

DIVISION FIVE  
SPECIAL PROVISIONS & TECHNICAL SPECIFICATIONS  
FOR  
FIRE HYDRANT RELOCATIONS AT 1435 WHARF RD. AND  
870 BALBOA AVE.

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## **SECTION 500. DESCRIPTION OF WORK**

The Contractor shall furnish, in accordance with the Soquel Creek Water District (SCWD) Standard Specifications and Standard Plans, these Special Provisions, and the Contract Documents, all labor, materials, tools, and equipment and perform all work required in:

- Relocation of two (2) existing 6-inch steamer fire hydrant, with 6-inch PVC lateral extensions and all related fittings and appurtenances.
- All other incidental work.

The work site is located in Capitola, Santa Cruz County, CA.

## **SECTION 501. SPECIFICATIONS & PLANS**

The Contractor shall perform the work specified herein in accordance with the SCWD Standard Specifications and Standard Plans adopted by the Board of Directors on August 2, 1994, including subsequent updates published on the District's web page ([www.soquelcreekwater.org](http://www.soquelcreekwater.org)), Standard Specifications and Standard Plans of the California Department of Transportation, and Standard Specifications & Standard Plans of the City of Capitola, California.

SCWD Standard Specifications and Standard Plans are available for purchase at the SCWD Office for an additional \$25 per set. (For more information, please call 831-475-8500.)

In case of conflict between the SCWD Standard Specifications and Standard Plans and these special provisions, the special provisions shall take precedence and be used in lieu of such conflicting portions.

## **SECTION 502. CHECKLIST FOR BIDDERS**

- Bid Opening is scheduled for November 21, 2008 at 2:00 PM in the SCWD Board Room, 5180 Soquel Drive, Soquel, CA 95073.
- DO NOT REMOVE BID DOCUMENTS FROM THESE BOUND SPECIFICATIONS.** Unbound bid documents will result in immediate disqualification.

- SIGN & INCLUDE ALL ADDENDUM(S) WITH THE BID DOCUMENTS. Bid Documents with missing addendums will result in immediate disqualification.
- Include a bidder's bond, certified check, or cashier's check for the amount equal to 10% of the bid amount.
- Complete and Fill-Out the Yellow Sheets and Proposal in the Bid Documents. The lowest qualified competitive bidder shall complete the green sheets after the project has been awarded.

If you have any questions, please contact the Engineering Department at 831-475-8500.

### **SECTION 503. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES**

It is estimated that a maximum of 30 days shall pass from the date sealed bids are opened until the "Notice to Proceed" is issued.

The Contractor shall return the executed contract accompanied by bonds and insurance certificates following the award of the contract. The District shall issue a letter and Purchase Order authorizing the Contractor to begin construction. The Contractor shall begin work per the Start Date set on the "Notice to Proceed," unless the District has approved a time extension. The District may delay the start of work due to such factors as inclement weather, material availability, and other unforeseen factors.

#### ***SECTION 503.1 CONTRACT TIME OF COMPLETION***

Contract Time of Completion shall be **10-working** days following the effective date of the Notice to Proceed.

The Contractor shall not perform work before 8:00 AM or after 5:00 PM each workday except for emergencies as defined in the SCWD Standard Specifications and Standard Plans. The Contractor shall not work on Saturdays, Sundays or holidays. For the purposes of this section the word "work" shall mean all noise producing activities including but not limited to starting of trucks or equipment, haulage, erection, construction, demolition, and transiting the access roads.

#### ***SECTION 503.2 LIQUIDATED DAMAGES***

The District shall enforce Liquidated Damages per Section 108.09, "Assessment of Damages for Delay" of SCWD Standard Specifications if the Contractor fails to complete the in the time specified herewith.

<b>SCHEDULE OF LIQUIDATED DAMAGES</b>		
<b>ORIGINAL AMOUNT OF CONTRACT</b>		<b>PER DIEM AMOUNT OF LIQUIDATED DAMAGES</b>
<b>FOR MORE THAN</b>	<b>UP TO AND INCLUDING</b>	
\$0.00	\$100,000.00	\$250.00
\$100,000.00	\$500,000.00	\$500.00
\$500,000.00	\$1,000,000.00	\$750.00
\$1,000,000.00	\$2,000,000.00	\$1,000.00
OVER \$2,000,000.00		AS SPECIFIED

The Contractor should refer to Division One, Sections 101-108, “General Conditions,” of the SCWD Specifications for additional provisions.

***SECTION 503.3 PRECONSTRUCTION CONFERENCE***

The Contractor shall meet with the District at the District Office following award of contract, but prior to commencement of site work. The Contractor shall furnish to the District at the preconstruction meeting the following items:

- A list of names, titles, addresses and telephone numbers of the Contractor’s personnel related to the project. Emergency and after-hours telephone numbers are to be included.
- A construction schedule setting forth the sequence in which construction will proceed. The schedule shall be a time-scale critical path type. Refer to Section 106.06, “Schedule” of SCWD Standard Specifications.
- Material submittals (5 copies minimum) per Section 107.10, “Submittals” of SCWD Standard Specifications.
- A Traffic Control Plan per Section 203, “Traffic Control” of SCWD Standard Specifications and these Special Provisions.
- A general notice describing the construction project and the expected impact on nearby residences. The Contractor shall also outline the Contractors’ willingness to minimize inconveniences to local residences. The Contractor shall deliver (not mail) the notice to local businesses and residents in the area 5 days prior to the Start of Construction. The Contractor shall include on the notice the Contractor’s telephone number and the contact person’s name. The Contractor shall submit the notice to the District for approval prior to distribution.

***SECTION 503.4 PUBLIC MEETING***

The Contractor shall, if requested by the District, attend a public meeting prior to the start of construction. The time commitment for the public meeting shall be no more than 2 hours.

