

STAFF REPORT*CITY OF OCEANSIDE*

DATE: October 1, 2008

TO: Honorable Mayor and City Councilmembers

FROM: Public Works Department

SUBJECT: **PROFESSIONAL SERVICES AGREEMENTS FOR THE REPLACEMENT OF THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM UNDERGROUND HOT WATER DISTRIBUTION SYSTEM FOR THE CITY HALL COMPLEX; AND APPROVAL OF A BUDGET APPROPRIATION**

SYNOPSIS

Staff recommends that the City Council approve a professional services agreement with York International Corporation, a Johnson Controls Company, of San Diego in the amount of \$108,672 to replace the hot water pipes for the Oceanside Civic Center heating, ventilating and air conditioning system (HVAC) underground hot water distribution system; approve a professional services agreement with Doherty Concrete of Oceanside in the amount of \$37,994 for trenching and concrete work associated with the pipe replacement; approve a budget appropriation in the amount of \$27,000 from the unallocated balance in the General Fund to the Public Works Building Craft account to complete the funding for the project; and authorize the City Manager to execute the agreements.

BACKGROUND

The HVAC underground pipe distribution system at the Civic Center consists of two sets of supply and return pipes: one set of 6" PVC pipes for the air conditioning and one set of 4" steel pipes for the heating system. What started as a routine repair to faulty valves in the system has evolved into a major hot water distribution pipe replacement requirement.

The air conditioning line (6" PVC pipe) valve was replaceable. The hot water supply and return lines were corroded beyond repair at the original excavation point. We initially continued to excavate in both directions in an effort to find a section of pipe we could connect to. We chased the pipe to where it enters the south building and to the fountain in the other direction without finding any suitable connection points. The lines were TVed to the library and found to be in the same condition as the exposed pipe.

Water Utilities Department personnel helped look for alternative solutions to replacing the pipes. The hot water system has two U-shaped expansion joints in the pipes that prevented the use of the various techniques to blow in epoxy-type liners or slip-fitting

repairs. It was determined that our only viable option was to replace the hot water pipes from the north and south buildings to the library.

ANALYSIS

A request for Proposals (RFP) for the replacement of the hot water pipes with insulated steel pipes as used in the original construction or a similar-type piping specifically designed for underground hot water piping was issued in August 2008. Two companies submitted bids: Don Hubbard Contracting of San Marcos with a bid cost of \$189,975 and York International, a Johnson Control Company, with a bid of \$192,000. Staff felt that the bid cost, plus contingency and the cost already incurred to repair the air conditioning valve and additional excavation would put the project cost in the \$220,000 to \$230,000 range and was more than we could afford at this time. Staff revised the RFP by removing the tasks we could do in-house and separated the trenching and concrete work from the pipe replacement work.

Don Hubbard Contracting submitted a revised bid for the pipe replacement work of \$139,090 and York International's revised bid was \$108,672. Doherty Concrete of Oceanside was the only bidder for the trenching and concrete work and bid \$37,994. Staff reviewed Doherty's bid and determined that it is reasonable and fair.

This project will use insulated, fiberglass-reinforced epoxy pipe and fittings specifically designed for underground hot water piping which Staff feels will provide a better performance and longer service life than the insulated steel pipe. Concrete will be removed and replaced in a manner designed to be aesthetically compatible with the existing concrete. Using the lowest responsible bidders from the revised RFP, adding a 10 percent contingency and acting as our own general contractor, we should be able to complete the project for \$175,000. Including the cost to repair the air conditioning valve and additional excavation, the total HVAC underground pipe distribution system repair cost will be approximately \$197,000.

FISCAL IMPACT

The Public Works Building Craft account (851.414875) has \$180,000 in FY 2007-08 carry forward to fund a new roof for the Senior Center. There are pending obligations of approximately \$10,000 for roof analyses, scope of work and RFP development. Staff feels the life of the Senior Center roof can be extended for another two to four years with only minor cost and the remaining \$170,000 will fund a majority of the pipe system repair cost. The \$27,000 appropriation from the unallocated balance in the General Fund will be transferred to (851.414875.5211). The total project cost will be approximately \$197,000, therefore sufficient funds are available.

INSURANCE REQUIREMENTS

The City's standard insurance requirements will be met.

COMMISSION OR COMMITTEE REPORT

Does not apply.

CITY ATTORNEY ANALYSIS

The referenced documents have been reviewed by the City Attorney and approved as to form.

RECOMMENDATION

Staff recommends that the City Council approve a professional services agreement with York International Corporation, a Johnson Controls Company of San Diego in the amount of \$108,672 to replace the hot water pipes for the Oceanside Civic Center heating, ventilating and air conditioning system (HVAC) underground hot water distribution system; approve a professional services agreement with Doherty Concrete of Oceanside in the amount of \$37,994 for trenching and concrete work associated with the pipe replacement; approve a budget appropriation in the amount of \$27,000 from the unallocated balance in the General Fund to the Public Works Building Craft account to complete the funding for the project; and authorize the City Manager to execute the agreements.

PREPARED BY:



Gary P. Gurley
General Services Manager

SUBMITTED BY:



Peter A. Weiss
City Manager

REVIEWED BY:

Michelle Skaggs Lawrence, Deputy City Manager

Don Hadley, Deputy City Manager

Joseph Arranaga, Deputy Public Works Director

Teri Ferro, Financial Services Director



CITY OF OCEANSIDE

PROFESSIONAL SERVICES AGREEMENT

PROJECT: HOT WATER PIPE REPLACEMENT

THIS AGREEMENT dated October 1, 2008 for identification purposes is made and entered into by and between the CITY OF OCEANSIDE, a municipal corporation, hereinafter designated as "CITY", and York International Corporation, a Johnson Controls Company of San Diego, hereinafter designated as "CONTRACTOR."

NOW THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. **SCOPE OF WORK.** The project is more particularly described in Exhibit "A" attached hereto and by this reference made a part of this Agreement.
2. **INDEPENDENT CONTRACTOR.** CONTRACTOR'S relationship to the CITY shall be that of an independent contractor. CONTRACTOR shall have no authority, express or implied, to act on behalf of the CITY as an agent, or to bind the CITY to any obligation whatsoever, unless specifically authorized in writing by the Director, Public Works. The CONTRACTOR shall not be authorized to communicate directly with, nor in any way direct the actions of, any bidder or the construction contractor for this project without the prior written authorization by the Director, Public Works. CONTRACTOR shall be solely responsible for the performance of any of its employees, agents, or subcontractors under this Agreement. CONTRACTOR shall report to the CITY any and all employees, agents, and consultants performing work in connection with this project, and all shall be subject to the approval of the CITY.
3. **WORKERS' COMPENSATION.** Pursuant to Labor Code section 1861, the CONTRACTOR hereby certifies that the CONTRACTOR is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and the CONTRACTOR will comply with such provisions, and provide certification of such compliance as a part of this Agreement.
4. **LIABILITY INSURANCE.**
 - 4.1. CONTRACTOR shall, throughout the duration of this Agreement maintain comprehensive general liability and property damage insurance, or commercial general liability insurance, covering all operations of CONTRACTOR, its agents and employees, performed in connection with this Agreement including but not limited to premises and automobile.

