

AGENDA
IRVINE RANCH WATER DISTRICT
ENGINEERING AND OPERATIONS COMMITTEE MEETING
TUESDAY, OCTOBER 18, 2022

This meeting will be held in-person at the District's headquarters located at 15600 Sand Canyon Avenue, Irvine, California. The meeting will also be broadcasted via Webex for those wanting to observe the meeting virtually.

To observe this meeting virtually, please join online using the link and information below:

Via Web: <https://irwd.webex.com/irwd/j.php?MTID=mae108464a00e0a54d2ee9a6e2d3834a2>
Meeting Number (Access Code): 2489 272 8733
Meeting Password: pD7EpvemR43

PLEASE NOTE: Webex observers of the meeting will be placed into the Webex lobby when the Board enters closed session. Participants who remain in the "lobby" will automatically be returned to the open session of the Board once the closed session has concluded. Observers joining the meeting while the Board is in closed session will receive a notice that the meeting has been locked. They will be able to observe the meeting once the closed session has concluded.

CALL TO ORDER 1:30 p.m.

ATTENDANCE Committee Chair: Doug Reinhart _____
 Committee Member: Karen McLaughlin _____

<u>ALSO PRESENT</u>	Paul Cook	_____	Kevin Burton	_____	Wendy Chambers	_____
	Jose Zepeda	_____	Paul Weghorst	_____	Cheryl Clary	_____
	Steve Choi	_____	Jim Colston	_____	Fiona Sanchez	_____
	Rich Mori	_____	Eric Akiyoshi	_____	Joseph McGehee	_____
	Jacob Moeder	_____	Malcolm Cortez	_____	Ken Pfister	_____
	Harry Cho	_____	Alex Murphy	_____	_____	_____
	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____

PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the "chat" feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. Public comments are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 9:00 a.m. on Tuesday, October 18, 2022.

COMMUNICATIONS

1. Notes: Burton
2. Public Comments
3. Determine the need to discuss and/or take action on item(s) introduced that came to the attention of the District subsequent to the agenda being posted, and determine which items may be approved without discussion.

INFORMATION

4. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES – RIOS / AKIYOSHI / BURTON

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5 and 6, for Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$2,703,650.50 for the Serrano Creek Capital Sanitary Sewer Improvements, Project 12146; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,525,023.85 for the Marine Way Capital Domestic Water and Recycled Water Improvements, Projects 11176, 11177 and 11939; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$413,651 for the GP-5 Street Capital Domestic Water and Recycled Water Improvements, Projects 12143 and 12145; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,523,222.25 for Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements Projects, 12228, 12229, 12230, 12231 and 12232; authorize the addition of Projects 12143, 12145 and 12146 to the FY 2022-23 Capital Budget in the respective amounts of \$468,000, \$372,000 and \$3,435,000; authorize budget increases for Projects 11176, 11177, 11939, 12228, 12229, 12230, 12231 and 12232 in the respective amounts of \$200,000, \$150,000, \$500,000, \$267,000, \$350,000, \$100,000, \$150,000 and \$150,000.

5. REGIONAL FACILITIES CAPACITY OVERVIEW AND ASSET MANAGEMENT – ROBINSON / AKIYOSHI / BURTON

Recommendation: Receive and file.

INFORMATION, continued

6. RESEARCH BUSINESS PLAN UPDATE – COLSTON / BURTON

Recommendation: Receive and file.

ACTION

7. IRVINE DESALTER PROJECT PRINCIPAL AQUIFER PLANT AND
SHALLOW GROUNDWATER UNIT OPTIMIZATION FOR PFAS
TREATMENT CONSULTANT SELECTION – MARCACCI / MCGEHEE /
MORI / BURTON

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Tetra Tech in the amount of \$335,000 for engineering services during construction of the Irvine Desalter's Principal Aquifer Plant Treatment System, Project 11171, and Shallow Groundwater Unit Optimization for per-and polyfluoroalkyl treatment, Project 11864.

OTHER BUSINESS

8. Directors' Comments

9. Adjournment

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to comments@irwd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

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October 18, 2022

Prepared by: B. Rios / E. Akiyoshi

Submitted by: K. Burton

Approved by: Paul A. Cook



ENGINEERING AND OPERATIONS COMMITTEE

PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

SUMMARY:

Heritage Fields, LLC is proceeding with development of Planning Area 51 (Great Park), which includes the construction of streets, storm drains, domestic water, sanitary sewer, and recycled water improvements. As part of the development, Heritage Fields will construct IRWD capital facilities under a proposed Supplemental Reimbursement Agreement (SRA). Staff recommends that the Board:

- Authorize the General Manager to execute a SRA with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5, and 6 for Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$2,703,650.50 for the Serrano Creek Capital Sanitary Sewer Improvement project;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,525,023.85 for the Marine Way Capital Domestic Water and Recycled Water Improvement projects;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$413,651 for the GP-5 Street Capital Domestic Water and Recycled Water Improvement projects;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,523,222.25 for Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements projects;
- Authorize the addition of the GP-5 Domestic Water Improvements, Project 12143 in the amount of \$468,000 to the FY 2022-23 Capital Budget;
- Authorize the addition of the GP-5 Recycled Water Improvements, Project 12145 in the amount of \$372,000 to the FY 2022-23 Capital Budget;
- Authorize the addition of the Serrano Creek Capital Sanitary Sewer Improvements, Project 12146 in the amount of \$3,435,000 to the FY 2022-23 Capital Budget;
- Authorize a budget increase for Project 11176 in the amount of \$200,000, from \$488,000 to \$688,000, for the Marine Way Domestic Water Improvements;
- Authorize a budget increase for Project 11177 in the amount of \$150,000, from \$813,000 to \$963,000, for the Marine Way Recycled Water Improvements;
- Authorize a budget increase for Project 11939 in the amount of \$500,000, from \$163,000 to \$663,000, for the Marine Way Domestic Water Improvements;
- Authorize a budget increase for Project 12228 in the amount of \$267,000, from \$496,000 to \$763,000, for the District 5 and 6 Domestic Water Improvements;
- Authorize a budget increase for Project 12229 in the amount of \$350,000, from \$213,000 to \$563,000, for the District 5 and 6 Sanitary Sewer Improvements;

- Authorize a budget increase for Project 12230 in the amount of \$100,000, from \$303,000 to \$403,000, for the District 5 and 6 Recycled Water Improvements;
- Authorize a budget increase for Project 12231 in the amount of \$150,000, from \$84,000 to \$234,000, for the District 5 and 6 Domestic Water Improvements; and
- Authorize a budget increase for Project 12232 in the amount of \$150,000, from \$215,000 to \$365,000, for the District 5 and 6 Recycled Water Improvements.

BACKGROUND:

Heritage Fields is moving forward with the residential development of Districts 2, 5 and 6. District 2 is bounded by Alton Parkway to the north, Muirlands Parkway to the east, Bake Parkway to the south and the I-5 Freeway to the west. District 5 South is south of Cadence, west of Lynx, north of Harrier and east of Treble. District 6 North is north of Marine Way, south of Harrier and east of Treble. The project location map is shown as Exhibit “A”. As part of this development, Heritage Fields will design and construct IRWD’s domestic water, sanitary sewer, and recycled water capital improvements. The required IRWD capital facilities are documented in the September 2016 Planning Area 51 Sub-Area Master Plan Update and all subsequent addendums and updates prepared by Stantec.

The design and construction of the IRWD facilities will be performed under the terms of the Master Reimbursement Agreement approved by the Board in August 2012 and as further refined in the SRA. The SRA, which covers capital facilities in Districts 2, 5 and 6 is attached as Exhibit “B” and has been reviewed by IRWD’s legal counsel.

Serrano Creek Capital Sanitary Sewer Improvements:

The Serrano Creek Capital Sanitary Sewer improvements consist of installing approximately 3,360 feet of 24-inch sewer pipeline parallel to the recently reconstructed Serrano Creek between Muirlands Drive and the I-5 Freeway. This portion of the creek sewer replaces a previously abandoned sewer alignment within the creek and connects several inflows from the planned, future commercial development in District 2. Heritage Fields retained ProActive Engineering Consultants to prepare the plans and also received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$2,703,650.50 as shown in Exhibit “C”. In addition, Heritage Fields has received consultant proposals for design engineering, surveying, and construction support services. Geotechnical observation and testing, field archeological and paleontological monitoring were previously provided on other reimbursable projects and are not required or included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Serrano Creek Capital Sanitary Sewer Improvement costs is shown as follows.

Design (ProActive)	\$ 68,700.00
Construction (FYDAQ)	\$2,703,650.50
Surveying (Hunsaker and Associates)	\$ 58,400.00
Construction Engineering (ProActive)	\$ 15,560.00
Heritage Fields Administration Fee (1%)	<u>\$ 27,036.51</u>
	\$2,873,347.01

Marine Way Capital Domestic Water and Recycled Water Improvements:

The Marine Way Capital Domestic and Recycled Water Improvements consist of installing approximately 3,957 feet of 12-inch domestic water pipeline and 3,675 feet of 16-inch recycled water pipeline in Marine Way from the Alton Parkway to Bake Parkway. A portion of the work requires jack and bore installation across Bake parkway for the domestic water installation. Heritage Fields retained Hunsaker and Associates to prepare the plans and received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$1,525,023.85 as shown in Exhibit “D”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Marine Way Capital Domestic Water and Recycled Water Improvement costs are shown below:

Design (Hunsaker and Associates)	\$ 124,100.00
Construction (FYDAQ)	\$1,525,023.85
Geotechnical Services (Engeo)	\$ 27,000.00
Construction Engineering/Surveying (Hunsaker)	\$ 71,300.00
Heritage Fields Administration Fee (1%)	<u>\$ 15,250.24</u>
	\$1,762,674.09

GP-5 Street Capital Domestic Water and Recycled Water Improvements:

The GP-5 Street Domestic Water and Recycled Water Improvements consist of installing approximately 2,250 feet of 12-inch domestic water pipeline and 2,200 feet of 8-inch recycled water pipeline on GP-5 Street from Skyhawk to Treble. Heritage Fields retained Hunsaker and Associates to prepare the plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to FYDAQ Company Inc., for a bid amount of \$413,651 as shown in Exhibit “E”. FYDAQ Company was the second low bidder on the IRWD portion of the work, but the low bidder for the non-IRWD portion of the work. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the GP-5 Street Capital Domestic Water and Recycled Water Improvement costs are shown below:

Design (Hunsaker)	\$ 69,160.00
Construction (FYDAQ)	\$413,651.00
Geotechnical Services (Engeo)	\$ 7,200.00
Construction Engineering (DMc Engineering)	\$ 4,500.00
Surveying (Hunsaker)	\$ 22,805.00
Heritage Fields Administration Fee (1%)	<u>\$ 4,136.51</u>
	\$521,452.51

Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements:

The Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements consist of installing approximately 2,286 feet of 12-inch domestic water pipeline, 711 feet of 12-inch sanitary sewer pipeline, and 3,509 feet of 10-inch recycled water pipeline in Harrier and Chinon within Districts 5 and 6 of the Great Park. Heritage Fields retained DMC Engineering to prepare the plans and received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$1,523,222.25 as shown in Exhibit “F”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvement costs are shown below:

Design (Hunsaker)	\$ 158,000.00
Construction (FYDAQ)	\$1,523,222.25
Geotechnical Services (Engeo)	\$ 27,000.00
Construction Eng and Surveying (Hunsaker)	\$ 64,200.00
Heritage Fields Administration Fee (1%)	<u>\$ 15,232.22</u>
	\$1,787,654.47

FISCAL IMPACTS:

Staff requests the addition of Projects 12143, 12145 and 12146 to the FY 2022-23 Capital Budget as follows:

Project No.	Current Budget	Addition <Reduction>	Total Budget
12143	\$0	\$ 468,000	\$ 468,000
12145	\$0	\$ 372,000	\$ 372,000
12146	\$0	\$3,435,000	\$3,435,000
Total	\$0	\$4,275,000	\$4,275,000

Projects 11176, 11177, 11939, 12228, 12229, 12230, 12231 and 12232 are included in the FY 2022-23 Capital Budget and require budget increases as follows:

Project No.	Current Budget	Addition <Reduction>	Total Budget
11176	\$488,000	\$200,000	\$688,000
11177	\$813,000	\$150,000	\$963,000
11939	\$163,000	\$500,000	\$663,000
12228	\$496,000	\$267,000	\$763,000
12229	\$213,000	\$350,000	\$563,000
12230	\$303,000	\$100,000	\$403,000
12231	\$ 84,000	\$150,000	\$234,000
12232	\$215,000	\$150,000	\$365,000
Total	\$2,775,000	\$1,867,000	\$4,642,000

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic water, sewer, and recycled water facilities for the Great Park Development is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 an Environmental Impact Report was certified by the City of Irvine, the lead agency on April 4, 2012 (SCH# 2002101020).

