch)	6	EA	\$	\$
7.	Catch Basin Insert (up to 36-inch inlet throat length)	8	EA	\$	\$
8.	Blade Type ARS, 3-5 FT	8	EA	\$	\$
9.	Blade Type ARS, 5-8 FT	2	EA	\$	\$
10.	Drainage Structure Sump Fill - Type I	45	EA	\$	\$
11.	Drainage Structure Sump Fill - Type II	45	EA	\$	\$
12.	Drainage Structure Channel Removal	15	EA	\$	\$
13.	Drainage Structure Modification - Trim Intruding Pipe	15	EA	\$	\$
14.	Drainage Structure Modification - Slide Gate Removal	5	EA	\$	\$
15.	Supplemental Work	1	LS	\$ 40,000	\$ 40,000
TOTAL COST				\$	

TOTAL BID PRICE IN WORDS AND IN FIGURES: _____

DOLLARS AND _____ CENTS/(\$ _____)

Note:

- * Refer to Project Plans and/or Description of Bid Items section in Technical Provisions section of specifications for description of work included in bid items.
- ** Bid Item 15 - Supplemental Work is in addition to the Project's scope of work. This additional work may or may not be authorized to be performed by the Contractor as part of this Contract.

BIDDER'S PROPOSAL
(continued)

The undersigned bidder agrees to accept payment in full for the work at the price set forth above in accordance with provisions of the contract documents and agrees to start within Fifteen (15) WORKING days following issuance of the Notice to Proceed and to complete all work specified in the contract documents in accordance with the plans and specifications within Fifty (50) WORKING days. The Notice to Proceed will be issued when the contract is fully executed. The contract construction time is inclusive of the time for delivery of materials. By execution of this contract the City and the Bidder do hereby agree that the value of damage associated with the delay of the work is difficult to ascertain. Therefore the Bidder agrees further to the assessment of **liquidated damages in the amount of One Thousand Dollars (\$1,000) for each working day** that the construction work remains incomplete beyond the expiration of the above construction time. The term of the contract is Seventy (70) WORKING days which include an additional Twenty (20) WORKING days for project closeout beyond the above construction time.

Company: _____ Address: _____
By: _____
Title: _____ Phone: _____
Taxpayer I.D. No.: _____ Date: _____
Corporation Yes [] No []

(The following spaces to be used by the City)

Pursuant to City of Berkeley Council Resolution No. _____ N.S. adopted on _____, the City of Berkeley agrees to pay _____ the prices set forth above for the Total Base Bid in the amount of _____ (\$_____), in accordance with the terms and conditions set forth in Specification No. 23-11556-C. The Contractor shall complete all work specified in the contract documents in accordance with the plans and specifications within Seventy (70) WORKING days from the date established in the Notice-to-Proceed.

CITY OF BERKELEY

Dated: _____ By: _____
City Manager
Registered By: _____
Auditor
Attested By: _____
City Clerk

EXPERIENCE AND FINANCIAL QUALIFICATIONS

The bidder has been engaged in the contracting business under State License Number _____ for a period of _____ years.

The bidder's three most recently completed contracts are:

	I	II	III
Title of Project			
Owner			
Address			
Telephone No.			
Engineer in Charge			
Date Accepted			

Reference is hereby made to the following Bank or Banks as to the financial responsibility of the bidder:

Name of Bank _____ Address _____

Reference is hereby made to the following Surety Companies as to the financial responsibility and general reliability of the bidder:

Company _____ Address _____

 Signature of Bidder

TAXPAYER IDENTIFICATION REPORT

COMPANY NAME _____

MAILING ADDRESS _____

SOCIAL SECURITY NUMBER: _____

OR

EMPLOYER IDENTIFICATION NUMBER: _____

My Company is a Corporation

My Company is not a Corporation

I certify that the above information is true and correct:

Name

Title

The Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) requires the above reporting information be furnished to the City.

Persons who do not furnish their tax information numbers become subject to backup withholding by the City at a rate of 20% from each disbursement made to the recipient.

CITY OF BERKELEY
MEMORANDUM OF UNDERSTANDING
(MOU)

1. In the performance of this contract the Contractor (and all Subcontractors) agrees not to discriminate pursuant to Section 13.26 of the Berkeley Municipal Code.
2. In the performance of this contract the Contractor agrees that he/she is also responsible for his/her Subcontractor’s compliance with Section 13.26 of the Berkeley Municipal Code.
3. For contracts that are not governed by a Community Workforce Agreement, the Contractor agrees to comply with Section 13.26 of the Municipal Code as applied to the First Source Program (see section 13.26.080).

The Contractor agrees to submit periodic employment and wage reports to the City's Contract Compliance Officer upon reasonable request.

Contractor

City Engineer or designee

Date

Date

WORKFORCE COMPOSITION OCCUPATIONAL CATEGORIES

Officials and Administrators - Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, or provide specialized consultation on a regional, district or area basis. Includes: department heads, bureau chiefs, division chiefs, directors, deputy superintendents, unit supervisors and kindred workers.

Professionals - Occupations that require specialized and theoretical knowledge that is usually acquired through college training or through work experience and other training that provides comparable knowledge. Includes: personnel and labor relations workers, social workers, doctors, psychologists, registered nurses, economists, dietitians, lawyers, systems analysts, accountants, engineers, employment and vocational rehabilitation counselors, teachers or instructors, and kindred workers.

Technicians - Occupations that require a combination of basic scientific or technical knowledge and manual skill that can be obtained through specialized post-secondary school education or through equivalent on-the-job training. Includes: computer programmers and operators, technical illustrators, highway technicians, technicians (medical, dental, electronic, physical sciences) and kindred workers.

Protective Service Workers - Occupations in which workers are entrusted with public safety, security and protection from destructive forces. Includes: police officers, fire fighters, guards, sheriffs, bailiffs, correctional officers, detectives, marshals, harbor patrol officers, and kindred workers.

Para-Professionals - Occupations in which workers perform some of the duties of a professional or technician in a supportive role, which usually requires less formal training and/or experience normally required for professional or technical status. Such positions may fall within an identified pattern of a staff development and promotion under a "New Transporters" concept. Includes: library assistants, research assistants, medical aides, child support workers, police auxiliary, welfare service aides, recreation assistants, homemaker aides, home health aides, and kindred workers.

Office and Clerical - Occupations in which workers are responsible for internal and external communication, recording and retrieval of data and/or information and other paperwork required in an office. Includes: bookkeepers, messengers, office machine operators, clerk-typists, stenographers, court transcribers, hearings reporters, statistical clerks, dispatchers, license distributors, payroll clerks, and kindred workers.

Skilled Craft Workers - Occupations in which workers perform jobs which require special manual skill and a thorough and comprehensive knowledge of the processes involved in the work which is acquired through on-the-job training and experience or through apprenticeship or other formal training programs. Includes: mechanics and repairpersons, electricians, heavy equipment operators, stationary engineers, skilled machining occupations, carpenters, compositors and typesetters, and kindred workers.

Service/Maintenance - Occupations in which workers perform duties which result in or contribute to the comfort, convenience, hygiene or safety of the general public or which contribute to the upkeep and care of buildings, facilities or grounds of public property. Workers in this group may operate machinery. Includes: chauffeurs, laundry and dry cleaning operatives, truck drivers, bus drivers, garage laborers, custodial personnel, gardeners and groundskeepers, refuse collectors, and construction laborers.

WORKFORCE COMPOSITION FORM FOR ALL CONSTRUCTION CONTRACTS

This form is to be completed and submitted prior to the Non-Discrimination Contract Compliance Conference with the City of Berkeley Contract Compliance Officer. The Contractor and all Subcontractors who will do work valued at \$3,000 or more are required to submit this form. Weekly payroll reports will be compared to this listing to monitor compliance with the City of Berkeley Municipal Code Section 13.26. A payroll printout or other listing of employees providing the same information will be accepted.

Name of Contractor/Subcontractor: _____

Project: MRP TRASH CAPTURE FY 2023

Name	Race*	Sex**	Trade/Craft	Hourly Base Rate	Hire Date	Employees to be used on this project

- * A=Asian or Pacific Islander
- AI=American Indian
- B=Afro American
- C=Caucasian
- H=Hispanic (Mexican, Puerto Rican, Spanish, Cuban, Chicano, Central or South American)

- ** M = Male
- F = Female

Signature of Contractor/Subcontractor: _____ Date: _____

Verified By: _____
City Engineer or designee

AGREEMENT FOR CHANGE IN SUB-CONTRACTORS

I agree to use the Subcontractor(s) listed in the signed contract with the City of Berkeley. If it should become necessary to change Subcontractors, I will notify the Public Works Engineering Division by completing the following information:

Current Subcontractor(s)	Alternate Subcontractors	Reason for Change	Date

Signed by:

Verified by:

Prime Contractor

Subcontractor

City Engineer or designee

Date: _____

Date: _____

Date: _____

CITY OF BERKELEY
NUCLEAR FREE ZONE DISCLOSURE FORM

I (we) certify that:

1. I am (we are) fully cognizant of any and all contracts held, products made or otherwise handled by this business entity, and of any such that are anticipated to be entered into, produced or handled for the duration of its contract(s) with the City of Berkeley. (To this end, this disclosure form may be signed by more than one individual, if a description of which type of contracts each individual is cognizant is attached.)
2. I (we) understand that Section 12.90.070 of the Nuclear Free Berkeley Act (Berkeley Municipal Code Ch. 12.90; Ordinance No. 5784-N.S.) prohibits the City of Berkeley from contracting with any person or business that knowingly engages in work for nuclear weapons.
3. I (we) understand the meaning of the following terms as set forth in Berkeley Municipal Code Section 12.90.130:

"Work for nuclear weapons" is any work the purpose of which is the development, testing, production, maintenance or storage of nuclear weapons or the components of nuclear weapons; or any secret or classified research or evaluation of nuclear weapons; or any operation, management or administration of such work.

"Nuclear weapon" is any device, the intended explosion of which results from the energy released by reactions involving atomic nuclei, either fission or fusion or both. This definition of nuclear weapons includes the means of transporting, guiding, propelling or triggering the weapon if and only if such means is destroyed or rendered useless in the normal propelling, triggering, or detonation of the weapon.

"Component of a nuclear weapon" is any device, radioactive or non-radioactive, the primary intended function of which is to contribute to the operation of a nuclear weapon (or be a part of a nuclear weapon).

4. Neither this business entity nor its parent nor any of its subsidiaries engages in work for nuclear weapons or anticipates entering into such work for the duration of its contract(s) with the City of Berkeley.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Business Entity:

Specification Name & No.:
MRP TRASH CAPTURE FY 2023
SPECIFICATION NO. 23-11556-C

CITY OF BERKELEY
Oppressive States Compliance Statement for Commodities

The undersigned, an authorized agent of _____ (hereafter "Vendor"), has had an opportunity to review the requirements of Berkeley City Council Resolution Nos. 59,853-N.S., 60,382-N.S., and 70,606- N.S., (hereafter "Resolutions").

Vendor understands and agrees that the City may choose with whom it will maintain business relations and may refrain from contracting with those Business Entities which maintain business relationships with morally repugnant regimes. Vendor understands the meaning of the following terms used in the Resolution:

"Business Entity" means "any individual, firm, partnership, corporation, association, or any other commercial organization, including parent-entities and wholly-owned subsidiaries" (to the extent that their operations are related to the purpose of the contract with the City).

"Commodities" includes, but is not limited to, any tangible supplies, goods, vehicles, machinery or equipment.

"Oppressive State" means: **Tibet Autonomous Region, the provinces of Aho, Kham, and U-Tsang; and Burma (Myanmar)**

The commodities which vendor proposes to supply to the City are not manufactured, assembled, extracted, harvested or refined in any Oppressive State. Vendor understands that it is not eligible to receive or retain a City contract if at the time the contract is executed, or at any time during the term of the contract, it buys, sells, leases or distributes Commodities in the conduct of business with, or provides Personal Services to:

- a. The governing regime in any Oppressive State.
- b. Any business or corporation organized under the authority of the governing regime of any Oppressive State.
- c. Any person for the express purpose of assisting in business operations or trading with any public or private entity located in any Oppressive State.

Vendor further understands and agrees that Vendor's failure to comply with the Resolution shall constitute a default of the contract and the City Manager may terminate the contract and bar Vendor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

The undersigned is familiar with, or has made a reasonable effort to become familiar with, Vendor's business structure and the geographic extent of its operations. By executing this Statement, Vendor certifies that it complies with the requirements of the Resolution and that if any time during the term of the contract it ceases to comply, Vendor will promptly notify the City Manager in writing.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Printed Name: _____ Title: _____

Signed: _____ Date: _____

Business Entity: _____

I am unable to execute this Statement; however, Vendor is exempt under Section VII of the Resolution. I have attached a separate statement explaining the reason(s) Vendor cannot comply and the basis for any requested exemption.

Signed: _____ Date: _____

Contract description/Specification No.: **MRP TRASH CAPTURE FY 2023 SPECIFICATION NO. 23-11556-C**

CITY OF BERKELEY

Sanctuary City Compliance Statement

The undersigned, an authorized agent of _____ (hereafter "Contractor"), has had an opportunity to review the requirements of Berkeley Code Chapter 13.105 (hereafter "Sanctuary City Contracting Ordinance" or "SCCO"). Contractor understands and agrees that the City may choose with whom it will maintain business relations and may refrain from contracting with any person or entity that provides Data Broker or Extreme Vetting services to the U.S. Immigration and Customs Enforcement Division of the United States Department of Homeland Security ("ICE"). Contractor understands the meaning of the following terms used in the SCCO:

- a. "Data Broker" means either of the following:
 - i. The collection of information, including personal information about consumers, from a wide variety of sources for the purposes of reselling such information to their customers, which include both private-sector business and government agencies;
 - ii. The aggregation of data that was collected for another purpose from that for which it is ultimately used.
- b. "Extreme Vetting" means data mining, threat modeling, predictive risk analysis, or other similar services." Extreme Vetting does not include:
 - i. The City's computer-network health and performance tools;
 - ii. Cybersecurity capabilities, technologies and systems used by the City of Berkeley Department of Information Technology to predict, monitor for, prevent, and protect technology infrastructure and systems owned and operated by the City of Berkeley from potential cybersecurity events and cyber-forensic based investigations and prosecutions of illegal computer based activity.

Contractor understands that it is not eligible to receive or retain a City contract if at the time the Contract is executed, or at any time during the term of the Contract, it provides Data Broker or Extreme Vetting services to ICE.

Contractor further understands and agrees that Contractor's failure to comply with the SCCO shall constitute a material default of the Contract and the City Manager may terminate the Contract and bar Contractor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

By executing this Statement, Contractor certifies that it complies with the requirements of the SCCO and that if any time during the term of the Contract it ceases to comply, Contractor will promptly notify the City Manager in writing. Any person or entity who knowingly or willingly supplies false information in violation of the SCCO shall be guilty of a misdemeanor and up to a \$1,000 fine.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this _____ day of _____, 20__, at _____, California.

Printed Name: _____ Title: _____

Signed: _____ Date: _____

Business Entity: _____

CITY OF BERKELEY
RIGHT TO AUDIT FORM

The contractor agrees that pursuant to Section 61 of the Berkeley City Charter, the City Auditor's office may conduct an audit of Contractor's financial, performance and compliance records maintained in connection with the operations and services performed under this contract.

In the event of such audit, Contractor agrees to provide the Auditor with reasonable access to Contractor's employees and make all such financial, performance and compliance records available to the Auditor's office. City agrees to provide Contractor an opportunity to discuss and respond to/any findings before a final audit report is filed.

Signed: _____ Date: _____

Print Name & Title: _____

Company: _____

**City Auditor's Office Telephone No. (510) 981-6750

CITY OF BERKELEY
NOTICE REGARDING THE EQUAL BENEFITS ORDINANCE

As a condition of being awarded a contract with the City of Berkeley, the selected Contractor shall be required, during the performance of the agreement, to comply with the City's non-discrimination provisions of the Equal Benefits Ordinance (EBO) as set forth in Berkeley Municipal Code, Chapter 13.29.

The EBO requires that during the performance of a contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of \$25,000 or more
- Non-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of \$100,000 or more
- Lessees of public property, licensees, concessionaires, and franchises that generate \$350,000 or more in annual gross receipts
- Entities which receive a grant agreement of \$100,000 or more

Contractors who are subject to the EBO must certify to the City that they are in compliance with the EBO and post this notice in a conspicuous place where all employees can see it. Subject contractors must also allow authorized City representatives access to records so the City can verify compliance with the Ordinance.

Compliance with the EBO

If a Contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the Contractor may be deemed to be in material breach of the City agreement. In such cases, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of five years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor, and pursue any other remedies available at law or in equity.

Violations

Any suspected violations of the EBO should be reported to:

EBO Compliance Officer,
City Manager's Office
2180 Milvia Street, Berkeley, CA 94704
510-981-7000

CITY OF BERKELEY
EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Berkeley, the selected Contractor/Vendor (“Contractor”) may be required, during the performance of the contract, to comply with the City’s non-discrimination provisions of the Equal Benefits Ordinance (“EBO”) as set forth in Berkeley Municipal Code, Chapter 13.29. The EBO requires that during the performance of a contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include, but are not limited to, health benefits, bereavement leave, family medical leaves, membership and membership discounts, moving expenses, retirement benefits, and travel benefits. A cash equivalent payment is permitted if an employer has taken all reasonable efforts to provide domestic partner’s with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used is if the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of \$25,000 or more
- Non-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of \$100,000 or more
- Lessees of public property, licensees, concessionaires, and franchises that generate \$350,000 or more in annual gross receipts
- Entities which receive a grant agreement of \$100,000 or more

Contractors who are subject to the EBO must certify to the City before execution of the contract by completing form EBO-1 that they are in compliance with the EBO or have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the Ordinance.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following situations:

- (1) until the first effective date after the first open enrollment process following the contract execution date, not to exceed two years if the Contractor submits evidence of engaging in reasonable efforts to comply with the EBO;
- (2) until administrative steps can be taken to incorporate nondiscrimination in benefits in the contractor’s infrastructure, not to exceed three months, unless extended at the discretion of the City Manager; and
- (3) until the expiration of a Contractor’s current collective bargaining agreement(s)

CITY OF BERKELEY
EQUAL BENEFITS ORDINANCE DISCLOSURE FORM
(continued)

Compliance with the EBO

If a Contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the Contractor may be deemed to be in material breach of the City agreement. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of five years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor, and pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of B.M.C. Chapter 13.29, the Contractor shall comply with this provision.

Printed Name: _____

Title: _____

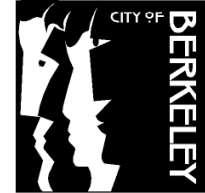
Signature: _____

Date: _____

Business Entity: _____

Specification Name & No.:
MRP TRASH CAPTURE FY 2023
SPECIFICATION NO. 23-11556-C

To be completed by
Contractor/Vendor



**Form EBO-1
CITY OF BERKELEY**

CERTIFICATION OF COMPLIANCE WITH EQUAL BENEFITS ORDINANCE

If you are a **contractor**, return this form to the originating department/project manager. If you are a **vendor** (supplier of goods), return this form to the Purchasing Division of the Finance Dept.

SECTION 1. CONTRACTOR/VENDOR INFORMATION

Name:		Vendor No.:	
Address:	City:	State:	ZIP:
Contact Person:		Telephone:	
E-mail Address:		Fax No.:	

SECTION 2. COMPLIANCE QUESTIONS

- A. The EBO is inapplicable to this contract because the contractor/vendor has no employees.
 Yes No *(If "Yes," proceed to Section 5; if "No", continue to the next question.)*
- B. Does your company provide (or make available at the employees' expense) any employee benefits?
 Yes No
 If "Yes," continue to Question C.
 If "No," proceed to Section 5. (The EBO is not applicable to you.)
- C. Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee? Yes No
- D. Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee? Yes No
If you answered "No" to both Questions C and D, proceed to Section 5. (The EBO is not applicable to this contract.)
If you answered "Yes" to both Questions C and D, please continue to Question E.
If you answered "Yes" to Question C and "No" to Question D, please continue to Section 3.
- E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of the employee? Yes No
If you answered "Yes," proceed to Section 4. (You are in compliance with the EBO.)
If you answered "No," continue to Section 3.

SECTION 3. PROVISIONAL COMPLIANCE

- A. Contractor/vendor is not in compliance with the EBO now but will comply by the following date:
 - By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor submits evidence of taking reasonable measures to comply with the EBO; or
 - At such time that administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor's infrastructure, not to exceed three months; or
 - Upon expiration of the contractor's current collective bargaining agreement(s).

B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent?* Yes No

* The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.

SECTION 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statements, etc.) to verify that you do not discriminate in the provision of benefits.

SECTION 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Berkeley Municipal Code and in the terms of the contract or purchase order with the City.

Executed this ____ day of _____, in the year _____, at _____, _____
(City) (State)

Name (please print)

Signature

Title

Federal ID or Social Security Number

FOR CITY OF BERKELEY USE ONLY		
<input type="checkbox"/> Non-Compliant (The City may not do business with this contractor/vendor)		
<input type="checkbox"/> One-Person Contractor/Vendor	<input type="checkbox"/> Full Compliance	<input type="checkbox"/> Reasonable Measures
<input type="checkbox"/> Provisional Compliance Category, Full Compliance by Date: _____		
Staff Name(<i>Sign and Print</i>): _____		Date: _____

COMMERCIAL GENERAL AND AUTOMOBILE LIABILITY ENDORSEMENT

The attached Certificates of Insurance are hereby certified to be a part of the following policies having the following expiration dates:

Policy No.	Company Providing Policy	Exp. Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The scope of the insurance afforded by the policies designated in the attached certificates is not less than that which is afforded by the Insurance Service Organization's or other "Standard Provisions" forms in use by the insurance company in the territory in which coverage is afforded.

Such Policies provide for or are hereby amended to provide for the following:

1. The named insured is _____.
2. CITY OF BERKELEY ("City") is hereby included as an additional insured with respect to liability arising out of the hazards or operations under or in connection with the following agreement:

The insurance provided applies as though separate policies are in effect for both the named insured and City, but does not increase the limits of liability set forth in said policies.
3. The limits of liability under the policies are not less than those shown on the certificate to which this endorsement is attached.
4. Cancellation or material reduction of this coverage will not be effective until thirty (30) days following written notice to Ricardo Salcedo, Department of Public Works, 1947 Center Street, 4th Floor, Berkeley, CA. 94704.
5. This insurance is primary and insurer is not entitled to any contribution from insurance in effect for City.

The term "City" includes successors and assigns of City and the officers, agents, employees, and volunteers.

Insurance Company

Date: _____

By: _____
Signature of Underwriter's
Authorized Representative

PERFORMANCE BOND
CALIFORNIA PUBLIC WORKS

KNOW ALL MEN BY THESE PRESENTS,

That we, _____
as Principal, and _____,
a Corporation organized and existing under the laws of the State of _____ and authorized to transact surety business in the State of California, as Surety, are held and firmly bound unto the City of Berkeley (hereinafter called Obligee), in the sum of _____ Dollars (\$_____), for the payment whereof well and truly to be made and we each of us bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION of the above obligation is such that, Whereas, the above named bounden principal entered into a contract dated _____, 20____ with the said Obligee to do and perform the following work, to-wit:

Which contract is hereby referred to, incorporated by reference, and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, That if the above bounden Principal shall well and truly keep, do, pay and perform, each and every, all and singular, all the matters, provisions, undertakings, covenants, terms, conditions, agreements and things in said contract set forth and specified to be by the said principal kept, done, paid and performed at the time and in the manner in said contract specified, and shall pay over, make good and reimburse

to the above-named Obligee, all loss and damages which said Obligee may sustain by reason of failure or default, or breach on the part of said Principal, then this obligation shall be void; otherwise to be and remain in full force and effect.