HOT WATER PIPE REPLACEMENT

4.2 CONTRACTOR shall maintain liability insurance in the following minimum limits:

Comprehensive General Liability Insurance
(bodily injury and property damage)

Combined Single Limit Per Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000*

Commercial General Liability Insurance
(bodily injury and property damage)

General limit per occurrence	\$ 1,000,000
General limit project specific aggregate	\$ 2,000,000

<u>Automobile Liability Insurance</u>	\$ 1,000,000
---------------------------------------	--------------

*General aggregate per year, or part thereof, with respect to losses or other acts or omissions of CONTRACTOR under this Agreement.

4.3 If coverage is provided through a Commercial General Liability Insurance policy, a minimum of 50% of each of the aggregate limits shall remain available at all times. If over 50% of any aggregate limit has been paid or reserved, the CITY may require additional coverage to be purchased by the CONTRACTOR to restore the required limits. The CONTRACTOR shall also notify the CITY'S Project Manager promptly of all losses or claims over \$25,000 resulting from work performed under this contract, or any loss or claim against the CONTRACTOR resulting from any of the CONTRACTOR'S work.

4.4 All insurance companies affording coverage to the CONTRACTOR for the purposes of this Section shall add the City of Oceanside as "additional insured" under the designated insurance policy for all work performed under this agreement. Insurance coverage provided to the City as additional insured shall be primary insurance and other insurance maintained by the City of Oceanside, its officers, agents, and employees shall be excess only and not contributing with insurance provided pursuant to this Section.

4.5 All insurance companies affording coverage to the CONTRACTOR pursuant to this agreement shall be insurance organizations admitted by the Insurance Commissioner of the State of California to transact business of insurance in the state or be rated as A-X or higher by A.M. Best.

4.6 All insurance companies affording coverage shall provide thirty (30) days written notice to the CITY should the policy be cancelled before the expiration date. For the purposes of this notice requirement, any material change in the policy prior to the expiration shall be considered a cancellation.

4.7 CONTRACTOR shall provide evidence of compliance with the insurance requirements listed above by providing a Certificate of Insurance, in a form satisfactory to the City Attorney, concurrently with the submittal of this Agreement.

HOT WATER PIPE REPLACEMENT

4.8 CONTRACTOR shall provide a substitute Certificate of Insurance no later than thirty (30) days prior to the policy expiration date. Failure by the CONTRACTOR to provide such a substitution and extend the policy expiration date shall be considered a default by CONTRACTOR and may subject the CONTRACTOR to a suspension or termination of work under the Agreement.

4.9 Maintenance of insurance by the CONTRACTOR as specified in this Agreement shall in no way be interpreted as relieving the CONTRACTOR of any responsibility whatsoever and the CONTRACTOR may carry, at its own expense, such additional insurance as it deems necessary.

5. PROFESSIONAL ERRORS AND OMISSIONS INSURANCE. Intentionally omitted.

6. CONTRACTOR'S INDEMNIFICATION OF CITY. CONTRACTOR shall indemnify and hold harmless the CITY and its officers, agents and employees against all claims for damages to persons or property arising out of the negligent acts, errors or omissions or wrongful acts or conduct of the CONTRACTOR, or its employees, agents, subcontractors, or others in connection with the execution of the work covered by this Agreement, except for those claims arising from the willful misconduct, sole negligence or active negligence of the CITY, its officers, agents, or employees. CONTRACTOR'S indemnification shall include any and all costs, expenses, attorneys' fees, expert fees and liability assessed against or incurred by the CITY, its officers, agents, or employees in defending against such claims or lawsuits, whether the same proceed to judgment or not. Further, CONTRACTOR at its own expense shall, upon written request by the CITY, defend any such suit or action brought against the CITY, its officers, agents, or employees resulting or arising from the conduct, tortious acts or omissions of the CONTRACTOR.

CONTRACTOR'S indemnification of CITY shall not be limited by any prior or subsequent declaration by the CONTRACTOR.

7. COMPENSATION. CONTRACTOR'S compensation for all work performed in accordance with this Agreement, shall not exceed the total contract price of **\$108,672.00**.

No work shall be performed by CONTRACTOR in excess of the total contract price without prior written approval of the Director, Public Works. CONTRACTOR shall obtain approval by the Director, Public Works prior to performing any work, which results in incidental expenses to CITY.

8. TIMING REQUIREMENTS. Time is of the essence in the performance of work under this Agreement and the timing requirements shall be strictly adhered to unless otherwise modified in writing. All work shall be completed in every detail to the satisfaction of the Project Manager within the timeframe agreed to by both parties in writing prior to work commencing.

HOT WATER PIPE REPLACEMENT

9. **ENTIRE AGREEMENT.** This Agreement comprises the entire integrated understanding between CITY and CONTRACTOR concerning the work to be performed for this project and supersedes all prior negotiations, representations, or agreements.

10. **INTERPRETATION OF THE AGREEMENT.** The interpretation, validity and enforcement of the Agreement shall be governed by and construed under the laws of the State of California. The Agreement does not limit any other rights or remedies available to CITY.

The CONTRACTOR shall be responsible for complying with all local, state, and federal laws whether or not said laws are expressly stated or referred to herein.

Should any provision herein be found or deemed to be invalid, the Agreement shall be construed as not containing such provision, and all other provisions, which are otherwise lawful, shall remain in full force and effect, and to this end the provisions of this Agreement are severable.

11. **AGREEMENT MODIFICATION.** This Agreement may not be modified orally or in any manner other than by an agreement in writing signed by the parties hereto.

12. **SIGNATURES.** The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity and authority to enter into and to execute this Agreement on behalf of the respective legal entities of the CONTRACTOR and the CITY.

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Professional Services Agreement to be executed by setting hereunto their signatures on the dates set below.