### ***SECTION 503.5 INSURANCE REQUIREMENTS***

The Contractor shall provide and maintain the following commercial general liability and automobile liability insurance:

#### **Coverage**

Coverage for commercial general liability and automobile liability insurance shall be at least as broad as the following:

1. Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 0001)
2. Insurance Services Office (ISO) Business Auto Coverage (Form CA 0001), covering Symbol 1 (any auto)

#### **Limits**

The Contractor shall maintain limits no less than the following:

1. General Liability - One million dollars (\$1,000,000) per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit or products-completed operations aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with the ISO CG 2503, or ISO CG 2504, or insurer's equivalent endorsement provided to the Soquel Creek Water District) or the general aggregate limit and products-completed operations aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability - One million dollars (\$1,000,000) for bodily injury and property damage each accident limit.

#### **Required Provisions**

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

1. The Soquel Creek Water District, its directors, officers, employees, and authorized volunteers are to be given insured status (via ISO endorsement CG 2010, CG 2033, or insurer's equivalent for general liability coverage) as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; and automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of

protection afforded to the Soquel Creek Water District, its directors, officers, employees, or authorized volunteers.

2. For any claims related to this project, the Contractor's insurance shall be primary insurance as respects the Soquel Creek Water District, its directors, officers, employees, or authorized volunteers. Any insurance, self-insurance, or other coverage maintained by the Soquel Creek Water District, its directors, officers, employees, or authorized volunteers shall not contribute to it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the Soquel Creek Water District, its directors, officers, employees, or authorized volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this agreement shall state, or be endorsed to state, that the insurance carrier or the Contractor shall not cancel coverage, except after thirty (30) days (10 days for non-payment of premium) prior written notice by U.S. mail has been given to the Soquel Creek Water District.

Such liability insurance shall indemnify the Contractor and his/her sub-contractors against loss from liability imposed by law upon, or assumed under contract by, the Contractor or his/her sub-contractors for damages on account of such bodily injury (including death), property damage, personal injury, completed operations, and products liability.

The general liability policy shall cover bodily injury and property damage liability, owned and non-owned equipment, blanket contractual liability, completed operations liability, explosion, collapse, underground excavation, and removal of lateral support.

The automobile liability policy shall cover all owned, non-owned, and hired automobiles.

All of the insurance shall be provided on policy forms and through companies satisfactory to the Soquel Creek Water District.

#### **Deductibles and Self-Insured Retentions**

Any deductible or self-insured retention must be declared to and approved by the Soquel Creek Water District. At the option of the Soquel Creek Water

District, the insurer shall either reduce or eliminate such deductibles or self-insured retentions.

#### **Acceptability of Insurers**

Insurance is to be placed with insurers having a current A.M. Best rating of no less than A:VII or equivalent or as otherwise approved by the Soquel Creek Water District.

#### **Workers' Compensation and Employer's Liability Insurance**

The Contractor and all sub-contractors shall insure (or be a qualified self-insured) under the applicable laws relating to workers' compensation insurance, all of their employees working on or about the construction site, in accordance with the "Workers' Compensation and Insurance Act", Division IV of the Labor Code of the State of California and any Acts amendatory thereof. The Contractor shall provide employer's liability insurance with limits of no less than \$1,000,000 each accident, \$1,000,000 disease policy limit, and \$1,000,000 disease each employee.

#### **Responsibility for Work**

Until the completion and final acceptance by the Soquel Creek Water District of all the work under and implied by this agreement, the work shall be under the Contractor's responsible care and charge. The Contractor shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs occasioned or rendered necessary by causes of any nature whatsoever.

The Contractor shall provide and maintain builder's risk insurance (or installation floater) covering all risks of direct physical loss, damage or destruction to the work in the amount specified in the General Conditions, to insure against such losses until final acceptance of the work by the Soquel Creek Water District. Such insurance shall insure at least against the perils of fire and extended coverage, theft, vandalism and malicious mischief, and collapse. The Soquel Creek Water District, its directors, officers, employees, and authorized volunteers shall be named insured on any such policy. The making of progress payments to the Contractor shall not be construed as creating an insurable interest by or for the Soquel Creek Water District or be construed as relieving the Contractor or his/her subcontractors of responsibility for loss from any direct physical loss, damage or destruction occurring prior to final acceptance of the work by the Soquel Creek Water District.

The Contractor shall waive all rights of subrogation against the Soquel Creek Water District, its directors, officers, employees, or authorized volunteers.

#### **Evidences of Insurance**

Prior to execution of the agreement, the Contractor shall file with the Soquel Creek Water District a certificate of insurance (Acord Form 25-S or equivalent) signed by the insurer's representative evidencing the coverage required by this

agreement. Such evidence shall include an additional insured endorsement signed by the insurer's representative and evidence of waiver of rights of subrogation against the Soquel Creek Water District (if builder's risk insurance is applicable). Such evidence shall also include confirmation that coverage includes or has been modified to include Required Provisions 1-5.

The Contractor shall, upon demand of the Soquel Creek Water District, deliver to the Soquel Creek Water District such policy or policies of insurance and the receipts for payment of premiums thereon.

#### **Continuation of Coverage**

If any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement and evidence of waiver of rights of subrogation against the Soquel Creek Water District (if builder's risk insurance is applicable) to the Soquel Creek Water District at least ten (10) days prior to the expiration date.

#### **Sub-Contractors**

In the event that the Contractor employs other contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above.

#### ***SECTION 503.6 HOLD HARMLESS AND INDEMNIFICATION***

To the fullest extent permitted by law, Contractor shall indemnify and hold harmless and defend Soquel Creek Water District, its directors, officers, employees, or authorized volunteers, and each of them from and against:

- a. Any and all claims, demands, causes of action, damages, costs, expenses, losses or liabilities, in law or in equity, of every kind or nature whatsoever for, but not limited to, injury to or death of any person including Soquel Creek Water District and/or Contractor, or any directors, officers, employees, or authorized volunteers of Soquel Creek Water District or Contractor, and damages to or destruction of property of any person, including but not limited to, Soquel Creek Water District and/or Contractor or their directors, officers, employees, or authorized volunteers, arising out of or in any manner directly or indirectly connected with the work to be performed under this agreement, however caused, regardless of any negligence of Soquel Creek Water District or its directors, officers, employees, or authorized volunteers, except the sole negligence or willful misconduct or active negligence of Soquel Creek Water District or its directors, officers, employees, or authorized volunteers;

- b. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Contractor;
- c. Any and all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

Contractor shall defend, at Contractor's own cost, expense and risk, any and all such aforesaid suits, actions, or other legal proceedings of every kind that may be brought or instituted against Soquel Creek Water District or its directors, officers, employees, or authorized volunteers.