Whenever Principal shall be, and is declared by Obligee to be in default under the Contract, the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1) Complete the Contract in accordance with its terms, provisions, undertakings, covenants, agreements, clauses, and conditions, or

2) Obtain a bid or bids for completing the Contract in accordance with its terms, provisions, undertakings, covenants, agreements, clauses, and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Obligee elects, upon determination by the Obligee and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Obligee, and make available as Work progresses (even though there should be a default or a succession of defaults under the contract of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price, but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the amount payable by Obligee to principal under the contract and amendments, thereto, less the amount properly paid by Obligee to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or Corporation other than the Obligee named herein or the heirs, executors, administrators or successors of Obligee.

If any action or law or in equity is brought to enforce or interpret the provisions of this bond, the prevailing party shall be entitled to reasonable attorney's fees in addition to any other relief to which it may be entitled.

SIGNED AND SEALED THIS _____ day of _____
_____, 20_____.

Principal

Surety Attorney In Fact

CITY OF BERKELEY
FIRST SOURCE/LOCAL HIRING POLICY

First Source (B.M.C. 13.26) promotes the hiring of local jobseekers on local and publicly funded construction projects, in addition to non-construction jobs that are created after construction is complete.

In general, the following responsibilities are assumed by the City and general Contractors/Subcontractors.

CITY RESPONSIBILITIES:

1. Coordinate with Unions and CITY-funded employment/training agencies to ensure referral of applicants and training in accordance with CITY commitments.
2. Work with the local workforce development programs to ensure that they thoroughly screen applicants' experience/qualifications for jobs.
3. Follow up with workforce development agencies and employers on outcome of applicants referred for employment and will initiate corrective actions necessary for an effective employment/training delivery system.
4. At its discretion, be responsible for monitoring and, where necessary, enforcing compliance with this Agreement. This will be accomplished through periodic reviews, investigations of grievances and dispute resolution through administrative hearings. Pending conclusion of the hearings, the CONTRACTOR can continue normal operations and hiring.
5. At its discretion, review certified payroll or other relevant reports to determine whether the CONTRACTOR has maintained good faith efforts to hire and provide opportunities for Berkeley residents.
6. Ensure that local workforce development programs and Berkeley Housing Authority (for HUD Section 3 compliance where applicable) are notified that the First Source Agreement is in place.

GENERAL CONTRACTOR/SUBCONTRACTOR RESPONSIBILITIES:

Compliance with the City of Berkeley Non-Discrimination policy and employment goal as it relates to the First Source Program:

1. Meeting employment goals contained in the City construction component.
2. Notifying City or City's designee of project labor needs.
3. Interviewing qualified Berkeley residents before others are interviewed.
4. Providing information to City of application-for-work procedures.

CITY OF BERKELEY
FIRST SOURCE AGREEMENT

I certify that:

- I I am authorized to enter into this agreement on behalf of the company whose name appears below ("Contractor").**

- II Contractor understands and agrees to comply with the First Source Program as described in Berkeley Municipal Code Section 13.26.080.**

- III Contractor understands that agreement with Berkeley Municipal Code Section 13.26.080 means that Contractor agrees as follows:**
 - A. To interview and consider qualified Berkeley applicants before interviewing others.
 - B. To notify the applicable Union Hall(s) as to the local hiring requirement for this project and to request qualified Berkeley residents first.
 - C. That the Contractor has the sole discretion to make all final hiring decisions.

- IV Contractor also agrees:**
 - A. To ensure that workers employed through this agreement are treated in a manner that is equal to all other employees.
 - B. To fully document the reason(s) for not hiring persons referred by Union Halls or workforce development agencies.
 - C. To ensure that job specifications/requirements accurately reflect job functions.
 - D. To designate a qualified representative of the Contractor and each Subcontractor who will be the responsible party for implementation and compliance with the goals, objectives and responsibilities specified in this agreement. Contractor will inform the City of the designated representative(s) at the Non-Discrimination Conference.
 - E. To provide to the City, upon request, information on the employment status of First Source placements, and reason for separation if employee is terminated.

CITY OF BERKELEY
FIRST SOURCE AGREEMENT
(continued)

The above First Source Agreement provisions shall apply for the duration of covered contracts. Covered contracts are all construction projects over \$100,000, and shall include all subcontracts.

I declare the foregoing to be true and correct under penalty of perjury.

Signed: _____ Date: _____

Title: _____

Company: _____

City Engineer or designee Date: _____

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PART A
GENERAL PROVISIONS

SPECIFICATIONS

FOR

MRP TRASH CAPTURE FY 2023

SPECIFICATION NO. 23-11556-C

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SECTION 1 - DEFINITION OF TERMS

101.1		--	Whenever in these specifications, or in any documents or instruments where these specifications govern, the following terms are used, they shall have the following meanings:
101.2	AASHTO	--	The latest revised specifications of the American Association of State Highway and Transportation officials.
101.3	As Directed	--	As directed by the Engineer or his designated representative.
101.4	ASTM	--	The latest revised specifications of the American Society for Testing Materials.
101.5	Standard Specifications	—	The latest revised "Standard Specifications for Public Works Construction" by the Southern California Chapter, American Public Works Association, Part 2 and Part 3, construction materials and construction methods respectively, as amended herein.
101.6	Bidder	--	Any individual, firm, partnership, or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
101.7	City, Agency	--	City of Berkeley.
101.8	Council	--	City Council of the City of Berkeley.
101.9	Engineer	--	The Assistant City Manager for Public Works of the City of Berkeley or his designated representatives.
101.10	Contract	--	The written agreement covering the performance of the work.
101.11	Contractor	--	The person or persons, partnership, association or corporation, private or municipal, who have entered into a contract with the City, as party or parties of the second part of his or their legal representatives.

- 101.12 Laboratory -- The official testing laboratory of the City or other laboratories authorized by the Engineer.
- 101.13 Proposal -- The written offer of the bidder for the work when made out and submitted on the prescribed proposal form, properly signed and guaranteed.
- 101.14 Proposal Guaranty -- The security required by the notice to bidders to be furnished by the bidder as a guaranty that the bidder will enter into a contract for the construction of the work if it is awarded to him.
- 101.15 Plans -- The official plans, profiles, cross-sections, details working drawings, and mental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.
- 101.16 Purchasing Agent — The Purchasing Agent of the City of Berkeley.
- 101.17 Specifications -- The directions, provisions, and requirements contained herein, supplemented by special provisions, pertaining to the method and manner of performing the work, and to the quantities and qualities of materials to be furnished under the contract. The term specifications shall include the General Provisions, Detailed and Technical Specifications, Special Provisions, Standard Details, the Contract Documents, and all supplementary agreements entered into between the contracting parties.
- 101.18 Subcontractor -- The person or persons, partnership, association, or corporation, private or municipal, who have a direct contract with the contractor. It includes one who furnishes material worked to a special design according to the plans or specifications of the work, but does not include one who merely furnishes material.
- 101.19 Street -- Any dedicated right-of-way for public use as an avenue, highway, lane alley, court, crossing, or intersection.

- 101.20 The Work -- All the work described in the specifications and contract or indicated on the plans as the contemplated improvement covered by the contract.

- 101.21 Contract Change Order -- A written order to the Contractor signed by the Engineer directing an addition, deletion or revision in the work, or an adjustment in the contract price or the contract time issued after the effective date of the contract. A change order may or may not also be signed by the Contractor.

- 101.22 Allowance -- An inexact bid quantity listed on the Bidder's Proposal in anticipation that work of the particular nature will be required, but the quantity is not known until the work of the whole is in progress or completed. The quantity listed is for comparison of total bids. Bidder agrees to do each unit of work for the unit price bid in the proposal.

- 101.23 Resident Engineer -- Designated inspection representative(s) of the Engineer.

SECTION 2 - PROPOSAL REQUIREMENTS AND CONDITIONS

201.1 Availability of Plans and Specifications. Plans and specifications may be examined at the office of the Engineering Division. Copies of the plans and specifications are available at the office of the Engineering Division. Copies of the Notice to Bidders and proposal forms may be obtained from the Engineering Division.

201.2 Approximate Estimate. The quantities given in the Notice to Bidders, proposal, and contract forms are approximate only, being given as a basis for the comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith. For work bid on a lump sum price basis, any estimate of quantities is provided only for the convenience of Bidders and is not guaranteed correct by the City.

201.3 Examination of Plans, Specifications, and Site of the Work. The Bidder shall examine carefully the site of the work contemplated and the proposal, plans, specifications, and contract forms therefore. It will be assumed that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of these specifications, the plans, and the contract.

201.4 Proposal Form. All proposals must be submitted on forms for that purpose furnished by the City. Letters of transmittal cannot be considered as part of the bid.

All proposals shall give the prices proposed, and shall be signed by the Bidder, who must give his address. The Bidder shall fill out all blanks in the proposal form as therein required. In case of error, unit prices will govern over extensions and written words will govern over numerals, unless it can be established that an obviously incorrect entry has been made.

201.5 Rejection of Proposals Containing Alterations or Irregularities. Proposals may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, or irregularities of any kind. When proposals are signed by an agent, other than an officer or manager of a corporation or a member of a partnership, a power of attorney or written authorization must be on file with the City prior to opening bids or shall be submitted with the proposal; otherwise, the proposal will be rejected as irregular and unauthorized.

201.6 Proposals Guaranty. All bids shall be presented in a sealed envelope and shall be accompanied by a "proposal guaranty) made payable to "City of Berkeley) and for the amount equal to at least ten percent (10%) of the bid unless otherwise specified on the "Notice to Bidders. Said guaranty shall be an unconditional certified or cashier's check, or a bank or postal money order, or bid bond executed as surety by a corporation authorized to issue surety bonds in the State of California.

201.7 Withdrawal of Proposals. Any bid may be withdrawn at any time prior to but not after, the hour fixed in the public notice for the opening of bids, provided that a request in writing executed by the Bidder or his duly authorized representative, for the withdrawal of such bid is filed with the Purchasing Agent. The withdrawal of a bid shall not prejudice the right of a Bidder to file a new bid.

201.8 Disqualification of Bidders. More than one proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable ground for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. If there is a reason of believing that collusion exists among the Bidders, none of the participants in such collusion will be considered in this or future proposals. Proposals in which the prices are unbalanced may be rejected.

201.9 Competency of Bidders. Prior to the submission of bids, the Contractor shall be licensed in accordance with the provisions of Chapter 9 of Division III of the Business and Professional Code of the State of California and evidence of such license shall be presented to the Engineer on request.

The Engineer may require the Bidder to present satisfactory evidence that he has sufficient experience and that he is fully prepared with the necessary capital, materials, machinery, and skilled workmen to carry out the contract.

201.10 Material Guaranty. Before any contract is awarded, Bidders may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work, together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

201.11 Addenda. Prior to the time set for opening of bids, the Engineer may issue addenda for clarification of the plans or specifications or for minor alterations in the work. Such addenda shall take precedence over plans, specifications, and all other Contract Documents issued prior to the opening of bids.

SECTION 3 - AWARD AND EXECUTION OF CONTRACT

301.1 Consideration of Bids. Bids will be opened publicly by the Purchasing Agent of the City on the date and at the time set forth in the "Notice to Bidders." The right is reserved by the City by action of the Council to reject any or all bids, to advertise for new proposals, to negotiate in the open market for a contract at a reasonable price, to purchase in the open market, or to have the work performed by City employees, or to abandon the work, if in the judgement of the Council, the best interests of the City will be promoted thereby.

301.2 Award of Contract. The award of the contract, if awarded, will be to the lowest responsive Bidder whose proposal complies with all the requirements prescribed. The award, if made, will be made within seventy-five (75) calendar days after the opening of the proposals.

All bids will be compared on the basis of the Engineer's estimate of the quantities of work to be done.

301.3 Return of Proposal Guarantees. All proposal guarantees will be held by the City until the contract has been authorized by Council resolution and signed by the City Manager after which guarantees for unsuccessful proposals will be returned to the unsuccessful Bidders. If bids are rejected, the proposal guarantees will be returned after the date of the rejection.

301.4 Contract Bonds. At the time of execution of the contract by the City Manager, the Contractor will be required to furnish a Surety Company contract bond for faithful performance in the sum of not less than one hundred percent (100%) of the amount of his contract, in addition to which he will be required to furnish a Surety Company labor and material bond in the sum of not less than one hundred percent (100%) of the amount of the contract in accordance with the provisions of state laws.

Alterations, extensions of time, extra and additional work, and other changes authorized by these specifications or any part of the contract may be made without securing the consent of the Surety or Sureties on the contract bonds.

301.5 Execution of Contract. The Bidder's Proposal (offer) shall become a binding contract on the parties when the award of a contract pursuant to said proposal is authorized by resolution of the City Council. The proposal will then be executed in writing by the City Manager, or his/her authorized representative, in the name of the City.

301.6 Failure to Perform Contract. If the successful Bidder fails to begin performance of the contract within thirty (30) calendar days from the date of the award of the contract, the City will either let the contract to the next lowest Bidder or will reject all other bids and call for new bids. The successful Bidder who has failed to begin performance of the contract shall be liable to the City for the sum, not exceeding the amount of such cash, check, money order or bond as shall have been deposited as a proposal guaranty, by which the amount of the contract, covering the said proposal, executed by and between the City and some third party, may exceed the amount bid by the original successful Bidder. Such portion of said cash, check, money order, or

original bond as equals said sum shall be deemed to be liquidated damages and shall be declared forfeited to the City and shall be collected and paid to the City.

SECTION 4 - SCOPE OF WORK

401.1 Work to be Done. The intent is to prescribe complete work or improvement which the Contractor undertakes to do in full compliance with the plans, specifications, and contract. The Contractor shall perform all items of work covered and stipulated in the specifications and contract, together with any extra work, all in accordance with lines, grades, cross-sections, and dimensions shown on the plans. It is further intended that all miscellaneous work required to make driveways, sidewalks, intersections, roof drains, and other privately owned improvements conform to the new work shall be performed by the Contractor. The Contractor shall furnish, unless otherwise provided in these specifications, all material, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work.

All work described in the plans and specifications will be let under one contract unless otherwise set forth in the Notice to Bidders or on the Bidder's Proposal.

401.2 Alterations and Increased or Decreased Quantities. The City reserves the right in writing, to increase or decrease the quantity, to order additions to, omissions from, or corrections, alterations and modifications in the line, grade, form dimensions, plan or kind or amount of work, or materials herein contemplated, or any part thereof, either before or after the beginning of construction, as may be deemed necessary or advisable by the Engineer, provided such alterations do not change the total cost of the project, based on original estimated quantities and the unit prices bid, by more than twenty percent (20%), and provided further that such items do not change the total cost of any major item by more than fifty percent (50%). (A major item is one, the total cost of which is more than ten percent (10%) of the total contract price.) Any alterations in excess of these limits will be treated as extra work and will be covered by a contract change order, the same as though the alteration were an extra work item.

Should conditions during the progress of the work make it impossible for the Contractor to comply strictly with the terms of the contract, the Contractor shall apply in writing to the Engineer for an alteration, provided that it is not detrimental to the work or does not entail additional cost. If such alteration is acceptable to the Engineer, the Contractor shall be notified in writing, whereupon the alteration may be made. When such alteration is not acceptable to the Engineer, the Contractor shall determine some other method of doing the work which shall be acceptable.

Such alteration and increased or decreased quantities shall in no way affect or make void this contract or any part thereof, except what is necessarily affected by such alteration and is clearly the evident intention of the parties to this contract.

401.3 Extra Work. New and unforeseen items of work will be classed as extra work when they cannot be covered by any of the various items for which there is a bid price or by combinations of such items, or if the character of an item is materially changed on which the Contractor based his bid price, and that change materially increases or decreases the cost of the item as outlined in Section 401.2 hereof.

Prices for extra work shall be itemized and covered by a contract change order submitted by the Contractor and approved by the Engineer prior to actual starting of such work.

Should the parties be unable to agree on unit prices for the extra work, or if it is impractical, the Engineer may instruct the Contractor to proceed with the work by force account and he shall be paid as provided in Section 901.2 of these specifications.

401.4 Unauthorized Work. Work done without lines and grades being given, work done beyond the lines and grades shown on the plans, work done in the absence or without the knowledge of the Engineer, including any work performed by subcontractors without proper superintendence by the Contractor, as provided for in Section 501.6, or any extra work done without written authority, will be considered as unauthorized and at the expense of the Contractor and will not be measured or paid for by the City.

401.5 Protection of Utilities. A preliminary study of the location of underground utilities within the limits of the work has been made. The location of the underground utilities indicated on the plans is not guaranteed to be accurate or complete, but is plotted for the general information of the Contractor. The Contractor shall contact Underground Service Alert (USA) at (800) 227-2600 at least four (4) working days before excavating, to allow utility companies to mark and identify their respective utilities within the limit of the work. Aboveground utilities are not shown on the plans. It shall be the responsibility of the Contractor to coordinate and determine the exact locations and/or depths of all of the aboveground utilities, underground utilities, and their service locations.

The Contractor shall be responsible for protecting and supporting the aboveground utilities and the identified underground utilities that occur in the limits of the work with a method acceptable to the respective utility owners. The cost of protecting and supporting the utilities shall be included in the bid prices for the various items of work. Any identified damage to the SBC Telephone, PG&E, EBMUD, or Cable TV lines shall be repaired by the respective utility owner at the Contractor's expense.

See also Sections 701.25.1 and 701.25.2.

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

The Contractor shall maintain a neat appearance to the work. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from surfaces to prevent marring or other damage.

Broken concrete debris, and unsuitable excavated native soil during construction shall be disposed of concurrently with its removal. If stockpiling is necessary all debris shall be placed in trash bins daily and shall be removed or disposed of weekly. Any waste shall not be buried on the site or disposed of into storm drains, sanitary sewers, streams, or waterways.

Forms or falsework that are to be re-used shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be re-used shall be disposed of concurrently with their removal.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional

compensation will be allowed therefor.

Sidewalks, street area, parking strips, and driveway approaches must be kept reasonably clean at all times during construction and be completely and carefully cleaned after the work has progressed beyond the immediate vicinity to the satisfaction of the Engineer. Reasonable cleanup is defined as no dust, rock, or mud on any portion of the public right-of-way or the private properties as a result of the Contractor's work.

401.7 Dust and Debris Control. The Contractor shall be responsible for controlling dust in the air and rocks, debris, mud or dirt which are scattered as a result of his operations on the job. The Contractor shall be responsible for cleaning all mud, rock, dust, dirt, and debris-producing materials that originate in the project area and are deposited on other public or private property by truck tires, spillages, or by other means. The Contractor shall have suitable and adequate street cleaning equipment on the project site at all times.

The Contractor shall begin cleanup operation by 3 PM and before the end of each day's work, clean all paved portions of the project and paved streets leading from the project that have dust-producing materials or debris deposited upon them. The work areas shall be swept clean at the end of each day's work and at other times when directed by the Engineer.

The Contractor shall endeavor, whenever possible, to restrict the use of water to control dust for his convenience in order to conserve water during drought situations or mandated rationing required by the Water Utility Company. Whenever flushing of streets or any other work is necessary, the Contractor shall provide filter materials at the catch basin to retain any debris and dirt flowing into the City's drainage system.

The cost of the above work, including the providing of barricades, water and other materials, labor, and equipment shall be at the sole cost and expense of the Contractor.

The Engineer may determine that an emergency exists when dust, rocks, debris, mud, or dirt are scattered in the public right of way or in the private properties as a result of Contractor's activities and/or deterioration of such conditions due to rain. The emergency conditions may also be declared when traffic or the Contractor's equipment travelling through a job causes dust to fly or rocks, debris, mud, or dirt to be scattered. Similar emergency conditions may be determined by the Engineer if the storage of materials, tools, or any other equipment related to the project, in the public rights of way, is causing any obstruction or blocks access to the neighboring properties and/or dangerously placed without proper barricades and lights and/or backfill stockpiles or debris washing away into the street gutter and catch basins.

401.7-1 Emergency Cleanup Work. In any case in which the Contractor fails to satisfactorily complete the cleanup work described in this section, the Engineer or his representative may determine that an emergency exists. In the event an emergency is determined by the Engineer, the Contractor shall immediately make available manual labor or mechanical equipment capable of handling the cleaning process. During such an emergency, City forces may be called upon to complete the cleanup work, or the City may contract for the cleanup work. All construction work shall be shut down during this cleanup work by the City/contract forces. The Engineer may shut down further construction work until the violations are corrected to the satisfaction of the Engineer. The cost of the work performed by

City/Contract forces plus an additional 70% surcharge shall be paid by the Contractor by deduction from payment due him on the contract. No compensation shall be given to the Contractor for stoppage of work.

Such action by the Engineer, however, shall not relieve the Contractor of his responsibility for any damages which may occur before, during or after such action has been taken by the Engineer, and shall place no liability upon the City or the Engineer.

401.8 Noise Control. All construction machinery and vehicles employed on the project shall be equipped with approved sound muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the work. Section 701.11 specifies time limitation in which engine driven equipment shall not be operated.

401.9 Temporary Light, Power, and Water. The Contractor shall at its own expense, furnish, install, maintain, and remove all temporary light, power, and water, including piping, wiring, lamps, and other equipment, necessary for the work. The Contractor shall not draw water from any fire hydrant, except to extinguish a fire, without first obtaining permission from the water agency concerned.

401.10 Coordination With Affected Residents. This contract may include a significant amount of work within construction easements in private property. The Contractor shall be required to provide adequate notification to, and coordination with, the affected residents. At least 1 week prior to working in easements, the Contractor shall notify the affected residents in writing of the intention to perform work within their properties, the starting dates of work, and duration of the work. The Contractor shall only initiate an amount of work that can be reasonably completed on the same day. If the initiated work is unfinished, the Contractor shall provide adequate covers and appropriate barricades and warning signs to ensure public safety to the satisfaction of the Engineer. After completion of work in the easement area, the Contractor shall obtain written release from the property owners and give a copy to the Engineer. Any damages to the properties shall be restored and handled in accordance with Section 401.11 of this specification.

In addition, service connections may be required to be temporarily stopped for rehabilitation of the sewer mains and/or laterals. At least 1 week prior to working in a particular area, the Contractor shall notify the affected residents in writing of the intended work, the starting date and duration, and any coordination requirements to facilitate work progress. The Contractor shall be required to adequately notify affected residents of schedule changes.

For service connection disruptions required to make system improvements, the Contractor shall provide a second notice to residents/businesses not less than 48 hours prior to service interruption. For interruptions in service longer than the limits specified below, the Contractor shall at his cost arrange for and provide in-kind services. Maximum interruption time without provision of in-kind services for private residences shall be as follows:

Water Services: 4 hours
Sewer Services: 7 hours

All interruptions shall be restored by the Contractor at the end of each day.

The Contractor shall plan for and provide the services of a septic tank pumper truck to periodically pump out any sewage which may accumulate in excavation pits at the two-way cleanout location. Alternatively, the Contractor may utilize submersible sewage pumps or trash pumps to convey the sewage from the pits to a functional portion of the existing sanitary sewer within the project area.

The Contractor shall at all times perform his lateral connection work so as to minimize the quantity of sewage which may accumulate, to minimize adverse impacts on public health and sanitation and to minimize the potential for odors. The Contractor shall at all times maintain an adequate supply of bottled chlorine bleach (sodium hypochlorite solution) to treat any accumulated sewage should this be determined necessary by the Engineer to minimize odors and to protect the public and workers' health.

All costs to the Contractor for coordination with the affected residents shall be included in bid prices for the replacement or rehabilitation of sewer mains and laterals.

401.11 Protection and Restoration of Existing Improvements. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements and street pavements which are not designated for removal (e.g., street sections, curbs, gutters, driveways, fences, walls, structures, landscaping, etc.) which are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements, and shall match them in finish and dimensions.

Prior to initiating work in the public right of way and in the easements, the Contractor shall make an audio/video cassette tape recording of the affected areas showing all existing improvements, and their conditions. The tapes shall be turned over to the Engineer and shall be used as a historical recording of the pre-construction conditions. The costs of the pre-construction audio-visual survey shall be the responsibility of the Contractor.

Any damages to the private properties will be restored to the satisfaction of the property owners/Engineer within seven (7) days of the damage(s).

Damages within the public right of way including street pavement will be restored to the satisfaction of the Engineer after work on that particular block is completed.