YORK INTERNATIONAL CORPORATION
a JOHNSON CONTROLS COMPANY
of San Diego

CITY OF OCEANSIDE

By: _____

Branch Manager

By: _____

Peter A. Weiss, City Manager

APPROVED AS TO FORM:

City Attorney

NOTARY ACKNOWLEDGMENTS OF CONTRACTOR MUST BE ATTACHED.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Diego }

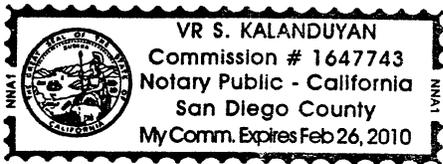
On Sept. 17, 2008 before me, VR. S. KALANDUYAN, NOTARY PUBLIC.
Date Here Insert Name and Title of the Officer

personally appeared WALTER J. BOMTOFF
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal Above

Signature [Handwritten Signature]
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

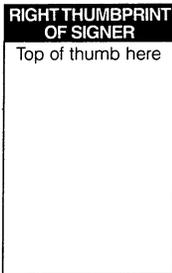
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

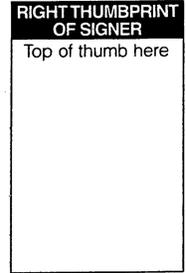
- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Exhibit "A"

Scope of Work

CONTRACTOR will provide and install new hot water Taper-Tite Fiberglass Reinforced Plastic insulated pipe underground piping at the Civic Center, Attachment 1 to Exhibit "A", attached hereto and by this reference made a part of this Agreement, depicts the layout.

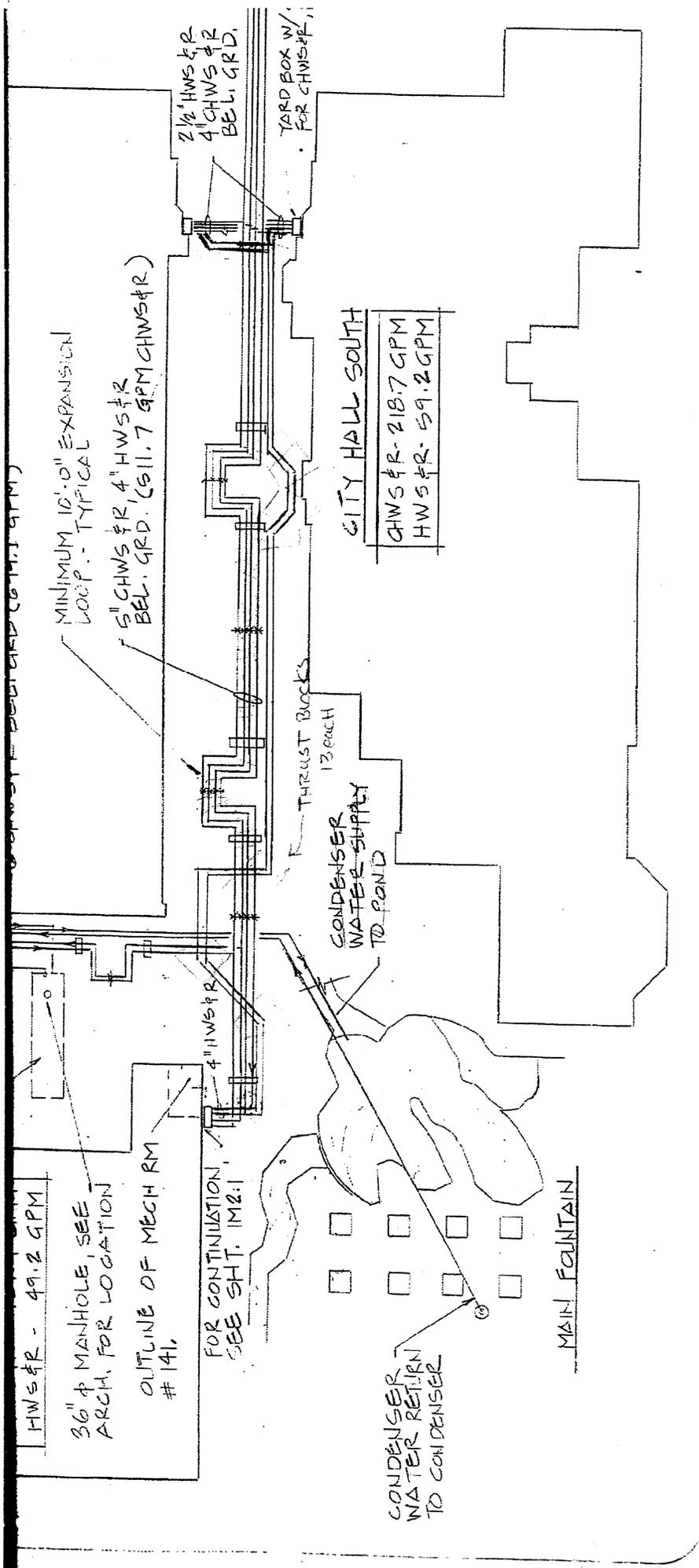
CONTRACTOR will be responsible for the following scope of work:

- Coordinate and work with the City of Oceanside and their Sub-contractors to ensure the job is performed according to specification.
- Disconnect and remove a portion of the existing hot water pipe so the new piping can be connected at the point of connection at each of three buildings. The connections will consist of a Victallic bi flange connector and a lug style butterfly valve. The FRP pipe will connect to the butterfly valve.
- Furnish and install new piping according to Attachment 2 to Exhibit "A" Mechanical Site Plan, attached hereto and by this reference made a part of this Agreement.
- Use Nitrogen to leak check all new piping.
- Flush and fill the system and perform operational test.
- Provide as built drawings.

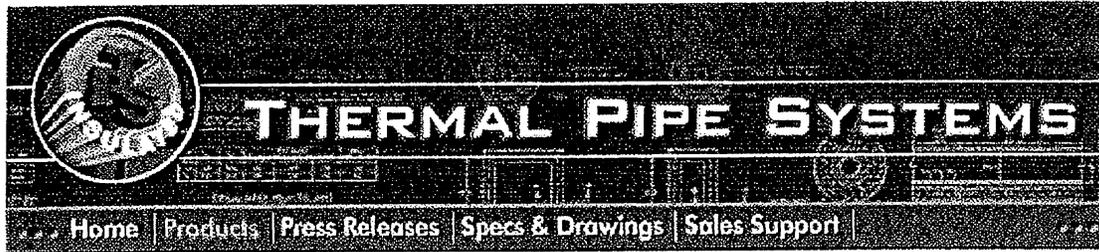
Exceptions

- If new piping can not be connected at the point of connection at each of the three building, replacement of piping that enters the building shall be considered extra work and will be paid on a time and material bases.
- CONTRACTOR is not responsible for damage and/or relocation of existing underground piping or utilities.
- City requested after hours labor shall be considered as a extra and paid in addition to the Agreement price.

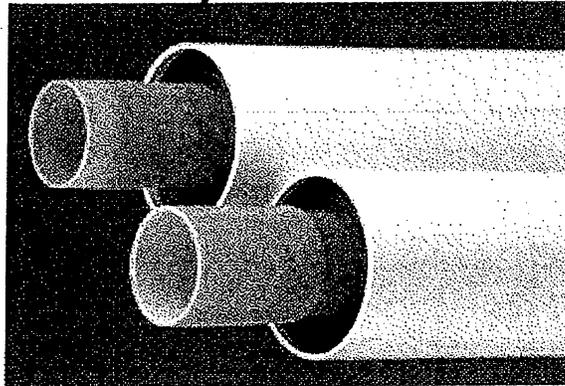
The City is responsible for permits and installing barricades, digging, installing thrust blocks and filling the trench according to sections 3.03, 3.04, 3.07, 3.10, 3.13 in Attachment 2.