Contractor shall pay and satisfy any judgment, award or decree that may be rendered against Soquel Creek Water District or its directors, officers, employees, or authorized volunteers, in any and all such suits, actions, or other legal proceedings.

Contractor shall reimburse Soquel Creek Water District or its directors, officers, employees, or authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided.

Contractor's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the Soquel Creek Water District, or its directors, officers, employees, or authorized volunteers.

## **SECTION 504. GENERAL CONSTRUCTION**

### ***SECTION 504.1 REFERENCED SPECIFICATIONS***

The Contractor shall perform the work specified herein in accordance with Soquel Creek Water District Standard Specifications and Plans, adopted by the Board of Directors on August 2, 1994, including periodic updates that have been approved by the Chief Engineer and published on the District's web page ([www.soquelcreekwater.org](http://www.soquelcreekwater.org)), applicable provisions of the State of California Standard Specifications (CALTRANS) current edition, and the current edition of the City of Capitola Standard Plans and Specifications when applicable.

### ***SECTION 504.2 ORDER OF WORK***

The District reserves the right to determine the order of work.

### ***SECTION 504.3 EXISTING CONDITIONS***

Existing utilities, structures and natural features, where known, have been indicated at their approximate locations on the Contract Plans. The locations of such features are intended only as an aid to the Contractor and in no way relieves them of the responsibility of determining and verifying the size and locations of all potential conflicts which might be encountered in the performance of the work, whether indicated on the plans or not.

The Contractor shall restore drainage patterns and facilities to pre-existing conditions.

### ***SECTION 504.4 CITY OF CAPITOLA REQUIREMENTS***

The District is in the process of securing a City of Capitola Encroachment Permit. The Contractor shall review said permits prior to construction and shall comply with all requirements as stated in the permits. The District shall pay all fees associated with necessary permits for this project.

The District may not accept the contract work until the Contractor has submitted a written statement (specifically referencing relative compaction and road surface restoration requirements) issued by the City of Capitola, advising that the Contractor that the completed work is acceptable.

All roads included in the project are subject to remaining open. The Contractor shall include all costs associated with maintaining roads open to traffic in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

### ***SECTION 504.5 PEDESTRIAN AND TRAFFIC CONTROL***

#### **Description**

The Contractor shall provide the District with a traffic control plan 5 days prior to the start of construction. The District shall approve the plan prior to beginning construction. The Contractor shall provide a plan in compliance with the State of California, Department of Transportation "California Manual on Uniform Traffic Control Devices for Streets and Highways," latest edition. The Contractor shall ensure the plan be in general conformance with the provisions of Standard Plan No. T13, "Traffic Control System for Lane Closure on Two Lane Conventional Highways" of the Cal-Trans Standard Plans.

The Contractor shall install “Construction Zone, Speed Limit 15 MPH” signs on semi-permanent posts prior to construction along the proposed construction area. The Contractor shall maintain the signs throughout construction of the project and shall not remove the signs until directed by the District. The Contractor shall cover other speed limit signs along the pipeline alignment. The Contractor shall ensure the covers remain until the “Construction Zone, Speed Limit 15 MPH” signs are removed.

The Contractor shall install informational warning signs and project signs on sidewalks and streets affected by the construction, which shall remain in place during the entire construction period. The Contractor shall maintain sign security and reinstall the signs if they fall or are knocked over.

The Contractor shall be responsible for furnishing, mounting, installing, and maintaining all signage during duration of the project. The District Inspector shall determine the exact sign locations in the field. The Contractor shall install signs prior to the start of construction, and ensure the signs remain posted during the entire duration of the project.

The Contractor shall inspect traffic control signs, barricades, and delineators and shall maintain them in accordance with the approved traffic control plan throughout each workday. All barricades shall be lighted and operable.

The Contractor shall post “No Parking” signs as required 72 hours prior to construction at 50’ maximum spacing. The Contractor shall check and maintain said signs on a daily basis. The Contractor shall ensure “No Parking” signs clearly state the enforced dates and shall update them as necessary.

#### **Measurement and Payment**

The Contractor shall include all costs associated with “Pedestrian and Traffic Control” in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

#### ***SECTION 504.6 DUST SUPPRESSION***

The Contractor shall implement a dust suppression plan if requested by the District Engineer. If a mechanical broom sweeper is used, it shall be equipped with water nozzles to minimize dust. At the end of each workday, the Contractor shall clean construction debris from the roadway.

#### **Measurement and Payment**

The Contractor shall include all costs associated with “Dust Suppression” in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

## ***SECTION 504.7 PROTECTION OF PROPERTY & MATERIAL***

### **Description**

The Contractor shall contact each property and business owner having access along project corridor with a District approved letter (submitted to and approved by the District) and shall keep area residents informed of the plan of operation throughout the course of this contract.

The Contractor shall protect the road and sidewalk surfaces and shall restore said surfaces to an equivalent or better condition upon completion of all work. The Contractor shall make any interim repairs or maintenance that may be requested by the District Engineer or Inspector during the course of work.

The Contractor shall replace traffic striping and pavement markings destroyed or damaged during construction with temporary striping or markings acceptable to the District. The Contractor shall install temporary striping prior to reopening streets to traffic.

The Contractor shall permanently restore all traffic striping and pavement markings within seven days of final paving at the District's direction.

The Contractor shall protect in place or remove and replace all existing utilities and public or private improvements (whether they are specifically noted on the Contract Plans or not) including but not limited to all berms, curbs, gutters, walkways, sidewalks, driveways, trail-ways, storm drains, landscaping materials, landscape irrigation, landscape electrical systems, walls and fences in place. The Contractor shall correct or replace any damaged utilities or improvements as part of the contract work. No additional compensation will be considered.

The Contractor shall not disturb existing survey monuments or benchmarks. The Contractor shall contact a registered civil engineer or land surveyor to remove or replace monuments. The Contractor shall ensure monument ties be established prior to removal.

The Contractor shall replace complete concrete panels or between existing concrete joints during replacement of any concrete work. The Contractor shall replace colored concrete with colored concrete to match when concrete is removed.