RECOMMENDATION:

That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5 and 6, for Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$2,703,650.50 for the Serrano Creek Capital Sanitary Sewer Improvements, Project 12146; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,525,023.85 for the Marine Way Capital Domestic Water and Recycled Water Improvements, Projects 11176, 11177 and 11939; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$413,651 for the GP-5 Street Capital Domestic Water and Recycled Water Improvements, Projects 12143 and 12145; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,523,222.25 for Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements Projects, 12228, 12229, 12230, 12231 and 12232; authorize the addition of Projects 12143, 12145 and 12146 to the FY 2022-23 Capital Budget in the respective amounts of \$468,000, \$372,000 and \$3,435,000; authorize budget increases for Projects 11176, 11177, 11939, 12228, 12229, 12230, 12231 and 12232 in the respective amounts of \$200,000, \$150,000, \$500,000, \$267,000, \$350,000, \$100,000, \$150,000 and \$150,000.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – SRA with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5 South and 6 North, Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.
- Exhibit "C" – Bid Summary, Serrano Creek Capital Sanitary Sewer Improvements, Project 12146.
- Exhibit "D" – Bid Summary, Marine Way Capital Domestic Water and Recycled Water Improvements, Projects 11176, 11177 and 11939.
- Exhibit "E" – Bid Summary, GP-5 Street Capital Domestic Water and Recycled Water Improvements, Projects 12143 and 12145.
- Exhibit "F" – Bid Summary, Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements, Projects 12228, 12229, 12230, 12231 and 12232.

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EXHIBIT "A"

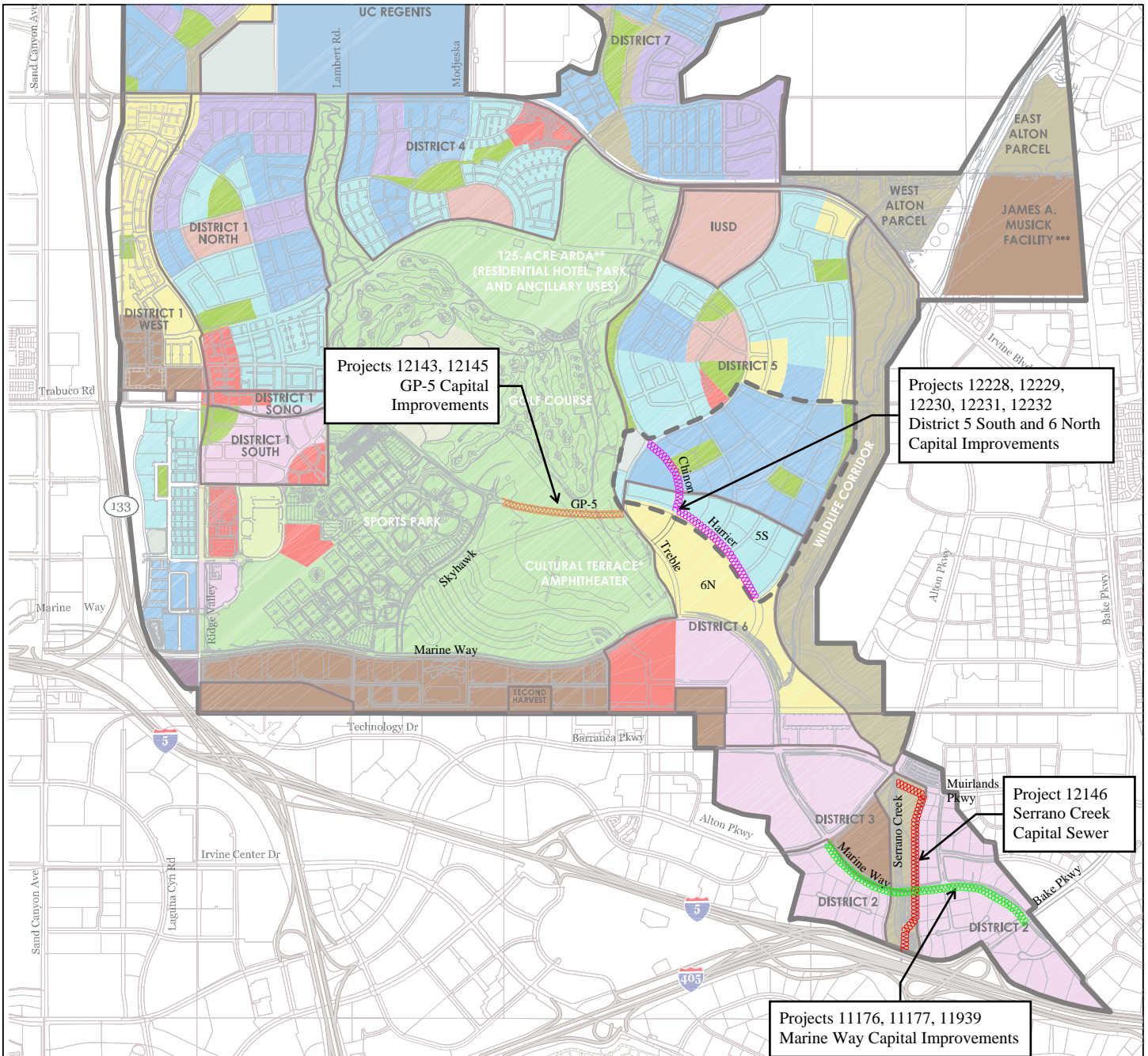


EXHIBIT A

LOCATION MAP

not to scale

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EXHIBIT B

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

HERITAGE FIELDS EL TORO, LLC

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this _____ day of _____, 20__, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the State of California ("IRWD"), and Heritage Fields El Toro, LLC, a Delaware limited liability company ("COMPANY"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and COMPANY have previously entered into that certain Reimbursement Agreement dated August 13, 2012 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties agree, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is: Planning Area 51, Great Park Neighborhoods, Districts 5 South, District 6 North and District 2 Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.

The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: Approximately 15,570 lineal feet of 12-inch domestic water, 3,360 lineal feet of 24-inch sewer, 2 sewer diversion vault structures, and 15,750 lineal feet of 8-inch and 10-inch recycled water pipelines as shown in Exhibit 1.

4. The total costs for the Capital Facilities shall include, but not limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and

an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$5,206,594.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: None.

6. In accordance with Section 10 of the Reimbursement Agreement, COMPANY is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

By: _____
General Manager

[SIGNATURES CONTINUED]

HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member

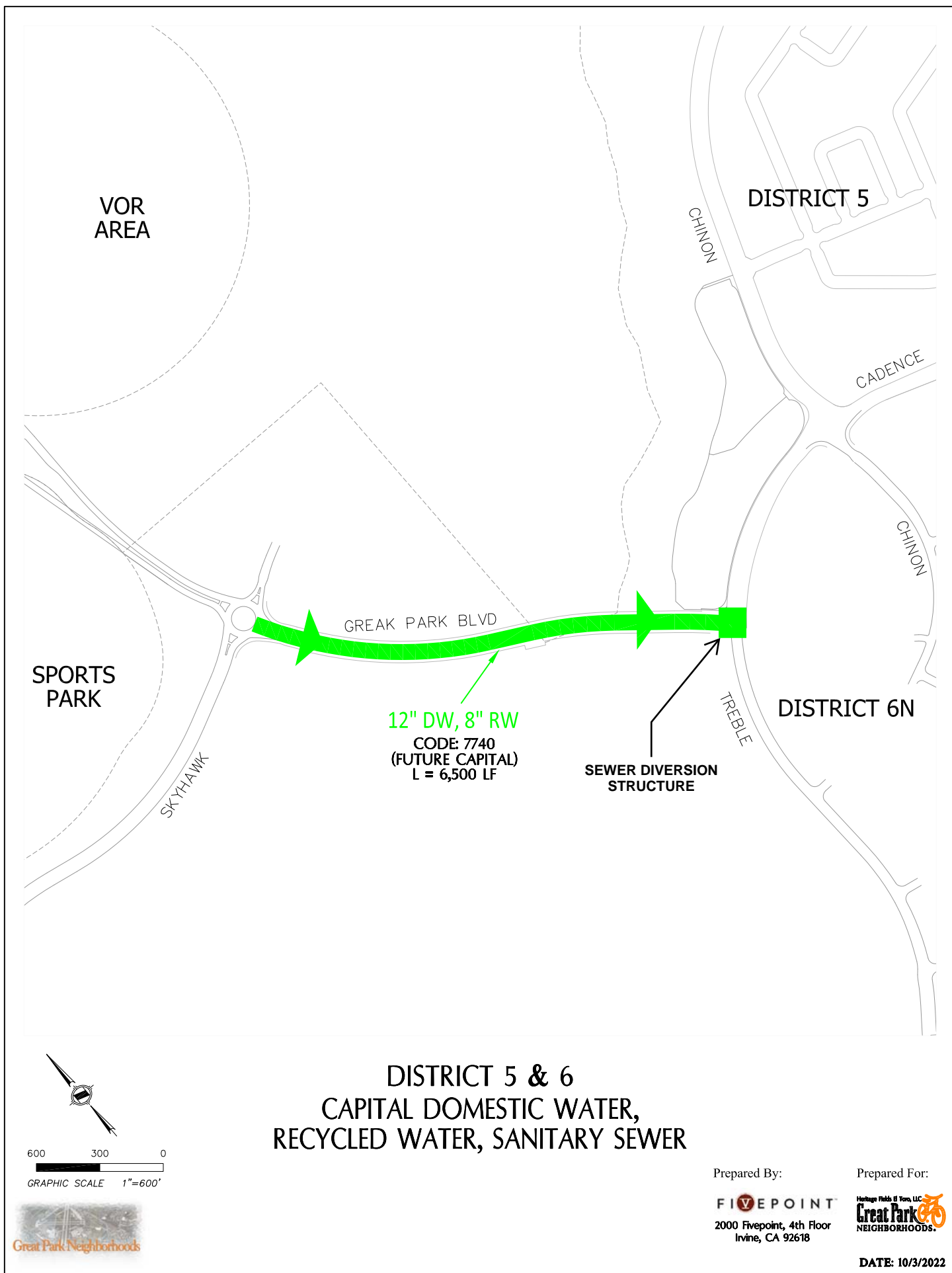
By: Lennar Heritage Fields, LLC,
a California limited liability company
Its: Administrative Member

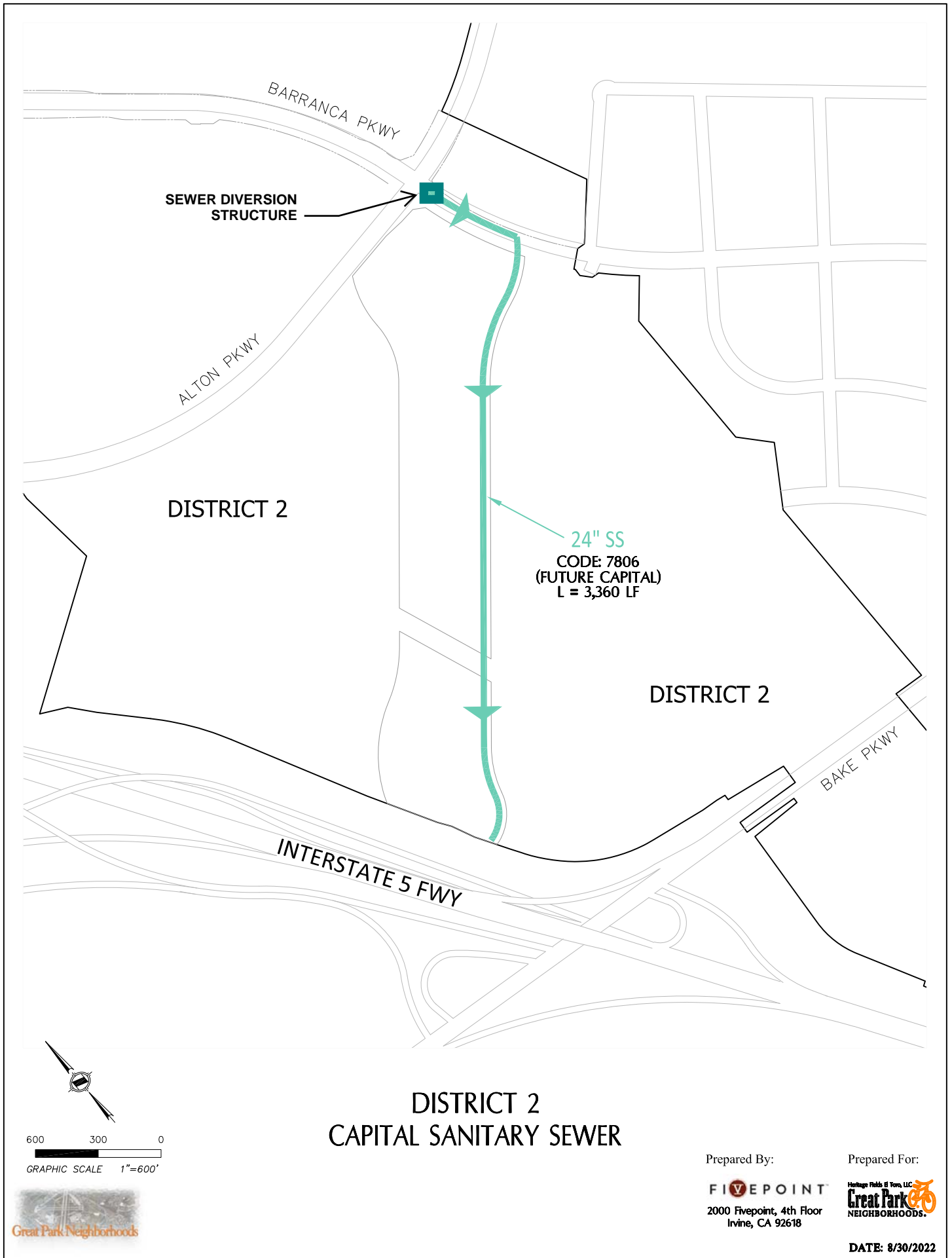
By: Lennar Homes of California, Inc.,
a California corporation
Its: Sole Member