MECHANICAL SITE PLAN
SCALE: 1" = 30'-0"



Taper-Tite®



Pipe size: 2"-12" diameters, 20' nominal lengths
 Temperature range: 35°F to 250°F
 Max. operating pressure: 150psi
 Carrier: Fiberglass Reinforced Plastic (FRP)
 Insulation: polyurethane foam
 Casing: Heavy wall Polyvinyl Chloride (PVC)
 Options:

- Standard wall PVC casing

Taper-Tite is a highly proven tapered and bonded FRP piping system featuring high flow, corrosion free service for low temperature hot water, dual temperature, or chilled water service. Taper-Tite meets Federal Guide Specifications for hot and chilled water systems.

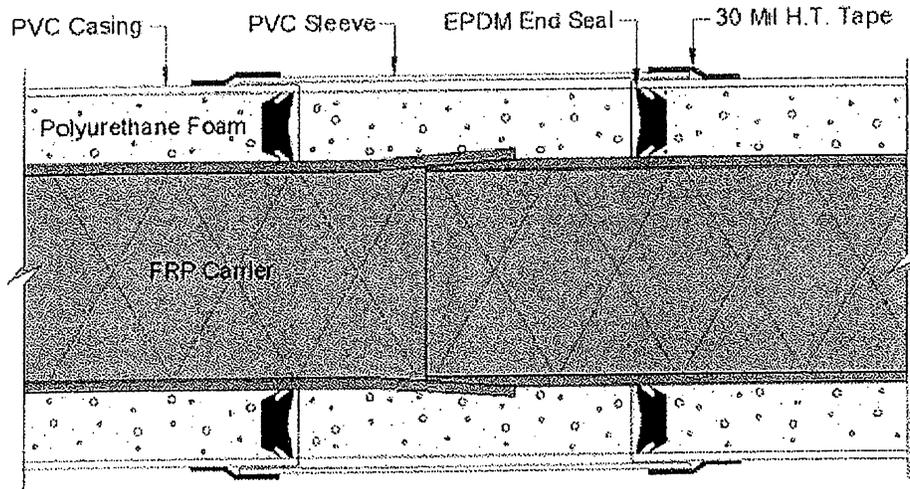
Taper-Tite is a lightweight, easy to install, energy efficient quality piping system. The carrier pipe is filament wound epoxy pipe with a resin rich liner meeting Military Specification Mil-P-28584A. The system is produced with matching tapers on bell and spigot ends. Insulation is a thermally efficient polyurethane foam with a 'K' factor of 0.14 at 70°F. The heavy wall PVC casing and heat resistant end seals prevent ground water infiltration.

Expansion loops and devices are not necessary since thermal expansion and contraction is absorbed by the FRP pipe. The piping system is non-corrosive and maintains very high flow rate characteristics. It is an excellent choice for underground district heating, dual temperature lines, and geothermal heating systems.

Fittings are uninsulated FRP designed to be used with the carrier pipe. Fittings have a bell to match the tapered spigot end of the pipe. The pipe fittings are joined with adhesive and may require heat curing. A complete line of fittings are available for the Taper-Tite system.

Taper-Tite® Joint

Exhibit "A"
Attachment 2



The Taper-Tite pipe is joined using adhesive. Pipe joints are insulated using polyurethane shells, casing-tite (PVC) sleeve and 30mil High Temperature tape.

[Back](#)

[Home](#) | [Products](#) | [Press Releases](#) | [Specs and Drawings](#) | [Sales Support](#) | [About Us](#) | [History](#) | [Make Contact](#) |
Copyright ©1999-2007 Thermal Pipe Systems

Thermal Pipe Systems - Pre-insulated, Low Temperature Hot Water, Condensate, Dual Temperature, Adhesive Bonded FRP Pipe - Taper-Tite (CSI Format Specification Format, Plain Text - Word Processor Format) All square bracket locations[] call for a choice to be made or user input.

SPECIFICATION SECTION 15050

UNDERGROUND PIPE AND FITTINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Extent of pipe and fittings required by this Section is indicated on drawings and/or specified herein.

B. Types of pipe and fittings specified in this Section include the following:

1. Piping Materials:

a. Pre-insulated adhesive bonded FRP piping system.

2. Pipe Fittings:

a. Adhesive bonded FRP fittings.

1.02 QUALITY ASSURANCE

A. Manufacturers: Firms regularly engaged in manufacture of pipe and fittings of types and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

B. All materials and installation shall be in conformance with the following:

1. [Applicable State Code]

2. ANSI B31.1 "Power Piping".

3. ANSI B31.9 "Building Service Piping".

C. Acceptable Manufacturers:

1. Thermal Pipe Systems, Inc.

2. Or Engineer's approved equal.

1.03 SUBMITTALS

A. Product Data: Submit catalog cuts, specifications, installation instructions, and dimensioned drawings for each type of pipe, fitting, and joint for each piping system.

B. Submit a copy of the current Federal Brochure and Letter of Acceptability for the pre-insulated adhesive bonded FRP (RTRP) piping system.

C. Submit documentation that carrier pipe, fittings, and adhesive are certified by an independent testing laboratory to be in compliance with Military Specification MIL-P-28584B.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Where possible, store materials inside and protected from weather. Where outside storage is necessary, elevate above grade and enclose with durable, waterproof wrapping.

B. Protect flanges and fittings from moisture and dirt by inside storage and enclosure or by packaging with durable, waterproof wrapping.

PART 2 - PRODUCTS

2.01 PRE-INSULATED FIBERGLASS REINFORCED EPOXY PIPING SYSTEM

A. Piping: FRP pre-insulated pipe shall be used for [low temperature hot water] [steam condensate] [dual temperature] service. The pipe shall be joined with adhesive using matched taper bell and spigot ends. Unless otherwise specified, all pipe, fittings, valves, and accessories shall conform to the requirements of ANSI B31.1 and shall be of the proper type for pressure and temperature of the heating water. The pre-insulated pipe system shall demonstrate compliance to Federal Construction Council standards by submittal of a Federal Letter of Acceptability and Approved Brochure consistent with the intended service.

B. FRP Carrier Pipe and Fittings:

1. FRP carrier pipe shall be Fiberglass Reinforced Plastic (FRP) filament wound using epoxy resins. Pipe shall have a resin-rich reinforced liner and shall comply with ASTM D2310, D2996, and MIL-P-28584, latest revisions. Pipe shall be manufactured with matching spigot and bell end tapers.