401.12 Submittals. Where required by the specifications, the Contractor shall submit descriptive information which will enable the Engineer to advise the Agency whether the Contractor's proposed materials, equipment or methods of work are in general conformance to the design concept and in compliance with the drawings and specifications. The information to be submitted shall consist of proposed construction schedule, traffic control plan, shoring, sheeting and bracing as required drawings, specifications, descriptive data, certificates, samples, test results and such other information, all as specifically required in the specifications. In some instances, specified submittal information described some, but not all, features of the material, equipment, or method of work. Features not requiring submittals shall be as specified.

401.12-1 Contractor's Responsibilities. Contractor shall be responsible for the accuracy and

completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the drawings. Submittal documents shall be clearly edited to indicate only those items, models, or series of equipment, which are being submitted for review. All extraneous materials shall be crossed out or otherwise obliterated. The Contractor shall insure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor or the Agency. The Contractor shall insure coordination of submittals among the related crafts and subcontractors.

401.12-2 Transmittal Procedure

401.12-2a General. Submittals regarding material and equipment shall be accompanied by a transmittal form. A separate form shall be used for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required. Submittal documents common to more than one piece of equipment shall be identified with all the appropriate equipment numbers. Submittals for various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.

401.12-2b Deviation from Contract. If the Contractor proposes to provide material, equipment, or method of work which deviates from the requirements of the plans and specifications, he shall indicate as "deviation" on the transmittal form accompanying the submittal copies.

401.12-2c Submittal Completeness. Submittals which do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

401.12-3 Review Procedure. Submittals are specified for those features and characteristics of materials, equipment, and methods of operation which can be selected based on the Contractor's judgment of their conformance to the requirements of the plans and specifications. Other features and characteristics are specified in a manner which enables the Contractor to determine acceptable options without submittals. The review procedure is based on the Contractor's guarantee that all features and characteristics not requiring submittals conform to the plans and specifications. Review shall not extend to means, methods, techniques, sequences or procedures of construction, or to verifying quantities, dimensions, weights or gages, or fabrication processes except where specifically indicated or required by the contract documents or to safety precautions or programs incident thereto. Review of a separate item, as such, will not indicate approval of the assembly in which the item functions.

When the contract documents require a submittal, the Contractor shall submit the specified information as follows:

1. One reproducible original of all the submitted information. When individual sheets in the submittal exceed 8-1/2 inches x 11 inches, a sepia shall be submitted.
2. Four copies of all the submitted information.

Unless otherwise specified, within 10 calendar days after receipt of the submittal, the Engineer shall review

the submittal and return one copy of the marked-up reproducible original noted in 1 above. The reproducible original will be retained by the Engineer. The returned submittal shall indicate one of the following actions:

1. If the review indicates that the material, equipment or work method complies with the contract documents, submittal copies will be marked "NO EXCEPTIONS TAKEN." In this event, the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

2. If the review indicates limited corrections are required, copies will be marked "MAKE CORRECTIONS NOTED." The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections.

3. If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "AMEND AND RESUBMIT." Except at his own risk, the Contractor shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

4. If the review indicates that the material, equipment, or work method does not comply with the contract documents, copies of the submittal will be marked "REJECTED -SEE REMARKS." Submittals with deviations which have not been identified clearly may be rejected. Except at his own risk, the Contractor shall not undertake the work covered by such submittals until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN" or " MAKE CORRECTIONS NOTED."

401.12-4 Effect of Review of Contractor's Submittals. Review of drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or the Agency, or by any officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall mean that the Agency has no objection to the Contractor, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

401.13 Final Cleaning Up. Upon completion of the work, and before acceptance and final payment, the Contractor shall clean the project areas and remove all surplus and discarded materials, falsework, rubbish and temporary structures and restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and shall leave the improvement in a neat and presentable condition throughout the entire length of the improvement under contract to the satisfaction of the Engineer. If the Conditions as noted above are not corrected immediately, the Engineer may declare an emergency and take necessary action in accordance with Section 401.7-1 of this specification.

401.14 Changed Conditions. The Contractor shall notify the Engineer in writing of the following Work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed.

1. Subsurface or latent physical conditions differing materially from those represented in the Contract; and
2. Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed.

The Engineer will promptly investigate conditions when notified or any conditions discovered by him which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the work in accordance with Subsection 401.3. If the Engineer determines that conditions of which has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so advised in writing. Should the Contractor disagree with such determination, it may submit a notice of potential claim to the Engineer, as provided in Subsection 501.12.

If the Engineer determines that the conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, may be granted an extension of time subject to the provisions of Subsection 801.7.1.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

401.15 As-Built Records. The Contractor shall maintain at the jobsite one (1) set of Plans marked to show any deviations which have been made from the Plans, including buried or concealed construction and utility features revealed during the course of construction. Record the horizontal and vertical location of all buried utilities that differ from the Plans. These Plans shall be available for review by the Engineer at all times. Upon completion of the work, deliver the marked set of prints in good condition to the Engineer for incorporation into the original drawings.

SECTION 5 - CONTROL OF THE WORK

501.1 Authority of the Engineer. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner or performance and rate of progress of the work; all questions which may arise as to the interpretation of the Plans and Specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation. His decision shall be final and he shall have authority to enforce and make effective such decisions and orders which the Contractor fails to carry out promptly.

501.2 Plans. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made in any plan or drawing after the same has been approved by the Engineer, except by direction of the Engineer. Where at any time reference is made to the plans, the interpretation shall be the plans as affected by all authorized alterations then in effect.

501.3 Conformity with Plans and Allowable Deviation. Finished surfaces in all cases shall conform with the lines, grades, cross sections, and dimensions shown on the approved plans. Deviation from the approved plans, as may be required by the exigencies of construction, will, in all cases, be determined by the Engineer and authorized in writing.

501.4 Coordination with Contract Documents. These specifications, the plans, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe and provide for a complete work. If there is a conflict between Contract Documents, the document highest in precedence shall control. The precedence shall be:

1. Federal and State requirements.
2. Permits from other agencies as may be required by law.
3. Special Provisions
4. General Provisions
5. Contract Plans, including General Notes.
6. Standard Details.
7. Amendments to the Standard Specifications for Public Works Construction, 1985 Edition.
8. Standard Specifications for Public Works Construction, 1985 Edition, Part 2 - Construction Materials and Part 3 - Construction Methods.
9. Reference Specifications.

Change orders, supplemental agreements, and approved revisions to Plans and Specifications will take

precedence over documents listed above. Detailed plans shall have precedence over general plans.

501.5 Interpretation of Plans and Specifications. Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Plans or Specifications, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to the same as part of the contract, so far as may be consistent with the original specifications; and in the event of any doubt or question arising regarding the true meaning of the Specifications, reference shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

Any part of the work which is not mentioned in the Specifications, but is shown in the Plans, or any part not shown on the Plans but described in the Specifications, shall be performed by the Contractor.

501.6 Superintendence. The Contractor will be supplied with five copies of the Plans and Specifications. Additional sets of Plans and Specifications shall be provided at the Contractor's cost which shall be equal to the City's reproduction costs. The Contractor shall have available on the work, at all times, one copy of each of said Plans and Specifications; he shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Engineer and with other contractors in every way. The Contractor shall, at all times, have a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications, as his agent on the work, who shall receive instructions from the Engineer or his authorized representatives.

The superintendent shall have full authority to execute the order or directions of the Engineer without delay and to promptly supply such materials, tools, plant equipment, and labor as may be required. Such superintendent shall be furnished irrespective of the amount of work sublet.

501.7 Lines and Grades. Lines and grades for the work will be given by the Engineer. The Contractor shall give at least 48 hours' notice when he will require the services of the Engineer for laying out any portion of the work.

The Contractor may be required to furnish labor, at no extra cost to the City, to assist the City survey party. In general, this would mean the occasional furnishing of a laborer to drive stakes, pull manhole covers, move obstructions, etc., in order to expedite the work.

The Contractor shall protect stakes set by City surveyors by placing guard stakes or large objects to protect them from damage. The Engineer shall charge the Contractor for all time spent resetting stakes.

501.8 Authority and Duties of Resident Engineer. Duly authorized Resident Engineers, who shall perform their duties under the direction of the Engineer, will be assigned to the project or each part thereof. The presence of the Resident Engineer shall in no way lessen the responsibility of the Contractor. In case of any dispute arising between the Contractor and the Resident Engineer as to materials furnished or the manner of performing work, the Resident Engineer shall have authority to reject materials or suspend the work until the questions at issue can be referred to and decided by the Engineer. The Resident Engineer is not authorized to revoke, alter, enlarge, relax, or release any requirement to these specifications, nor to approve or accept any portion of the work, nor to issue instructions contrary to the Plans and Specifications.

501.9 Inspection. The Contractor shall furnish the Engineer or his designated representative with access to the work for ascertaining whether the work performed and materials used are in accordance with the requirements and intent of the specifications and contract.

The Contractor shall give the Engineer or his representative notice of the time when he or his subcontractors will start the various units or operations of the work. Notice shall be given at least 24 hours in advance of starting or resumption time exclusive of Saturdays, Sundays, or holidays, for the purpose of permitting the Engineer to make the necessary assignment of his representative or inspector on the work. Any work performed by the Contractor or his subcontractors in conflict with said notice shall be removed if so ordered by the Engineer, his representative or inspector on the work.

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed. Defective work shall be made good, and unsuitable materials may be rejected, notwithstanding the fact that such defective work or unsuitable materials may have been previously overlooked by the Engineer and accepted or estimated for payment.

501.10 Traffic Control. The Contractor shall submit three copies of proposed traffic control plan to the Engineer for approval at least five (5) working days prior to commencement of work. No work will be started unless the traffic plan and requirements in Section 801.2 is duly approved. This plan will be submitted in the form of a drawing locating the project area and all major and minor access and exits to and out of this area. The plan will also include the immediate neighboring areas where the traffic shall be directly or indirectly affected as a result of construction work in the project area.

The traffic control plan shall be developed for various traffic situations and street configurations in the work and surrounding areas in full conformance with the "State of California Business, Transportation and housing Agency Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zone" dated 1985, hereinafter referred to as Traffic Control Manual.

At main entry and exit points of each work location, the Contractor shall provide a 30" x 30" sign advising the public of the anticipated period of time that traffic delays may be anticipated. This sign will also include name and telephone number of the Contractor along with starting and completion dates of the contract. Sign will be erected 7 days in advance of any work.

If traffic is to be detoured over a centerline or detoured in advance of the work, detour plan must be incorporated in the traffic control plan. Police, Fire, and Public Works Department shall be notified at least 48 hours in advance of any work which will interfere with the normal flow of vehicular or pedestrian traffic. Intersection closure may only occur if, in the traffic plan, the two adjacent intersections remain open, unless otherwise approved by the Engineer.

All signs and devices proposed to warn, direct, and control traffic in the vicinity of the work shall conform in size, shape, and color to the requirements set forth in the Traffic Control Manual mentioned above and approved by the Engineer in accordance with the traffic control plan.

The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays, designated legal holidays, after 3:00 P.M. on Fridays and the day preceding designated legal holidays, and when

construction operations are not actively in progress.

Cost of traffic controls, including flag person, shall be included and spread among appropriate bid items as determined by the Contractor.

Public parking on streets may be restricted as necessary.

The Contractor shall furnish, erect, and maintain all signs except "No Parking" signs which shall be obtained by the Contractor from the City of Berkeley. All signs shall be placed as directed by the Engineer. The "No Parking" signs must be posted by the Contractor no later than 48 hours or as directed by the Engineer in advance of the time of need. "No Parking" signs shall bear the name of the Contractor and shall also specify the "No Parking" dates and locations.

The Contractor shall replace within a 24 hour period any sign that has been damaged, lost, or worn out.

The Traffic Engineer shall have authority to change the traffic plan and make recommendations through the Engineering Inspector after the project has started and throughout the project.

The Contractor shall comply with the traffic engineering recommendations within a 24 hour period or immediately if requested. Failure to comply with this item shall be enough reason for the Engineer to stop the project.

501.11 Defective and Unauthorized Work. All work which is defective in its construction or deficient in any of the requirements of these specifications shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such correction.

Upon failure of the Contractor to comply forthwith with any order of the Engineer made under the provisions of these specifications, the Engineer shall have the authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed, and to deduct the costs thereof from any monies due or to become due the Contractor.

501.12 Disputed Claims. In any case where the Contractor deems extra compensation is due him for work or materials not clearly covered in the contract, or not ordered by the Engineer as extra work, the Contractor shall notify the Engineer in writing of his intention to make claim for such extra compensation before he begins the work on which he bases the claim. If such notification is not given or the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost, then the Contractor hereby agrees to waive the claims for such extra compensation.

Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. The claim must be passed upon by the Engineer. In case the claim is found to be just, it shall be allowed and paid for as extra work. Unless the Contractor gives notice of his claim to the Engineer within 10 calendar days, or before he begins the work on which he bases his claim, whichever is sooner, it will not be considered.

501.13 Arbitration. Disputed claims may be settled by arbitration if both parties mutually agree. The arbitration procedures shall be in accordance with the construction industry arbitration rules of the

American Arbitration Association. Arbitration awards shall be presented in writing and shall include the following elements: (1) legal "finding of fact" established by the arbiter; (2) specific breakdown of the dollar amounts allocated for each issue under arbitration; (3) the arbiter's "conclusion of law"; (4) a summary of the evidence; and (5) reasons underlying the arbiter's award.

501.14 Final Inspection. Whenever the work provided and contemplated by the contract shall have been satisfactorily completed and the final cleaning up performed, the Engineer will make the final inspection.

501.15 Progress Meetings. The Contractor shall schedule and hold regular on-site progress meetings weekly and at other times as requested by the Engineer or as required by progress of the Work. The Contractor, Engineer, and all subcontractors active on the site shall be represented at each meeting. The Contractor may, at its discretion, request attendance by representatives of its suppliers, manufacturers, and other subcontractors. The purpose of the meetings will be to review the progress of the work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

501.16 Substitution. Any materials, process, or article may be requested for a substitution by the Contractor, in lieu of that specified or shown, under the following conditions:

1. Requests must be submitted in writing sixty (60) days prior to starting the work, as established by the Engineer, so as not to cause any delay in completion of the project.

2. The Contractor shall, at no cost to the City, furnish all testing, data, engineering, and design services (including the review costs incurred by the Engineer) for items offered as equivalent to those specified. Test methods and findings shall, prior to installation, be subject to approval of the Engineer.

3. On sewer rehabilitation projects, the sewer rehabilitation methods shown on the Plans are the minimum levels acceptable for the respective reaches. The three sewer rehabilitation methods, in descending order of acceptability, are as follows:

- Replacement
- Inversion-Lining
- Sliplining

Substitution with a lower level rehabilitation method will not be permitted unless field conditions dictate that a lesser method will provide comparable sewer integrity. A credit change order will be prepared accordingly. The foregoing shall require the approval of the City and the Engineer. Substitution with higher level rehabilitation method may be acceptable subject to approval of the Engineer.

1. No requests for substitution will be considered during the bidding period.

2. Any substitution of any material, process, or article shall be at no additional costs to the City. Substitution with a lesser level rehabilitation method shall be accomplished by credit change order. Substitution with a higher level method shall be accomplished by a no cost change order.

The Engineer reserves all rights and will have final approval as to the substitution of alternative rehabilitation methods.

501.17 Reinspection, Retesting, and Re-staking. All costs incurred by the City for reinspection of poor workmanship, failing air tests, failing compaction tests, failing tests of any kind, and re-staking caused by the Contractor shall be deducted from the amounts due the Contractor by contract change order. The Engineer's decision as to determination of poor workmanship shall be final.

SECTION 6 - CONTROL OF MATERIAL

601.1 Sample and Tests. At the option of the Engineer, the source of each of the materials shall be approved by the Engineer before delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work, for testing or examination as desired by the Engineer.

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards as set forth in the specifications and such other special methods and tests as may be prescribed.

The Contractor shall furnish such samples of materials as are requested by the Engineer, without charge. No material shall be used until it has been approved by the Engineer. Samples will be secured and tested by the laboratory whenever necessary to determine the quality of material.

601.2 Defective Materials. All materials not conforming to the requirements of these specifications shall be considered as defective, and all such defective materials, whether in place or not, shall be rejected. They shall be removed immediately from the site of the work unless otherwise permitted by the Engineer. No rejected material, the defects of which have subsequently been corrected, shall be used until approved in writing by the Engineer.

Upon failure on the part of the Contractor to comply with any order of the Engineer made under this provision of these specifications, the Engineer shall have authority to remove and replace defective material and deduct the cost of removal and replacement from any monies due or to become due the Contractor.

601.3 Storage of Materials. Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. Stored materials shall be so located as to facilitate prompt inspection. Space for main storage/construction yard shall be the Contractor's responsibility.

No construction material shall be stockpiled in the street for a period of more than five (5) days at a particular location. Contractor shall coordinate with the Engineer to designate such temporary storage areas. The delivery of materials on site should be scheduled in installments in such a way that all stockpiled materials are used within the above specified period. Proper lighted barricades and other required traffic controls shall be maintained at all times around the stored materials. No material shall be stored on the sidewalk area and/or in front of driveways or within 15 feet of a fire hydrant or catch basin, passageways, or in such a way as to hinder pedestrians, vehicular flow, or drainage.

Street curbs and gutters shall be clear from stockpiled materials. To maintain flow of unobstructed surface water on the street, 4" diameter minimum drain pipes shall be provided along the gutters if any materials are stockpiled in those areas.

At least one lane shall be kept open in the street at every time during the time material is stockpiled in the public right of way. Any violation of the above requirements will result in a declaration of an emergency situation by the Engineer and proper remedial action shall be taken in accordance with Section 401.7 of

this specification.

Clean up and tidiness under Section 401.6 shall be adhered to and enforced.

601.4 Trade Names or Alternatives. Whenever any article or any class of materials is specified by a trade name or by the name of any particular patentee, manufacturer or dealer, it shall be and is mutually understood to mean and specify the article or class of materials described, or any other equal thereto in quality, finish, and durability, and equally as serviceable for the purpose for which it is intended, subject to the approval and acceptance of the Engineer.

SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

701.1 Laws to be Observed. The Contractor shall keep himself fully informed of all state and national laws and all municipal ordinances and regulations of the City which in any manner affect those engaged or employed in the work, or which in any way affect the conduct of the work, and or all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

The Contractor shall at all times observe and comply with, and shall cause all agents and employees to observe and comply with all such laws, ordinances, regulations, orders and decrees, including all provisions of the Occupational Safety and Health Act of 1979 and all amendments thereto, and all applicable federal, state, municipal, and local safety regulations; and shall protect and indemnify the City, the Council, and the Engineer, and all of its and their officers and agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. If such discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same, in writing, to the Engineer.

701.2 Hours of Labor. Eight (8) hours of labor shall constitute a legal day's work for all workers employed on this contract and the Contractor and any subcontractor under him shall comply with and be governed by the laws of the State of California having to do with working hours as set forth in Division 2, Part 7, Chapter 1, Article 3 of the Labor Code of the State of California as amended.

The Contractor shall forfeit, as penalty to the City of Berkeley, twenty-five dollars (\$25.00) for each laborer, worker, or mechanic employed in the execution of the contract, by him or any subcontractor under him, upon any of the work hereinbefore mentioned, for each calendar day during which said laborer, worker, or mechanic is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of said Labor Code.

701.3 Apprentices. The Contractor and any subcontractor working under him must comply with and be governed by the laws of the State of California having to do with the employment of apprentices on public works as set forth in Sections 1777.5 and 1777.6 of the Labor Code of the State of California.

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

701.4 Nondiscrimination. There shall be no discrimination against any employee who is employed in the work covered by this contract, or against any applicant for such employment, because of race, religion, color, disability, national origin, or sexual preference. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

In order that this provision against discrimination shall achieve the intended result, before a contract is awarded to the apparent successful bidder there shall be a pre-award conference between such apparent

successful bidder and the City Manager, or the City Manager's designated representative. Such pre-award conference shall be held after the opening of bids and before award of the contract at a date and time to be designated by the City Manager, or his representative, and at such pre-award conference the apparent successful bidder shall present to the City Manager, or his authorized representative, the program of affirmative action he proposed to undertake to ensure that persons are employed and employees are treated so that they receive equal opportunities without regard to race, religion, color, disability, national origin, or sexual preference. Such program shall include not only the affirmative action proposed to be undertaken by the apparent successful bidder in his own employment practices but also the affirmative action that he proposes to undertake to assure that all subcontractors working under him provide equal employment opportunities for all without regard to race, religion, color or national origin. Failure to carry out the proposed program of affirmative action shall be deemed to be a violation of the contract within the meaning of Section 701.26 of the General Provisions.

In the event that the apparent successful bidder refuses or fails to participate in such pre-award conference or refuses or fails to present a program of proposed affirmative action, the Council may determine that he is not the lowest responsive bidder and his bid shall be rejected. In such event, the City Council shall have the right to declare such apparent successful bidder to be a nonresponsive bidder, in which case no contract shall be awarded to him by the City for a period of at least three (3) years from the date of the declaration by the Council that he is a nonresponsive bidder, and then only after satisfactory evidence that he will comply with the requirements of this Section of the General Provisions.

If the bid of the apparent successful bidder is rejected by the Council and the Council wishes to award the contract to another bidder, such contract shall not be awarded until such bidder has complied with the requirements of this Section relating to pre-award conference and the effects thereof, as hereinabove set forth, shall be applicable to said other bidder, except that such pre-award conference shall be held within five (5) days following the action of the Council in rejecting the bid. The other bidders shall be considered for award pursuant to this paragraph in the order of their bids starting with the next lowest responsive bidder and continuing until a bidder complies with the requirements of this Section, or until the council takes other action as authorized by Section 67 of the Charter.

701.5 Prevailing Wage. The Contractor and any subcontractor working under him must comply with and be governed by the laws of the State of California having to do with the prevailing wage to be paid as is set forth in Division 2, Part 7, Chapter 1, Article 2 of the Labor Code of the State of California as amended.

The Contractor shall forfeit, as penalty to the City, twenty-five dollars (\$25.00) for each laborer, workman, or mechanic employed, for each calendar day or portion thereof, such laborer, workman, or mechanic is paid less than the general prevailing wages hereinafter stipulated for any work done under the attached contract, by him or by any subcontractor under him, in violation of the provisions of said Labor Code. In addition, the Contractor shall pay to the workmen the wages resulting from the difference between the stipulated wage rate and the wages actually paid.

The Engineer has a current copy of general prevailing wage rates applicable to the work, a copy of which is made part of these specifications by reference.

701.6 Compensation Insurance. Before beginning work, the Contractor shall furnish to the Engineer

a certificate of insurance as proof that he has taken out full compensation insurance for all persons whom he may employ directly or through subcontractors in carrying out the work specified herein, in accordance with laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this contract.

701.7 Governmental Regulations. Bid price shall not be in excess of maximum prices permitted by the federal or state government.

All orders are subject to ability to obtain and use materials and deliver finished products under federal and state regulations and orders. If shipping dates are subject to delays resulting from preference rating or priority shipments order or requested by the United States Government or by any department, commission or agency thereof, the Contractor shall not be held liable for such delay.

701.8 Taxes. The City is liable for the State Sales Tax and where the County of purchase has adopted the Uniform Sales Tax law and a City and/or County tax is collected by the State, the City of Berkeley is liable for this tax also.

The City if exempt from the Federal Excise Tax and exemption certificates will be furnished. In certain instances, the bidder and subcontractor may be liable for Federal Excise Tax. Bidder must determine whether Federal Excise Tax is chargeable to him and if so, the amount of the tax should be included in the amount bid.

Any new or additional taxes levied after the adoption of these specifications that are payable by the City are not to be included in the price bid, but added thereto when invoiced.

701.9 Permit and Licenses. The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notice necessary for the lawful prosecution of the work.

701.10 Royalties and Patents. The Contractor shall pay all royalties and patent fees. He shall defend all suits and claims for infringements of any patent rights and shall save the City harmless from loss on account thereof, except that the City shall be responsible for all such loss when a particular process or the product of a particular manufacturer is specified. If, however, the Contractor has information that the procedures or article specified is an infringement of a patent, he shall be responsible for any loss unless he promptly gives said information to the City.