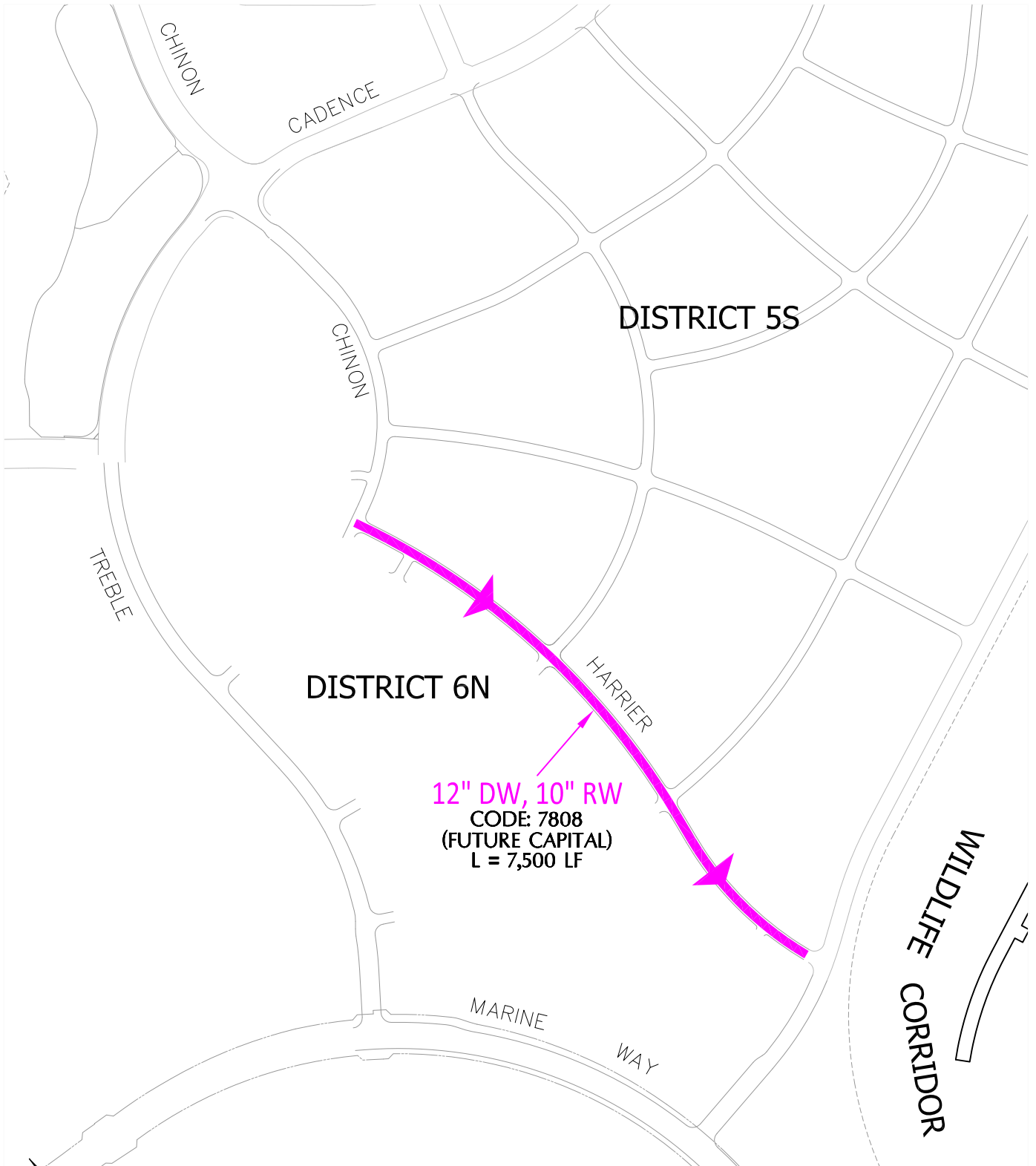
By: _____

Print Name: _____

Print Title: _____







12" DW, 10" RW
 CODE: 7808
 (FUTURE CAPITAL)
 L = 7,500 LF

DISTRICT 5 & 6 CAPITAL DOMESTIC WATER, RECYCLED WATER

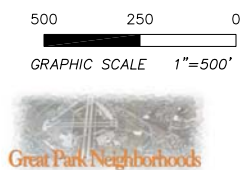
Prepared By:

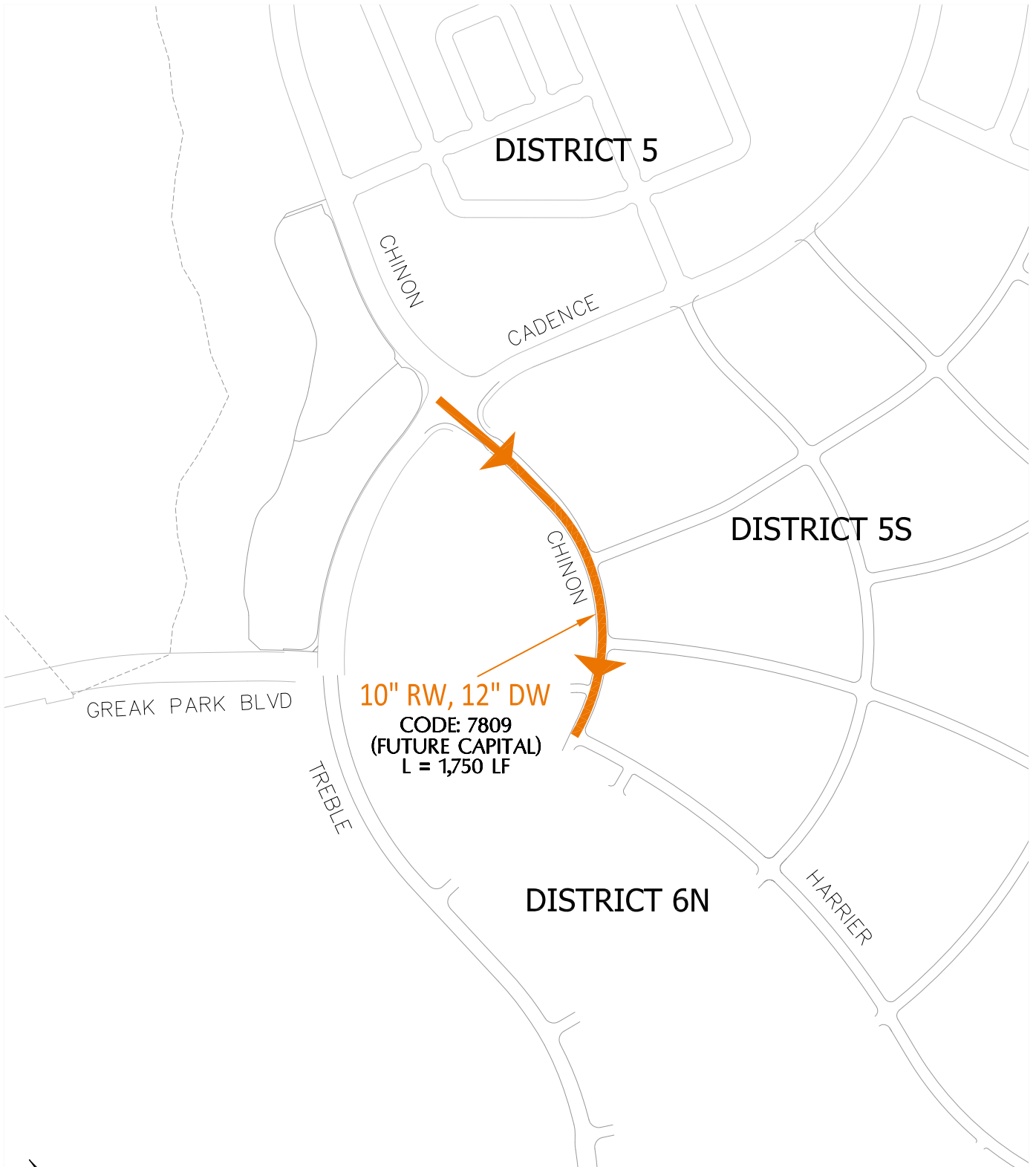
FIVEPOINT
 2000 Fivepoint, 4th Floor
 Irvine, CA 92618

Prepared For:

Heritage Fields II, LLC
Great Park
 NEIGHBORHOODS

DATE: 8/25/2022





500 250 0
GRAPHIC SCALE 1"=500'



DISTRICT 5 & 6 CAPITAL DOMESTIC WATER, RECYCLED WATER

Prepared By:

FIVEPOINT
2000 Fivepoint, 4th Floor
Irvine, CA 92618

Prepared For:

Heritage Fields II, LLC
Great Park
NEIGHBORHOODS

DATE: 8/25/2022

EXHIBIT "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This Assignment Agreement is made as of _____, 20__, by and between HERITAGE FIELDS EL TORO, LLC, a Delaware limited liability company ("Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of _____.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: _____.

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member

By: Lennar Heritage Fields, LLC,
a California limited liability company
Its: Administrative Member

By: Lennar Homes of California, Inc.,
a California corporation
Its: Sole Member

By: _____

Print Name: _____

Print Title: _____

Schedule A
to
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated _____ ("Supplemental Reimbursement Agreement").

Insert name of Project from Section 2 of Supplemental Reimbursement Agreement:
Planning Area 51, Great Park Neighborhoods, Districts 5 South, District 6 North and District 2 Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: Approximately 15,570 lineal feet of 12-inch domestic water, 3,360 lineal feet of 24-inch sewer, 2 sewer diversion vault structures, and 15,750 lineal feet of 8-inch and 10-inch recycled water pipelines.