2. Fittings shall be compression molded or filament wound, designed to be used with the carrier pipe. Fittings shall have a bell with a taper to match a properly tapered spigot end of the pipe. The adhesive shall meet the requirements of the operating conditions of the system.

3. Flanges shall be compression molded or filament wound, designed to be used with the carrier pipe and shall have a bell with a taper to match a properly tapered spigot end of the pipe. Flanges shall be drilled to match ANSI B16.5 class 150 flanges. Gaskets shall be full face 1/8" thick with a durometer rating of 60-70. Bolts, nuts, and washers shall conform to ASTM A-193 and A-194.

4. Joints in pipe and fittings shall be made with heat-cured epoxy adhesive furnished by the pipe manufacturer in compliance with MIL-P-28584. When cured, the epoxy adhesive shall be compatible with the pipe system for joint strength and corrosion resistance.

5. Submit Certified Test Reports for each size pipe (through 8" diameter) and each size and configuration of fitting (through 8" diameter), certifying that pipe and fittings have been tested for joint strength, impact resistance, beam strength, pressure and temperature cyclic resistance, including water hammer effects and hydrostatic strength, in accordance with Military Specification MIL-P-28584B, latest edition. Provide certification that materials, manufacture,

and adhesive for pipe 10" in diameter and larger are identical with those for smaller pipe sizes.

C. PVC Casing Pipe: The polyvinyl chloride (PVC) casing pipe shall be of virgin PVC resin meeting the minimum classification requirements of ASTM D1784, Class 12454-B and has a minimum of 60 mils. This jacket in combination with the foam system is suitable for H-20 highway loading with two feet of cover providing that the pipe bedding and backfill material are properly placed and compacted to H-20 specifications. Joints shall be insulated with polyurethane foam and the closure sleeve shall be of virgin PVC resin meeting classification requirements of ASTM D1784. The sleeve thickness shall be compatible with and overlap the casing pipe. Joint closure seals shall be made with 30 mil thick high temperature tape. The following 80 lb casing thicknesses may be used as a guide:

Carrier Pipe Size (in.)	Casing Thickness (in.)
2	.14
3	.12
4	.16
6	.20
8	.24
10	.28
12	.25

For other casing thicknesses or materials, consult the manufacturer.

D. [FRP Casing Pipe (Acceptable Alternate): Fiberglass Reinforced Plastic casing pipe shall be filament wound, polyester resin/fiberglass reinforced composite. The minimum thickness for the FRP casing shall be 0.10". The joint closure shall be insulated with polyurethane foam, FRP casing to match pipe casing and sealed with a heat shrinkable adhesive backed sleeve fabricated from thermally stabilized radiation crosslinked and ultraviolet resistant polyethylene outer layer and high temperature resistant mastic inner layer or 30 mil high temperature tape. The sleeve shall have a minimum tensile strength of 2400 psi per ASTM D412 and a shore hardness between 40 and 60 "D" scale per ASTM D.2240.]

E. End Seals: End seals for pre-insulated FRP pipe shall be certified to resist infiltration of water at 20 feet of head at the intended operating temperature. Mastic end seals which may meet the requirements of the 20 ft test shall not be allowed.

F. Polyurethane Foam Insulation:

1. Polyurethane foam insulation shall meet the following specifications:

Type:	Two component urethane
Compressive Strength:	35 psi parallel min at 5% Comp
Shrinkage:	None at 70°F
Free Rise Density:	2.0 to 3.0 lbs/cubic foot
Aged "K" (70°F - 72 hrs)	0.140 BTU-in/hr-ft ² -°F
Closed Cell Content:	90%

2. Insulation thickness shall be as defined in the approved Federal Brochure (nominal insulation thickness as follows):

Carrier Pipe Size (in.)	Insulation Thickness (in.)
2	0.92
3	1.20
4	1.67
6	1.59
8	1.57
10	1.49
12	1.38

3. Insulation concentricity: Carrier pipe shall be concentric to casing pipe. The allowable maximum deviation from center line of carrier pipe shall be plus or minus 1/4 inch at the casing center point and plus or minus 1/16 inch at the end seals.

G. Wall Penetration Sleeves: Provide wall penetration sleeves where piping passes through masonry or concrete walls. Sleeves in outside walls below and above grade shall be schedule 40 or standard weight coated black steel pipe or as specified by the Design Engineer. Sleeves shall be held securely in proper position and location during construction. Sleeves shall be of sufficient length to pass through entire thickness of walls or slabs. Refer to typical detail of wall penetration as shown. In existing concrete manholes or building walls, penetrations may be made using the "core drilling" method, providing proper care is taken to drill the holes to the size needed and square to the line of the pipe.

H. Wall Penetration Seals: All wall penetrations shall be sealed to prevent water from entering the building or manhole.

1. Mechanical Sleeve Seals: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between pipe and sleeve, connected with bolts and pressure plates which cause rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

2. Manufacturer: Subject to compliance with requirements, provide mechanical sleeve seals of the following:

- a. Thunderline Corp.
- b. Proset

PART 3 - EXECUTION

3.01 GENERAL

A. Installation of the piping system shall be done in accordance with the appropriate publications including ANSI B31.1 and the following specifications and instructions. A manufacturer's field representative may conduct an installation clinic to pre-qualify contract personnel in the proper procedures for the installation.

B. Factory furnished lengths of pipe shall be utilized to the maximum extent. Field cutting of pipe shall be kept to a minimum. Pipe shall be worked into place without springing or forcing, properly clearing all openings and equipment. Pipe ends shall have burrs removed by reaming and shall be installed

to permit free expansion and contraction without damage to joints. Good workmanlike procedures shall be followed.

C. Open ends of pipe lines and equipment shall be properly capped or plugged during installation to keep dirt or other foreign matter out of the system.

3.02 RECEIVING AND HANDLING SHIPMENTS

A. Inspection: Each shipment shall be inspected upon arrival at the jobsite. It is the responsibility of the installing contractor to ascertain whether there has been any loss or damage. The carrier is the contractor's agent. Any pipe or equipment that arrives damaged or is lost in shipment shall be reported by the contractor. Make overall inspection of the load. If load is intact, ordinary inspection while unloading should be enough to make sure that the pipe has arrived in good condition. It is the responsibility of the receiver to make certain that there has been no loss or damage. Note specifically that any end packaging shall not show signs of damage. If the load has shifted or end packing is damaged, then each piece shall be carefully inspected for damage. The ends specifically shall be inspected for scars, nicks, etc. Other obvious damage shall also be cause for rejection. Check total quantities of each item against tally sheet (pipe, fittings, etc.). Any damaged or missing items shall be noted on delivery receipt and the receipt returned to the carrier. Notify the carrier immediately and make claim in accordance with the carrier's instructions. Do not dispose of damaged material; follow procedure as directed by the carrier.