The Contractor shall assume all responsibilities arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work.

All fees and royalties for any patented invention or process used in connection with the work shall be included in the price bid for such work, and the Contractor shall obtain a permit from the patentee for use of the same.

701.11 Public Convenience and Safety. The Contractor shall so conduct his operations as to cause the least possible obstruction and inconvenience to the public.

Residents along the work shall be provided passage as far as practicable. Convenient access to driveways,

houses, and buildings along the work shall be maintained and temporary crossings shall be provided and maintained in good conditions. Contractor shall maintain access to all driveways except when actually doing construction within the driveway boundaries, at which time parking access will be maintained unless alternate arrangement can be made with the property owners or tenants in advance. No more than one intersection street shall be closed at any one time without the approval of the Engineer.

The Contractor shall furnish all flagpersons, barricades, barriers, lanterns, flares, "DR" type detour signs, and other devices which may be necessary for adequate and safe traffic control, and in accordance with the approved traffic control plans per Section 501.10 of this specification.

Traffic control shall be performed in accordance with the following requirements:

- o Safe pedestrian passage shall be provided at all times on the project site.
- o All open trenches will be covered with appropriately thick steel plates in accordance with page 25 of the "Work Area Traffic Control Handbook" published by Building News, Inc. (213) 870-9871. Safe passage for all vehicles shall be maintained at all times in both directions.
- o Sufficient number of reflectorized signs shall be supplied and used on the job site at all times to efficiently control traffic in accordance with this specification. Each and all barricades shall be equipped with operative automatic flashers.
- o Berkeley Police and Fire Departments, Berkeley School District, City Streets and Utilities Division, and A.C. Transit shall be advised of the planned construction, blocked streets, and other changes affecting traffic conditions (48 hours in advance), every work day -- or more frequently. Additionally, the Police and Fire Departments and Resident Engineer must be given telephone numbers where the Contractor may be reached at all hours in the event of an emergency involving the work. Appropriate Police, Fire, Berkeley School District, City Streets and Utilities Division, and A.C. Transit telephone numbers are as follows:

Police: 981-5900
 Fire: 981-5900
 School: 644-6182
 Streets & Utilities: 981-6620
 A.C. Transit: (where applicable) 891-4777

Proper signs and devices shall be used to warn, direct, and control traffic in the vicinity of the work and shall conform in size, shape, and color to the requirements set forth in the specifications and approved by the Engineer in accordance with the Traffic Control Plan.

Where such facilities are not provided or are out of service, and an emergency exists that necessitates protective measures, the Engineer or his representative, may provide such facilities during the emergency and the cost thereof shall be paid by the Contractor or deducted from monies due or to become due him on the contract. Such action by the Engineer, however, shall not relieve the Contractor of his responsibility for any damages which may occur before, during or after such precaution has been taken by the Engineer, and shall place no liability upon the City or the Engineer.

To keep evening and night noise levels to a minimum, no engine driven equipment shall be operated between 5:00 p.m. and 7:30 a.m. unless previously authorized by the Engineer.

701.12 Responsibility for Damage. The City, the Council, or the Engineer shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any materials or equipment used in performing the work; or for injury or damage to person or persons, either workmen or the public; or for damage to adjoining property from any cause whatsoever during the progress of the work or at any time before final acceptance.

The Contractor shall be held responsible for any and all loss, accidents, injury or damage to persons or property which may be the result of this contract and for which the City might be held liable. The Contractor shall protect and indemnify the City and save it harmless in every way from all claims, suits or actions of law for damage or injury to persons or property that may arise or be occasioned in any way because of this contract. The Council may retain so much of the money due the Contractor as shall be considered necessary, until disposition has been made of such suits or claims for damages as aforesaid.

701.13 Public Liability and Property Damage Insurance. Before commencing the work, the Contractor shall furnish to the City Attorney of the City satisfactory evidence of public Liability and Property Damage insurance with limits of liability as listed in the Notice to Bidders and as approved by the City's Risk Manager. Such insurance shall name the City of Berkeley officers, employees, agents and its consultants associated with the project (City to provide names of the consultant(s)) as additional named insured and it shall be provided that any cancellation or reduction in coverage of the insurance by either the assured or the insurance company will not be effective until thirty (30) days after written notice thereof has been given to the City.

701.14 Contractor's Responsibility for Work. Until the formal acceptance of the work by the Engineer, the Contractor shall have the charge and care thereof, except as provided in Section 701.11, Public Convenience and Safety, and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any cause before final acceptance and shall bear the expense thereof, except such injuries or damages as occasioned by acts of war.

701.15 Entry Rights. The right is reserved to the City, and also to railway, water, gas, telephone, telegraph, cable television and electric power transmission companies to enter upon the work for the purpose of making repairs and changes that have become necessary by reason of work. Projects financed in whole or in part with State funds shall be subject to inspection at all times by the State of California agency having jurisdiction or his agent.

701.16 Cooperation between Contractor and Utility Companies. The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The City, its workers and contractors, and others shall have right to operate within or adjacent to the workers to perform such work.

The City, the Contractor, and each of such workers, contractors, and others shall coordinate their

operations and cooperate to minimize interference.

The Contractor shall include in its bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the City for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage, or delay, the Contractor shall redeploy its work force to other parts of the work.

Should the Contractor be delayed by the City, and such delay could not reasonably have been foreseen and prevented by the Contractor, the Engineer will determine the extent of the delay, the effect of the delay on the project as a whole, and any commensurate extension of time.

If the work of the Contractor is delayed because of any acts or omissions of any other contractor or utility company, the Contractor shall on that account have no claim against the City other than for an extension of time.

701.17 Obstruction. No material or other obstruction shall be placed within fifteen (15) feet of fire hydrants, which must be at all times readily accessible to the Fire Department.

Where the completion of the work requires their removal, the Contractor shall remove and dispose of all structures, debris, or other obstructions encountered in making the improvement.

701.18 Sanitary Conveniences. Necessary sanitary facilities for the use of workers properly secluded from public observation and in compliance with health ordinances and laws, shall be constructed and maintained in an approved manner by the Contractor, and their use shall be strictly enforced.

701.19 Preservation of Monuments. The Contractor shall carefully preserve bench marks, reference points and stakes, and in case of willfully or careless destruction, he will be charged with the entire cost of replacing them and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance. Monuments which have to be removed shall not be disturbed until authorized by the Engineer.

The Contractor shall provide the City with a minimum of 48 hours notice of any activities which may result in the displacement damage or destruction of monuments.

701.20 Opening Sections of New Work. Whenever, in the opinion of the Engineer, any section of the work is in a condition for beneficial use by the City it may be opened for use. Such openings, when authorized in writing by the Engineer shall not represent acceptance of that portion of the work unless all specified testing has been satisfactorily completed.

The Contractor will be responsible for all necessary repairs on any section of work, so opened, due to defective material or work, damage by Contractor's operation, or to natural causes other than ordinary wear and tear until final completion and acceptance of the work. Such repairs shall be at the expense of the Contractor.

701.21 Acceptance of Work on Contract. When the final inspection is completed and it has been determined that the work is in accord with the plans and specifications, the Engineer will formally accept

the contract. After such acceptance, the Contractor will be relieved of protecting the work, except for such correction or repair as shall be required to correct any defect in the work. The Contractor will not be required to perform any further work thereon except such items as may be reserved specifically in the specifications or formal written acceptance, and he shall be relieved of responsibility for injury to persons or property or damage which occurs after the formal written acceptance.

701.22 Correction of Errors, Recovery for Errors, Dishonesty or Collusion. The City reserves the right to correct any error that may have been made in any estimate that has been paid. The City also reserves the right to claim and recover by process of law any sums sufficient to correct any error or make good any deficiency in the work, regardless of when such error, dishonesty or collusion shall be discovered.

701.23 Rights in Materials and Salvage. Ownership of materials incorporated in the work is vested in the name of the City. Any material delivered and paid for in part by the City or any material furnished by the City to be incorporated in the work, is or becomes the property of the City. Any salvageable materials or installations existing at the site of the work (such as manhole rings and covers, catch basin gratings, angle iron, pipe railings, valve boxes and lamphole boxes, and other steel, cast iron or metallic materials) that are the property of the City, if they are to be removed shall be delivered F.O.B. to the storage yard designated by the City. The salvageable materials shall be cleaned of clinging concrete and debris and delivered to the storage yard in the same condition as it existed prior to removal, unless the Contractor is instructed otherwise by the Engineer.

701.24 Right-of-Way. The right-of-way for the work to be constructed will be provided by the City. The Contractor shall make his own arrangements, and pay all expenses for additional area required by him outside the limits of the right-of-way, unless otherwise provided in the Special Provisions.

701.25.1 Underground Facilities. The City has investigated underground conditions to the extent allowed by the City records and has indicated on the drawings such underground structures and conditions as are known to exist. In addition, the drawings indicate information furnished to the City by the utility agencies concerning their facilities. The City does not guarantee, either expressly or by implication, that the underground conditions indicated are either complete or exact as to locations and depths. No additional allowance will be made in cases where underground conditions vary as to number, structures, depths, locations or any other condition from the information shown on the drawings. In all cases, the cost of dealing with the identified underground facilities encountered will be considered as being included in the bid prices for the various items of work.

701.25.2 Protection of and Liability for Unidentified Underground Public Utilities. The following is pursuant to California Government Code Division 5, Chapter 3.1, Section 4215. The City is responsible for the removal, relocation or protection of existing utilities located on the construction site that is subject of these plans and specifications if such existing underground utilities are not identified in the plans and specifications and made a part of the invitation for bids. The Contractor will not be assessed liquidated damages for delay in completion of the contract, when such delay is caused by failure of the City or utility owner to provide for removal or relocation of the unidentified existing utility facilities.

701.26 Compliance with Contract. In the event any provision of the contract including the General Provisions and specifications, is violated, and the Contractor refuses to comply after 10 days written notice is given by the City, the City shall have the additional right, without further notice, to cancel the contract

and/or declare such Contractor to be a nonresponsive bidder, in which case no contract shall be awarded him by the City of a period of at least three (3) years from the date of violation, and then only after satisfactory evidence that he will comply with City specification and contract provisions.

SECTION 8 - PROSECUTION AND PROGRESS

801.1 Subletting and Assignment. The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control. The contract may be assigned only upon written consent of the Engineer.

Subcontractors will not be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor, and their work shall be subject to the provisions of the contract and specifications.

When a portion of the work sublet by the Contractor is not being prosecuted in a manner satisfactory to the Engineer, the subcontractor shall be removed immediately on the written request of the Engineer and shall not again be employed on the work.

801.2 Progress of the Work and Time for Completion. The Contractor shall begin work within 30 calendar days after the award of the contract and shall diligently prosecute the same to completion before the expiration of the time specified in the Bidding Documents. After issuing of Notice to Proceed and prior to commencement of mobilization and construction, the Contractor shall be required to attend a pre-construction meeting.

The Engineer may extend the starting date.

801.3 Programming Work. After notification of award and at least five (5) working days prior to start of any work, the Contractor shall submit to the Engineer for approval its proposed construction schedule. No construction work will start unless the schedule is approved by the Engineer. The construction schedule shall be in the form of a tabulation, chart, or graph and shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The construction schedule shall reflect completion of all work under the contract within the specified time and in accordance with these specifications. The schedule shall include completion dates of all major activities on a block to block basis.

If the Contractor desires to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Loss of work for any cause during the period of time prior to the submission of the progress schedule will not be considered by the Engineer in his computation of time extensions. In addition, the Contractor shall submit a complete list of subcontractors who will perform the work on this project and a list of all major material suppliers. No substitutions of any kind will be allowed, either of subcontractors or material suppliers without the written approval of the Engineer.

In case of any delays from the original schedule due to any reason, the Contractor will immediately notify the Engineer and resubmit the revised schedule within forty-eight (48) hours of that change. Any request

for change in the original schedule shall be evaluated and approved or denied in accordance with requirements listed in these specifications.

All work on the project shall be performed between the hours of 7:30 AM and 5:00 PM on a regular work day. No work shall be scheduled beyond these hours on a regular work day, holiday, or weekend without prior approval from the Engineer. The Contractor shall submit this request in writing at least one week in advance. The Contractor shall pay for the inspection time of the City's resident Engineer or his designated representative on an overtime basis for required inspection of work performed beyond the mentioned regular day working hours and on holidays or weekends. This inspection charge will be deducted from the Contractor's progress payment.

All work, including finish paving on a City block and final clean up, shall be completed within five (5) weeks from the start of construction on the respective City block.

801.4 Character of Workers. If any subcontractor or person employed by the Contractor shall refuse to carry out the provisions of the plans and specifications or shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the written request of the Engineer, and such person shall not again be employed on the work.

801.5 Temporary Suspension of Work. The Engineer shall have the authority to suspend the work wholly or in part, for such period as he may deem necessary due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provisions of the work. In addition, the Contractor shall comply with the Traffic Engineering recommendation within a 24-hour period or immediately if requested. Failure to comply with this shall be sufficient reason for the Engineer to suspend the work. The Contractor shall immediately obey such orders of the Engineer and shall not resume the work until ordered in writing by the Engineer.

801.6 Liquidated Damages for Failure to Complete Work in Specified Time. Time is of the essence and an essential condition of the Contract. If all the work called for under the contract is not completed before or upon the expiration of the time set forth in the Bidding Documents, damage will be sustained by the City. Since it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay, it is therefore agreed that the Contractor will pay to the City the sum specified in the Bidding Documents for each and every working day beyond the time prescribed to complete the work, not as a penalty, but as a predetermined liquidated damage. The Contractor agrees to pay such liquidated damages as are herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the contract.

801.7 Extension of Time. If the work called for under the contract is not completed within the time specified, the Engineer may extend the time for completion if it serves the best interest of the City. If the time limit for the completion of the contract is extended, the Engineer may charge to the Contractor or deduct from the final payment for the work, all or any part of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are incident to the work, and which accrue during the period of such extension. The cost of final surveys and preparation of final estimate shall not be included in such charges.

801.7.1 Extension of Time Due to Extra Work and Inclement Weather. Extensions of time for extra work, when granted, shall be based upon the effect of delays to the Work and will not be granted for noncontrolling delays to minor portions of the work unless it can be shown that such delays did or will delay the progress of the Work. Extensions of time for inclement weather, when granted, shall be based upon impacts to the Contractors work operations causing not less than 50 percent of the effort to be shut down.

801.8 Delays and Suspension of Work. The Contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of the work caused by the wrongful act or negligence of the City or its employees, agents or representatives, by acts of God, acts of the public enemy, fire, floods, epidemics, quarantine restrictions, labor disputes, freight embargoes, materials delays when approved by the Engineer, inclement weather or delays of subcontractors due to such causes; provided, that the Contractor shall within five (5) working days from the end of any such delay notify the Engineer in writing of the cause of delay. The Engineer will determine the extent of delay and his findings of the facts thereon shall be final.

In the event the Contractor is delayed in the work by the wrongful act or negligence of the City or its employees, agents or representatives, which said delay is not caused by or the continuance of which is not due to any act or conduct on the part of the Contractor, reimbursement or payment to the Contractor for such delay, if at all, shall be limited to any money actually and necessarily expended on the job during the period of delay, solely by reason of said delay. No reimbursement, payment or allowance will be made for anticipated profits, rental charges for equipment owned by the Contractor, or any overhead or indirect costs.

801.9 Acceptance of Payment Does Not Constitute Waiver. If the City accepts any work or makes any payment under this contract after a default by reason of delays, the payment or payments shall in no respect constitute a waiver or modification of any of the provisions in regard to time of completion and liquidated damages.

801.10 Suspension of Contract. If at any time the Contractor has failed to supply an adequate working force or materials of proper quality, or has failed in any other respect to prosecute the work as intended by the terms of the contract, notice thereof in writing will be served upon him and his surety by the Engineer. Should the Contractor neglect or refuse to provide means for satisfactory compliance with the contract within three (3) working days, the Engineer shall have the power to suspend the operations of the Contractor. Upon receiving notice of such suspension, the Contractor shall discontinue said work or such parts of it as the Engineer may designate. Upon such suspension, the Contractor's control of the work shall terminate. The City or its duly authorized representative, may take possession of all or any part of the Contractor's materials, tools, equipment, and appliances upon the premises, and use the same for the purpose of completing said contract, and hire such force and buy or rent such additional machinery, tools, appliance and equipment, and buy such additional materials and supplies at the Contractor's expense as may be necessary for the proper conduct of the work and for the completion thereof. The City may employ other parties to carry the contract to completion, employ the necessary workmen, substitute other machinery or materials, and purchase the materials contracted for, in such manner as the Engineer may deem proper. The City may annul and cancel the contract and re-let the work or any part thereof.

801.11 Liability of Contractor in Event of Suspension or Cancellation. Any excess of cost over and above the contract price because of suspension of the contract will be charged against the Contractor and his sureties, who will be liable therefor. In the event of such suspension, all moneys due the Contractor or retained under the terms of this contract shall be forfeited to the City until all obligations of the contract have been met. Such forfeiture will not release the Contractor or his sureties from liability for failure to fulfill the contract.

The Contractor and his sureties will be credited with any surplus of money so forfeited by the suspension or cancellation of the contract after the completion of the work by the City as above provided. The Contractor or his surety may claim any surplus remaining after all just claims for such completion of the contract have been paid.

801.12 Decision of Council Binding on All Parties. The final determination of the question as to whether there has been non-compliance with the contract sufficient to warrant the suspension or annulment thereof, rests with the Council. Its decision shall be binding on all parties to the contract.

801.13 Guarantee. The Contractor shall guarantee the entire work constructed by him under the Contract to be free of defects in materials and workmanship for a period of one year after completion and acceptance by the Agency. The date of initiation of this guarantee period shall be the date of the filing of the notice of completion by the Agency. The Contractor shall agree to make, at his own expense, any repairs or replacements made necessary by defects in materials and workmanship which become evident within said guarantee period. The Contractor hereby agrees to defend, to indemnify and hold harmless the Agency; its officers, agents and employees, and its consultants associated with the project (City to provide name of consultant), against and from all claims and liability arising from damage and injury due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Engineer. If the Contractor fails to make the repairs and replacements promptly, the Agency may do the work and the Contractor and his surety shall be liable to the Agency for the cost of such work.

The performance of guarantee and conditions specified above shall be secured by a surety bond which shall be delivered by the Contractor to the Agency prior to the date on which final payment is made to the Contractor. Said bond shall be in an approved form and executed by a surety company or companies satisfactory to the Agency, in the amount of 10 percent of the Contract price. Said bond shall remain in force for the duration of the guarantee period.

SECTION 9 - MEASUREMENT AND PAYMENT

901.1 Measurement of Quantities. For all items of work, other than those to be paid for by lump sum, after the work is completed and before final payment is made therefore, the Engineer shall make final measurements to determine the quantities of various items of work performed as the basis for final settlement. The Contractor, in case of unit price items, will be paid for the actual amount of work performed and for the actual amount of materials in place, in accordance with these specifications as shown by the final measurements. All work completed under this contract shall be measured by the Engineer according to the standards of weight and measures recognized by the National Bureau of Standards. A ton shall consist of two thousand (2,000) pounds avoirdupois.

Measurement for items paid for on the basis of lineal or surface area shall be along centerline distances and in horizontal planes. In computing volumes, the method of average end areas will be used with the aid of planimeter. The pay weight for all items to be paid for by weight shall be determined by actual certified scale weight, certified shipping weight or computed weight if so specified.

In order that the City of Berkeley shall have control over materials paid for on a tonnage basis, certain procedures, as outlined below, shall be followed.

1. The Resident Engineer shall be notified prior to the delivery of materials which are to be paid for on a tonnage basis.
2. Material delivered must be accompanied by a weight tag at the time of delivery.
3. The Resident Engineer must validate each tag at the time of delivery.
4. Tags will be accepted and initialed only on the date shown on the tag, which shall be the date of delivery.
5. Final quantities will be based on initialed tags only.

Materials specified for measurement by tallying of vehicles having predetermined carrying capacity shall be hauled only in approved units, struck off at the top of the carrying unit or to permanent lines at the loading point and tallied at the point of delivery. Unless all vehicles have uniform carry capacity, each hauling unit shall be marked identifying the approved capacity.

901.2 Extra and Force Account Work. Extra work as defined in Section 401.3, when ordered and accepted, shall be paid for under a contract change order in accordance with the terms therein provided. Payment for extra work will be made at the unit price or lump sum previously agreed upon by the Contractor and the Engineer; or by force account.

If the work is done on force account, an amount equal to the sum of the following items shall be used as full and proper compensation therefor, and such amount shall be added to the price fixed by the terms of this contract for the part of the work affected:

1. The actual cost to the Contractor of the material required for the work as furnished and delivered

by him at the site of the work.

2. The actual cost to the Contractor of the labor (including foremen devoting their exclusive attention to the work in question) required to incorporate all of said material into the work and to finish the work in accordance with directions and the cost of workers compensation insurance premiums for said labor.

3. The actual cost to the Contractor of equipment required for the extra work, except that the rate paid shall not exceed the current prevailing equipment rental rates. The charge for equipment shall be only for that time of actual operation devoted exclusively to the work in question.

4. Ten percent (10%) of Item 2, which shall be considered as covering the cost of small tools, plant and superintendence, and clerical work in connection with the changes.

5. Fifteen percent (15%) of the sum of Items 1., 2., and 3. which shall be considered as covering all other expenses and profit.

The City reserves the right to furnish such materials required as it deems expedient, and the Contractor shall have no claim for profit on the cost of such materials.

In order that a proper estimate may be made by the Engineer of the net cost of labor and materials entering into extra work, in accordance with the procedure herein stated, the Contractor shall furnish daily an itemized statement of materials and labor supplied, together with the cost of such material and the wages paid and shall furnish vouchers for quantities and prices of such labor, material or work. In case the Contractor fails to comply with the above provisions, he shall have no claim for compensation against the City for such extra work.

This method of determining the price of work shall not apply to the performance of any work or the furnishing of any materials which is susceptible of classification under the items for which prices are established in this contract as is required or reasonably implied to be performed or furnished under this contract.

901.3 Progress Payments. The Engineer shall, once in each month, cause an estimate in writing to be made of the total amount of work done and the acceptable materials furnished and delivered by the Contractor on the ground and not used to the time of such estimate, and the value thereof according to the schedule of prices contained in the accepted bid for work. The Engineer may make an estimate of such items of work that are only partially completed on a prorating basis and pay for that portion of the item of work completed as work done. The Contractor may request the Engineer to establish a basis for prorating the unfinished items of work, but must use such a schedule for said prorating as will then be established by the Engineer. In order to receive payment, the Contractor shall make his bills in triplicate and deliver to the office of the Engineer.

901.3.1 Bid Item Breakdown. The Contractor shall submit proposed bid item breakdowns for progress payment purpose within 5 days following Award. Engineer shall establish a basis for prorating unfinished items of work utilizing Contractor's proposal, but Engineer shall not be limited to breakdown of items as proposed by the Contractor. Unbalanced or "front loaded" breakdowns shall be rejected.

901.4.1 Retained Funds. Pursuant to Article XI, Section 66 of the City Charter, the City shall retain ten percent (10%) of such estimated value of work done as part security for the fulfillment of this contract by the Contractor and shall monthly pay to the Contractor, while carrying on the work, the balance not retained, as aforesaid, after deducting therefrom all previous payment and all sums to be kept or retained under the provisions of this contract. No such estimate or payment shall be required to be made when in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of this contract or when, in his judgment, the total value of the work done since the last estimate amounts to less than one thousand dollars (\$1,000.00).

901.4.2 Payment of Retained Funds. Attention is directed to Section 901.3 of the General Provisions "Progress Payments" and in particular to the retention provisions of said section.