### **Measurement and Payment**

The Contractor shall include all costs associated with “Protection of Property and Materials” in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

### ***SECTION 504.8 SAFETY PLAN***

#### **Description**

In carrying out the work, Contractor shall at all times exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed, and be in compliance with all applicable federal, state and local statutory and regulatory requirements including California Department of Industrial Relations (Cal/OSHA) regulations; and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act. The Contractor shall prepare a Safety Plan in accordance with the provisions of Section 202.03.02, "Safety Plan" of SCWD Standard Specifications. The Contractor shall include in the Safety Plan provisions for handling hazardous and toxic materials, and the protection of all persons having access, authorized or not, to the work site. Such plan shall be submitted to and accepted by SCWD prior to starting excavation.

### **Measurement and Payment**

The Contractor shall include all costs associated with “Safety Plan” in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

### ***SECTION 504.9 UTILITIES***

#### **Description**

Existing utility locations shown on Contract Plans are based on field survey and records furnished by utility companies. Where underground main conductors or conduits such as water, gas, sewer, telephone, electric power, or cable television are shown on the Contract Plans, the Contractor shall assume that a service lateral from each conductor or conduit extends to every parcel or property whether or not a service lateral is shown.

The Contractor shall contact Underground Service Alert and nonmember companies or utilities at least two (2) working days prior to excavating any segment of the work. The Contractor shall be prepared to produce USA ticket number at the request of the District.

The Contractor shall provide utility offsets after the first marking has occurred. The Contractor shall deliver one copy of offset markings to the District no later than seven days after first marking occurred.

The Contractor shall excavate, expose, and determine (“Pothole”) the location and depth of each potential interference at least two (2) days in advance. Changes or delays caused by the Contractor’s failure to perform “Potholing” and interference location work shall not be eligible for extra work, compensation, or time extension.

The Contractor shall immediately notify the District Engineer in writing, upon learning of the existence or location of any utility facility omitted from or shown incorrectly on the Contract Plans, or improperly marked or otherwise indicated. The Contractor shall provide full details as to depth, location, size, and function of the utility.

The Contractor shall not interrupt or disturb any utility facility without authority from the utility or order from the District. The Contractor shall furnish and place the necessary protection around the utility when protection is called for on the Contract Plans, visible to the Contractor, or marked as such. The Contractor shall install the utility protection at no additional expense to the District.

The proposed fire hydrant relocations will be constructed adjacent to existing utilities including gas lines, water lines, sewer lines, electrical conduit, telephone conduit, and TV cable. The contractor shall construct pipelines to avoid existing utilities. The District has no information about the depth or compaction of trench backfill for said utilities. The Contractor shall remove and replace the failing trench backfill, compact the new backfill to 95% Relative Compaction, remove and replace any asphalt concrete pavement and other existing improvements, as required at no additional expense to the District.

### **Measurement and Payment**

The Contractor shall include all costs associated with “Utilities” in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

## **SECTION 505. TRENCHING, BACKFILL & PAVING**

### ***SECTION 505.1 GENERAL***

The Contractor shall perform trenching, backfill & paving in compliance with the SCWD Standard Plans S-14, S-15, & S-22, and the City of Capitola standard plans and specifications.

Where extended trenching operations in excess of 5-feet in depth occur, the Contractor shall provide trench bracing as specified by the Contractor's Safety Engineer's Safety Plan.

In the event that archaeological remains are found during excavation, the Contractor shall stop excavation in that area and contact the District Inspector or the District Engineer immediately. In the event that human remains are discovered, the Contractor shall stop excavation at that location and mobilize to a different portion of the project. The District shall then notify the County Coroner at (831) 454-2520 and treat any remains according to applicable State Law, including California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097. If there is doubt as to whether the remains are human or not, the District should first contact the Sheriff Dispatch office at (831) 471-1121 and request a Patrol Deputy be dispatched to the site to assess the remains. If needed, the Patrol Deputy will contact the County Coroner.

The Contractor shall remove unacceptable trench backfill material and discard it at a legal disposal site at no additional expense to the District.

***SECTION 505.2 TRENCHING***

The Contractor shall perform pipeline excavations using open-cut trenches, unless otherwise shown on the Contract Plans or directed by the District. The Contractor shall install the minimum specified pipe cover and trench width as follows:

PIPE SIZE	MINIMUM PIPE COVER	TRENCH WIDTH
6" dia. pipe	36 inches	18 inches

The Contractor shall saw-cut the pavement to produce a straight vertical face. Jackhammers or wheel cutters will not be allowed. The Contractor shall cut concrete to the nearest score mark or expansion joint if trenching and/or installation of piping and appurtenances require removal of existing concrete.

The Contractor shall backfill trenches at the end of each day. The Contractor may use heavy steel plates to cover trenches and open sidewalk area if the District Inspector has granted prior approval. The Contractor shall adequately brace the steel plates and apply cold mix at plate joints and edges (SCWD Section 309.05.05). The Contractor shall shim plate edges, if necessary, to prevent plates from rocking and shifting with vehicular traffic. The Contractor shall be responsible for providing plates capable of supporting vehicular traffic and with dimensions conforming to OSHA requirements.

### ***SECTION 505.3 BACKFILL***

The Contractor is advised that rock or unacceptable backfill material may be encountered during trenching operations. The Contractor shall furnish and install suitable bedding and backfill material in accordance with these contract documents when such material is encountered. The Contractor shall furnish and install bedding and backfill material at no additional expense to the District.

#### **Sand Envelope**

The Contractor shall install a sand envelope around the pipe per SCWD Standard Plans S-14 and S-15. The envelope shall include a minimum 4-inches of sand bedding with 12-inches of sand cover compacted to 95% RC. The Contractor shall install bedding as stated in Section 309.05.03 "Bedding" of SCWD Standard Specifications. The Contractor shall compact backfill material to not less than 90% RC when the trench is located outside a paved area or a road right-of-way.

#### **Cross Trench Backfill**

The Contractor shall install 1-sack sand/cement slurry over the 12-inch sand envelope while performing work on trenches or when specified on the Contract Plans. The Contractor shall install backfill material in accordance with the current version of the city of Capitola Department of Public Works "Pavement Patch for Utility Trench," S-20.