B. Unloading Instructions: The means by which the pipes are unloaded in the field is the decision and responsibility of the installing contractor. To prevent the possibility of the core pipe from shifting within the casing pipe, do not stand a length on one end or raise it vertically. Under no condition shall a pipe be dragged along the ground. Do not lift fittings or pipe by inserting a bar, pipe, etc., inside of the core since damage to the pipe may result. If any pipe is damaged in unloading and handling, mark the damaged area and set it aside. Manufacturer's representative shall determine whether damaged casing can be repaired in the field and shall determine exact method for repair and instruct contractor in making repair.

C. Storage: Store pipe on dunnage in a flat area. Support the barrel of the casing evenly. Bell and spigot ends shall overhang dunnage. Store random lengths separately where they will be readily available. Individual lengths of pipe shall be stacked in piles no higher than 5 feet. Protect pipe during long exposures (several months) to sunlight by covering it with canvas or other opaque material. Provide for air circulation under the sheets.

D. Loading Transfer Trucks: Use trucks with long bodies so that pipe lengths do not overhang. Make certain truck bed is smooth, without cross-strips, bolt heads, or other protrusions that could damage the pipe. Short body trucks may be used if fitted with racks that properly support the pipe in a horizontal position. The rack shall have supports spaced every 3 feet or less along the pipe lengths. Pad the contact areas to avoid damage to the pipe.

3.03 EXCAVATION

A. Excavation shall take into account the need for the thrust blocks at all fittings which are direct buried in the ground. The trench bottom shall give uniform support along the entire length of any pipelines. Where several pipelines are located in a common trench, the trench shall be wide enough to

maintain the specified distances between adjacent lines, a minimum of 6" in pipe sizes up to 6" diameter and 12" minimum in sizes 8" and larger. The excavation shall be in a straight line, except where fittings are located.

3.04 TRENCHING

A. The trench depth shall allow for a minimum cover height of 24" over the top of the casing pipe. Keep excavations free of water during construction. If it is necessary to remove unsuitable material to a depth greater than specified, refill over excavated area to the proper depth with specified bedding material and compact in 6" lifts to 95% of maximum density in accordance with ASTM D1557, Method D. Excavate and replace soil disturbed and weakened by the Contractor's operations or soils permitted to soften from exposure to weather with bedding material and compact it with a plate-type vibratory compactor.

B. The width of the trench at the top of the pipe shall be held to the minimum required for efficient and proper installation. The minimum recommended trench width at the top of the pipe shall be one foot greater than the outside diameter of the casing. Where two or more pipes are in the same trench, use the distance between outside casing of the outside pipes plus one foot. To determine the maximum trench width, use above method for minimum plus two feet.

3.05 DISTRIBUTING PIPE ALONG TRENCH

A. Pipe lengths may be strung along the line of the trench so as to minimize additional handling during installation.

3.06 PLACING PIPE IN THE TRENCH

A. The pipe may be passed into the trench by hand or mechanically. The latest state and federal safety regulations shall be understood and observed. If slings are necessary, use only canvas straps. Do not use cable or chain slings.

3.07 BEDDING

A. Bedding material shall be sand, pea gravel, or other materials free of sharp objects, heavy clods, boulders, or frozen lumps as specified by the design engineer. The approved bedding shall be used 6" under, around and over the pipe. Utilize the best professional practices that apply to buried pressure piping.

3.08 ASSEMBLY OF PIPE AND FITTINGS

A. Pipe and fittings shall be assembled in strict accordance with the manufacturer's printed directions by personnel who have been instructed in installation procedures by the manufacturer's representative.

B. A field representative of the carrier pipe manufacturer may conduct a construction seminar at the site to instruct Contractor's personnel in the proper methods and procedures for making field joints. Certification of instruction and competence shall be issued to those personnel so trained and only those so certified shall be permitted to perform work on the pipe.

3.09 TESTING

A. Testing shall be performed and system proven tight before closure of insulated field joints or backfilling. Prior to testing, flush pipe system with fresh water until piping is free of dirt and foreign matter. Use only fresh water for field tests. Air must be removed from system before starting tests.

B. [Operational Test: Operate complete system, or testable portions thereof, as approved by the Engineer through two cycles. Each cycle shall consist of a period of at least eight hours with hot water leaving the system within 20°F of the design temperature [insert design temperature] and a period of at least four hours with heat off and no flow.]

C. During pressure testing and operational test, examine system for leaks. Repair joint leaks, replace damaged or porous pipe and fittings, and repeat all tests until satisfactory tests are achieved.

3.10 BACKFILLING

A. Backfilling of trenches shall progress as rapidly as construction, testing, and acceptance of work permits. Uniformly compact and grade bottom of trenches. After installation of pipe and bedding material, backfill as follows. Place initial backfill in layers to a depth of 12" of the initial bedding. Compact the material to a density equivalent to the surrounding undisturbed soil or to 90% of maximum density (ASTM D1557, Method D), whichever is greater. Backfill remainder of trench in one-foot lifts and compact to 90% maximum density (ASTM D1557, Method D). For trenches excavated in roads, streets, or located under structures, place backfill in 6" layers to top of trench and compact each layer to at least 95% maximum density (ASTM D1557, Method D).

3.11 CONNECTION TO METAL PIPING

A. Mechanical couplings shall be used where ever possible to connect FRP pipe to steel, copper, iron or aluminum piping. Couplings underground shall be of the same material as the pipe. Couplings shall seal by compression gaskets of EPDM rubber compound and provide for flexibility between the FRP and metal piping. Metal piping shall be fully anchored within 5' of the FRP piping to preclude forces being transferred to the FRP pipe.

B. Flanged joints where required shall be faced true, provided with gaskets, and made perfectly square and tight. Metal piping shall be fully anchored within 5' of the FRP piping to preclude forces being transferred to the FRP pipe.

3.12 FIELD CUTTING PIPE TO A SPECIFIC LENGTH

A. Field cutting of pipe shall be performed in strict accordance with the manufacturer's printed directions by personnel who have been instructed in installation procedures by the manufacturer's representative. Manufacturer shall provide tapering tools for field tapering of bell and spigot ends of pipe.

3.13 THRUST BLOCKS

A. Thrust blocks shall be installed wherever the pipe line changes direction, as at tees and elbows; changes of size, as at reducers and some crosses and tees; stops as a dead end; and develops thrust, as at a valve or similar equipment. The above situations may occur either where the fittings, etc., are directly buried in the soil or where they are located in a manhole.

B. Thrust blocks shall be designed for maximum anticipated test pressure. Size and type of thrust blocks depend on pressure, pipe size, and the type of soil.

C. Thrust blocks shall be installed using a concrete having a compressive strength of not less than 3000 psi minimum ultimate 28 days compressive strength, air entrained, with water reducing admixture. The table below gives the thrust load at any fitting. Dead end and anchor loads are equal to TEE shown below. Thrust blocks shall be poured on and against undisturbed soil or soil tamped to 95% proctor density.