Contractor's Name: _____

License No.: _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

EXHIBIT "C"

PROJECT: Serrano Sewer IRWD Capital - Code 7806
V2a
Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ - LOW

L&S

LEATHERWOOD

District 2 - SERRANO CREEK 24" SEWER LINE - CAPITAL

OPTION 1 - SERRANO CREEK 24" SEWER LINE (VCP PIPE)				
A.	130-00 SW SEWER - SERRANO SEWER			
A.1	130-01 SW Sewer-General	\$	90,000.00	
A.2	130-05 SW Mainline	\$	1,943,105.00	
A.3	130-10 SW Manholes	\$	604,500.00	
A.4	130-02 SW Site Preparation	\$	90,264.00	
	PHASE 1 - SERRANO CREEK 24" SEWER LINE - TOTAL	\$	2,727,869.00	

	\$	70,095.00
	\$	1,934,451.00
	\$	565,950.00
	\$	82,742.00
	\$	2,653,238.00

	\$	88,000.00
	\$	1,818,528.00
	\$	766,550.00
	\$	60,176.00
	\$	2,733,254.00

	\$	102,000.00
	\$	2,035,506.00
	\$	524,200.00
	\$	75,220.00
	\$	2,736,926.00

OPTION 2 - SERRANO CREEK 24" SEWER LINE (PVC AND VCP PIPE)				
B.	130-00 SW SEWER - SERRANO SEWER			
B.1	130-01 SW Sewer-General	\$	-	
B.2	130-05 SW Mainline	\$	-	
B.3	130-10 SW Manholes	\$	-	
B.4	130-02 SW Site Preparation	\$	-	
	PHASE 2 - SERRANO CREEK 24" SEWER LINE - TOTAL	\$	-	

	\$	-
	\$	-
	\$	-
	\$	-
	\$	-

	\$	-
	\$	-
	\$	-
	\$	-
	\$	-

	\$	-
	\$	-
	\$	-
	\$	-
	\$	-

MANHOLE RAISE/LOWER DELETABLE				
C.	130-00 SW SEWER - SERRANO SEWER			
C.1	130-01 SW Sewer-General	\$	2,500.00	
C.2	130-25 SW Manhole Raise	\$	50,000.00	
	PHASE 2 - SERRANO CREEK 24" SEWER LINE - TOTAL	\$	52,500.00	

	\$	2,412.50
	\$	48,000.00
	\$	50,412.50

	\$	2,900.00
	\$	47,000.00
	\$	49,900.00

	\$	3,000.00
	\$	50,000.00
	\$	53,000.00

GRAND TOTAL WITH (VCP) OPTION 1, Sections A + C	\$	2,780,369.00
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\$	2,703,650.50
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\$	2,783,154.00
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\$	2,789,926.00
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GRAND TOTAL WITH (PVC) OPTION 2, Sections B + C		
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\$	-
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\$	-
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\$	-
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PROJECT: Serrano Sewer IRWD Capital - Code 7806
V2a
Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ - LOW

L&S

LEATHERWOOD

OPTION 1 SERRANO CREEK 24" SEWER LINE						
ITEM NO.	COST CODE	A.1 130-01 SW Sewer-General	QUAN	UNIT	UNIT PRICE	AMOUNT
1.	130-01	Mobilization, (Not to Exceed 2% of Bid)	1	LS	\$40,000.00	\$ 40,000.00
2.	130-01	Performance, Labor & Payment Bond	1	LS	\$30,000.00	\$ 30,000.00
3.	130-01	SWPPP & BMP's - Interim Erosion Control	1	LS	\$10,000.00	\$ 10,000.00
4.	130-01	Development & Application of Construction Water	1	LS	\$10,000.00	\$ 10,000.00
SUB-TOTAL, SUBSECTION A.1 - 130-01 SW Sewer-General.....						\$ 90,000.00

ITEM NO.	COST CODE	A.2 130-05 SW Mainline	QUAN	UNIT	UNIT PRICE	AMOUNT
5.	130-05	Furnish and install 24" extra strength VCP sewer main with sewer indicator tape per IRWD std. dwg. S-6 and specifications, complete.	2,968	LF	600.00	\$ 1,780,800.00
6.	130-05	Furnish and install 21" extra strength VCP sewer main with sewer indicator tape per IRWD std. dwg. S-6 and specifications, complete.	46	LF	1,000.00	\$ 46,000.00
7.	130-05	Join existing 21" extra strength VCP sewer line, including removing broken or partial pipes back to the closest joint, complete.	1	EA	10,000.00	\$ 10,000.00
8.	130-05	Join existing 24" extra strength VCP sewer line, including removing existing plug complete.	2	EA	10,000.00	\$ 20,000.00
9.	130-05	Air test and video sewer per IRWD standards and specifications, complete	3,387	LF	15.00	\$ 50,805.00
10.	130-05	Remove interfering portions of existing sewer, 18" VCP and 18" PCV and reconnect to vault per IRWD standard drawing S-1	2	EA	10,000.00	\$ 20,000.00
11.	130-05	Abandon in place existing 24" Line C sewer with slurry seal from manhole #15 to manhole # 17 per IRWD specification 01045 and notes per plan, complete	31	LF	500.00	\$ 15,500.00
SUB-TOTAL, SUBSECTION A.2 - 130-05 SW Mainline.....						\$ 1,943,105.00

ITEM NO.	COST CODE	A.3 130-10 SW Manholes	QUAN	UNIT	UNIT PRICE	AMOUNT
12.	130-10	Construct 72" diameter manhole per IRWD sdk.dwg.S-1 with 36" diameter manhole frame and cover with reinforcing per detail on plans, complete.	3	EA	30,000.00	\$ 90,000.00
13.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 36" diameter manhole frame and cover with reinforcing per detail on plans, complete.	2	EA	25,000.00	\$ 50,000.00
14.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 30" diameter manhole frame and cover, complete.	9	EA	17,500.00	\$ 157,500.00
15.	130-10	Furnish and install Jensen 8x8 precast vault including manhole covers, stop logs, concrete channel, manhole liner, non skid surface on shelf, pipe connection through wall per IRWD std	1	EA	150,000.00	\$ 150,000.00
16.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 30" diameter manhole frame and cover over existing 18" VCP including temporary 18" plug, complete.	1	EA	30,000.00	\$ 30,000.00
17.	130-10	Remove and dispose existing 60" manhole and foundation, place into CFD stockpile (within 4 miles of the project site) for crushing, complete.	2	EA	15,000.00	\$ 30,000.00
18.	130-10	Mahole lining per IRWD specification 09900, System No. B=4 and per IRWD standard drawing s-1, complete	16	EA	5,000.00	\$ 80,000.00
19.	130-05	Remove top of existing manhole #16 to minimum 8 feet below finished grade and abandon in place per IRWD specification 01045, complete	1	EA	10,000.00	\$ 10,000.00
20.	130-10	Repair openings and rechannel the base of manhole # 15 and #17 for the abandonments of Line C, complete	2	EA	3,500.00	\$ 7,000.00
SUB-TOTAL, SUBSECTION A.3 - 130-10 SW Manholes.....						\$ 604,500.00

ITEM NO.	COST CODE	A.4 130-02 SW Site Preparation	QUAN	UNIT	UNIT PRICE	AMOUNT
18.	130-02	Construct 14" CMB all weather access road per detail on plans from owners CMB stockpile (within 4 miles of project site) over compacted subgrade, compaction of subgrade and CMB per Geotechnical Engineers recommendations, including wood header, complete	7,522	SF	12.00	\$ 90,264.00
SUB-TOTAL, SUBSECTION A.4 - 130-02 SW Site Preparation.....						\$ 90,264.00

A	TOTAL OPTION 1 - SERRANO CREEK 24" SEWER LINE SECTION A	\$ 2,727,869.00
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UNIT PRICE	AMOUNT
\$27,500.00	\$ 27,500.00
\$25,095.00	\$ 25,095.00
\$10,000.00	\$ 10,000.00
\$7,500.00	\$ 7,500.00
\$	70,095.00
UNIT PRICE	AMOUNT
597.00	\$ 1,771,896.00
1,000.00	\$ 46,000.00
8,900.00	\$ 8,900.00
8,900.00	\$ 17,800.00
15.00	\$ 50,805.00
11,000.00	\$ 22,000.00
550.00	\$ 17,050.00
\$	1,934,451.00
UNIT PRICE	AMOUNT
29,750.00	\$ 89,250.00
21,000.00	\$ 42,000.00
14,500.00	\$ 130,500.00
142,500.00	\$ 142,500.00
25,000.00	\$ 25,000.00
18,500.00	\$ 37,000.00
5,200.00	\$ 83,200.00
11,000.00	\$ 11,000.00
2,750.00	\$ 5,500.00
\$	565,950.00
UNIT PRICE	AMOUNT
11.00	\$ 82,742.00
\$	82,742.00
\$	2,653,238.00

UNIT PRICE	AMOUNT
\$40,000.00	\$ 40,000.00
\$31,000.00	\$ 31,000.00
\$11,500.00	\$ 11,500.00
\$5,500.00	\$ 5,500.00
\$	88,000.00
UNIT PRICE	AMOUNT
552.00	\$ 1,638,336.00
890.00	\$ 40,940.00
28,500.00	\$ 28,500.00
31,250.00	\$ 62,500.00
11.00	\$ 37,257.00
3,560.00	\$ 7,120.00
125.00	\$ 3,875.00
\$	1,818,528.00
UNIT PRICE	AMOUNT
37,000.00	\$ 111,000.00
28,500.00	\$ 57,000.00
35,000.00	\$ 315,000.00
145,000.00	\$ 145,000.00
24,500.00	\$ 24,500.00
7,200.00	\$ 14,400.00
4,300.00	\$ 68,800.00
3,850.00	\$ 3,850.00
13,500.00	\$ 27,000.00
\$	766,550.00
UNIT PRICE	AMOUNT
8.00	\$ 60,176.00
\$	60,176.00
\$	2,733,254.00

UNIT PRICE	AMOUNT
\$50,000.00	\$ 50,000.00
\$32,000.00	\$ 32,000.00
\$10,000.00	\$ 10,000.00
\$10,000.00	\$ 10,000.00
\$	102,000.00
UNIT PRICE	AMOUNT
630.00	\$ 1,869,840.00
950.00	\$ 43,700.00
8,500.00	\$ 8,500.00
8,500.00	\$ 17,000.00
18.00	\$ 60,966.00
10,000.00	\$ 20,000.00
500.00	\$ 15,500.00
\$	2,035,506.00
UNIT PRICE	AMOUNT
27,500.00	\$ 82,500.00
19,500.00	\$ 39,000.00
13,500.00	\$ 121,500.00
135,500.00	\$ 135,500.00
23,500.00	\$ 23,500.00
16,000.00	\$ 32,000.00
4,700.00	\$ 75,200.00
10,000.00	\$ 10,000.00
2,500.00	\$ 5,000.00
\$	524,200.00
UNIT PRICE	AMOUNT
10.00	\$ 75,220.00
\$	75,220.00
\$	2,736,926.00

OWNER: Heritage Fields El Toro, LLC

ENGINEER'S ESTIMATE

LEATHERWOOD

UNIT PRICE	AMOUNT
\$	-
\$	-
\$	-
\$	-
\$	-

[illegible][illegible]

UNIT PRICE	AMOUNT
	\$ -
\$	-

\$ -

PROJECT: Serrano Sewer IRWD Capital - Code 7806
V2a
Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

NO.	CODE	130-01 SW Sewer-General	QUAN	UNIT	UNIT PRICE	AMOUNT
1.	130-01	Mobilization, (Not to Exceed 2% of Bid)	1	LS	\$1,000.00	\$ 1,000.00
2.	130-01	Performance, Labor & Payment Bond	1	LS	\$500.00	\$ 500.00
3.	130-01	SWPPP & BMP's - Interim Erosion Control	1	LS	\$500.00	\$ 500.00
4.	130-01	Development & Application of Construction Water	1	LS	\$500.00	\$ 500.00
SUB-TOTAL, SUBSECTION C.1 - 130-01 SW Sewer-General.....						\$ 2,500.00

ITEM NO.	COST CODE	C.2 130-25 SW Manhole Raise	QUAN	UNIT	UNIT PRICE	AMOUNT
5.	130-25	Raise/lower existing sewer manhole to grade per IRWD std. dwg. S-1	2	EA	25,000.00	\$ 50,000.00
SUB-TOTAL, SUBSECTION C.2 - 130-25 SW Manhole Raise.....						\$ 50,000.00

c	MANHOLE RAISE/LOWER DELETEABLE TOTAL				\$ 52,500.00	
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FYDAQ - LOW	
UNIT PRICE	AMOUNT
\$950.00	\$ 950.00
\$462.50	\$ 462.50
\$500.00	\$ 500.00
\$500.00	\$ 500.00
\$	2,412.50
UNIT PRICE	AMOUNT
24,000.00	\$ 48,000.00
\$	48,000.00
\$	50,412.50

L&S	
UNIT PRICE	AMOUNT
\$1,100.00	\$ 1,100.00
\$650.00	\$ 650.00
\$500.00	\$ 500.00
\$650.00	\$ 650.00
\$	2,900.00
UNIT PRICE	AMOUNT
23,500.00	\$ 47,000.00
\$	47,000.00
\$ 49,900.00	

LEATHERWOOD	
UNIT PRICE	AMOUNT
\$1,000.00	\$ 1,000.00
\$1,000.00	\$ 1,000.00
\$500.00	\$ 500.00
\$500.00	\$ 500.00
\$	3,000.00
UNIT PRICE	AMOUNT
25,000.00	\$ 50,000.00
	50,000.00
\$	53,000.00

EXHIBIT "D"

PROJECT: DISTRICT 2
MARINE WAY - WET IMPROVEMENTS - CAPITAL
7388 & 7607 only

OWNER: Heritage Fields El Toro, LLC

CAP Bid Spread

WET IMPROVEMENTS - MARINE WAY - CAPITAL

CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS MARINE WAY (ALTON PARKWAY TO BAKE PARKWAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) & 16" RECYCLED WATER ZONE B (460 HGL) CAPITAL PROJECT NOS. 11176 & 11177 NON-CAPITAL PROJECT NOS. 10670 & 10672, IRWD CODE 7388

A MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388			
A.1	SUB-TOTAL, SUBSECTION A.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$	22,218.75
A.2	SUB-TOTAL, SUBSECTION A.2 - 131-02 DW SITE PREPARATION	\$	3,951.00
A.3	SUB-TOTAL, SUBSECTION A.3 - 131-05 DW MAINLINE PIPE	\$	268,697.75
A.4	SUB-TOTAL, SUBSECTION A.4 - 131-15 DW GATE/BFV VALVES	\$	46,650.00
A.5	SUB-TOTAL, SUBSECTION A.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$	34,800.00
A.6	SUB-TOTAL, SUBSECTION A.6 - 131-95 DW SYSTEM ACCEPTANCE	\$	8,375.00
A.7	SUB-TOTAL, SUBSECTION A.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$	-
MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388 - SUB-TOTAL.....		\$	384,692.50
B MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL			
B.1	SUB-TOTAL, SUBSECTION B.1 - 132-01 RW RECYCLED WATER-GENERAL	\$	38,748.23
B.2	SUB-TOTAL, SUBSECTION B.2 - 132-02 RW SITE PREPARATION	\$	1,362.00
B.3	SUB-TOTAL, SUBSECTION B.3 - 132-05 RW MAINLINE PIPE	\$	553,000.00
B.4	SUB-TOTAL, SUBSECTION B.4 - 131-15 RW GATE/BFV VALVES	\$	52,091.67
B.5	SUB-TOTAL, SUBSECTION B.5 - 132-30 RW FIRE HYDRANTS	\$	9,356.33
B.6	SUB-TOTAL, SUBSECTION B.6 - 132-20 RW BLOW OFF ASSEMBLIES	\$	33,198.67
B.7	SUB-TOTAL, SUBSECTION B.7 - 132-95 RW SYSTEM ACCEPTANCE	\$	10,050.00
B.8	SUB-TOTAL, SUBSECTION B.8 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$	-
MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$	697,806.89

CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS BAKE PARKWAY (@ MARINE WAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) CAPITAL PROJECT NO. 11939, IRWD CODE 7607

C BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607			
C.1	SUB-TOTAL, SUBSECTION C.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$	49,459.83
C.2	SUB-TOTAL, SUBSECTION C.2 - 131-02 DW SITE PREPARATION	\$	99,124.20
C.3	SUB-TOTAL, SUBSECTION C.3 - 131-05 DW MAINLINE PIPE	\$	257,565.33
C.4	SUB-TOTAL, SUBSECTION C.4 - 131-15 DW GATE/BFV VALVES	\$	24,628.67
C.5	SUB-TOTAL, SUBSECTION C.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$	2,048.33
C.6	SUB-TOTAL, SUBSECTION C.6 - 131-95 DW SYSTEM ACCEPTANCE	\$	2,266.67
C.7	SUB-TOTAL, SUBSECTION C.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$	-
BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607 - SUB-TOTAL.....		\$	435,093.03

Subtotal excluding 7806 \$ **1,517,592.42**

ENGINEERS ESTIMATE

FYDAQ

L&S

LEATHERWOOD

MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388				CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS MARINE WAY (ALTON PARKWAY TO BAKE PARKWAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) & 16" RECYCLED WATER ZONE B (460 HGL) CAPITAL PROJECT NOS. 11176 & 11177 NON-CAPITAL PROJECT NOS. 10670 & 10672, IRWD CODE 7388			
ITEM	CODE	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	
131-01 DW DOMESTIC WATER-GENERAL							
001	131-01	Mobilization (Maximum of 2% of Section B)	1	LS	\$ 7,170.46	\$ 7,170.46	
002	131-01	Performance, Labor & Payment Bond	1	LS	\$ 3,585.23	\$ 3,585.23	
003	131-01	Erosion Control - SWPPP & BMPs	1	LS	\$ 2,688.92	\$ 2,688.92	
004	131-01	Development and Application of Construction Water	1	LS	\$ 2,688.92	\$ 2,688.92	
005	131-01	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	
006	131-01	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 3,585.23	\$ 3,585.23	
A.1		SUB-TOTAL, SUBSECTION A.1 - 131-01 DW DOMESTIC WATER-GENERAL				\$ 22,218.75	
131-02 DW SITE PREPARATION							
007	131-02	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 462.00	\$ 462.00	
008	131-02	Remove Existing Temporary Flush-out and Join Existing 12" Pipe, Complete	1	EA	\$ 3,489.00	\$ 3,489.00	

UNIT PRICE	AMOUNT
\$ 1,250.00	\$ 1,250.00
\$ 5,835.00	\$ 5,835.00
\$ 250.00	\$ 250.00
\$ 250.00	\$ 250.00
\$ 250.00	\$ 250.00
\$ 7,250.00	\$ 7,250.00
\$	\$ 15,085.00

UNIT PRICE	AMOUNT
\$ 9,500.00	\$ 9,500.00
\$ 8,500.00	\$ 8,500.00
\$ 2,500.00	\$ 2,500.00
\$ 2,500.00	\$ 2,500.00
\$ 2,500.00	\$ 2,500.00
\$ 12,000.00	\$ 12,000.00
\$	\$ 37,500.00

UNIT PRICE	AMOUNT
\$ 5,800.00	\$ 5,800.00
\$ 5,000.00	\$ 5,000.00
\$ 2,500.00	\$ 2,500.00
\$ 2,500.00	\$ 2,500.00
\$ 250.00	\$ 250.00
\$ 8,000.00	\$ 8,000.00
\$	\$ 24,050.00

\$ 250.00	\$ 250.00
\$ 2,267.00	\$ 2,267.00

\$ 1,500.00	\$ 1,500.00
\$ 4,000.00	\$ 4,000.00

\$ 1,500.00	\$ 1,500.00
\$ 4,200.00	\$ 4,200.00

\$ 1,571,355.00

\$ 1,567,010.00

\$ 1,525,023.85

A.2		SUB-TOTAL, SUBSECTION A.2 - 131-02 DW SITE PREPARATION				\$		3,951.00			
131-05 DW MAINLINE PIPE											
009	131-05	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the				3,719	LF	\$	72.25	268,697.75	
A.3		SUB-TOTAL, SUBSECTION A.3 - 131-05 DW MAINLINE PIPE				\$		268,697.75			
131-15 DW GATE/BFV VALVES											
010	131-15	Furnish and Install 12" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete				9	EA	\$	5,183.33	46,650.00	
A.4		SUB-TOTAL, SUBSECTION A.4 - 131-15 DW GATE/BFV VALVES				\$		46,650.00			
131-20 DW BLOW OFF ASSEMBLIES											
011	131-20	Furnish and Install 2" Air Vac Assembly, Case 3, Per IRWD Std. W-11, including 1 Raise, Complete				6	EA	\$	5,800.00	34,800.00	
A.5		SUB-TOTAL, SUBSECTION A.5 - 131-20 DW BLOW OFF ASSEMBLIES				\$		34,800.00			
131-95 DW SYSTEM ACCEPTANCE											
012	131-95	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete				15	EA	\$	558.33	8,375.00	
A.6		SUB-TOTAL, SUBSECTION A.6 - 131-95 DW SYSTEM ACCEPTANCE				\$		8,375.00			
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						QTY	UNIT	UNIT PRICE	AMOUNT		
								\$	\$		
								\$	\$		
								\$	\$		
								\$	\$		
								\$	\$		
A.7		SUB-TOTAL, SUBSECTION A.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				\$		-			
A		TOTAL MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388 CONTRACT PRICE SCHEDULE.....								\$	384,692.50

\$		2,517.00
\$	83.75	\$ 311,466.25
\$		311,466.25
\$	4,100.00	\$ 36,900.00
\$		36,900.00
\$	5,000.00	\$ 30,000.00
\$		30,000.00
\$	500.00	\$ 7,500.00
\$		7,500.00
UNIT PRICE	AMOUNT	
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$		-
\$		403,468.25

\$		5,500.00
\$	88.00	\$ 327,272.00
\$		327,272.00
\$	5,350.00	\$ 48,150.00
\$		48,150.00
\$	5,400.00	\$ 32,400.00
\$		32,400.00
\$	650.00	\$ 9,750.00
\$		9,750.00
UNIT PRICE	AMOUNT	
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$		-
\$		460,572.00

\$		5,700.00
\$	45.00	\$ 167,355.00
\$		167,355.00
\$	6,100.00	\$ 54,900.00
\$		54,900.00
\$	7,000.00	\$ 42,000.00
\$		42,000.00
\$	525.00	\$ 7,875.00
\$		7,875.00
UNIT PRICE	AMOUNT	
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$	\$	-
\$		-
\$		301,880.00

MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL							
ITEM	CODE	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	
132-01 RW RECYCLED WATER-GENERAL							
013	132-01	Mobilization (Maximum of 2% of Section D)	1	LS	\$ 13,181.17	\$	13,181.17
014	132-01	Performance, Labor & Payment Bond	1	LS	\$ 6,590.59	\$	6,590.59
015	132-01	Erosion Control - SWPPP & BMP's	1	LS	\$ 4,942.94	\$	4,942.94
016	132-01	Development and Application of Construction Water	1	LS	\$ 4,942.94	\$	4,942.94
017	132-01	Traffic Control	1	LS	\$ 2,500.00	\$	2,500.00
018	132-01	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 6,590.59	\$	6,590.59
B.1		SUB-TOTAL, SUBSECTION B.1 - 132-01 RW RECYCLED WATER-GENERAL				\$	38,748.23
132-02 RW SITE PREPARATION							
019	132-02	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 462.00	\$	462.00
020	132-02	Remove Existing Temporary Flush-out and Join Existing 16" PVC RW Line, Complete	1	EA	\$ 900.00	\$	900.00
B.2		SUB-TOTAL, SUBSECTION B.2 - 132-02 RW SITE PREPARATION				\$	1,362.00
132-05 RW MAINLINE PIPE							
021	132-05	Furnish and Install 16" PVC (Purple) Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	3,792	LF	\$ 145.83	\$	553,000.00
B.3		SUB-TOTAL, SUBSECTION B.3 - 132-05 RW MAINLINE PIPE				\$	553,000.00
131-15 RW GATE/BFV VALVES							
022	131-15	Furnish and Install 6" Resilient Gate Valve, Cl. 150, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	6	EA	\$ 2,091.67	\$	12,550.00
023	131-15	Furnish and Install 6" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	3	EA	\$ 3,158.33	\$	9,475.00
024	131-15	Furnish and Install 16" Butterfly Valve, Cl. 150, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 7,516.67	\$	30,066.67
B.4		SUB-TOTAL, SUBSECTION B.4 - 131-15 RW GATE/BFV VALVES				\$	52,091.67
132-30 RW FIRE HYDRANTS							
025	132-30	Furnish and Install Water Wharf Hydrant, Condition 2, With 6" x 4" D.I. Eccentric Reducer (Invert Flat), FEXFE, and per IRWD Std. W-9, including Initial Can Raise, Complete	1	EA	\$ 9,356.33	\$	9,356.33
B.5		SUB-TOTAL, SUBSECTION B.5 - 132-30 RW FIRE HYDRANTS				\$	9,356.33
132-20 RW BLOW OFF ASSEMBLIES							
026	132-20	Furnish and Install 2" Air Vac Assembly, Case 3, Per IRWD Std. W-11 and Per Detail on Plan, including 1 Raise, Complete	4	EA	\$ 8,299.67	\$	33,198.67
B.6		SUB-TOTAL, SUBSECTION B.6 - 132-20 RW BLOW OFF ASSEMBLIES				\$	33,198.67
132-95 RW SYSTEM ACCEPTANCE							
027	132-95	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	18	EA	\$ 558.33	\$	10,050.00
B.7		SUB-TOTAL, SUBSECTION B.7 - 132-95 RW SYSTEM ACCEPTANCE				\$	10,050.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)			QTY	UNIT	UNIT PRICE	AMOUNT	
					\$ -	\$	
					\$ -	\$	

UNIT PRICE	AMOUNT	
\$	1,250.00	\$ 1,250.00
\$	9,350.00	\$ 9,350.00
\$	250.00	\$ 250.00
\$	250.00	\$ 250.00
\$	250.00	\$ 250.00
\$	5,750.00	\$ 5,750.00
\$		17,100.00
\$	250.00	\$ 250.00
\$	2,835.00	\$ 2,835.00
\$		3,085.00
\$	143.50	\$ 544,152.00
\$		544,152.00
\$	1,575.00	\$ 9,450.00
\$	2,875.00	\$ 8,625.00
\$	5,000.00	\$ 20,000.00
\$		38,075.00
\$	12,069.00	\$ 12,069.00
\$		12,069.00
\$	10,199.00	\$ 40,796.00
\$		40,796.00
\$	500.00	\$ 9,000.00
\$		9,000.00
UNIT PRICE	AMOUNT	
\$	-	\$ -
\$	-	\$ -