### ***SECTION 505.4 PAVING***

#### **Paving**

The Contractor shall refer to Section 310, "Paving" of SCWD Specifications and shall also comply with the City of Capitola Department of Public Works Encroachment Permit. Pavement replacement shall be a minimum of 2" Type B asphalt concrete.

Trench hot mix patch overlap shall be 12-inch minimum as indicated by the city of Capitola pavement patch for utility trench S-20 included in the appendix of these special provisions.

#### **Fog Seal**

The Contractor shall apply a fog seal in accordance with Section 311, "Fog Seal" of the Soquel Creek Water District Standard Specifications to all new paving outside the county maintained right-of-way. The Contractor shall apply fog seal SS-1 oil at the rate of 0.05 gallons per square yard. The extents of the fog seal shall be from outer most edges of repaved area.

### **Road Striping**

The Contractor shall permanently restore all traffic striping and pavement markings destroyed or damaged during construction at the direction of the District. The Contractor should refer to Section 504, "Protection of Property and Material" of these Special Provisions.

### **Measurement and Payment**

The Contractor shall include all costs associated with "Trenching, Backfill and Paving" in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

## **SECTION 506. CONCRETE WORK**

### **Description**

The Contractor shall refer to Section 308, "Concrete Structures" of SCWD Specifications for direction of installing and protecting sidewalk repairs and replacements and repaving trench areas within existing concrete surfaces.

### **Measurement and Payment**

The Contractor shall include all costs associated with "Concrete Work" in the contract unit or lump sum prices for other items of work. The District will not consider any additional compensation.

## **SECTION 507. PIPING AND APPURTENANCES**

### ***SECTION 507.1 GENERAL***

The Contractor shall supply materials in accordance with the published Standard Specifications and Standard Plans of the Soquel Creek Water District and the American Water Works Association (AWWA).

### ***SECTION 507.2 PIPING***

The Contractor shall install 6-inch diameter Pressure Class 200 C900 Poly Vinyl Chloride (PVC) pipe pipeline material. The Contractor shall provide material conforming to the requirements of AWWA C900 and C905, or substitute approved by the District Engineer in writing.

### ***SECTION 507.3 FITTINGS***

The Contractor shall furnish ductile iron fittings in accordance with AWWA C110 and C153.

### ***SECTION 507.4 GATE VALVES***

The Contractor shall furnish gate valves in accordance with AWWA C509 and Section 307.02, "Gate Valves" of SCWD Standard Specifications for District approved materials and installation requirements. The Contractor shall refer to SCWD Standard Plan S-6, "Buried Valve Assembly" for graphical illustrations.

### ***SECTION 507.5 THRUST RESTRAINTS***

#### **Pipe Restraints**

The Contractor shall install restraint harnesses bridging the push-on bell as the thrust restraint for PVC pipe. The Contractor shall use EBAA Iron Megalug<sup>®</sup> Series 1500 or approved substitute subject to prior written approval by the District Engineer.

The Contractor shall install restraining gaskets in place of the standard push-on gasket as the thrust restraint for DI pipe. The Contractor shall use FIELD LOK<sup>®</sup> locking gaskets or approved substitute subject to prior written approval by the District Engineer.

#### **Fittings**

The Contractor shall install Mechanical Joint (MJ) fittings and replace the follower gland with a thrust restraining follower gland assembly. The Contractor shall refer to Section 304, "Thrust Restraint" of SCWD Standard Specifications for District approved materials and installation requirements.

#### **PCC Thrust Blocks**

The Contractor shall install Portland Concrete Cement (PCC) thrust blocks only to restrain fittings on existing pipelines. The Contractor shall refer to the contract plans and SCWD Standard Plan S-7, "Thrust Block Details" for graphical illustrations.

### ***SECTION 507.6 INSTALLATION***

#### **General**

The Contractor shall inspect pipe and accessories, prior to installation, for damage and defects in materials. The Contractor shall reject damaged and defective materials, mark as such, and remove items from the job site at no additional expense to the District.

The Contractor shall perform subsurface exploration regarding existing utility locations/depths and soil conditions. The Contractor shall expose all utilities at locations where proposed improvements are shown to cross, and at all proposed connections. The Contractor shall perform

exploration in advance of construction operations such that the final location of the proposed improvements may be adjusted prior to construction.

The Contractor shall not be eligible for extra work, compensation, or time extensions caused by the Contractor's failure to perform "Potholing" and interference location work.

The Contractor shall use appropriate fittings to adjust for depth conflicts between the proposed main with other existing utilities. In locations where the water main crosses over the existing sewer main, the Contractor shall ensure a minimum vertical clearance of one foot exists between pipes.

The District shall operate existing valves for the Contractor. Under no circumstances shall the Contractor operate existing system valves.

#### **Locator Wire**

The Contractor shall install a minimum of 12-gauge THW or THWN solid copper locating wire. The Contractor shall install the locator wire in accordance with Section 301.05.06, "Locator Wire" of SCWD Standard Specifications.

#### **Bitumastic Coating**

The Contractor shall field coat all buried nuts, bolts, flanges, and other exposed ferrous metal with a liberal coat of Christy's™ HD-50 Bituminous Coal Tar Coating or approved substitute subject to prior written approval by the District Engineer. All pipe, fittings, and appurtenances in contact with concrete shall be wrapped with PVC tape or polyethylene wrap.

## **SECTION 508. FIRE HYDRANT INSTALLATIONS**

### ***SECTION 508.1 GENERAL***

The Contractor shall relocate 6-inch Steamer fire hydrants as shown on the Contract Plans. The Contractor shall install fire hydrants in conformance with installation requirements listed in Section 307.05, "Fire Hydrants" of SCWD Standard Specifications.

The Contractor should refer to Section 307.05, "Fire Hydrants" of SCWD Standard Specifications and Standards S-9 and S-10 for additional installation specifications.

The District Inspector shall field locate fire hydrants and traffic barriers with the Contractor prior to installation.

## Measurement and Payment

The Contractor shall include all costs associated with “Fire Hydrant Installations” in the contract unit prices for:

- Relocate Fire Hydrant at 1435 Wharf Road
- Relocate Fire Hydrant at 870 Balboa Ave.