1. At the request and expense of Contractor, the City will make payments of funds withheld from progress payments to Contractor or to an Escrow Agent, pursuant to the terms of Government Code Section 4590 if Contractor deposits with the City or with a state or federally chartered bank as escrow agent an equal value of securities eligible for substitution pursuant to Government Code Section 4590. Contractor agrees that any escrow agreement under this contract provision must substantially conform to the form escrow agreement in Government Code 4590. Securities will be held in the name of the City, with the Contractor as beneficial owner. The City will determine market value of substituted securities. Contractor will deposit additional securities to restore the total market value of deposited securities if the market value decreases below the retention amount.

2. The Contractor shall bear the expense of the Escrow Agent who may be either the City Treasurer or the bank, in connection with the escrow deposit made.

3. The Contractor shall obtain the written consent of the surety to such agreement.

901.5 Final Payments. The Engineer shall, after the completion of the requested work in each area, make a final estimate of the amount of work done thereunder, and the value of such work, and the City shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be kept and all amounts subject to correction in the final estimate and payment.

The final payment shall not be due and payable until the expiration of thirty-five (35) calendar days from the date of acceptance of a specific phase of the work by the Engineer, and upon receipt of a bill for the amount due on the work from the Contractor.

No certificate given or payments made under the contract, except the final certificates or final payment, shall be conclusive evidence of the performance of the contract, either wholly or in part, against any claim of the Contractor, and no payment shall be construed to be an acceptance of any defective work or improper materials.

The payment of the final amounts due under the contract, and the adjustment and payment for any work done in accordance with any alterations of same, shall release the City, the Council, and the Engineer from any and all claims or liability on account of work performed under the contract or any alteration thereof.

PART B
SPECIAL PROVISIONS

SPECIFICATIONS

FOR

MRP TRASH CAPTURE FY 2023

SPECIFICATION NO. 23-11556-C

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SPECIAL PROVISIONS

1. Standard Specifications

The work embraced herein shall be done in accordance with the project plans, the City's General Provisions, these Special Provisions, and the State of California Department of Transportation (Caltrans) 2018 Standard Specifications and Standard Plans, herein, called the "Standard Specifications" and "Standard Plans" respectively unless otherwise noted. In case of conflict between the Standard Specifications and Plans and the Special Provisions and/or General Provisions, the Special and/or General Provisions shall prevail. It is the intent of this contract to obtain a finished, workmanlike job, complete in place.

2. Locations of Work

The work described in these specifications is located at various storm drain inlets within the City of Berkeley. The exact locations are shown on the project plans.

3. Nature of Work

Scope of Work: Trash Capture Devices - Storm drain improvements: The work done under these specifications includes but is not limited to: traffic control, installation of trash capture devices.

4. Contractor's License: State SB #223

State Senate Bill No. 223, signed into law by the Governor on September 27, 1985, requires all public entities to specify the type of Contractor's license which a prime Contractor must possess at the time a contract is awarded. In order to be considered for award of this contract, the prime Contractor must possess one of the following Contractor's licenses:

A - General Engineering Contractor

5. State Senate Bill SB #854

Per State Senate Bill No. 854, signed into law by the Governor on June 20, 2014:

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of

Industrial Relations.

6. Performance Bond

The required 100% performance bond must be submitted on the attached performance bond form provided by the City. The form must be properly executed by the Contractor and a duly authorized representative of a surety company licensed to offer surety bonds in the State of California. All signatures must be properly authorized and notarized.

7. Labor and Material Bond

The required Labor and Material Bond in the sum of not less than 100% of the amount of the contract may be submitted on your Surety Company's standard certificate with original signatures.

8. Insurance Certificate

The required insurance certificate must be accompanied by the General and Automobile Liability Endorsement contained herein. The endorsement must be properly executed by a duly authorized representative of the insurance company. All signatures must be original in blue ink.

9. Progress Schedule

A detailed progress schedule will be required for this contract. The progress schedule shall be submitted prior to commencement of work and updated monthly. The Contractor shall provide a graphic description, in the form of a bar chart that outlines the items of work to be completed, and provide weekly updated written documentation that the work is proceeding on schedule and will be completed within the specified time frame. This schedule will assist the City in advanced notification of adjacent residents and businesses. Therefore, the schedule and any changes to the schedule must be approved by the City and adhered to by the Contractor.

10. Holidays

The full width of the street's traveled way shall be opened for use by public traffic on designated legal holidays.

No work shall be performed on City of Berkeley holidays unless previously authorized by the Engineer.

<https://berkeleyca.gov/your-government/city-holidays>

No work shall be performed during the Christmas holiday season from November 21 through January 3 within the designated City streets in the business districts and all designated highway routes.

Due to budgetary constraints, City of Berkeley offices will be closed approximately one day every month (typically 2nd Fridays) for “Reduced Service Days”. When a holiday falls on that day, the previous day shall be a Reduced Service Day. Despite the City’s reduced level of service, the contractor shall plan to perform work during such days.

11. Obstructions

Attention is directed to the possible existence of abandoned underground utilities, manholes, monuments, or any other facilities which may exist within the limits of work. The Contractor shall exercise due caution in performing his work so as not to damage said facilities.

The Contractor shall be responsible for the preservation of existing survey monuments, benchmarks, reference points, and stakes. The Contractor shall replace City Monuments and reference marks removed during the performance of the work. Whenever a City Monument is disturbed or removed during the performance of work it shall be replaced in accordance with Standard Plan 7940, 8090, 8091, or 8179, as applicable.

Attention is also directed to the presence of overhead and underground utilities in the construction area. The Contractor shall exercise due caution in performing his work so as not to damage said utilities.

The work specified shall be so conducted as to permit the utility companies to maintain their services without interruption.

Utilities and underground pipelines are to remain in place and shall be worked around and protected from damage or interruption of service. All costs caused by delays or extra work associated with maintaining utilities and pipelines shall be borne by the Contractor.

The Contractor shall determine the unknown location of main and service utilities in advance in order not to delay the schedule of construction. Advance potholing shall be included in the planning and execution of the work. No additional compensation will be paid by the City for the performance of this work. At the direction of the Engineer, it is the Contractor's responsibility to make corrections if conflicts arise among utilities. If conflict arises, the Contractor shall inform the Engineer in advance before any correction is made.

Where various utilities are to be relocated or set to grade by the utility companies, the Contractor shall notify the various utility companies well in advance so as not to impede this work. Contractor shall mark locations of such utilities and maintain said markings for a period of 30 days after final paving.

12. Public Relations Requirements

Public Relations Policy. In the course of serving its citizens, it is the policy of the City of

Berkeley to be responsive, helpful and courteous to its residents at all times. Any City employee or CITY CONTRACTOR that will be in contact with residents, in person or by telephone, will adhere to this policy.

The Contractor is required to prepare a Public Relations Plan to implement the above policy. The Plan shall be submitted for approval before commencing the work under this contract. The Contractor shall certify that he understands and will adhere to the City's Public Relation Policy, and that all Contractor employees will be briefed on proper relations with the public in accordance with above policy statement.

Contractor employees without specific public relations responsibilities shall be informed of the name of the Contractor's and the City's Public Relation Coordinators for referral purposes.

ANY CONTRACTOR EMPLOYEE WHO DOES NOT ADHERE TO THE ABOVE PUBLIC RELATIONS POLICY BY DISPLAYING RUDE, OFFENSIVE AND UNCOOPERATIVE BEHAVIOR SHALL BE DISCHARGED IMMEDIATELY ON WRITTEN REQUEST OF THE ENGINEER PER SUBSECTION 801.4.

Public Relations Plan. The Public Relations Plan shall include but is not limited to the following:

- a. Name of the Contractor's Public Relations Coordinator and his/her experience with interfacing with the public.
- b. Plans for conducting public impact assessments prior to commencing the total project, each stage of the project, as necessary to execute the provisions of this contract without undue impact on the public.
- c. Techniques or plans for interfacing with the public and agencies at various stages of the project.
- d. Method of notifying and informing the public and agencies prior to construction stages, providing ample time to address their concerns.
- e. Plans for coordinating public relations matters with the City during the pre-construction conference, weekly meetings and during review of the construction schedule.
- f. Provisions for and frequency of briefing employees on the details of executing the Public Relations Plan.

POOR PERFORMANCE AND NON-ADHERENCE TO THE CITY'S PUBLIC RELATIONS POLICY ARE GROUNDS FOR BEING DECLARED A NON-RESPONSIVE CONTRACTOR THAT MAY RESULT IN THE CITY REJECTING BIDS ON FUTURE CONTRACTS.

No additional compensation will be paid by the City for implementing Public Relations Policy requirements. All such related effort is a mandatory requirement of the contract.

13. **Overage Permits**

Contractor is hereby notified that permits must be obtained for transporting overheight, overwidth, and/or overweight loads within the limits of the City of Berkeley. These permits which may be obtained from the Engineering Counter of the City's Permit Service Center **are enforced** by the Berkeley Police Department. **Truck routes shall be approved by the City's Traffic Engineer prior to start of work. Truck traffic is not allowed on Marin Avenue within the City of Albany.**

14. Conformance to Plans and Specifications

The Contractor's work shall conform to these specifications and project plans.

Upon notification of the Engineer, the Contractor shall correct any deficiencies within 72 hours. The City may request the City crews or contract with another Contractor to perform the necessary work and repairs if the deficiencies have not been corrected after the 72-hour notification. The Contractor shall pay the cost of the work performed by the City crews or other contractor plus an additional seventy percent (70%) surcharge by deduction from payment due on the contract.

15. Bond Riders for Additional Work during Construction

During construction, the City may request or authorize additional work as part of the contract. Prior to commencement of any Contract Change Order (CCO) or Contract Amendment (CA), the Contractor shall submit Surety Company Bond Riders for the new contract amount. The new contract amount is the Contractor's bid amount or authorized contract amount plus the CCO or CA. The Riders for any additional work shall be provided at no cost to the City. Typically, the maximum authorized contract amount requiring a Rider is the Contractor's bid amount plus 20%.

16. Retained Funds

Pursuant to California Senate Bill 293 (SB 293), Assembly Bill 1705 (AB 1705), and Assembly Bill 92 (AB 92) until January 1, 2023, the City shall retain five percent (5%) of such estimated value of work done as part security for the fulfillment of the Contract by the Contractor. Section 901.4.1 Retained Funds of the General Provisions of these specifications is hereby revised, decreasing the amount of retained funds from ten percent (10%) to five percent (5%). In all other respects, Section 901.4.1 and the General Provisions of these specifications remain in full force and effect.

17. Mobilization and Demobilization

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

The Contractor shall insure that adequate existing sanitation facilities are available or the Contractor shall provide and maintain adequate sanitation facilities. All wastes and refuse from sanitary facilities provided by the Contractor's operations shall be disposed of away from the site in accordance with all laws and regulations pertaining thereto.

Demobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the removal of personnel, equipment, supplies and incidentals from the project site and for all other work and operations which must be performed or costs incurred after completion of the various contract items on the project site.

18. General Conditions Compensation

Full compensation for complying with the General Conditions shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefor.

19. Termination of Contract for Convenience

- A. Owner may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever Owner shall determine that termination is in Owner's best interest. Termination shall be effected by Owner delivering to the Contractor notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.
- B. Contractor shall comply strictly with Owner's direction regarding the effective date of the termination, the extent of the termination, and shall stop work on the date and to the extent specified.
- C. Contractor shall be entitled to a total payment on account of the Contract work so terminated measured by:
 - a. the actual cost to Contractor of Work actually performed, up to the date of the termination, with profit and overhead limited to twelve percent (12%) of actual cost of work performed, up to but not exceeding the actual contract value of the work completed as measured by the Schedule of Values and Progress Schedule,
 - b. offset by payments made and other contract credits. In connection with any such calculation, however, Owner shall retain all rights under the Contract Documents, including but not limited to claims, indemnities, or setoffs.
- D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contractor recover costs incurred after the date of the termination.

PART C
TECHNICAL PROVISIONS

SPECIFICATIONS

FOR

MRP TRASH CAPTURE FY 2023

SPECIFICATION NO. 23-11556-C

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BID ITEM NO. 1 - MOBILIZATION, BONDS & INSURANCE

The provisions of Section 9-1.16D, "Mobilization," of the Standard Specifications shall apply in their entirety except as modified or supplemented herein.

When the final contract price for which the Contractor has bonded for a project increases by over twenty-five percent (25%) of the original base bid price due to change orders and/or increases in the quantities of items incorporated into the project, the Contractor shall be entitled to payment for additional bonding costs that have been paid to the surety company due to this increase. Payment for this cost shall be made via change order and included on the final project billing statement with supporting documentation from the Contractor.

When the final contract price decreases by over twenty-five percent (25%) of the original base bid price due to change orders and/or a decrease in the quantities of items incorporated into the project, the City shall be entitled to a reimbursement of the decrease in bonding costs paid by the Contractor. The refund of these costs shall be made via change order and deducted from the final payment for the release of retention.

It is the responsibility of the Contractor to locate a staging area for office setup, construction laydown areas, or the like and is an appropriate area for mixing and storing materials and equipment. The staging area may be located inside or outside the Berkeley City Limits. Temporary utility controls shall be arranged solely by the Contractor. It is the Contractor's responsibility to inspect the site to determine its suitability for his operations to execute this contract. The Contractor is required to obtain and show proof of all permits required by the state and/or local agencies for the use of the staging area.

The City is not responsible for providing said staging area. However, the City will assist the Contractor in identifying City property available for the staging area. If City property is used for staging area, temporary chain link fencing with privacy screening will be required on-site and shall be provided by the Contractor.

It is the Contractor's responsibility to secure a staging area for contract work, and any associated costs are considered to be included in the various contract prices paid, with no additional compensation allowed, therefore. However, if the Contractor only uses City property for a staging area, no additional costs associated with securing a staging area shall be covered by the City. The Contractor is not required to obtain permits for the use of City property for the staging area.

The Contractor's proposed staging site(s) shall be approved by the Engineer. If Contractor utilizes the private property for a staging area, Contractor shall submit proof of an agreement for the use of said staging area with the private property owner(s) prior to mobilization.

The staging area(s) shall be maintained throughout the duration of the project such that it is not construed as visual blight in the opinion of the Engineer. All adjoining streets,

sidewalks, and gutters shall be swept free of construction materials tracked onto them at the end of each day. Failure to do so will result in City forces cleaning the area at the Contractor's expense. The City of Berkeley labor rate to be used shall be \$150 per hour per person.

Sanitary restroom facilities shall be provided and maintained by the Contractor. The Contractor's proposed locations for restroom facilities shall be reviewed with the Engineer prior to delivery of the restroom facility. If the Contractor and/or subcontractors are working at multiple sites simultaneously, then a restroom facility will be required at each site. Failure to provide sanitary restroom facilities is grounds for suspension of work. The Contractor shall note that the count of working days will continue.

For job sites in the hills and/or those with narrow roadway access, only ten-wheel type dump trucks or "transfer" type trucks with trailers will be allowed for off-hauling material from the job site or hauling material to the job site, as directed by the Engineer. For job sites in the hills and/or those with narrow roadway access, ten-wheel trucks with extra axles, or "super-dumps," will not be allowed, as directed by the Engineer.

Measurement and Payment

The **Lump Sum** contract price paid for "**Mobilization, Bonds & Insurance**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, and for all the work involved in the mobilization, including, but not limited to, furnishing all specified contract bonds and insurance certificates, public notification, furnishing and installing project identification signs and signposts, transporting equipment, establishing a storage area (revocable item), sanitary restroom facilities and all other work as specified in the Caltrans Standard Specifications and these Special Provisions and as directed by the Engineer and no additional compensation will be allowed therefor. Payment will be made as follows:

- a) When 5 percent (5%) of the original contract amount is earned, 50 percent (50%) of the amount bid for mobilization, or 5 percent (5%) of the original contract amount, whichever is lesser, may be paid.
- b) When 10 percent (10%) of the original contract amount is earned, 75 percent (75%) of the amount bid for mobilization or 7.5 percent (7.5%) of the original contract amount, whichever is lesser, may be paid.
- c) When 20 percent (20%) of the original contract amount is earned, 95 percent of the amount bid for mobilization, or 9.5 percent (9.5%) of the original contract amount, whichever is lesser, may be paid.
- d) When 50 percent (50%) of the original contract amount is earned, 100 percent (100%) of the amount bid for mobilization, or 10 percent (10%) of the original contract amount, whichever is lesser, may be paid.

- e) Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent (10%) of the original contract amount will be paid.

BID ITEM NO. 2 - TRAFFIC CONTROL

Traffic control during construction shall be the responsibility of the Contractor. All traffic control devices shall be in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices (California MUCPS), hereinafter referred to as Traffic Control Manual. The Traffic Control Manual may be obtained online at

<http://www.dot.ca.gov/trafficops/camuCPS/>

In general, the following guidelines for traffic control plans shall be followed:

- Detailed traffic control plans shall be prepared professionally in accordance with the Traffic Control Manual.
- "No Parking Signs" must be posted no later than 72 hours in advance for restricted parking.
- Berkeley Dispatch shall be notified by the Contractor by calling (510) 981-5900 prior to implementation of this plan by 8:15 a.m. daily of work locations.
- The lane closure is not permitted on major/collector/arterial roadways during the peak morning period (7:00–9:00 a.m.) and evening peak period (4:00–6:00 p.m.).

At the end of each day's work, and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of the roadway open for use by public traffic.

If it becomes necessary, in the opinion of the City Engineer, to properly move traffic through the construction area, flagmen shall be present to slow down and reroute traffic. Where flagmen are not visible to each other, additional flagmen shall be added as required by the Engineer, or the Contractor shall use radios.

The Contractor shall make the necessary arrangements to provide and maintain barriers, cones, guards, barricades, and construction warnings and regulatory signs. The Contractor shall take measures necessary to protect all other portions of the work during construction and until completion, providing and maintaining all necessary barriers, barricade lights, guards, temporary crossovers, and watchmen.

In addition to the preceding traffic control and safety measures, the Contractor shall undertake immediately to implement any measures requested by the Engineer, as they deem necessary, to ensure the proper flow of traffic and the protection of the public, and the safety of the workers. The Contractor shall maintain at all times the ability to respond to calls from the City of Berkeley Police and Fire Departments during non-working hours to replace or provide additional traffic control or safety devices as shall be required by the Police Department.

The Contractor shall be responsible for posting "No Parking" signs a minimum of seventy-two (72) hours in advance of concrete work, resurfacing operations, and base repair work to comply with the City's construction notification requirement of seventy-two (72) hours. Cones shall not be used as barricades. "No Parking" signs may be obtained from the City at no cost to the Contractor. "No Parking" signs must be posted every twenty (20) feet. The "No Parking" signs shall be updated as necessary. The Contractor shall check and maintain (e.g., re-install missing signs, reposition displaced barricades, etc.) postings regularly prior to the start of work.

Truck routes shall be approved by the City's Traffic Engineer prior to the start of work. Personal vehicles of the Contractor's employees shall not be parked within the area of work. A minimum of one (paved) traffic lane, not less than twelve (12) feet wide, shall remain open for use by public traffic during construction operations unless noted otherwise in the contract traffic control plans. When construction operations are not actively in progress, not less than two such lanes shall be open to public traffic.

The start of work shall be no earlier than 7:30 a.m. No work process, including starting, warm-up, and delivery of equipment, shall be done outside of work hours. The use of vehicle horns to alert residents to move their vehicles out of the construction zone is not permitted. The Contractor should attempt to locate vehicle owners by knocking on doors. If the Contractor violates these provisions, a fine of \$1,000 will be assessed for the first violation, \$5,000 for the second, and \$10,000 for the third.

Minor deviations from the requirements of this section concerning hours of work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Engineer provides written approval.

If any component in the traffic control system is damaged, displaced, or ceases to operate or function as specified, from any cause during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location. Cleanliness is extremely important. Dust-producing conditions shall be eliminated as soon as they are created.

Access and Egress

The Contractor shall maintain a clear and accessible pedestrian corridor through the work site at all times.

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in the Traffic Control Manual, these Special Provisions, and as directed by the Engineer.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of

the Contractor if, in the opinion of the City Engineer, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the City Engineer has indicated his written approval. All other modifications shall be made by contract change order.

Suppose any component in the traffic control system is displaced or not functioning as specified, the Contractor shall immediately repair to restore it to working or replace the element.

Measurement and Payment

The contract **Lump Sum** price paid for "**Traffic Control**" shall include total compensation for furnishing all labor, including preparation of the Traffic Control Plan and flaggers when necessary, materials including barricades, door hangers, and temporary traffic delineation, and construction area signs complete in placing, maintaining, removing and disposing of signs, tools, equipment, and incidentals and for doing all the work involved in traffic control, and any other equipment used to protect the public and to facilitate the performance of the contract work as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The Contractor will be paid on a pro-rata basis for the work done per month. The said payment should be for providing all labor, material, equipment, devices, supervision, and all incidentals needed to provide traffic control as specified herein and as required to complete the work.

BID ITEM NO. 3 - STORMWATER POLLUTION CONTROLS

This work includes the project area and stormwater pollution controls in the project area, in accordance with Section 13, "Water Pollution Control," of the State Standard Specifications and the Special Provisions.

Temporary storm drain inlet protection shall be constructed, installed, maintained, and removed at all drainage inlets within the boundaries of the project. The Contractor shall use sediment filter bags to protect the drainage inlet. Throughout the duration of the contract, the Contractor shall maintain and protect to meet the changing conditions around the drainage inlet.

Sediment filter bags shall be installed by removing the drainage inlet grate, placing the sediment bag in the opening, and replacing the grate to secure the sediment filter bag in place. Sediment Filter Bags shall be installed at all storm drain inlets within or adjacent to the project limits. Sediment Filter Bags shall be obtained from a commercial manufacturer, as approved by the Engineer.

When the temporary drainage inlet protection is no longer required, the protection materials shall be removed immediately and disposed of in accordance with the provisions in Section 14-10, "Solid Waste Disposal and Recycling," of the Standard Specifications.

Temporary drainage inlet protection shall be maintained to provide sediment holding capacity and to reduce runoff velocities. Temporary drainage inlet protection shall be repaired or replaced immediately if damage occurs.

Sediment deposits, trash, and debris shall be removed from temporary drainage inlet protection as needed or when directed by the Engineer. Removed sediment shall be deposited within the project limits so that the sediment is not subject to erosion by wind or by water. Trash and debris shall be removed and disposed of in accordance with the provisions in Section 14-10, "Solid Waste Disposal and Recycling," of the Standard Specifications. All Sediment Filter Bags shall be removed at the conclusion of the project.

Cleanup, repair, removal, disposal, or replacement due to improper installation or as a result of the Contractor's negligence shall not be considered as included in the cost of performing maintenance.

Measurement and Payment

The contract **Lump Sum** price paid for "**Stormwater Pollution Controls**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing and implementing a Water Pollution Control Plan, installing temporary drainage inlet protection in the project area, complete in place, including but not limited to maintenance, replacement, and removal of materials, cleanup and disposal of retained sediment and debris, and removal of all Sediment Filter Bags at the conclusion of the project, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Payment for Stormwater Pollution controls will be made as follows:

- a) Fifty percent (50%) of the total amount bid for Stormwater Pollution Controls will be paid with the first progress payment after at least five percent (5%) of the original Contract Amount for other items of work has been performed.
- b) When at least ten percent (10%) of the original Contract Amount for other items of work has been performed, an amount will be included in the next monthly progress payment to increase the total amount of Stormwater Pollution Controls paid to seventy-five percent (75%) of the total amount bid for Stormwater Pollution Controls.
- c) When at least twenty percent (20%) of the original Contract Amount for other items of work has been performed, an amount will be included in the next monthly progress payment to increase the total amount of Stormwater Pollution Controls paid to ninety percent (90%) of the total amount bid for Stormwater Pollution Controls.

- d) Upon substantial completion, one-hundred percent (100%) of the remaining contract price paid for Stormwater Pollution Controls will be included in the estimate for payment.