UNIT PRICE	AMOUNT	
\$	11,500.00	\$ 11,500.00
\$	9,500.00	\$ 9,500.00
\$	4,500.00	\$ 4,500.00
\$	2,500.00	\$ 2,500.00
\$	4,000.00	\$ 4,000.00
\$	10,000.00	\$ 10,000.00
\$		42,000.00
\$	1,500.00	\$ 1,500.00
\$	6,000.00	\$ 6,000.00
\$		7,500.00
\$	124.00	\$ 470,208.00
\$		470,208.00
\$	2,100.00	\$ 12,600.00
\$	2,800.00	\$ 7,800.00
\$	8,150.00	\$ 32,600.00
\$		53,000.00
\$	8,200.00	\$ 8,200.00
\$		8,200.00
\$	5,600.00	\$ 22,400.00
\$		22,400.00
\$	650.00	\$ 11,700.00
\$		11,700.00
UNIT PRICE	AMOUNT	
\$	-	\$ -
\$	-	\$ -

AMOUNT	
\$ 15,500.00	\$ 15,500.00
\$ 5,000.00	\$ 5,000.00
\$ 2,500.00	\$ 2,500.00
\$ 2,500.00	\$ 2,500.00
\$ 250.00	\$ 250.00
\$ 7,000.00	\$ 7,000.00
\$	32,750.00
\$ 1,500.00	\$ 1,500.00
\$ 5,000.00	\$ 5,000.00
\$	6,500.00
\$ 170.00	\$ 644,640.00
\$	644,640.00
\$ 2,600.00	\$ 15,600.00
\$ 4,000.00	\$ 12,000.00
\$ 9,400.00	\$ 37,600.00
\$	65,200.00
\$ 7,800.00	\$ 7,800.00
\$	7,800.00
\$ 9,100.00	\$ 36,400.00
\$	36,400.00
\$ 525.00	\$ 9,450.00
\$	9,450.00
UNIT PRICE	AMOUNT
\$ -	\$ -
\$ -	\$ -

				\$	-	\$	
				\$	-	\$	
				\$	-	\$	
B.8	SUB-TOTAL, SUBSECTION B.8 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)			\$	-		
B	TOTAL CONTRACT PRICE SCHEDULE.....			\$	697,806.89		

\$	-	\$	-
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\$		\$	

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\$		\$	

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\$	-	\$	-
\$		\$	
\$		\$	

BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607			CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS BAKE PARKWAY (@ MARINE WAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) CAPITAL PROJECT NO. 11939, IRWD CODE 7607			
ITEM	CODE	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
131-01 DW DOMESTIC WATER-GENERAL						
028	131-01	Mobilization (Maximum of 2% of Section F)	1	LS	\$ 7,712.66	\$ 7,712.66
029	131-01	Performance, Labor & Payment Bond	1	LS	\$ 3,856.33	\$ 3,856.33
030	131-01	Erosion Control - SWPPP & BMP's	1	LS	\$ 2,892.25	\$ 2,892.25
031	131-01	Development and Application of Construction Water	1	LS	\$ 2,892.25	\$ 2,892.25
032	131-01	Traffic Control per TJJ Traffic Control Plan	1	LS	\$ 28,250.00	\$ 28,250.00
033	131-01	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 3,856.33	\$ 3,856.33
C.1 SUB-TOTAL, SUBSECTION C.1 - 131-01 DW DOMESTIC WATER-GENERAL						\$ 49,459.83
131-02 DW SITE PREPARATION						
034	131-02	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 462.00	\$ 462.00
035	131-02	Coordinate and Perform Shutdown of Existing 16" Domestic Water Line with IRWD Prior to Commencement of Work per IRWD Requirements, Including Disposal of Domestic Water to Adjacent Site (or As Directed by IRWD), Complete	1	LS	\$ 9,762.33	\$ 9,762.33
036	131-02	Sawcut and Remove Existing 8" Curb & Gutter, Dispose of Concrete in CFD Stockpile within 4 Miles of Project, Complete	30	LF	\$ 88.47	\$ 2,654.00
037	131-02	Sawcut and Remove Existing 4" Thick P.C.C. Sidewalk, Dispose of Concrete in CFD Stockpile within 4 Miles of Project, Complete	90	SF	\$ 32.82	\$ 2,953.50
038	131-02	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	153	LF	\$ 38.62	\$ 5,908.35
039	131-02	Replace Existing AC Pavement After Wet Utility Operations (Includes Jack and Bore Pit and all Utility Extensions within Existing AC pavement) Per City Std. 223, Alt "A", Complete	153	LF	\$ 100.12	\$ 15,317.85
040	131-02	Construct 8" Curb & Gutter Type "A-2" Per City of Irvine, Std. Plan No.0200, Complete	30	LF	\$ 150.67	\$ 4,520.00
041	131-02	Construct 4" Thick P.C.C. Sidewalk per City of Irvine Std. Plan No. 201, Complete	30	SF	\$ 139.42	\$ 4,182.50
042	131-02	Furnish and Install Cut-In 16"x16"x12"x12" CML&C Steel Cut-In Cross, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16 and per Detail On Plan and per Cutting Concrete Cylinder Pipe Notes on Plan, Complete	1	EA	\$ 36,248.33	\$ 36,248.33
043	131-02	Furnish and Install 16" Steel, Weld-on Flange Per Detail on Plan and per Cutting Concrete Cylinder Pipe Notes on Plan, Complete	2	EA	\$ 3,049.33	\$ 6,098.67
044	131-02	Furnish and Install Insulating Flange Kit per IRWD Std. Dwg. CP-10, Complete	6	EA	\$ 1,475.00	\$ 8,850.00
045	131-02	Furnish and Install Bonding Per IRWD Std. Dwg. CP-9, Complete	2	EA	\$ 1,083.33	\$ 2,166.67
C.2 SUB-TOTAL, SUBSECTION C.2 - 131-02 DW SITE PREPARATION						\$ 99,124.20
131-05 DW MAINLINE PIPE						
046	131-05	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	240	LF	\$ 232.08	\$ 55,700.00
047	131-05	Furnish and Install 12" D.I.P., C-350, Spool, FEXFE, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	19	LF	\$ 953.33	\$ 18,113.33
048	131-05	Furnish and Install 24" O.D. Steel Casing per IRWD Std. Dwg. W-21 (Jack & Bore), Depth= 9'-11", Complete	84	LF	\$ 1,248.33	\$ 104,860.00
049	131-05	Construct Jack and Bore Pits per Plan, including Engineering, Permits, Excavation, Shoring, Backfill, Compaction, Temporary Safety and Security Fence (For Pit and Work Area), and Any Other Appurtenant Work, Complete	2	EA	\$ 32,891.67	\$ 65,783.33
050	131-05	Furnish and Install Casing Test Station per IRWD Std. Dwg. W-21 and CP-3 and per Casing Test Station Notes on Plan, Complete	2	EA	\$ 6,554.33	\$ 13,108.67
C.3 SUB-TOTAL, SUBSECTION C.3 - 131-05 DW MAINLINE PIPE						\$ 257,565.33
131-15 DW GATE/BFV VALVES						
051	131-15	Furnish and Install 12" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	2	EA	\$ 5,139.33	\$ 10,278.67
052	131-15	Furnish and Install 16" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	2	EA	\$ 7,175.00	\$ 14,350.00
C.4 SUB-TOTAL, SUBSECTION C.4 - 131-15 DW GATE/BFV VALVES						\$ 24,628.67
131-20 DW BLOW OFF ASSEMBLIES						
053	131-20	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA	\$ 2,048.33	\$ 2,048.33
C.5 SUB-TOTAL, SUBSECTION C.5 - 131-20 DW BLOW OFF ASSEMBLIES						\$ 2,048.33
131-95 DW SYSTEM ACCEPTANCE						
054	131-95	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	4	EA	\$ 566.67	\$ 2,266.67
C.6 SUB-TOTAL, SUBSECTION C.6 - 131-95 DW SYSTEM ACCEPTANCE						\$ 2,266.67
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)			QTY	UNIT	UNIT PRICE	AMOUNT
					\$ -	\$ -
					\$ -	\$ -
					\$ -	\$ -
					\$ -	\$ -
					\$ -	\$ -

UNIT PRICE	AMOUNT
\$ 1,250.00	\$ 1,250.00
\$ 6,250.00	\$ 6,250.00
\$ 250.00	\$ 250.00
\$ 250.00	\$ 250.00
\$ 47,750.00	\$ 47,750.00
\$ 1,750.00	\$ 1,750.00
\$ 57,500.00	
\$ 250.00	\$ 250.00
\$ 1,787.00	\$ 1,787.00
\$ 85.40	\$ 2,562.00
\$ 28.45	\$ 2,560.50
\$ 25.85	\$ 3,955.05
\$ 50.35	\$ 7,703.55
\$ 92.00	\$ 2,760.00
\$ 68.25	\$ 2,047.50
\$ 27,245.00	\$ 27,245.00
\$ 1,648.00	\$ 3,296.00
\$ 855.00	\$ 5,130.00
\$ 350.00	\$ 700.00
\$ 59,996.60	

UNIT PRICE	AMOUNT
\$ 9,800.00	\$ 9,800.00
\$ 8,500.00	\$ 8,500.00
\$ 4,000.00	\$ 4,000.00
\$ 2,500.00	\$ 2,500.00
\$ 12,000.00	\$ 12,000.00
\$ 2,500.00	\$ 2,500.00
\$ 39,300.00	
\$ 1,500.00	\$ 1,500.00
\$ 7,500.00	\$ 7,500.00
\$ 40.00	\$ 1,200.00
\$ 20.00	\$ 1,800.00
\$ 30.00	\$ 4,590.00
\$ 120.00	\$ 18,360.00
\$ 50.00	\$ 1,500.00
\$ 40.00	\$ 1,200.00
\$ 46,500.00	\$ 46,500.00
\$ 4,900.00	\$ 9,800.00
\$ 3,000.00	\$ 18,000.00
\$ 1,800.00	\$ 3,600.00
\$ 115,550.00	

AMOUNT	
\$ 7,200.00	\$ 7,200.00
\$ 5,000.00	\$ 5,000.00
\$ 10,000.00	\$ 10,000.00
\$ 2,500.00	\$ 2,500.00
\$ 25,000.00	\$ 25,000.00
\$ 2,600.00	\$ 2,600.00
\$	\$ 52,300.00
\$ 15,000.00	\$ 15,000.00
\$ 20,000.00	\$ 20,000.00
\$ 140.00	\$ 4,200.00
\$ 50.00	\$ 4,500.00
\$ 60.00	\$ 9,180.00
\$ 130.00	\$ 19,890.00
\$ 310.00	\$ 9,300.00
\$ 310.00	\$ 9,300.00
\$ 35,000.00	\$ 35,000.00
\$ 2,600.00	\$ 5,200.00
\$ 570.00	\$ 3,420.00
\$ 1,100.00	\$ 2,200.00
\$	\$ 137,190.00

\$ 166.25	\$ 39,900.00
\$ 1,235.00	\$ 23,465.00
\$ 1,965.00	\$ 165,060.00
\$ 36,175.00	\$ 72,350.00
\$ 8,963.00	\$ 17,926.00
\$ 318,701.00	
\$ 4,168.00	\$ 8,336.00
\$ 4,775.00	\$ 9,550.00
\$ 17,886.00	
\$ 1,195.00	\$ 1,195.00
\$ 1,195.00	
\$ 500.00	\$ 2,000.00
\$ 2,000.00	

\$ 340.00	\$ 81,600.00
\$ 625.00	\$ 11,875.00
\$ 1,350.00	\$ 113,400.00
\$ 42,500.00	\$ 85,000.00
\$ 8,500.00	\$ 17,000.00
\$ 308,875.00	
\$ 5,150.00	\$ 10,300.00
\$ 8,250.00	\$ 16,500.00
\$ 26,800.00	
\$ 2,650.00	\$ 2,650.00
\$ 2,650.00	
\$ 650.00	\$ 2,600.00
\$ 2,600.00	