Payment for fire hydrant installation shall include all related fittings, pipe, concrete pads, appurtenances and site improvements as shown on the Contract Plans and SCWD Standards S-9 & S-10. Payment shall also include costs associated with the removal of any vegetation or other obstacles where hydrants are placed. The District will not consider any additional compensation.

## SECTION 509. APPENDIX

*CITY OF CAPITOLA, DEPARTMENT OF PUBLIC WORKS “Pavement Patch for Utility Trench,” SPEC. S-20.*

*Soquel Creek Water District “Fire Hydrant Assembly”, Spec. S-9.*

*Soquel Creek Water District “Fire Hydrant Placement and Clearance”, Spec. S-10, 1 of 2.*

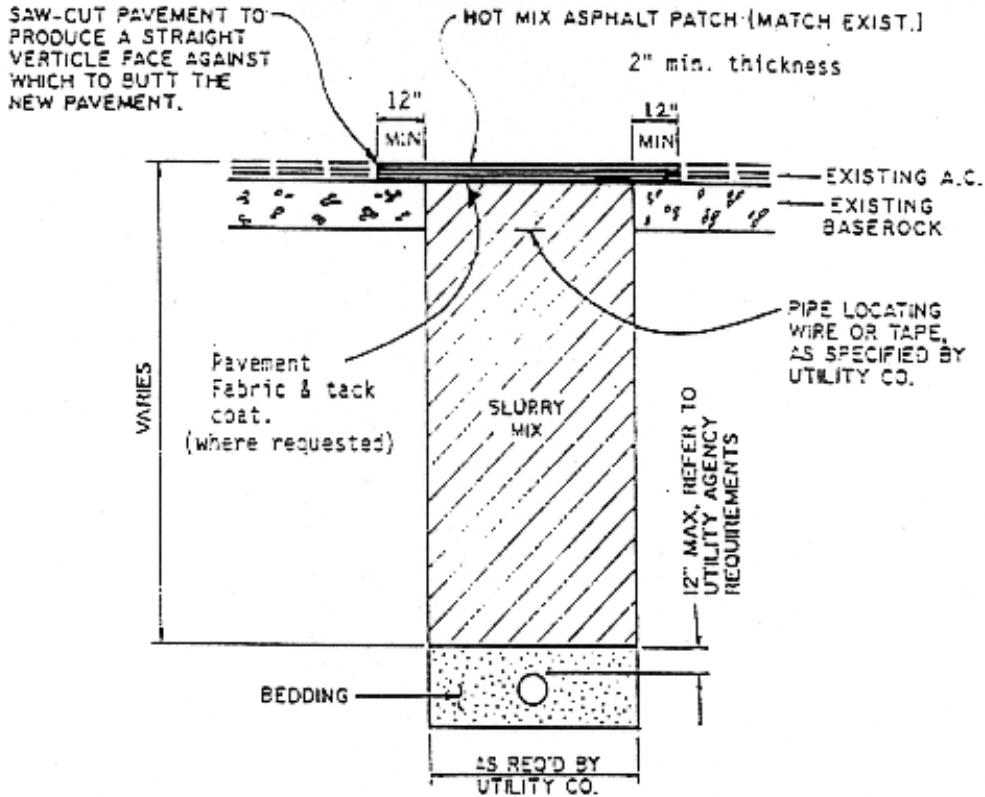
*Soquel Creek Water District “Fire Hydrant Placement and Clearance”, Spec. S-9 2 of 2.*

*B-1 Fire Hydrant Relocations in Capitola on Balboa Ave. and Wharf Rd. – Key Map.*

*B-2 Fire Hydrant Relocation at 870 Balboa Dr.*

*B-3 Fire Hydrant Relocation at 1435 Wharf Rd.*

***SECTION 509.1                    CITY OF CAPITOLA, DEPARTMENT OF  
PUBLIC WORKS “PAVEMENT PATCH FOR UTILITY TRENCH”,  
SPEC. S-20.***