BID ITEM NO. 4 - CONNECTOR PIPE SCREEN (OUTLET DIAMETER ≤ 12-INCH DIAMETER)

BID ITEM NO. 5 - CONNECTOR PIPE SCREEN (OUTLET DIAMETER > 12-INCH AND ≤ 18-INCH)

BID ITEM NO. 6 - CONNECTOR PIPE SCREEN (OUTLET DIAMETER > 18-INCH AND ≤ 24-INCH)

GENERAL

The work specified in this section includes the furnishing and installation of Connector Pipe Screen (CPS) for the pipe outlet, as described herein, in existing storm drain catch basin. The CPS unit prevents trash and debris from entering the storm drain system during dry weather and moderate storm flows by keeping the trash and debris inside the structures. CPS shall be installed at locations shown in the Contract Plans and at other locations identified by the Engineer during construction.

Any reference to catch basins in this bid item description is inclusive of junction boxes and other storm drain structures with an outlet that can be fitted with a CPS.

CPS shall be manufactured by the following, or approved equal, and shall be on the list of Certified Full Trash Capture Devices approved by the San Francisco Bay Regional Water Quality Control Board:

United Stormwater, Inc.
G2 Construction, Inc.

The CPS shall be designed to retain all particles that are 5 mm or larger (0.197 inches) in the structure, and shall comply with the following items:

1. The perimeter of the CPS shall include a structural frame for stiffness and a bolting surface to fasten to the structure floor and wall.
2. The CPS unit shall have a sufficient structural integrity to withstand a lateral force of standing water (62.4 lb/ft³) within the catch basin area when the screen becomes 100% clogged. The CPS unit shall be bolted to the catch basin walls.
3. The CPS shall be configured with deflector plates or screens preventing trash or debris from falling between the screen and connector pipe. The deflector plate shall be designed to withstand a vertical load of 10 lbs per square foot.
4. The gap at the bottom, sides, and joints of the CPS unit shall not exceed 5 mm (0.197m inches).
5. The CPS deflector plate shall be hinged as required by the Alameda County

Mosquito Abatement District for vector control.

6. The CPS unit shall be designed and installed with a removable panel allowing access. The removable panel shall be easily disengaged from the rest of CPS assembly upon entry or from the outside of the catch basin.
7. It is the responsibility of the Contractor to field verify the location and dimensions of each catch basin included in this Contract.

The CPS shall meet the following requirements:

1. The CPS frame shall be manufactured from Type S-304 perforated stainless steel, or a City approved equal stainless steel alloy. Structural members shall have a minimum thickness of 3/16 inches.
2. The CPS screen shall be manufactured from Type S-304 perforated stainless steel, or a City approved equal stainless steel alloy, having 5 mm (0.197 inches) diameter holes. The screen shall have a minimum thickness of fourteen (14) gauge (0.0781 inches). The geometrical opening shape shall have a diameter of 5mm (0.197 inches).
3. The CPS shall have an open area that is, at a minimum, equal to the area of the outlet pipe for overflow bypass.
4. Any edge of the CPS that is not flush with the wall or floor of the catch basin shall be smooth with no prongs or jagged edges.
5. All assembly bolts, screws, nuts, washers and hardware shall be Type A-316 stainless steel. The concrete anchor bolts shall use a Red Head Multi-Set II drop-in anchor, SSRM-38, with Type 316 stainless steel threaded rods, nuts and washers, or Agency approved equal.
6. Screens shall be capable of being installed in a corner configuration where the drainage structure outlet is at the corner of drainage structure.

SUBMITTALS

Prior to initiating fabrication, the Contractor shall submit hydraulic and structural calculations, shop drawings, catalog cuts, and other information required which completely describes the units to be installed under this Contract. The following information shall be included in the submittal:

1. Hydraulic/structural calculations shall be provided demonstrating that the devices are designed to allow bypass flows for a 10-year storm frequency, and that all parts have been properly sized to withstand the necessary forces using a factor of safety (FS) of 1.5. The calculations shall be prepared and stamped by a Registered Civil Engineer. An LA County DPW “accepted” stamp on the drawings will be accepted to fulfill this requirement.
2. CPS units shall comply with Provision C.10 of the Municipal Regional Stormwater Permit Order No. R2-2022-0018. The permit can be viewed at the following website address:
https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf

3. Detailed shop drawings and descriptions of all components of the unit, showing all dimensions, materials used, connection details, assembly details, and mounting details. The shop drawings shall clearly describe the mechanical operation of the unit.
4. Installation details and instructions.
5. Warranty information, including contact information for replacement parts. All CPS units shall be covered by a three (3) year minimum manufacturer's warranty. The warranty shall cover the units against corrosion, excessive wearing of moving parts, and operational malfunction for any reason. The manufacturer shall provide, at no cost to the City, all labor, material and equipment required to repair or replace the units during the warranty period including, but not limited to, calibration and adjustment of moving parts to ensure the unit operates properly. There shall be no limit to the number of repairs or replacements required during the warranty period to ensure that the units operate properly.
6. Recommended cleaning and maintenance schedule and procedures to maintain the proper functioning of the unit, including replacement schedule of the parts for the entire unit.

EXECUTION

Inspection and Measurement

The Contractor shall inspect each catch basin included in this Contract for unsound conditions such as but not limited to: a) exterior damage, b) other physical damage, c) the catch basin is located in a sump where blockage of the catch basin would lead to the overflow of storm water from the street onto private property, d) the depth of the catch basin, from the gutter flow line to the catch basin invert at the outlet pipe, is less than required for the installation of the pipe screen and deflector. Since these conditions may interfere with or prevent the installation of the CPS unit, a list of catch basins with such unsound conditions shall be submitted to the Engineer.

The Contractor shall make detailed measurements of each catch basin for the proper fabrication of the units. Improper fabrication of units due to errors in the Contractor's measurements shall be corrected at the Contractor's own expense. The Contractor shall submit written records of its measurements to the Engineer. The Contractor shall identify in the measurement records catch basins that, based on actual measurements, are not suited for the CPS unit.

Cleaning of Existing Catch Basins

The Contractor shall furnish all materials, equipment, tools and labor to clean out, i.e., remove trash and debris from within and around all catch basins in which CPS units will be installed under this Contract to the maintenance standards specified in this section. The catch basin shall be clean at the time of the installation of the CPS unit. Any trash and debris that accumulates between the dates the catch basin is cleaned and the date the unit will be installed shall be removed prior to installation of the unit at the Contractor's

expense.

The cleaning of each catch basin shall meet the maintenance standards listed as follows:

<u>Description of Maintenance Condition</u> <u>Deficiency</u>	<u>Description of Maintenance Standard</u>
1. Trash and debris located immediately in front of curb opening or side opening of catch basin, and on top or between metal grates of grated catch basin.	1. No trash and debris located immediately in front of catch basin opening, and on top or between metal grates.
2. Vegetation growing across and/or blocking the basin opening.	2. No vegetation blocking catch basin opening.
3. Trash and debris in the basin.	3. No trash and debris within the catch basin.
4. Trash and debris in the connector pipe opening, upstream or downstream.	4. No trash and debris in connector pipe opening and/or in the connector pipe for a distance of 6 feet inside from the opening.

Trash and debris shall include, but is not limited to, mud, vegetation, and garbage. Upon completion of a cleaning operation at a catch basin and before leaving it, the Contractor shall sweep and clean the top surface of the catch basin and the area 2 feet around the basin, and shall remove any trash and debris resulting from the clean out operations. No debris is to be left at a catch basin for future pickup.

All debris and trash required to be removed from the catch basins shall be removed in a manner to be determined by the Contractor. The Contractor shall not allow any trash or debris to enter the connector pipe or main line as a result of the cleaning operations.

All debris and trash removed under this Contract shall become the property of the Contractor and shall be legally disposed of away from the basin sites. The Contractor is responsible for proper disposal of the debris and trash, including obtaining approvals from all jurisdictional agencies, as applicable. Contractor shall report and provide weigh tags of material removed and disposed of to the Engineer. Progress payments shall be withheld until weigh tags and post-cleaning photos are received by the Engineer.

Pre-Installation Documentation

Contractor shall submit to City written records, measurements, and pre-cleaning and post-cleaning photos of catch basins inspected for CPS installation. Photographs shall be organized, include dates, and clearly reference the City structure identification numbers. Documentation shall include photos of the outside of the catch basin and immediate surroundings, as well as photos of the inside of the catch basin showing existing conditions and including a clear view of the outlet pipe opening.

All photos and documentation shall be delivered to the City prior to commencing CPS installation on any given catch basin. The City reserves the right to withhold payment for work under this bid item until all pre-installation documentation is provided to the City.

Catch Basin Step Removal

Existing steps in catch basins may be in conflict with the installation of CPS. Steps shall be removed as necessary to complete the installation of the CPS. Removal of steps shall be considered a part of this bid item with no additional compensation due to the Contractor.

Other Catch Basin Modifications

Other catch basin modifications (sump fill, channel removal, etc...) are not included in this bid item and shall be paid as part of other bid items.

Staff gauge

The Contractor shall paint a staff gauge at each catch basin to be fitted with a new CPS. Staff gauge shall be per detail in Part D of these Specifications. Paint shall be flat, acrylic paint for exterior use on masonry per Section 91-4.02B of the Standard Specifications. The staff gauge shall be located such that it is visible through the catch basin curb opening, maintenance access opening, or through the grating.

Post-Installation Photo

Contractor shall provide post-installation photo documentation of catch basins with newly installed screens. Photos shall be organized and clearly reference the City structure identification numbers. Documentation shall include photos of the outside of the catch basin showing the immediate surroundings, as well as photos of the inside of the catch basin with a clear view of the installed CPS and staff gauge.

The City reserves the right to withhold payment for work under this bid item until post-installation photo documentation is provided to the City.

Measurement and Payment

The contract unit price paid for “**Connector Pipe Screen (Outlet Diameter \leq 12-Inch Diameter)**”, “**Connector Pipe Screen (Outlet Diameter $>$ 12-Inch and \leq 18-Inch)**”, and “**Connector Pipe Screen (Outlet Diameter $>$ 18-Inch and \leq 24-Inch)**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for the installation of connector pipe screens in existing drainage structures complete in place including cleaning and removal and disposal of trash and debris as specified in these Technical Provisions, step removal, painting staff gauge, photo documentation, submittals, technical manuals, and costs associated with the three year warranty.

If it is determined after cleaning and inspection that a “Connector Pipe Screen” cannot be installed at a location of work, then the contractor will be paid 15% of the contract unit price as compensation for the effort to evaluate, clean, dispose of the trash and debris, and document the existing condition of the structure with photos. If the structure is not cleaned or photos provided as specified, then no payment shall be allowed.

BID ITEM NO. 7 - CATCH BASIN INSERT (FOR CATCH BASIN THROAT LENGTH ≤ 36-INCHES)

GENERAL

The work specified in this section includes the furnishing and installation of Catch Basin Inserts (CBI) for stormwater quality treatment into existing catch basins. The CBI unit prevents trash and debris from entering the storm drain system during dry weather and moderate storm flows by directing trash and sediment into a solids basket which keeps pollutants above the permanent water level inside the catch basin.

CBI shall be installed at locations shown in the Contract Plans and at other locations identified by the Engineer.

CBI units shall be Full-Trash Capture Device as defined by the Municipal Regional Stormwater Permit Order No. R2-2022-0018 (MRP) and shall be on the list of Certified Full Trash Capture Devices approved the San Francisco Bay Regional Water Quality Control Board.

The MRP can be viewed at the following website address:

https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf

SUBMITTALS

Prior to initiating fabrication, the Contractor shall submit hydraulic and structural calculations, shop drawings, catalog cuts, and other information required which completely describes the units to be installed under this Contract. The following information shall be included in the submittal:

1. Hydraulic/structural calculations shall be provided demonstrating that the devices are designed to allow bypass flows for a 10-year storm frequency.
2. Detailed shop drawings and descriptions of all components of the unit, showing all dimensions, materials used, connection details, assembly details, and mounting details. The shop drawings shall clearly describe the mechanical operation of the unit.
3. Installation details and instructions.
4. Warranty information, including contact information for replacement parts. All CPS units shall be covered by a eight (8) year minimum manufacturer's warranty. The warranty shall cover the units against corrosion, excessive wearing of moving parts, and operational malfunction for any reason. The manufacturer shall provide, at no cost to the City, all labor, material and equipment required to repair or replace the units during the warranty period including, but not limited to, calibration and adjustment of moving parts to ensure the unit operates properly. There shall be no limit to the number of repairs or replacements required during the warranty period to

ensure that the units operate properly.

5. Recommended cleaning and maintenance schedule and procedures to maintain the proper functioning of the unit, including replacement schedule of the parts for the entire unit.

MATERIALS

The CBI shall be comprised of the following components: support system, plastic seals, flow diverter, gross solids basket, and adjustable bypass. See detail in Part D of these Specifications for a schematic filter diagram.

Seals and Flow Diverter

1. Seals shall be installed to seal the catch basin, ensuring all particles greater than 3/16 inches are diverted into the CBI. The seals shall be manufactured of a suitable plastic that retains the physical and chemical properties within a temperature range of -4°F to +104°F.
2. The flow diverter shall ensure all flow enters the CBI without bypass. The flow diverter shall be manufactured of a suitable plastic that retains its physical and chemical properties within a temperature range of -4°F to +104°F.
3. Hinged seal shall be provided for vector control access as required by the Alameda County Mosquito Abatement District.

Support System

1. The support system shall mount the CBI in the catch basin. The support system shall be manufactured of a suitable material that retains its physical and chemical properties within a temperature range of -4°F to +104°F.
2. The design and material employed in the support system shall support the CBI when full of fine sediment (sediment bulk density of 100 lb/ft³ or 1602 kg/m³) and convey the peak design flow for the catchment draining to the catch basin.
3. The support system shall have Finite Element Analysis (FEA) or other structural calculations performed to confirm the strength claim of the support system.
4. All support assembly bolts, screws, nuts, washers and hardware shall be Type A-316 stainless steel.

Gross Solid Basket/Liner System

1. The CBI shall be designed with a gross solids basket/liner system (basket) to screen gross solids 5 mm (0.197 inch) and larger in diameter and store these pollutants above the permanent water level of the catch basin. The basket shall be designed to allow removal by hand when full and allow clear access to the catch basin sump when removed.
2. The basket shall be designed to allow removal by hand when full and allow clear access to the catch basin sump when removed.

3. The basket shall be designed and constructed of a suitable material to prevent expansion and must maintain a secondary flow path to accommodate design bypass flows.
4. The basket shall be manufactured of a suitable material that retains its physical and chemical properties within a temperature range of -4°F to +104°F.

EXECUTION

Inspection and Measurement

The Contractor shall field verify the quantity of each drainage structure casting type, the foundry casting number, the exact grate size and clear opening size, and other information necessary to finalize the CBI design and dimensions. CBIs shall be configured precisely to fit the identified drainage structure.

Catch Basin Pre-Cleaning

The Contractor shall furnish all materials, equipment, tools and labor to clean out, i.e., remove trash and debris from within and around all catch basins in which CPS units will be installed under this Contract to the maintenance standards specified in this section. The catch basin shall be clean at the time of the installation of the CPS unit. Any trash and debris that accumulates between the dates the catch basin is cleaned and the date the unit will be installed shall be removed prior to installation of the unit at the Contractor's expense.

The cleaning of each catch basin shall meet the maintenance standards listed as follows:

<u>Description of Maintenance Condition</u> <u>Deficiency</u>	<u>Description of Maintenance Standard</u>
1. Trash and debris located immediately in front of curb opening or side opening of catch basin, and on top or between metal grates of grated catch basin.	1. No trash and debris located immediately in front of catch basin opening, and on top or between metal grates.
2. Vegetation growing across and/or blocking the basin opening.	2. No vegetation blocking catch basin opening.
3. Trash and debris in the basin.	3. No trash and debris within the catch basin.

Trash and debris shall include, but is not limited to, mud, vegetation, and garbage. Upon completion of a cleaning operation at a catch basin and before leaving it, the Contractor shall sweep and clean the top surface of the catch basin and the area 2 feet around the basin, and shall remove any trash and debris resulting from the clean out operations. No debris is to be left at a catch basin for future pickup.

All debris and trash required to be removed from the catch basins shall be removed in a manner to be determined by the Contractor. The Contractor shall not allow any trash or debris to enter the connector pipe or main line as a result of the cleaning operations.

All debris and trash removed under this Contract shall become the property of the Contractor and shall be legally disposed of away from the basin sites. The Contractor is responsible for proper disposal of the debris and trash, including obtaining approvals from all jurisdictional agencies, as applicable. Contractor shall report and provide weigh tags of material removed and disposed of to the Engineer. Progress payments shall be withheld until weigh tags and post-cleaning photos are received by the Engineer.

Pre-Installation Documentation

Contractor shall submit to City written records, measurements, and pre-cleaning and post-cleaning photographs of catch basins inspected for CBI installation. Photographs shall be organized, include dates, and clearly reference the City structure identification numbers. Documentation shall include photos of the outside of the catch basin and immediate surroundings, as well as photos of the inside of the catch basin.

All photos and documentation shall be delivered to the City prior to commencing CBI installation on any given catch basin. The City reserves the right to withhold payment for work under this bid item until all pre-installation documentation is provided to City.

Catch Basin Step Removal

Existing steps in catch basins may be in conflict with the installation of CBI. Steps shall be removed as necessary to complete the installation of the CBI. Removal of steps shall be considered a part of this bid item with no additional compensation due to the Contractor.

CBI Installation

The Manufacturer shall supply an installation manual and/or other guidance media. The contractor shall follow all instructions, including the sequence for installation as detailed in the Manufacturer's installation manual.

Post-Installation Photo

Contractor shall provide post-installation photo documentation of catch basins with newly installed CBI. Photos shall be organized and clearly reference the City structure identification numbers. Documentation shall include photos of the outside of the catch basin showing the immediate surroundings, as well as photos of the inside of the catch basin with a clear view of the installed CBI.

The City reserves the right to withhold payment for work under this bid item until post-installation photo documentation is provided to the City.

Measurement and Payment

The contract unit price paid per unit of “**Catch Basin Insert (For Catch Basin Throat Length ≤ 36-Inches)**” shall include full compensation for furnishing all labor, materials,

tools, equipment, and incidentals, and for doing all the work involved to furnish and install CBI, including submittals, testing, catch basin cleaning including and removal and disposal of trash and debris as specified in these Technical Provisions.

If it is determined after cleaning and inspection that a “Catch Basin Insert” cannot be installed at a location of work, then the contractor will be paid 10% of the contract unit price as compensation for the effort to evaluate.

BID ITEM NO. 8 - BLADE TYPE ARS, 3-5 FEET IN LENGTH

BID ITEM NO. 9 - BLADE TYPE ARS, 5-8 FEET IN LENGTH

GENERAL

A blade type Automatic Retractable Screen (ARS) uses a series of independently rotating blades and tensioner to prevent trash and debris from entering curb inlet or cross drain opening during dry weather and moderate storm flows, maintaining trash and debris within the street to be collected by street sweeping and other equipment. During large storms, the blades open allowing for maximum flow into the storm drain system. Blade type ARS shall be installed at locations identified by the Engineer during construction.

Blade type ARS shall be as manufactured by the following, or approved equal:

Model: HYDRA® ARS Storm Drain Gate
Manufacturer: HYDRA TMDL, Inc.

Model: Automatic Retractable Screen
Manufacturer: BioClean (Contech)

SUBMITTALS

Prior to initiating fabrication, the Contractor shall submit hydraulic and structural calculations, shop drawings, catalog cuts, and other information required which completely describes the units to be installed under this Contract. The following information shall be included in the submittal:

1. Detailed shop drawings and descriptions of all components of the unit, showing all dimensions, materials used, connection details, assembly details, and mounting details. The shop drawings shall clearly describe the mechanical operation of the unit.
2. Installation details and instructions.
3. Warranty information, including contact information for replacement parts. All ARS units shall be covered by a three (3) year minimum manufacturer’s warranty. The warranty shall cover the units against corrosion, excessive wearing of moving parts, and operational malfunction for any reason. The manufacturer shall provide, at no cost to the City, all labor, material and equipment required to repair or replace the units during the warranty period including, but not limited to, calibration and adjustment of

moving parts to ensure the unit operates properly. There shall be no limit to the number of repairs or replacements required during the warranty period to ensure that the units operate properly.

EXECUTION

Inspection and Measurement: The Contractor shall inspect each curb and cross drain inlet locations as identified by the Engineer during construction for ARS installation, for unsound conditions such as: a) damage to the inlet structure or curb which prevents the installation of ARS device, or b) insufficient clearance between flowline and top of curb opening to install ARS device.

The Contractor shall make detailed measurements of inlet opening for the proper fabrication of the units. Improper fabrication of units due to errors in the Contractor's measurements shall be corrected at the Contractor's own expense. The Contractor shall submit written records of its measurements to the Engineer. The Contractor shall identify in the measurement records inlets that are not suitable for the installation of blade type ARS unit.

Cleaning of Existing Storm Drain Inlets: City forces shall clean all inlets where ARS units will be installed. The Contractor shall coordinate with the City a minimum of 15 working days prior to installation of each ARS unit.

Field Testing of ARS Units

Each unit shall be manually operated upon completion of the installation to ensure that the screen and all moving parts move freely. Units that are determined by Public Works to be malfunctioning shall be repaired or replaced at the sole expense of the Contractor.

Each unit shall also be subject to a flowing water test to verify it properly operates under high flow conditions. Water must be supplied from a fire hydrant or water truck. The Contractor shall be responsible for providing the source of water, including written approval from EBMUD if a hydrant is used.

Sufficient water shall be provided to cause the ARS units to open with no other assistance as follows:

1. Sandbags shall be placed around the catch basin (CB) curb opening to allow the water to pond in front of the CB to a depth of 3 inches, measured from the flow line of the CB curb opening local depression. The sandbags shall be located 5 feet upstream and downstream of the end of the local depression. Sandbags shall also be placed 7 feet from and parallel to the CB curb face.
2. An impermeable rigid membrane/barrier shall be placed covering the CB curb opening to allow the water to pond in front of the CB. The membrane/barrier shall be capable of sealing the CB curb opening without leakage so that the water ponds to the depth required.
3. Once the water reaches the depth described herein, the impermeable membrane shall

- be removed in one quick and continuous motion to allow the ponded water to instantaneously enter the CB and cause the ARS unit to open. A continuous flow of water shall be provided for at least two minutes after the initial opening of the ARS unit in sufficient quantity to maintain the device open. At the end of the two minutes, the flow of the water shall be stopped and the device shall fully close automatically prior to or immediately after the flow into the CB stops.
4. This process shall be successfully completed at least two consecutive times without adjustments and/or calibration between trials.
 5. Any ARS unit that do not open, close, and lock closed automatically under the test conditions, described herein, shall be repaired or replaced at the sole expense of the Contractor and retested. This process shall be repeated until the failed device passes the test at the sole expense of the Contractor.

Measurement and Payment

The contract unit price paid per unit of “**Blade Type ARS, 3-5 Feet In Length**” and “**Blade Type ARS, 5-8 Feet In Length**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved to furnish and install automatic retractable screens, including submittals, testing, removal and disposal of trash and debris as specified in these Special Provisions, and as directed by the Engineer.

If it is determined after cleaning and inspection that a ARS cannot be installed at a location of work, then the contractor will be paid 5% of the contract unit price as compensation for the effort to evaluate.

BID ITEM NO. 10 - DRAINAGE STRUCTURE SUMP FILL – TYPE I

BID ITEM NO. 11 - DRAINAGE STRUCTURE SUMP FILL – TYPE II

BID ITEM NO. 12 - DRAINAGE STRUCTURE CHANNEL REMOVAL

BID ITEM NO. 13 - DRAINAGE STRUCTURE MODIFICATION – TRIM INTRUDING PIPE

BID ITEM NO. 14 - DRAINAGE STRUCTURE MODIFICATION – SLIDE GATE REMOVAL

GENERAL

The work specified by Bid Items No. 10 through 14 involve the modification of existing drainage structures as required for the installation of connector pipe screens (CPS) as described in this Section and per sheet 15 of Location Maps (Part D of these Specifications).

Existing catch basin modifications include filling of sumps, removal of channels, removal of intruding pipe stubs in conflict with proposed CPS installation, and removal of existing

slide gates at existing structure outlets.