\$ 190.00	\$ 45,600.00
\$ 1,000.00	\$ 19,000.00
\$ 1,550.00	\$ 130,200.00
\$ 20,000.00	\$ 40,000.00
\$ 2,200.00	\$ 4,400.00
\$ 239,200.00	
\$ 6,100.00	\$ 12,200.00
\$ 8,500.00	\$ 17,000.00
\$ 29,200.00	
\$ 2,300.00	\$ 2,300.00
\$ 2,300.00	
\$ 550.00	\$ 2,200.00
\$ 2,200.00	

UNIT PRICE	AMOUNT
\$ -	\$ -
\$ -	\$ -
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UNIT PRICE	AMOUNT
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AMOUNT
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C.7	SUB-TOTAL, SUBSECTION C.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$	-	\$	-	\$	-	\$	-
C	TOTAL BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607 CONTRACT PRICE SCHEDULE.....	\$	435,093.03	\$	457,278.60	\$	495,775.00	\$	462,390.00

EXHIBIT "E"

OWNER: Heritage Fields El Toro, LLC Project GP-5 - IRWD Capital Wet Utility Improvements Bid Date: November 30, 2021
IRWD CODE: 7740

GP-5 - WET IMPROVEMENTS

ITEM NO.	IRWD CODE 7740 12" SANITARY SEWER	UNIT	QTY
001	Mobilization (Maximum of 2% of Section A)	1	LS
002	Performance, Labor & Payment Bond	1	LS
003	Erosion Control - SWPPP & BMP's	1	LS
004	Development and Application of Construction Water	1	LS
005	Traffic Control	1	LS
006	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	1	LS
007	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
008	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	1	EA
009	Remove Existing Sewer Plug and Join Existing Pipe, Complete	1	EA
010	Join Existing Casing and Match Size, Welding Method of New Casing Requires IRWD Inspection, Contractor to Perform Work Effort for Connection, per IRWD Inspection for Both Casing and Sewer, Complete	1	EA
011	Relocate Anode Behind New Curb, per IRWD Inspector, Complete	2	EA
012	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	71	LF
013	Replace Existing AC Pavement Per City Std. 223, Alt "A", Complete	71	LF
014	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 15'-20', Complete	202	LF
015	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 20'-25', Complete	1,398	LF
016	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 25'-30', Complete	302	LF
017	Install 18" PVC (Green), [Pre-Ordered Pipe provided by Owner] C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 15'-20', Complete	66	LF
018	Furnish and Install 29.5" O.D. Steel Casing with CPTS at Each End, per IRWD Std. DWGS. S 7 & CP 3, Depth=15'-17', Complete	62	LF
019	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe Within Existing 29.5" O.D. Steel Casing, including Casing and End Seals per IRWD Std. Dwg. S 7, Depth= 23'-25', Complete	80	LF
020	ALTERNATE: Construct Jack and Bore Pits per Plan, including Engineering, Permits, Excavation, Shoring, Backfill, Compaction, Temporary Safety and Security Fence (For Pit and Work Area), and Any Other Appurtenant Work, Complete	2	EA
021	ALTERNATE: Furnish and Install 29.5" O.D. Steel Casing per IRWD Std. Dwg. W 21 (Jack & Bore), Depth= 23'-25', Complete	80	EA
022	ALTERNATE: Jack and Bore 18" PVC (Green), C900, DR 14, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 23'-25', Complete	80	EA
023	Furnish and Install Casing Test Station, per IRWD Std. DWG. S 7, Complete	4	EA
024	Construct 60" DIA. Manhole per IRWD Std. DWG. S 1 including 1 Raise, Depth = 15'-20', Complete	2	EA
025	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20'-25', Complete	4	EA
026	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20'-25', Complete	1	EA
027	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = >25', Complete	1	EA
028	Furnish & Install Temporary 8" Terminal Cleanout Per IRWD Std. S 5, Including 1 Raise to Grade, Complete	1	EA
029	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	8	EA

A SUBTOTAL IRWD CODE 7740 CAPITAL 12" SEWER IMPROVEMENTS

ITEM NO.	IRWD CODE 7740 DOMESTIC WATER	UNIT	QTY
030	Mobilization (Maximum of 2% of Section C)	1	LS
031	Performance, Labor & Payment Bond	1	LS
032	Erosion Control - SWPPP & BMP's	1	LS
033	Development and Application of Construction Water	1	LS
034	Traffic Control	1	LS
035	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and	1	LS
036	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
037	Remove Existing Temporary Flush-out and Join Existing 12" Pipe, Complete	1	EA
038	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	2,250	LF

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 13,089.80	\$ 13,089.80	\$ 1,665.00	\$ 1,665.00	\$ 15,500.00	\$ 15,500.00
\$ 9,162.86	\$ 9,162.86	\$ 3,550.00	\$ 3,550.00	\$ 11,400.00	\$ 11,400.00
\$ 6,414.00	\$ 6,414.00	\$ 325.00	\$ 325.00	\$ 1,750.00	\$ 1,750.00
\$ 3,207.00	\$ 3,207.00	\$ 325.00	\$ 325.00	\$ 1,060.00	\$ 1,060.00
\$ 1,603.60	\$ 1,603.60	\$ 1,000.00	\$ 1,000.00	\$ 300.00	\$ 300.00
\$ 10,240.00	\$ 10,240.00	\$ 5,638.00	\$ 5,638.00	\$ 6,200.00	\$ 6,200.00
\$ 1,000.00	\$ 1,000.00	\$ 325.00	\$ 325.00	\$ 750.00	\$ 750.00
\$ 5,000.00	\$ 5,000.00	\$ 3,832.00	\$ 3,832.00	\$ 4,000.00	\$ 4,000.00
\$ 3,500.00	\$ 3,500.00	\$	\$	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 2,000.00	\$ 1,065.00	\$ 1,065.00	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 4,000.00	\$ 4,358.00	\$ 8,716.00	\$ 4,200.00	\$ 8,400.00
\$ 50.00	\$ 3,550.00	\$ 47.25	\$ 3,354.75	\$ 35.00	\$ 2,485.00
\$ 100.00	\$ 7,100.00	\$ 157.00	\$ 11,147.00	\$ 75.00	\$ 5,325.00
\$ 200.00	\$ 40,400.00	\$ 104.50	\$ 21,109.00	\$ 180.00	\$ 36,360.00
\$ 225.00	\$ 314,550.00	\$ 100.00	\$ 139,800.00	\$ 225.00	\$ 314,550.00
\$ 250.00	\$ 75,500.00	\$ 133.25	\$ 40,241.50	\$ 260.00	\$ 78,520.00
\$ 190.00	\$ 12,540.00	\$ 223.75	\$ 14,767.50	\$ 360.00	\$ 23,760.00
\$ 425.00	\$ 26,350.00	\$ 406.25	\$ 25,187.50	\$ 560.00	\$ 34,720.00
\$ 175.00	\$ 14,000.00	\$ 189.50	\$ 15,160.00	\$ 205.00	\$ 16,400.00
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$ 2,750.00	\$ 11,000.00	\$ 3,925.00	\$ 15,700.00	\$ 2,450.00	\$ 9,800.00
\$ 10,500.00	\$ 21,000.00	\$ 9,593.00	\$ 19,186.00	\$ 13,500.00	\$ 27,000.00
\$ 15,000.00	\$ 60,000.00	\$ 14,548.00	\$ 58,192.00	\$ 18,000.00	\$ 72,000.00
\$ 21,000.00	\$ 21,000.00	\$ 19,802.00	\$ 19,802.00	\$ 25,500.00	\$ 25,500.00
\$ 25,000.00	\$ 25,000.00	\$ 21,062.00	\$ 21,062.00	\$ 27,050.00	\$ 27,050.00
\$ 2,000.00	\$ 2,000.00	\$ 2,875.00	\$ 2,875.00	\$ 1,350.00	\$ 1,350.00
\$ 625.00	\$ 5,000.00	\$ 525.00	\$ 4,200.00	\$ 840.00	\$ 6,720.00
\$	\$ 698,207.16	\$	\$ 438,226.25	\$	\$ 737,300.00

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 4,581.88	\$ 4,581.88	\$ 1,665.00	\$ 1,665.00	\$ 3,300.00	\$ 3,300.00
\$ 3,207.32	\$ 3,207.32	\$ 3,550.00	\$ 3,550.00	\$ 3,000.00	\$ 3,000.00
\$ 3,207.32	\$ 3,207.32	\$ 325.00	\$ 325.00	\$ 1,500.00	\$ 1,500.00
\$ 1,603.66	\$ 1,603.66	\$ 325.00	\$ 325.00	\$ 700.00	\$ 700.00
\$ 1,603.66	\$ 1,603.66	\$ 325.00	\$ 325.00	\$ 300.00	\$ 300.00
\$ 2,760.00	\$ 2,760.00	\$ 4,490.00	\$ 4,490.00	\$ 3,500.00	\$ 3,500.00
\$ 500.00	\$ 500.00	\$ 325.00	\$ 325.00	\$ 410.00	\$ 410.00
\$ 3,500.00	\$ 3,500.00	\$ 2,765.00	\$ 2,765.00	\$ 4,600.00	\$ 4,600.00
\$ 83.75	\$ 188,437.50	\$ 82.50	\$ 185,625.00	\$ 62.00	\$ 139,500.00

<u>Leatherwood</u> Attn: Bobby Kawai Tel: 714.593.6575		<u>KEC</u> Attn: Khoi Khai Tel: 951.734.3010	
PRICE AMOUNT		PRICE AMOUNT	
\$ 17,000.00	\$ 17,000.00	\$ 2,000.00	\$ 2,000.00
\$ 6,600.00	\$ 6,600.00	\$ 21,000.00	\$ 21,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 18,000.00	\$ 18,000.00	\$ 7,000.00	\$ 7,000.00
\$ 3,000.00	\$ 3,000.00	\$ 38,000.00	\$ 38,000.00
\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
\$ 6,900.00	\$ 6,900.00	\$ 7,500.00	\$ 7,500.00
\$ 6,900.00	\$ 6,900.00	\$ 6,800.00	\$ 6,800.00
\$ 6,500.00	\$ 6,500.00	\$ 12,500.00	\$ 12,500.00
\$ 15,600.00	\$ 31,200.00	\$ 14,000.00	\$ 28,000.00
\$ 100.00	\$ 7,100.00	\$ 735.00	\$ 52,185.00
\$ 140.00	\$ 9,940.00	\$ 1,800.00	\$ 127,800.00
\$ 215.00	\$ 43,430.00	\$ 690.00	\$ 139,380.00
\$ 230.00	\$ 321,540.00	\$ 435.00	\$ 608,130.00
\$ 385.00	\$ 116,270.00	\$ 505.00	\$ 152,510.00
\$ 105.00	\$ 6,930.00	\$ 730.00	\$ 48,180.00
\$ 700.00	\$ 43,400.00	\$ 2,750.00	\$ 170,500.00
\$ 935.00	\$ 74,800.00	\$ 1,750.00	\$ 140,000.00
\$	\$	\$	\$
\$	\$	\$	\$
\$	\$	\$	\$
\$ 2,600.00	\$ 10,400.00	\$ 35,000.00	\$ 140,000.00
\$ 9,700.00	\$ 19,400.00	\$ 78,500.00	\$ 157,000.00
\$ 14,300.00	\$ 57,200.00	\$ 67,500.00	\$ 270,000.00
\$ 21,400.00	\$ 21,400.00	\$ 95,500.00	\$ 95,500.00
\$ 22,500.00	\$ 22,500.00	\$ 104,000.00	\$ 104,000.00
\$ 3,100.00	\$ 3,100.00	\$ 10,000.00	\$ 10,000.00
\$ 790.00	\$ 5,600.00	\$ 2,000.00	\$ 16,000.00
	\$ 873,510.00		\$ 2,372,485.00

<u>Leatherwood</u> Attn: Bobby Kawai Tel: 714.593.6575		<u>KEC</u> Attn: Khoi Khai Tel: 951.734.3010	
PRICE AMOUNT		PRICE AMOUNT	
\$ 7,400.00	\$ 7,400.00	\$ 2,000.00	\$ 2,000.00
\$ 6,500.00	\$ 6,500.00	\$ 9,000.00	\$ 9,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 500.00	\$ 500.00	\$ 7,000.00	\$ 7,000.00
\$ 16,000.00	\$ 16,000.00	\$ 57,500.00	\$ 57,500.00
\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
\$ 4,200.00	\$ 4,200.00	\$ 4,500.00	\$ 4,500.00
\$ 125.00	\$ 281,250.00	\$ 230.00	\$ 517,500.00

GP-5 - WET IMPROVEMENTS

039	Furnish and Install 12" Butterfly Valve, Cl. 250B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	2	EA
040	Furnish and Install 4" Blow-Off Assembly, Case 3, per IRWD Std. W-14, Complete	1	EA
041	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	2	EA
042	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA
043	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	9	EA