**SLURRY MIX SPECIFICATIONS**

PER CUBIC YARD

- 1-SACK PORTLAND CEMENT
- 12-GALLONS WATER
- 2600 LBS. 3/8" AGGREGATE
- 800 LBS. SAND

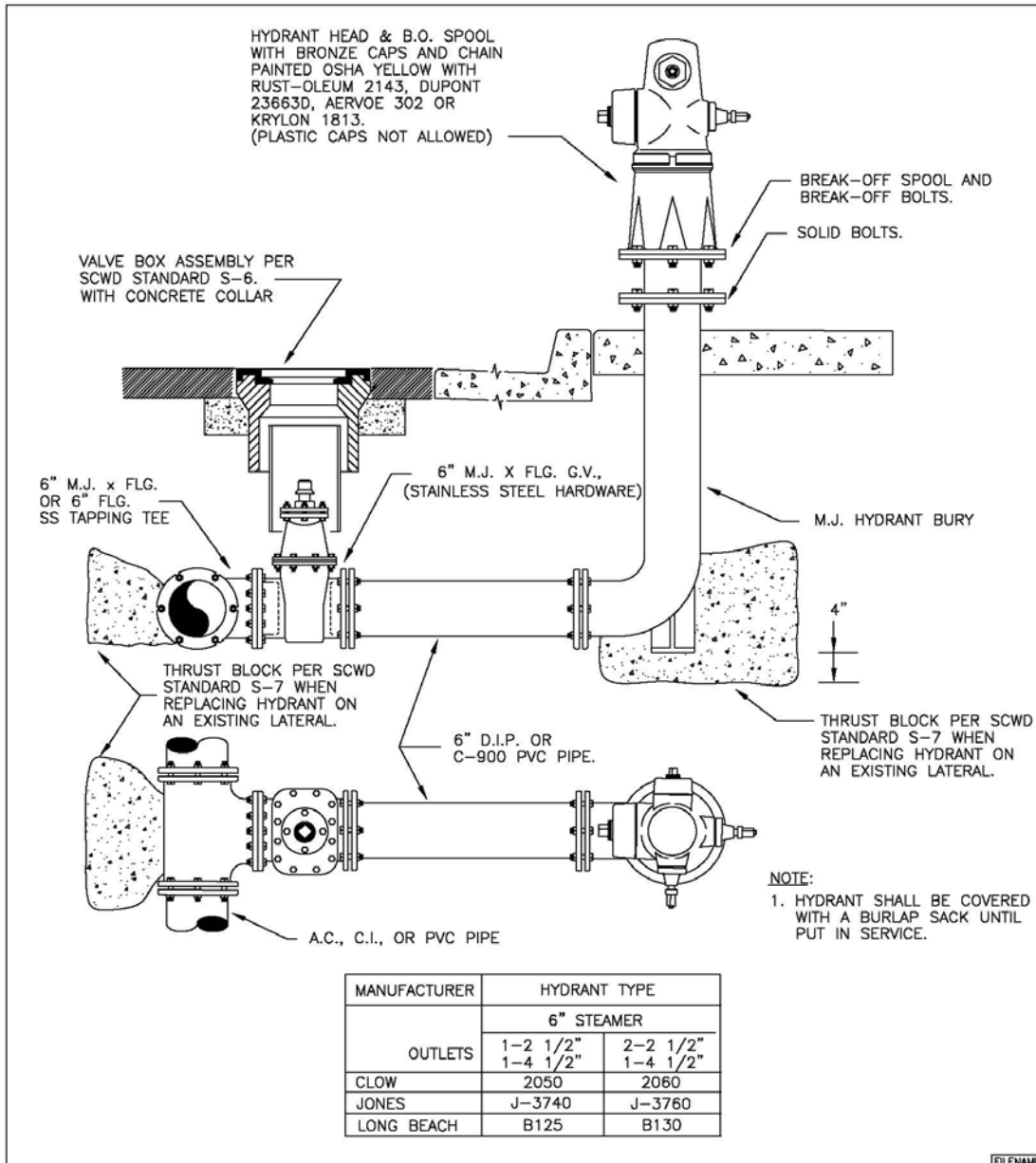
BACKFILL SLURRY MIX TO PAVEMENT GRADE AND BRIDGE W/ METAL PLATE UNTIL SLURRY MIX CAN SUPPORT VEHICULAR TRAFFIC. ASPHALT CONCRETE PATCH TO MATCH EXISTING THICKNESS, 2" MINIMUM (TYPE B) DO NOT MOVE SLURRY ONCE PLACED IN GITCH.

Type II slurry seal required as directed by City.

Pavement fabric shall be Petromat, Fibretec, or equal as approved by City.

REV.	DATE	REVISION DESCRIPTION	BY
	1-14-78	Ground Improvements	ES
CITY OF CAPITOLA - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
PAVEMENT PATCH FOR UTILITY TRENCH			
APPROVED	<i>Louis Berling</i>		DATE 1-14-78
	PUBLIC WORKS DIRECTOR		
DRAWN	MS		