MATERIAL

Concrete for sump fill and channel removal

- PCC shall be type II
- 2,500 psi at 28 days

Class 2 AB for sump fill

- Aggregate base shall be Class 2 and conform to the grading and quality requirements for 3/4" maximum as specified in Section 26-1.02A of the State Standard Specifications.

Reinforcing Steel

- Bar reinforcement to be ASTM A615, Grade 60

Annular Space Grout

- Non-shrink grout made with Type V cement.

EXECUTION

Location maps include information about drainage structure modifications needed prior to CPS installation. This information is for reference only. It is the Contractor's responsibility to verify all existing conditions prior to CPS installation.

Water shall not come into contact with fresh concrete for a period of 48 hours.

Removal of intruding pipes

Contractor shall saw, chip, or cut intruding pipe stubs of various materials which are in conflict with CPS installation. Care must be taken to avoid damaging drainage structure wall during operation. Contractor is responsible for patching annular space exposed during removal using non-shrink grout.

Sump fill

Sump shall be filled as detailed in Part D of these Specifications. Sumps with a depth of less than 2 inches shall not be filled. Sump depth is defined as the vertical distance between the pipe outlet invert and the lowest point of the drainage structure floor.

Measurement and Payment

The contract unit price for "**Drainage Structure Sump Fill – Type I**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for filling drainage structure sumps as specified in Detail 1, Sheet 15 of Location Maps (Part D of these Specifications) and these Technical Specifications.

The contract unit price for "**Drainage Structure Sump Fill – Type II**" shall include full

compensation for furnishing all labor, materials, tools, equipment, and incidentals, for filling drainage structure sumps as specified in Detail 2, Sheet 15 of Location Maps (Part D of these Specifications) and these Technical Specifications.

The contract unit price for “**Drainage Structure Channel Removal**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for removal of drainage structure channels as specified in Detail 3, Sheet 15 of Location Maps (Part D of these Specifications) and these Technical Specifications.

The contract unit price for “**Drainage Structure Modification – Trim Intruding Pipe**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for trimming intruding pipes which conflict with CPS installation per these Technical Specifications.

The contract unit price for “**Drainage Structure Modification – Slide Gate Removal**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for removal of existing steel plate or slide gate blocking outlet of existing drainage structure as specified in Detail 4, Sheet 15 of Location Maps (Part D of these Specifications) and these Technical Specifications.

Measurement for payment for Bid Items No. 10 through 14 shall be per each (EA). The Contractor shall be paid on the basis of work completed as noted on the monthly submissions of progress payment.

BID ITEM NO. 15 - SUPPLEMENTAL WORK

The City may authorize supplemental work in the form of a “Supplemental Work Authorization” for changes or deviations in the scope of work as described in the Project Plans and Specifications. The Engineer shall determine such changes and no work shall be performed until authorized in writing by the Engineer.

Additional work shall be paid for at the unit costs bid for the various items. The Contractor shall be paid on a pro-rata basis for the work performed with the monthly progress payments.

Measurement and Payment

The contract **Lump Sum** allowance for "Supplemental Work" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in supplemental work, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The amount paid under this item shall represent the value of extra work items completed as authorized via Supplemental Work Authorization. The Contractor shall be paid on a pro-rata basis for the work done per month. The said payment should be for providing all labor, material, equipment, devices, supervision, and all incidentals as are needed and as may be required to complete the work.

PART D
LOCATION MAPS AND DETAILS,
STAFF GAUGE, CATCH BASIN INSERT

SPECIFICATIONS

FOR

MRP TRASH CAPTURE FY 2023

SPECIFICATION NO. 23-11556-C

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CITY OF BERKELEY

ALAMEDA COUNTY, CALIFORNIA

SPECIFICATION NO. 23-11556-C

MRP TRASH CAPTURE FY 2023

SHEET INDEX

SHEET NO.	DRAWING TITLE
1	TITLE SHEET/KEY MAP (K-1)
2-4	LAYOUT (L-41 TO L-43)
5-7	LAYOUT (L-51 TO L-53)
8-10	LAYOUT (L-62 TO L-64)
11-13	LAYOUT (L-72 TO L-74)
14	LAYOUT (L-83)
15	DETAILS (D-1)
16	REPAIR TABLE (D-2)

CPS QUANTITIES

SHEET NO.	TOTAL PER SHEET
2 (L-41)	15
3 (L-42)	13
4 (L-43)	3
5 (L-51)	3
6 (L-52)	11
7 (L-53)	7
8 (L-62)	28
9 (L-63)	3
10 (L-64)	2
11 (L-72)	16
12 (L-73)	1
13 (L-74)	8
14 (L-83)	5
TOTAL	115



ABBREVIATIONS

FTCD	FULL TRASH CAPTURE DEVICE
CPS	CONNECTOR PIPE SCREEN
CB	CATCH BASIN
SHT	SHEET
MIN	MINIMUM
AB	AGGREGATE BASE

KEY MAP
SCALE: 1"=500'

PROJECT MANAGER: _____	DATE: _____	DEPICTION OF MONUMENTS: _____	DATE: _____	SUBMITTED: _____	DATE: _____	DESIGN: RC _____	HORIZ. 1"=500'	CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS	MRP TRASH CAPTURE FY 2023 TITLE SHEET/KEY MAP	PLAN 8268
							VERT. 1"=500'			FILE 502-715
FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES		WATERSHED REVIEW: _____		APPROVED: _____		CHECK: SM _____				G-1
				MANAGER OF ENGINEERING _____		AS BUILT _____				SHEET 1 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

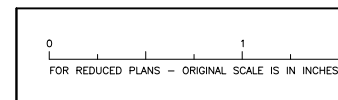


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
DRAWN	SA	VERT.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

LAYOUT

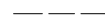
REVISION	MARK	DATE	DESCRIPTION	APPROVAL

PLAN 8268
FILE 502-715
L-41
SHEET 2 of 16

LEGEND:



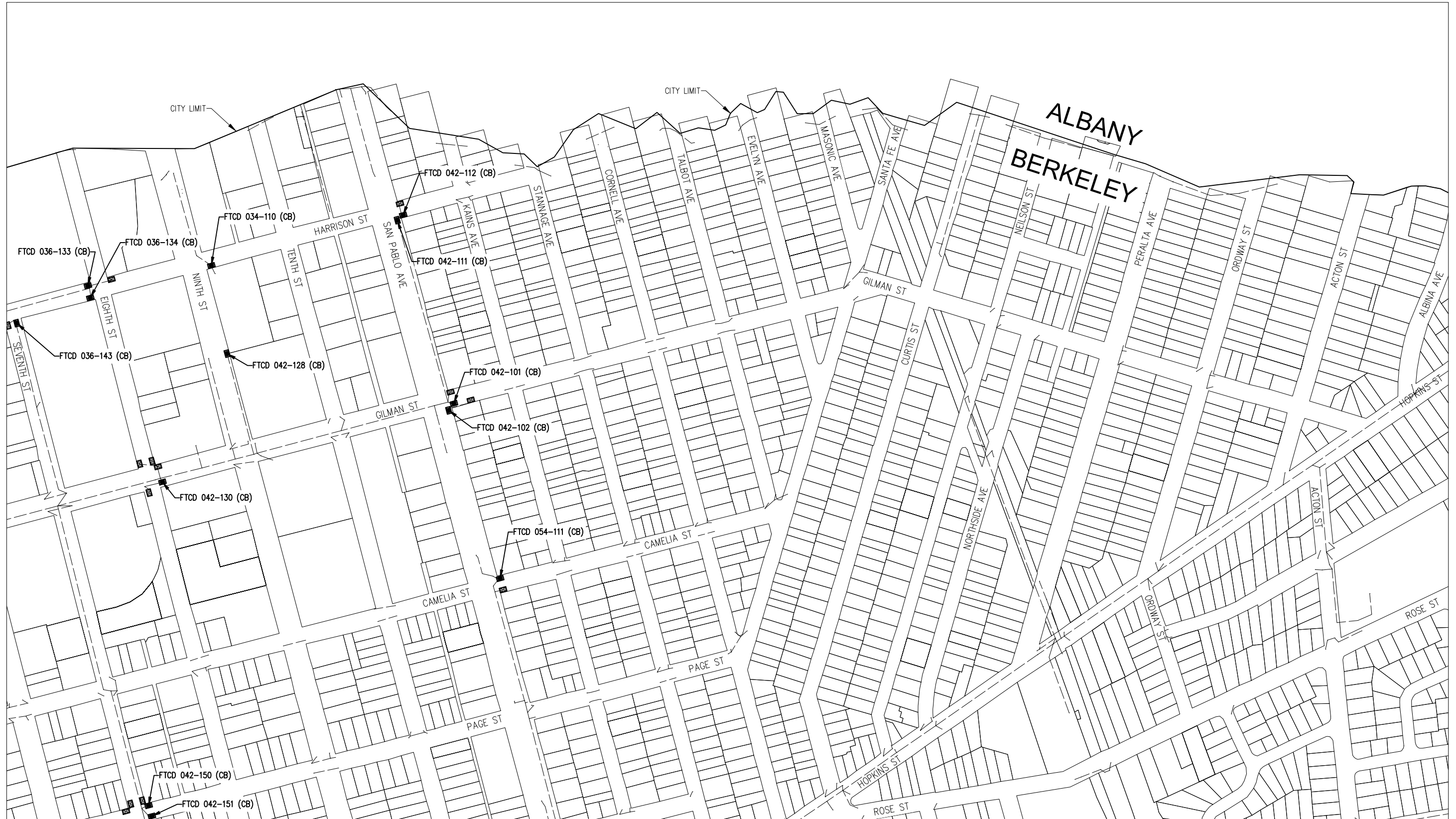
EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

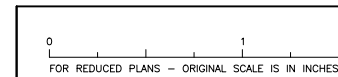


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

LAYOUT

REVISION	DATE	DESCRIPTION	APPROVAL

PLAN 8268
FILE 502-715
L-42
SHEET 3 of 16

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

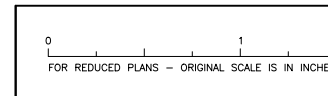


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS
LAYOUT

PLAN 8268
FILE 502-715
L-43
SHEET 4 OF 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



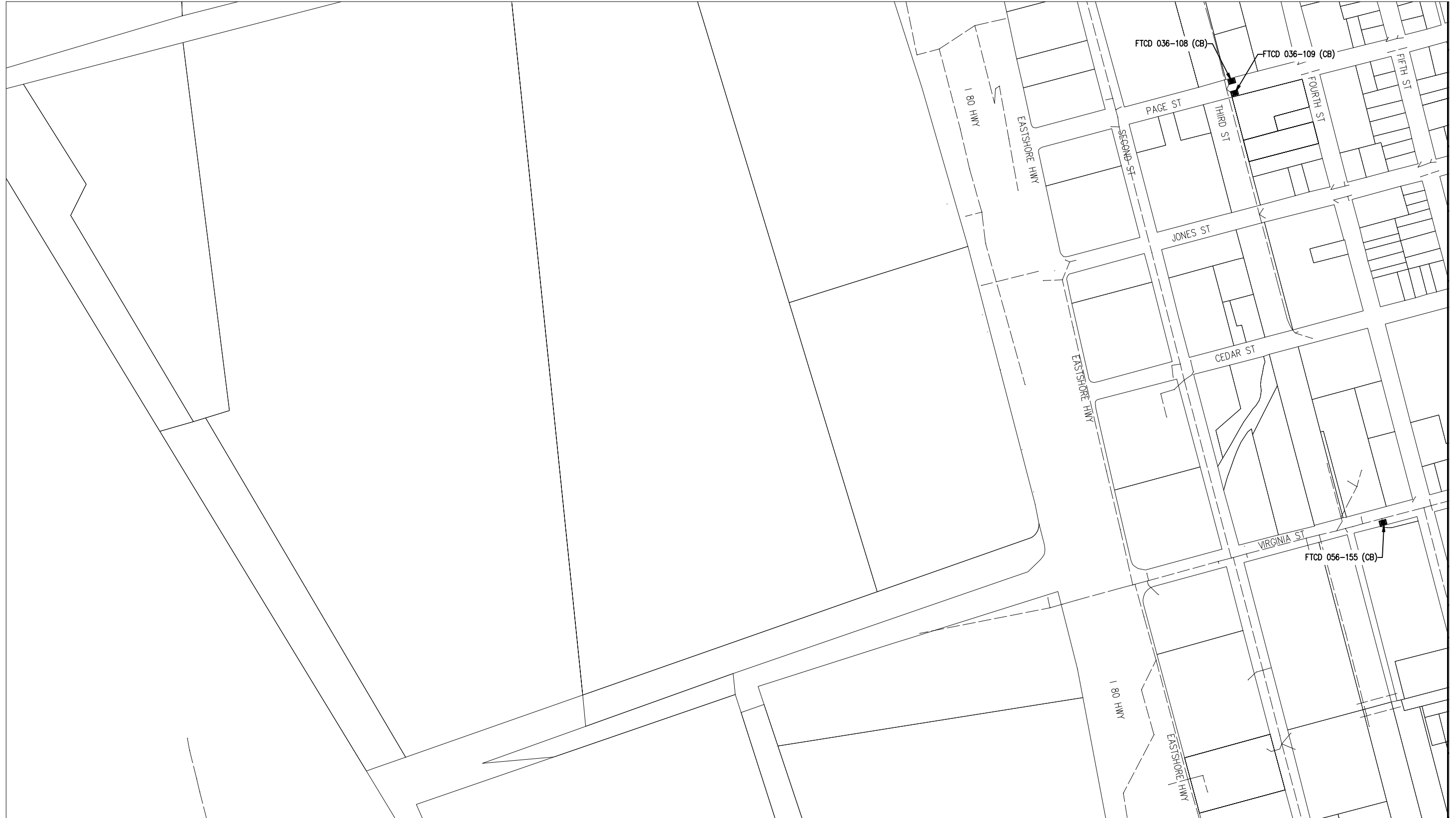
EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

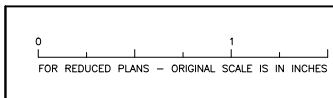


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



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BOOK	
DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

LAYOUT

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

PLAN 8268
FILE 502-715
L-51
SHEET 5 of 16

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



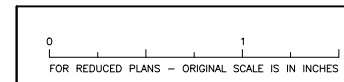
EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS
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PLAN	8268
FILE	502-715
	L-52
SHEET	6_of_16

REVISION	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



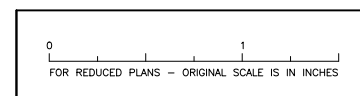
EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
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PLAN	8268
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SHEET	7 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

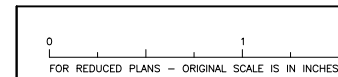


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



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VERT. 1"=50'
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DATE 01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
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SHEET 8 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

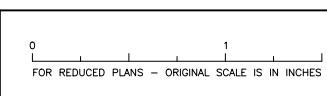


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



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CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
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PLAN	8268
FILE	502-715
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SHEET	9_of_16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:

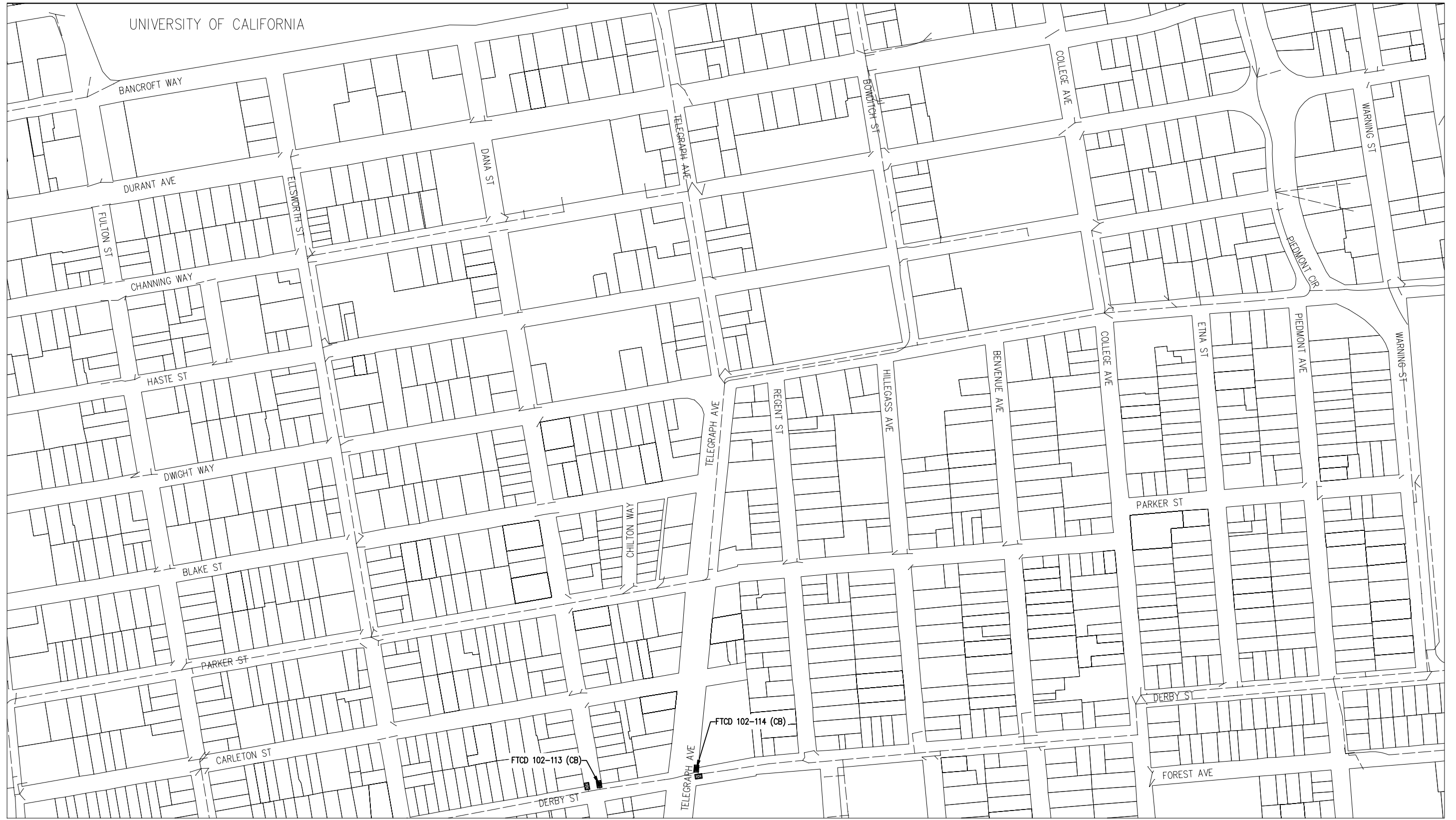


EXISTING STORM DRAIN CATCH BASIN

EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL FULL TRASH CAPTURE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.

<p>FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES</p>	DESIGN RC DRAWN SA CHECK SM AS BUILT	HORIZ. 1"=50' VERT. 1"=50' BOOK DATE 01/2024	CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS	MRP TRASH CAPTURE FY 2023 LOCATION MAPS LAYOUT	PLAN 8268 FILE 502-715 L-64 SHEET 10 OF 16
	REVISION MARK DATE DESCRIPTION APPROVAL				

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



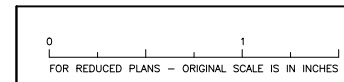
EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS
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PLAN	8268
FILE	502-715
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REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



EXISTING STORM WATER GRAVITY MAIN

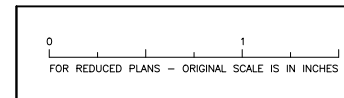


FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:

FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
DRAWN	SA	VERT.	1"=50'
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AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

LAYOUT

PLAN	8268
FILE	502-715
L-73	
SHEET	12 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



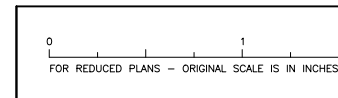
EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
DRAWN	SA	VERT.	1"=50'
CHECK	SM	BOOK	
AS BUILT		DATE	01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS
LAYOUT

PLAN	8268
FILE	502-715
	L-74
SHEET	13 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LEGEND:



EXISTING STORM DRAIN CATCH BASIN



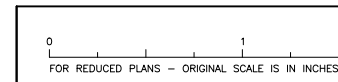
EXISTING STORM WATER GRAVITY MAIN



FTCD (INSTALL CPS TYPE DEVICE IN EXIST CATCH BASIN)



NOTE:
FOR ADJACENT SHEETS SEE TITLE SHEET/KEY MAP, SHEET 1.



DESIGN	RC	HORIZ.	1"=50'
DRAWN	SA	VERT.	1"=50'
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AS BUILT		DATE	01/2024

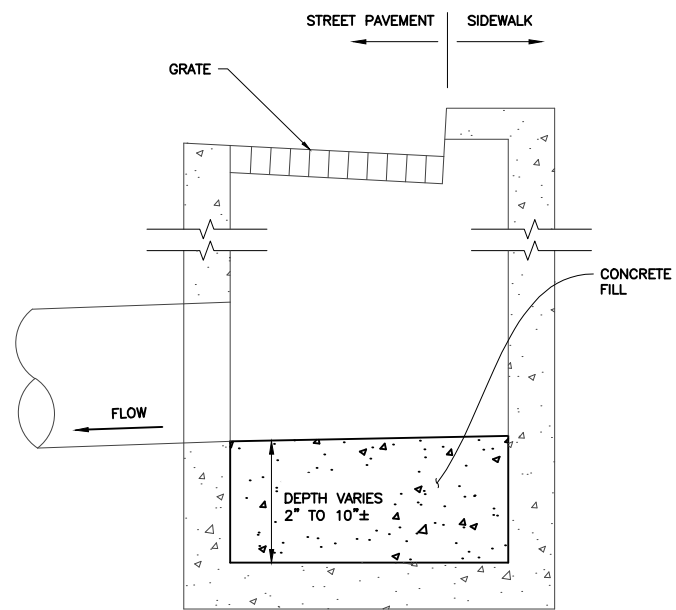
CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

LAYOUT

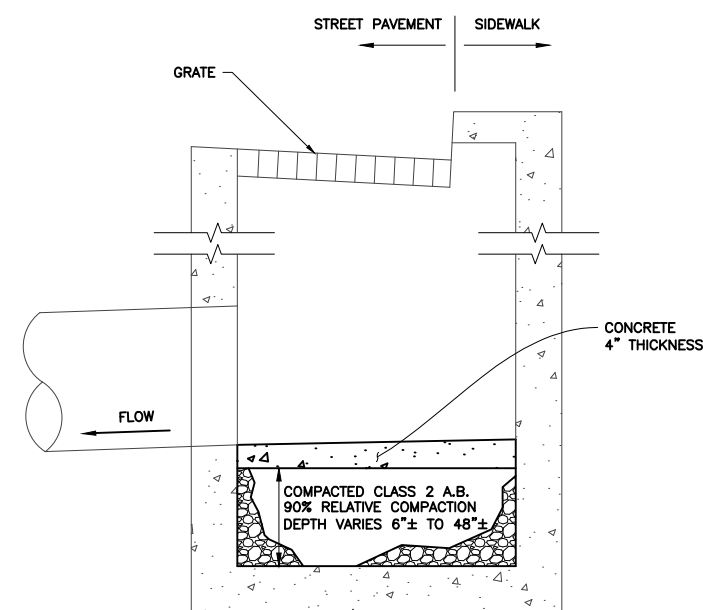
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SHEET 14 of 16

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



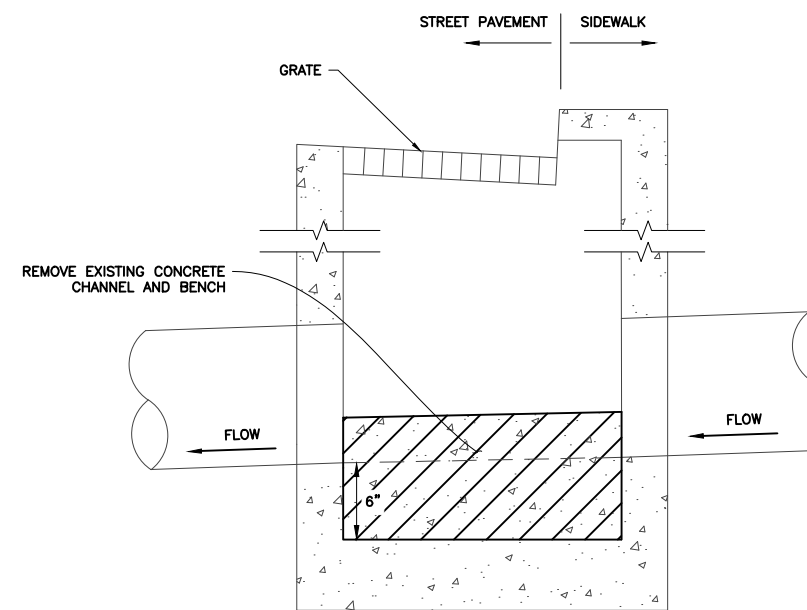
- NOTES:
1. LENGTH, WIDTH, AND DEPTH OF CATCH BASINS VARIES.
 2. FOR SUMP DEPTH LESS THAN OR EQUAL TO 10 INCHES, CONCRETE FILL SUMP.
 3. SUMPS WITH DEPTH OF LESS THAN 2 INCHES SHALL NOT BE FILLED.
 4. MATCH FLOWLINE OF OUTLET PIPE.
 5. PROVIDE 2% SLOPE TO OUTLET PIPE.
 6. NO WATER SHALL COME INTO CONTACT WITH FRESH CONCRETE FOR 48 HOURS.