1. Thrust at Fittings for Concrete Thrust Blocks in pounds at 100 psi Pressure:

Size (in.)	TEES	90° Elbow	45° Elbow
2	445	629	340
3	962	1361	736
4	1,590	2,249	1,217
6	3,447	4,875	2,638
8	5,843	8,263	4,472
10	9,073	12,836	6,946
12	12,768	18,056	9,771

2. For pressure other than 100 psi, increase loads proportionately (example: for 150 psi, multiply by 1.5; for 200 psi, multiply by 2.00; etc.).

D. Safe Bearing Loads: The approximate safe bearing loads of various soils given in the following table are for horizontal thrusts when the depth of cover over the top of the pipe exceeds 2'.

SOIL	SAFE BEARING LOAD (lbs./sq. ft.)
Soft Clay	1,000
Sand	2,000
Sand and Gravel	3,000
Sand and Gravel Cemented with Clay	4,000
Hard Shale	10,000

3.14 STARTUP PROCEDURE

A. Startup procedure shall conform to generally accepted practices and be done in a workmanlike manner. The line shall be filled slowly from any available low-pressure source. The water may be introduced from lines in service directly through valved connections or by temporary connections to taps made in the new line. All valves and other control points in the line that are open as the line filling begins shall be closed gradually to avoid the possibility of water hammer.

B. Manufacturer's Written Certification: After testing and prior to start-up of the system, the manufacturer must certify in writing that the system was installed per the manufacturer's installation instruction.

END OF SECTION

CITY OF OCEANSIDE

PROFESSIONAL SERVICES AGREEMENT

PROJECT: HOT WATER PIPE REPLACEMENT CONCRETE WORK

THIS AGREEMENT dated October 1, 2008 for identification purposes is made and entered into by and between the CITY OF OCEANSIDE, a municipal corporation, hereinafter designated as "CITY", and Doherty Concrete of Oceanside, hereinafter designated as "CONTRACTOR."

NOW THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:

- 1. SCOPE OF WORK.** The project is more particularly described in Doherty Concrete Proposal dated 7/9/2008 attached hereto and by this reference made a part of this Agreement.
- 2. INDEPENDENT CONTRACTOR.** CONTRACTOR'S relationship to the CITY shall be that of an independent contractor. CONTRACTOR shall have no authority, express or implied, to act on behalf of the CITY as an agent, or to bind the CITY to any obligation whatsoever, unless specifically authorized in writing by the Director, Public Works. The CONTRACTOR shall not be authorized to communicate directly with, nor in any way direct the actions of, any bidder or the construction contractor for this project without the prior written authorization by the Director, Public Works. CONTRACTOR shall be solely responsible for the performance of any of its employees, agents, or subcontractors under this Agreement. CONTRACTOR shall report to the CITY any and all employees, agents, and consultants performing work in connection with this project, and all shall be subject to the approval of the CITY.
- 3. WORKERS' COMPENSATION.** Pursuant to Labor Code section 1861, the CONTRACTOR hereby certifies that the CONTRACTOR is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and the CONTRACTOR will comply with such provisions, and provide certification of such compliance as a part of this Agreement.
- 4. LIABILITY INSURANCE.**
 - 4.1.** CONTRACTOR shall, throughout the duration of this Agreement maintain comprehensive general liability and property damage insurance, or commercial general liability insurance, covering all operations of CONTRACTOR, its agents and employees, performed in connection with this Agreement including but not limited to premises and automobile.

HOT WATER PIPE REPLACEMENT CONCRETE WORK

4.2 CONTRACTOR shall maintain liability insurance in the following minimum limits:

Comprehensive General Liability Insurance
(bodily injury and property damage)

Combined Single Limit Per Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000*

Commercial General Liability Insurance
(bodily injury and property damage)

General limit per occurrence	\$ 1,000,000
General limit project specific aggregate	\$ 2,000,000

<u>Automobile Liability Insurance</u>	\$ 1,000,000
---------------------------------------	--------------

*General aggregate per year, or part thereof, with respect to losses or other acts or omissions of CONTRACTOR under this Agreement.

4.3 If coverage is provided through a Commercial General Liability Insurance policy, a minimum of 50% of each of the aggregate limits shall remain available at all times. If over 50% of any aggregate limit has been paid or reserved, the CITY may require additional coverage to be purchased by the CONTRACTOR to restore the required limits. The CONTRACTOR shall also notify the CITY'S Project Manager promptly of all losses or claims over \$25,000 resulting from work performed under this contract, or any loss or claim against the CONTRACTOR resulting from any of the CONTRACTOR'S work.

4.4 All insurance companies affording coverage to the CONTRACTOR for the purposes of this Section shall add the City of Oceanside as "additional insured" under the designated insurance policy for all work performed under this agreement. Insurance coverage provided to the City as additional insured shall be primary insurance and other insurance maintained by the City of Oceanside, its officers, agents, and employees shall be excess only and not contributing with insurance provided pursuant to this Section.

4.5 All insurance companies affording coverage to the CONTRACTOR pursuant to this agreement shall be insurance organizations admitted by the Insurance Commissioner of the State of California to transact business of insurance in the state or be rated as A-X or higher by A.M. Best.

4.6 All insurance companies affording coverage shall provide thirty (30) days written notice to the CITY should the policy be cancelled before the expiration date. For the purposes of this notice requirement, any material change in the policy prior to the expiration shall be considered a cancellation.

4.7 CONTRACTOR shall provide evidence of compliance with the insurance requirements listed above by providing a Certificate of Insurance, in a form satisfactory to the City Attorney, concurrently with the submittal of this Agreement.

HOT WATER PIPE REPLACEMENT CONCRETE WORK

4.8 CONTRACTOR shall provide a substitute Certificate of Insurance no later than thirty (30) days prior to the policy expiration date. Failure by the CONTRACTOR to provide such a substitution and extend the policy expiration date shall be considered a default by CONTRACTOR and may subject the CONTRACTOR to a suspension or termination of work under the Agreement.

4.9 Maintenance of insurance by the CONTRACTOR as specified in this Agreement shall in no way be interpreted as relieving the CONTRACTOR of any responsibility whatsoever and the CONTRACTOR may carry, at its own expense, such additional insurance as it deems necessary.