**SECTION 509.2 SOQUEL CREEK WATER DISTRICT "FIRE HYDRANT ASSEMBLY", SPEC. S-9.**

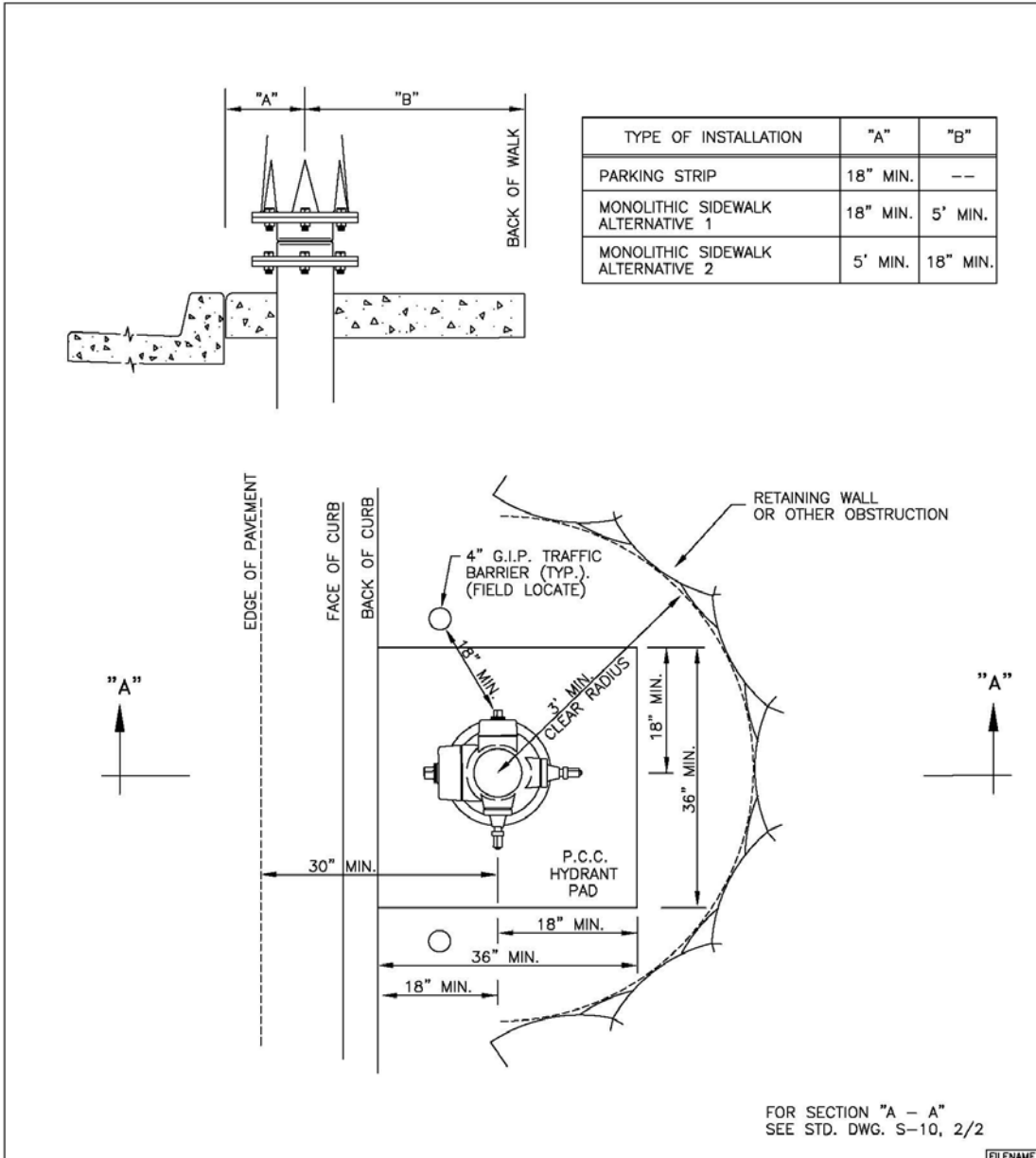


FILENAME

SOQUEL CREEK WATER DISTRICT  
P.O. BOX 1550 CAPITOLA, CALIFORNIA 95010

CAD : TAD	<b>FIRE HYDRANT ASSEMBLY</b>	STD. NO.
DATE: DEC-06		<b>S-9</b>
CHECKED: MJW		
APPROVED: JNG		

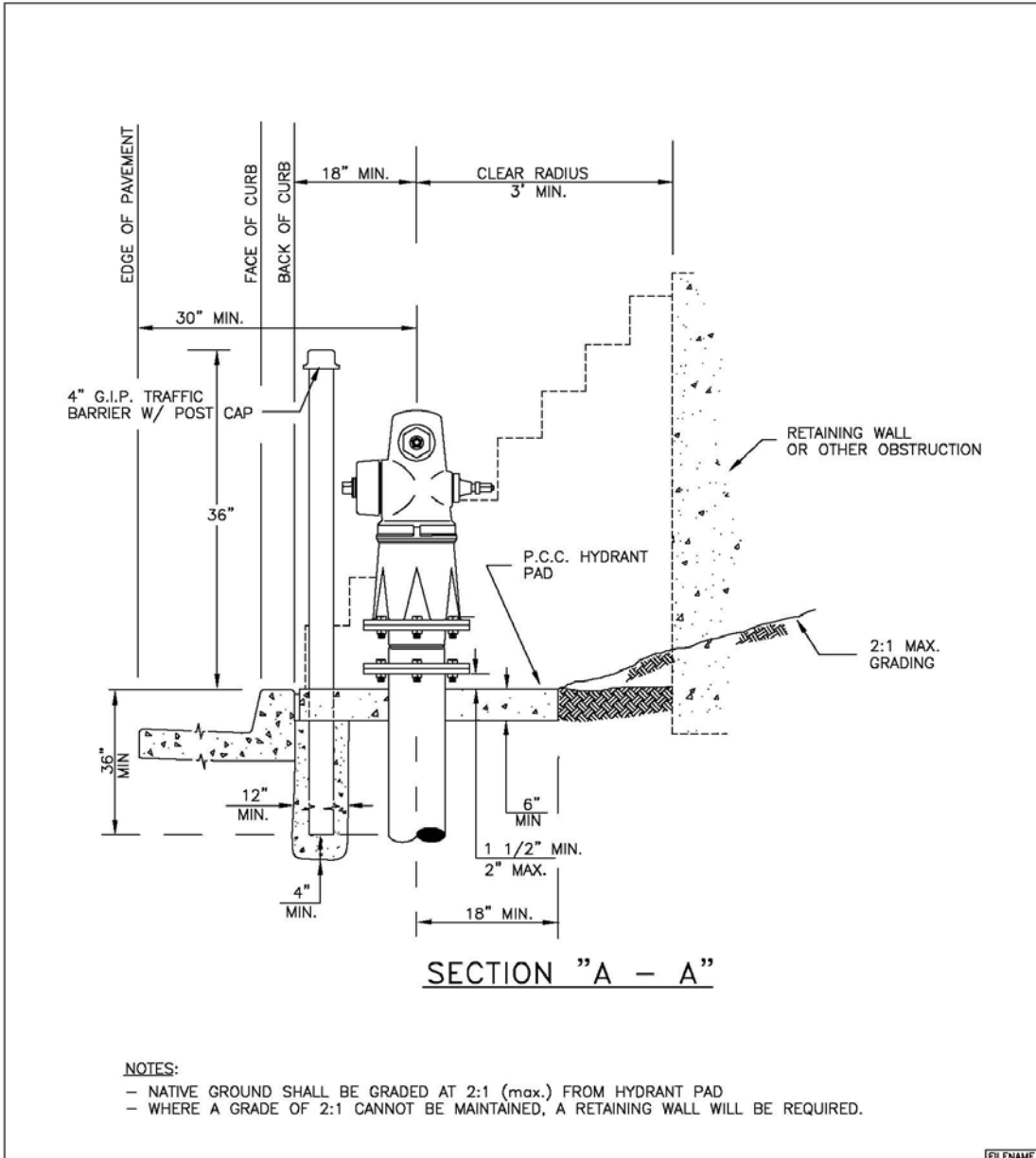
**SECTION 509.3 SOQUEL CREEK WATER DISTRICT "FIRE HYDRANT PLACEMENT AND CLEARANCES", SPEC. S-10, 1 OF 2.**



SOQUEL CREEK WATER DISTRICT  
P.O. BOX 1550      CAPITOLA, CALIFORNIA 95010

CAD: TAD DATE: DEC-06 CHECKED: MJW APPROVED: JNG	<h2 style="margin: 0;">FIRE HYDRANT PLACEMENT AND CLEARANCES</h2>	STD. NO. <h1 style="margin: 0;">S-10</h1> 1/2
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**SECTION 509.4 SOQUEL CREEK WATER DISTRICT "FIRE HYDRANT PLACEMENT AND CLEARANCES", SPEC. S-10, 2 OF 2.**



FILENAME

**SOQUEL CREEK WATER DISTRICT**  
 P.O. BOX 1550      CAPITOLA, CALIFORNIA 95010

CAD: TAD DATE: DEC-06 CHECKED: MJW APPROVED: JNG	<h2 style="margin: 0;">FIRE HYDRANT PLACEMENT AND CLEARANCE</h2>	STD. NO. <h1 style="margin: 0;">S-10</h1> 2/2
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