1 CATCH BASIN SUMP FILL TYPE I DETAIL
N.T.S.



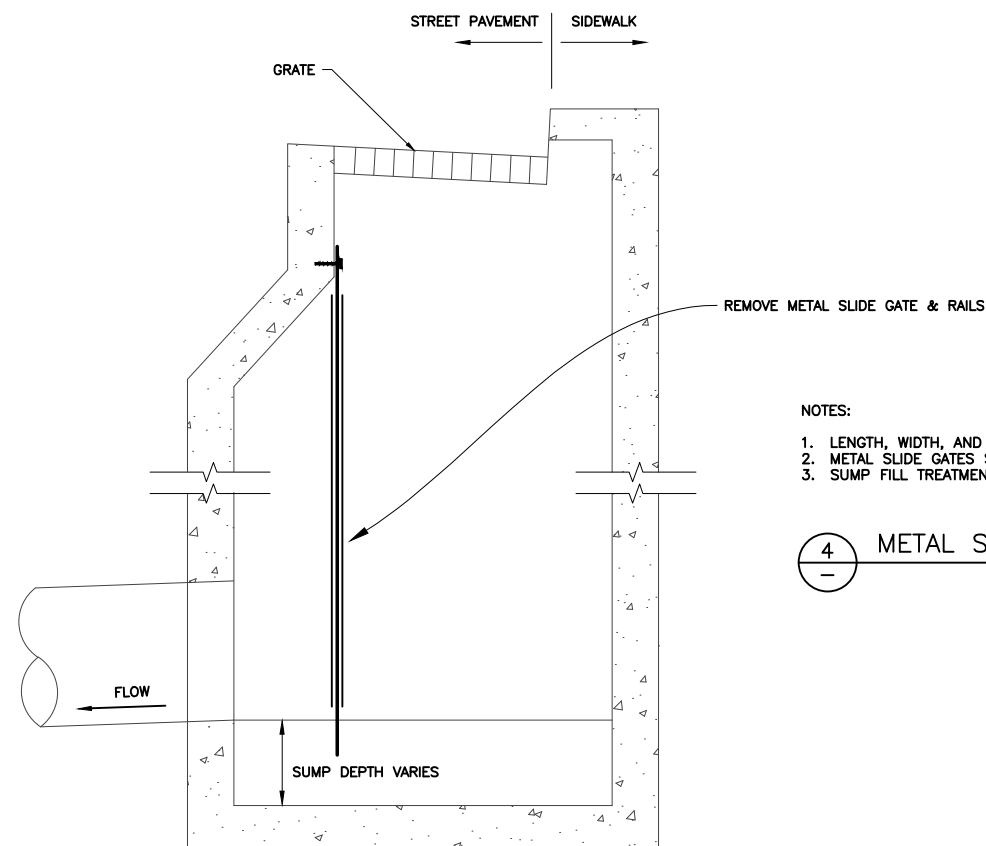
- NOTES:
1. LENGTH, WIDTH, AND DEPTH OF CATCH BASINS VARIES.
 2. FOR SUMP DEPTH GREATER THAN 10 INCHES, CLASS 2 AGGREGATE BASE SHALL BE INSTALLED 4 INCHES BELOW THE FLOWLINE OF OUTLET PIPE AND COMPACTED TO A MINIMUM DENSITY OF 90% RELATIVE COMPACTION.
 3. CONCRETE FILL 4 INCHES IN THICKNESS SHALL BE PLACED OVER THE COMPACTED A.B.
 4. MATCH FLOWLINE OF OUTLET PIPE.
 5. PROVIDE 2% SLOPE TO OUTLET PIPE.
 6. NO WATER SHALL COME INTO CONTACT WITH FRESH CONCRETE FOR 48 HOURS.

2 CATCH BASIN SUMP FILL TYPE II DETAIL
N.T.S.



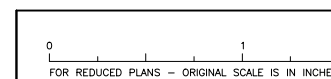
- NOTES:
1. LENGTH, WIDTH, AND DEPTH OF CATCH BASINS VARIES.
 2. FOR CHANNELED CATCH BASINS, REMOVE EXISTING CONCRETE BENCH AND CHANNEL TO A DEPTH OF 6 INCHES BELOW OUTFLOW PIPE.
 3. NEW CONCRETE SHALL BE INSTALLED IMMEDIATELY BELOW OUTLET PIPE.
 4. MATCH FLOWLINE OF OUTLET PIPE.
 5. PROVIDE 2% SLOPE TO OUTLET PIPE.
 6. NO WATER SHALL COME INTO CONTACT WITH FRESH CONCRETE FOR 48 HOURS.

3 CATCH BASIN CHANNEL REMOVAL DETAIL
N.T.S.



- NOTES:
1. LENGTH, WIDTH, AND DEPTH OF CATCH BASINS VARIES.
 2. METAL SLIDE GATES SHALL BE REMOVED PRIOR TO CONNECTOR PIPE SCREEN INSTALLATION.
 3. SUMP FILL TREATMENT PER DETAIL 1 OR 2 OF THIS SHEET AS APPLICABLE.

4 METAL SLIDE GATE REMOVAL DETAIL
N.T.S.



DESIGN RC
DRAWN SA
CHECK SM
AS BUILT
HORIZ. N/A
VERT. N/A
BOOK
DATE 01/2024

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

MRP TRASH CAPTURE FY 2023
LOCATION MAPS

DETAILS

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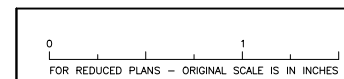
REVISION	MARK	DATE	DESCRIPTION	APPROVAL

SHEET NO	INLET ID	DEVICE TYPE	OUTLET PIPE DIAMETER (IN)	SUMP DEPTH (IN)	SUMP TREATMENT	STEP REMOVAL	TRIM INTRUDING PIPE	REMOVE METAL PLATE (EA)
2	UNK-001	CPS	12	2.5	SUMP FILL TYPE I			
2	056-101	CPS	12*	10*	SUMP FILL TYPE I			
2	056-100	CPS	12*	10*	SUMP FILL TYPE I			
2	038-131	CPS	12	0	N/A			
2	038-130	CPS	12	10.5	SUMP FILL TYPE II			
2	038-110	CPS	12	0	N/A			
2	036-141	CPS	12	14	SUMP FILL TYPE II	1		
2	036-140	CPS	12	13	SUMP FILL TYPE II	1		
2	036-139	CPS	12	13	SUMP FILL TYPE II	1		
2	036-138	CPS	12	22	SUMP FILL TYPE II	1		
2	036-136	CPS	12	12.5	SUMP FILL TYPE II			
2	036-107	CPS	12	38	SUMP FILL TYPE II			
2	036-106	CPS	12	34.5	SUMP FILL TYPE II	1		
2	036-105	CPS	15	39	SUMP FILL TYPE II			
2	000-002	CPS	12	1	N/A			
3	054-111	CPS	12	3	SUMP FILL TYPE I	1		
3	042-151	CPS	15	37	SUMP FILL TYPE II			
3	042-150	CPS	15	49	SUMP FILL TYPE II			
3	042-130	CPS	12	20	SUMP FILL TYPE II	1		
3	042-128	CPS	8	8	SUMP FILL TYPE I			
3	042-112	CPS	12	5	CHANNEL REMOVAL			
3	042-111	CPS	24	2	SUMP FILL TYPE I	1		
3	042-102	CPS	12*	10*	SUMP FILL TYPE I			
3	042-101	CPS	18	0	N/A	1		
3	036-143	CPS	12	6	SUMP FILL TYPE I	1		
3	036-134	CPS	12	4	SUMP FILL TYPE I			
3	036-133	CPS	10	15	SUMP FILL TYPE II			
3	034-110	CPS	18	11	SUMP FILL TYPE II	1		
4	048-136	CPS	12	0	N/A			
4	048-122	CPS	12	8	SUMP FILL TYPE I			
4	048-121	CPS	12	2	SUMP FILL TYPE I	1		
5	056-155	CPS	12*	10*	SUMP FILL TYPE I			
5	036-109	CPS	12	12	SUMP FILL TYPE II		1	
5	036-108	CPS	15	34	SUMP FILL TYPE II		1	
6	070-311	CPS	12	9.5	SUMP FILL TYPE I	1		
6	070-308	CPS	15	2.5	SUMP FILL TYPE I	1		
6	070-136	CPS	12	0	CHANNEL REMOVAL	1		
6	058-723	CPS	12*	10*	SUMP FILL TYPE I			
6	058-114	CPS	12*	10*	SUMP FILL TYPE I			1
6	058-113	CPS	12*	10*	SUMP FILL TYPE I			1
6	058-109	CPS	12	0	CHANNEL REMOVAL			
6	058-104	CPS	10	0	CHANNEL REMOVAL			
6	058-103	CPS	15	46	SUMP FILL TYPE II	1		
6	058-102	CPS	10	24	SUMP FILL TYPE II	1		
6	058-100	CPS	12	0	N/A			
7	074-157	CPS	18	12	SUMP FILL TYPE II	1		
7	074-107	CPS	12	0	N/A			
7	072-730	CPS	12	1	N/A		1	
7	072-151	CPS	15	0	N/A			
7	072-129	CPS	18	0	CHANNEL REMOVAL			
7	066-134	CPS	12	0	N/A		1	
7	066-133	CPS	12	0	N/A			
8	094-134	CPS	12	20	SUMP FILL TYPE II	1		
8	078-136	CPS	15	0	CHANNEL REMOVAL			
8	078-134	CPS	18	0	N/A	1		
8	078-133	CPS	21	20	SUMP FILL TYPE II	1		
8	078-132	CPS	12*	10*	SUMP FILL TYPE I			
8	078-130	CPS	12	12	SUMP FILL TYPE II	1		
8	078-129	CPS	10	10	SUMP FILL TYPE I		1	

SHEET NO	INLET ID	DEVICE TYPE	OUTLET PIPE DIAMETER (IN)	SUMP DEPTH (IN)	SUMP TREATMENT	STEP REMOVAL	TRIM INTRUDING PIPE	REMOVE METAL PLATE (EA)
8	078-126	CPS	12	0	CHANNEL REMOVAL	1		
8	078-124	CPS	21	0	CHANNEL REMOVAL	1		
8	078-122	CPS	15	0	CHANNEL REMOVAL	1		
8	078-121	CPS	12*	10*	SUMP FILL TYPE I			
8	078-120	CPS	12	0	N/A			
8	078-119	CPS	18	0	CHANNEL REMOVAL	1		
8	076-720	CPS	12	0	CHANNEL REMOVAL		1	
8	076-124	CPS	12*	10*	SUMP FILL TYPE I			
8	076-122	CPS	15	0	N/A			
8	076-121	CPS	12*	10*	SUMP FILL TYPE I			
8	076-118	CPS	12	4	SUMP FILL TYPE I		1	
8	076-117	CPS	15	0	N/A		1	
8	070-809	CPS	12*	10*	SUMP FILL TYPE I			1
8	070-117	Insert Type	n/a	11	N/A			
8	070-113	CPS	18	18	SUMP FILL TYPE II			
8	068-175	CPS	12	0	N/A	1		
8	068-169	CPS	12	0	N/A			
8	068-167	CPS	18	0	N/A	1	1	
8	068-147	CPS	15	9	SUMP FILL TYPE I			
8	068-142	CPS	18	15	SUMP FILL TYPE II	1		
8	068-135	CPS	15	2	SUMP FILL TYPE I			
9	086-165	CPS	12	0	N/A			
9	086-141	CPS	12	0	N/A			
9	082-120	CPS	18	0	CHANNEL REMOVAL			
10	102-114	CPS	18	7	SUMP FILL TYPE I	1		
10	102-113	CPS	12	0	N/A		1	
11	106-130	CPS	15	9	SUMP FILL TYPE I			
11	106-128	CPS	18	0	N/A	1		
11	106-111	CPS	12	7	SUMP FILL TYPE I			
11	106-110	CPS	15	6	CHANNEL REMOVAL			
11	106-106	CPS	15	21	SUMP FILL TYPE II			
11	106-105	CPS	18	10	SUMP FILL TYPE I		1	
11	106-104	CPS	12	0	N/A			
11	106-103	CPS	21	2	SUMP FILL TYPE I	1		
11	092-144	CPS	15	17	SUMP FILL TYPE II			
11	092-143	CPS	18	0	N/A			
11	092-142	CPS	15	16	SUMP FILL TYPE II			
11	092-141	CPS	12	0	N/A			
11	092-140	CPS	12	12	SUMP FILL TYPE II			
11	092-139	CPS	12	10	SUMP FILL TYPE I			
11	076-114	CPS	15	0	N/A			
11	076-113	CPS	18	10	SUMP FILL TYPE I			
12	114-164	CPS	12	0	N/A			
13	122-139	CPS	10	0	N/A	1		
13	122-136	CPS	12	34	SUMP FILL TYPE II			
13	122-135	CPS	12	38	SUMP FILL TYPE II	1		
13	122-107	CPS	15	13	SUMP FILL TYPE II	1		
13	122-100	CPS	15	27	SUMP FILL TYPE II	1		
13	120-109	CPS	10	21	SUMP FILL TYPE II			
13	116-711	CPS	18	2	SUMP FILL TYPE I			
13	116-709	CPS	12	5	SUMP FILL TYPE I			
14	114-811	CPS	12	27	SUMP FILL TYPE II			
14	114-700	CPS	12	0	CHANNEL REMOVAL			
14	114-141	CPS	44	72	SUMP FILL TYPE II		1	
14	114-140	CPS	12	39.5	SUMP FILL TYPE II			
14	114-130	CPS	12	23.5	SUMP FILL TYPE II			

NOTES:

1. MEASUREMENTS MARKED WITH AN ASTERISK (*) ARE ESTIMATES.
2. CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, LOCATION, AND SUMP TREATMENT OF EACH CATCH BASIN INCLUDED IN THIS CONTRACT.



DESIGN	RC	HORIZ.	N/A
DRAWN	SA	VERT.	N/A
CHECK	SM	BOOK	
AS BUILT		DATE	01/2024

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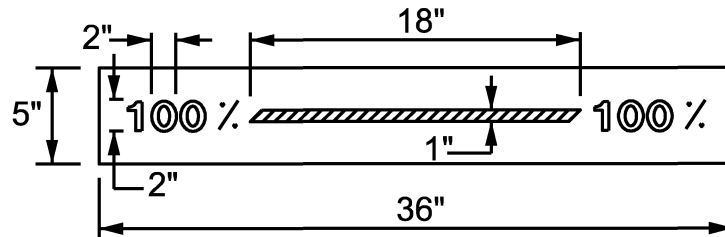
MRP TRASH CAPTURE FY 2023
LOCATION MAPS

REPAIR TABLE

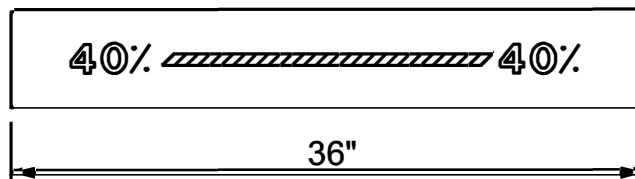
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APPROVAL	
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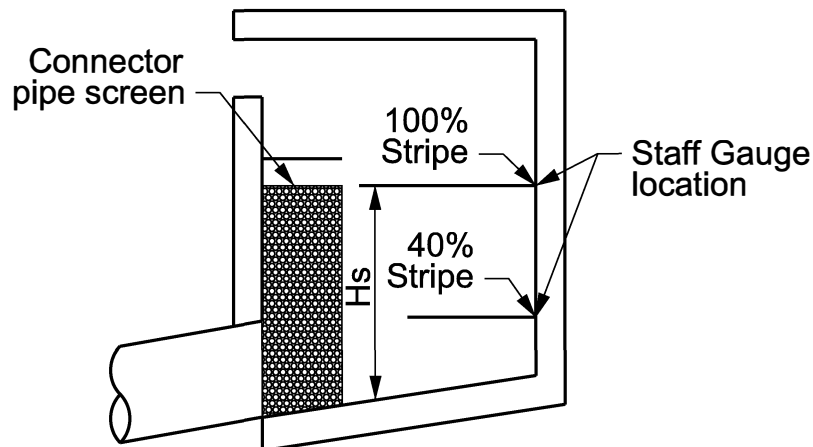
STAFF GAUGE



100% STRIPE
(Red Stripe and Numbers on White Background)



40% STRIPE
(Red Stripe and Numbers on White Background)



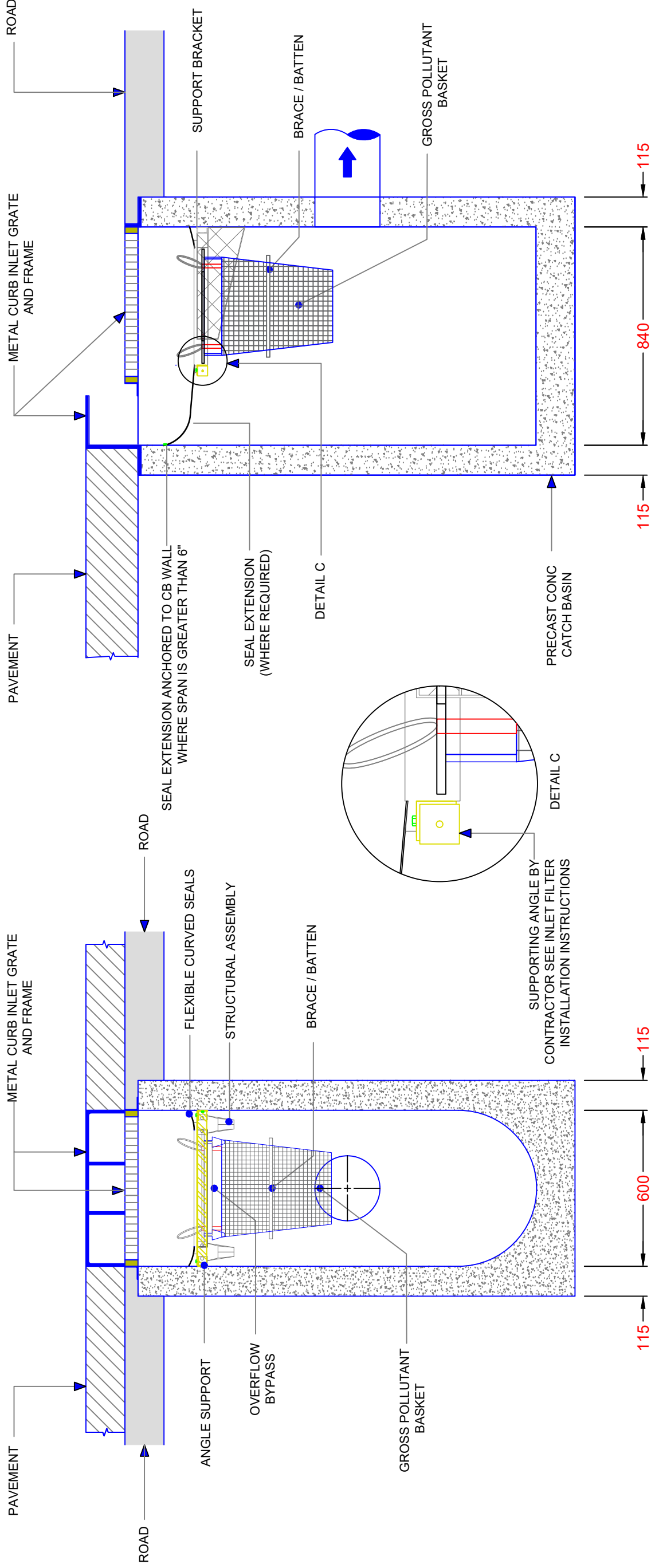
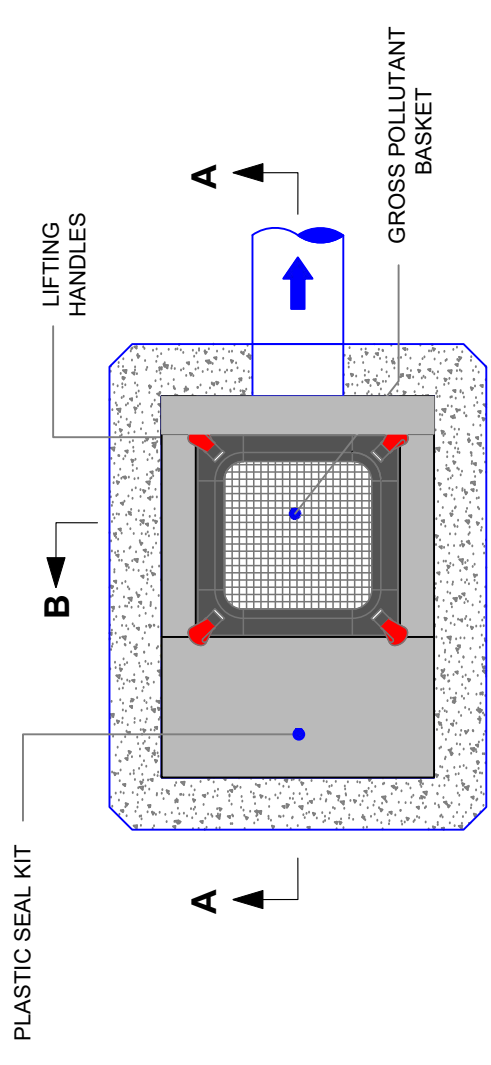
EXAMPLE LAYOUT

"THE PAINT TYPE AND SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO USE."

1. The Contractor shall paint a staff gauge as shown on an externally visible interior wall of each catch basin.
2. The Contractor shall paint red stripes and numbers on white background labeling 40% and 100% screen height (Hs) as shown above.
3. Surfaces must be clean, dry and free from all contaminants including rust that may impair adhesion.

FULL CAPTURE INSERT NOTES:

1. Filter insert basket weight is maximum 8.5 lb unloaded.
2. Hand removable basket with four lifting straps.
3. Fiber reinforced structural assembly designed to hold 800 lbs static load.
4. Insert to capture flows from curb inlet without blocking the opening.
5. Filter insert uses flexible curved seals.
6. All plastic components made with stable materials that retain physical and chemical properties within a temperature range of -20°C to +40°C.
7. Attaches to CB wall.
8. Full capture insert is suitable as a temporary erosion control device with optional liner.
9. California Water Board approved.
10. When applicable, MVCAC approved vector access component available which provides a rectangular opening at least 12" long.
11. Filter insert flow rate determined by empirical testing measuring head loss through a screen.



SECTION A-A

SECTION B-B

**COMBINATION INLET FILTER APPLICATION
GENERAL ARRANGEMENT**