5. PROFESSIONAL ERRORS AND OMISSIONS INSURANCE. Intentionally omitted.

6. CONTRACTOR'S INDEMNIFICATION OF CITY. CONTRACTOR shall indemnify and hold harmless the CITY and its officers, agents and employees against all claims for damages to persons or property arising out of the negligent acts, errors or omissions or wrongful acts or conduct of the CONTRACTOR, or its employees, agents, subcontractors, or others in connection with the execution of the work covered by this Agreement, except for those claims arising from the willful misconduct, sole negligence or active negligence of the CITY, its officers, agents, or employees. CONTRACTOR'S indemnification shall include any and all costs, expenses, attorneys' fees, expert fees and liability assessed against or incurred by the CITY, its officers, agents, or employees in defending against such claims or lawsuits, whether the same proceed to judgment or not. Further, CONTRACTOR at its own expense shall, upon written request by the CITY, defend any such suit or action brought against the CITY, its officers, agents, or employees resulting or arising from the conduct, tortious acts or omissions of the CONTRACTOR.

CONTRACTOR'S indemnification of CITY shall not be limited by any prior or subsequent declaration by the CONTRACTOR.

7. COMPENSATION. CONTRACTOR'S compensation for all work performed in accordance with this Agreement, shall not exceed the total contract price of **\$37,994.00**.

No work shall be performed by CONTRACTOR in excess of the total contract price without prior written approval of the Director, Public Works. CONTRACTOR shall obtain approval by the Director, Public Works prior to performing any work, which results in incidental expenses to CITY.

8. TIMING REQUIREMENTS. Time is of the essence in the performance of work under this Agreement and the timing requirements shall be strictly adhered to unless otherwise modified in writing. All work shall be completed in every detail to the satisfaction of the Project Manager within timeframe agreed to by both parties in writing prior to work commencing.

HOT WATER PIPE REPLACEMENT CONCRETE WORK

9. **ENTIRE AGREEMENT.** This Agreement comprises the entire integrated understanding between CITY and CONTRACTOR concerning the work to be performed for this project and supersedes all prior negotiations, representations, or agreements.

10. **INTERPRETATION OF THE AGREEMENT.** The interpretation, validity and enforcement of the Agreement shall be governed by and construed under the laws of the State of California. The Agreement does not limit any other rights or remedies available to CITY.

The CONTRACTOR shall be responsible for complying with all local, state, and federal laws whether or not said laws are expressly stated or referred to herein.

Should any provision herein be found or deemed to be invalid, the Agreement shall be construed as not containing such provision, and all other provisions, which are otherwise lawful, shall remain in full force and effect, and to this end the provisions of this Agreement are severable.

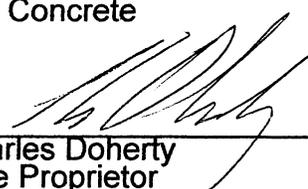
11. **AGREEMENT MODIFICATION.** This Agreement may not be modified orally or in any manner other than by an agreement in writing signed by the parties hereto.

12. **SIGNATURES.** The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity and authority to enter into and to execute this Agreement on behalf of the respective legal entities of the CONTRACTOR and the CITY.

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Professional Services Agreement to be executed by setting hereunto their signatures on the dates set below.

Doherty Concrete

By:



Charles Doherty
Sole Proprietor

CITY OF OCEANSIDE

By:

Peter A. Weiss, City Manager

APPROVED AS TO FORM:



City Attorney

NOTARY ACKNOWLEDGMENTS OF CONTRACTOR MUST BE ATTACHED.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of SAN DIEGO

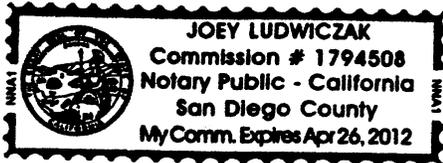
On SEPT 19, 2008 before me, JOEY LUDWICZAK, NOTARY PUBLIC

personally appeared CHARLES W. DOHERTY

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal Above

Signature _____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

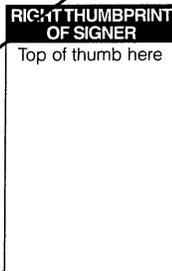
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

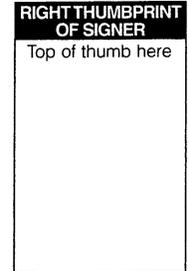
Signer Is Representing: _____



Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: _____





DOHERTY CONCRETE
 General Engineering Contractor
 1302 Crestridge Drive
 Oceanside, CA 92054
 (760)433-2881 (760)535-9295
 LIC # 707928

Proposal

Date	Proposal #
7/9/2008	163 132

Name / Address	Project	
CITY OF OCEANSIDE ATTENTION LARRY BOSTON 300 N. COAST HWY OCEANSIDE CA 92054	CIVIC CENTER 300 N. COAST HWY	
Description	Total	
ITEM #1 REMOVE & REPLACE 6" THICK CONCRETE NO REBAR PER THESE DIMENSIONS 11' x 12' 14' x 24' 13' 8" x 11' 6" 10' x 15' 12' 6" x 12' 8' x 8' 18' 6" x 4' 8' 6" x 8' 6" 7' 6" x 13' 10' 6" x 13' 12' x 6' 9' x 68' 9' x 6' 5' x 9' 9' x 37' 4' x 19' TOTAL 2565 sq ft X 9.75 CONCRETE DESCRIPTION: 5 1/2 INCHES THICK 3250 PSI MATCH EXISTING TOOLING IF REQUESTED WE COULD HAND RUB WITH SPONGE TO AGE CONCRETE TO MATCH EXISTING	25,008.75	
ITEM #2 EXCAVATE TRENCH 2' WIDE X 3' DEEP X 245' LONG POTHOLE ALL MARKED UTILITIES NOT RESPONSIBLE FOR MISS- MARKED UTILITIES PLYWOOD FOR TRENCH COVERING	4,160.00	
ITEM #3 BACK FILL & COMPACT TRENCH TO 95%	825.00	
ITEM #4 RESET BRASS LETTERS "CALIFORNIA"	3,475.00	
ITEM #5 FOAM EXPANSION PLACED AS PER EXISTING 450'	950.00	
ITEM #6 JOINT SEALANT	1,650.00	
NOTE: IF EXISTING TILES ARE AVAILABLE IT MAY BE COST EFFECTIVE TO SLOT CUT AND REPAIR TILE RATHER THAN BORING		
		Total



DOHERTY CONCRETE
 General Engineering Contractor
 1302 Crestridge Drive
 Oceanside, CA 92054
 (760)433-2881 (760)535-9295
 LIC # 707928

Proposal

Date	Proposal #
7/9/2008	163 132

Name / Address	Project
CITY OF OCEANSIDE ATTENTION LARRY BOSTON 300 N. COAST HWY OCEANSIDE CA 92054	CIVIC CENTER 300 N. COAST HWY

Description	Total
TERMS: WATER, POWER, RESTROOM, AT SITE SOILS TESTING BY OTHER IF REQUIRED BARRICADES PROVIDED BY PUBLIC WORKS DEPARTMENT CONTINGENCY ALLOWANCE FOR TILE REPAIR	1,000.00

	Total	\$37,993.75
--	--------------	-------------