A SUBTOTAL IRWD CAPITAL CODE 7740 DOMESTIC WATER IMPROVEMENTS

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley		L&S Attn: Elton Welham	
\$ 5,183.33	\$ 10,366.66	\$ 4,230.00	\$ 8,460.00	\$ 5,300.00	\$ 10,600.00
\$ 11,855.00	\$ 11,855.00	\$ 14,454.00	\$ 14,454.00	\$ 18,900.00	\$ 18,900.00
\$ 1,805.00	\$ 3,610.00	\$ 1,917.00	\$ 3,834.00	\$ 2,150.00	\$ 4,300.00
\$ 5,800.00	\$ 5,800.00	\$ 5,732.00	\$ 5,732.00	\$ 6,800.00	\$ 6,800.00
\$ 558.33	\$ 5,024.97	\$ 475.00	\$ 4,275.00	\$ 600.00	\$ 5,400.00
	\$ 246,057.97		\$ 236,150.00		\$ 202,810.00

ITEM NO.	IRWD CODE 7740 RECYCLED WATER	UNIT	QTY
044	Mobilization (Maximum of 2% of Section D)	1	LS
045	Performance, Labor & Payment Bond	1	LS
046	Erosion Control - SWPPP & BMP's	1	LS
047	Development and Application of Construction Water	1	LS
048	Traffic Control	1	LS
049	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and	1	LS
050	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
051	Remove Existing Flange/Thrust Block and Connect to Existing Recycled Waterline, Complete	1	EA
052	Furnish and Install 8" PVC Purple Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	2,195	LF
053	Furnish and Install 2" Copper Service & Meter Box for Future 2" Meter (Meter Purchased by Others) per IRWD Std W-2, Complete	3	EA
054	Furnish and Install 4" Blow-Off Assembly, Case 3, per IRWD Std. W-14, Complete	1	EA
055	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA
056	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA
057	Furnish and Install TFO Marker, Complete	1	EA
058	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	3	EA

A SUBTOTAL IRWD CAPITAL CODE 7740 RECYCLED WATER IMPROVEMENTS

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 3,371.72	\$ 3,371.72	\$ 1,665.00	\$ 1,665.00	\$ 1,550.00	\$ 1,550.00
\$ 2,360.20	\$ 2,360.20	\$ 3,550.00	\$ 3,550.00	\$ 1,500.00	\$ 1,500.00
\$ 2,360.20	\$ 2,360.20	\$ 325.00	\$ 325.00	\$ 1,000.00	\$ 1,000.00
\$ 1,180.10	\$ 1,180.10	\$ 325.00	\$ 325.00	\$ 600.00	\$ 600.00
\$ 1,180.10	\$ 1,180.10	\$ 325.00	\$ 325.00	\$ 300.00	\$ 300.00
\$ 2,500.00	\$ 2,500.00	\$ 3,245.00	\$ 3,245.00	\$ 2,100.00	\$ 2,100.00
\$ 500.00	\$ 500.00	\$ 325.00	\$ 325.00	\$ 410.00	\$ 410.00
\$ 2,500.00	\$ 2,500.00	\$ 2,770.00	\$ 2,770.00	\$ 3,250.00	\$ 3,250.00
\$ 60.00	\$ 131,700.00	\$ 58.00	\$ 127,310.00	\$ 60.00	\$ 131,700.00
\$ 4,142.00	\$ 12,426.00	\$ 4,915.00	\$ 14,745.00	\$ 5,800.00	\$ 17,400.00
\$ 11,855.00	\$ 11,855.00	\$ 12,929.00	\$ 12,929.00	\$ 17,900.00	\$ 17,900.00
\$ 5,800.00	\$ 5,800.00	\$ 5,532.00	\$ 5,532.00	\$ 6,800.00	\$ 6,800.00
\$ 1,805.00	\$ 1,805.00	\$ 2,530.00	\$ 2,530.00	\$ 2,150.00	\$ 2,150.00
\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 180.00	\$ 180.00
\$ 500.00	\$ 1,500.00	\$ 475.00	\$ 1,425.00	\$ 600.00	\$ 1,800.00
	\$ 181,538.33		\$ 177,501.00		\$ 188,640.00

ITEM NO.	IRWD CODE 7740 18" SANITARY SEWER	UNIT	QTY
059	Mobilization (Maximum of 2% of Section A)	1	LS
060	Performance, Labor & Payment Bond	1	LS
061	Erosion Control - SWPPP & BMP's	1	LS
062	Development and Application of Construction Water	1	LS
063	Traffic Control	1	LS
064	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	1	LS
065	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
066	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	1	EA
067	Remove Existing Sewer Plug and Join Existing Pipe, Complete	1	EA
068	Join Existing Casing and Match Size, Welding Method of New Casing Requires IRWD Inspection, Contractor to Perform Work Effort for Connection, per IRWD Inspection for Both Casing and Sewer, Complete	4	EA
069	Relocate Anode Behind New Curb, per IRWD Inspector, Complete	2	EA
070	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	74	LF
071	Replace Existing AC Pavement Per City Std. 223, Alt "A", Complete	74	LF
072	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 15'-20', Complete	268	LF
073	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 20'-25', Complete	898	LF
074	Install 18" PVC (Green), [Pre-Ordered Pipe provided by Owner] C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 20'-25', Complete	500	LF
075	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 25'-30', Complete	302	LF

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 11,688.60	\$ 11,688.60	\$ 1,665.00	\$ 1,665.00	\$ 15,500.00	\$ 15,500.00
\$ 8,182.02	\$ 8,182.02	\$ 3,550.00	\$ 3,550.00	\$ 11,400.00	\$ 11,400.00
\$ 8,182.02	\$ 8,182.02	\$ 325.00	\$ 325.00	\$ 1,750.00	\$ 1,750.00
\$ 4,091.01	\$ 4,091.01	\$ 325.00	\$ 325.00	\$ 1,060.00	\$ 1,060.00
\$ 4,091.01	\$ 4,091.01	\$ 1,000.00	\$ 1,000.00	\$ 300.00	\$ 300.00
\$ 2,500.00	\$ 2,500.00	\$ 5,638.00	\$ 5,638.00	\$ 6,200.00	\$ 6,200.00
\$ 1,000.00	\$ 1,000.00	\$ 325.00	\$ 325.00	\$ 750.00	\$ 750.00
\$ 5,000.00	\$ 5,000.00	\$ 3,832.00	\$ 3,832.00	\$ 4,000.00	\$ 4,000.00
\$ 3,500.00	\$ 3,500.00	\$	\$	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 2,000.00	\$ 1,065.00	\$ 1,065.00	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 4,000.00	\$ 4,358.00	\$ 8,716.00	\$ 4,200.00	\$ 8,400.00
\$ 50.00	\$ 3,550.00	\$ 47.25	\$ 3,354.75	\$ 35.00	\$ 2,485.00
\$ 100.00	\$ 7,100.00	\$ 157.00	\$ 11,147.00	\$ 75.00	\$ 5,325.00
\$ 185.00	\$ 49,580.00	\$ 163.50	\$ 43,818.00	\$ 300.00	\$ 80,400.00
\$ 200.00	\$ 179,600.00	\$ 162.60	\$ 146,014.80	\$ 295.00	\$ 264,910.00
\$ 150.00	\$ 75,000.00	\$ 45.85	\$ 22,925.00	\$ 200.00	\$ 100,000.00
\$ 225.00	\$ 67,950.00	\$ 172.00	\$ 51,944.00	\$ 332.00	\$ 100,264.00

Leatherwood <i>Attn: Bobby Kawai</i>		KEC <i>Attn: Khoi Khai</i>	
\$ 7,000.00	\$ 14,000.00	\$ 23,800.00	\$ 47,600.00
\$ 14,500.00	\$ 14,500.00	\$ 29,700.00	\$ 29,700.00
\$ 3,000.00	\$ 6,000.00	\$ 9,700.00	\$ 19,400.00
\$ 10,000.00	\$ 10,000.00	\$ 20,800.00	\$ 20,800.00
\$ 525.00	\$ 4,725.00	\$ 2,000.00	\$ 18,000.00
	\$ 379,575.00		\$ 751,500.00

Leatherwood <i>Attn: Bobby Kawai</i> <i>Tel: 714.593.6575</i>		KEC <i>Attn: Khoi Khai</i> <i>Tel: 951.734.3010</i>	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 5,500.00	\$ 5,500.00	\$ 2,000.00	\$ 2,000.00
\$ 6,500.00	\$ 6,500.00	\$ 8,000.00	\$ 8,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 500.00	\$ 500.00	\$ 7,000.00	\$ 7,000.00
\$ 6,200.00	\$ 6,200.00	\$ 57,500.00	\$ 57,500.00
\$ 3,500.00	\$ 3,500.00	\$ 5,000.00	\$ 5,000.00
\$ 4,500.00	\$ 4,500.00	\$ 10,000.00	\$ 10,000.00
\$ 90.00	\$ 197,550.00	\$ 190.00	\$ 417,050.00
\$ 5,800.00	\$ 17,400.00	\$ 14,000.00	\$ 42,000.00
\$ 14,000.00	\$ 14,000.00	\$ 27,000.00	\$ 27,000.00
\$ 10,200.00	\$ 10,200.00	\$ 21,000.00	\$ 21,000.00
\$ 3,000.00	\$ 3,000.00	\$ 9,500.00	\$ 9,500.00
\$ 250.00	\$ 250.00	\$ 4,000.00	\$ 4,000.00
\$ 525.00	\$ 1,575.00	\$ 2,000.00	\$ 6,000.00
	\$ 275,175.00		\$ 629,550.00

Leatherwood <i>Attn: Bobby Kawai</i> <i>Tel: 714.593.6575</i>		KEC <i>Attn: Khoi Khai</i> <i>Tel: 951.734.3010</i>	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 20,000.00	\$ 20,000.00	\$ 2,000.00	\$ 2,000.00
\$ 7,500.00	\$ 7,500.00	\$ 21,000.00	\$ 21,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 18,000.00	\$ 18,000.00	\$ 7,000.00	\$ 7,000.00
\$ 3,000.00	\$ 3,000.00	\$ 38,000.00	\$ 38,000.00
\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
\$ 6,900.00	\$ 6,900.00	\$ 7,500.00	\$ 7,500.00
\$ 6,900.00	\$ 6,900.00	\$ 6,800.00	\$ 6,800.00
\$ 6,500.00	\$ 6,500.00	\$ 12,500.00	\$ 12,500.00
\$ 15,600.00	\$ 31,200.00	\$ 14,000.00	\$ 28,000.00
\$ 100.00	\$ 7,100.00	\$ 735.00	\$ 52,185.00
\$ 140.00	\$ 9,940.00	\$ 1,800.00	\$ 127,800.00
\$ 275.00	\$ 73,700.00	\$ 680.00	\$ 182,240.00
\$ 340.00	\$ 305,320.00	\$ 495.00	\$ 444,510.00
\$ 160.00	\$ 80,000.00	\$ 615.00	\$ 307,500.00
\$ 500.00	\$ 151,000.00	\$ 740.00	\$ 223,480.00

GP-5 - WET IMPROVEMENTS

076	Furnish and Install 29.5" O.D. Steel Casing with CPTS at Each End, per IRWD Std. DWGS. S 7 & CP 3,-- Depth=15'-17', Complete-	62	LF
077	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe Within Existing 29.5" O.D. Steel Casing,-- including Casing and End Seals per IRWD Std. Dwg. S 7, Depth= 23'-25', Complete-	80	LF
078	ALTERNATE: Construct Jack and Bore Pits per Plan, including Engineering, Permits, Excavation, Shoring,-- Backfill, Compaction, Temporary Safety and Security Fence (For Pit and Work Area), and Any Other Appurtenant Work, Complete	2	EA
079	ALTERNATE: Furnish and Install 29.5" O.D. Steel Casing per IRWD Std. Dwg. W 24 (Jack & Bore), Depth= 23'-- 25', Complete	80	EA
080	ALTERNATE: Jack and Bore 18" PVC (Green), C900, DR 14, Sewer Pipe with Sewer Indicator Tape, including-- Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 23'-25', Complete-	80	EA
081	Furnish and Install Casing Test Station, per IRWD Std. DWG. S 7, Complete-	4	EA
082	Construct 60" DIA. Manhole per IRWD Std. DWG. S 1 including 1 Raise, Depth = 15'-20', Complete-	2	EA
083	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1-- Raise, Depth = 20'-25', Complete	4	EA
084	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1-- Raise, Depth = 20'-25', Complete	1	EA
085	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1-- Raise, Depth = >25', Complete	4	EA
086	Furnish & Install Temporary 8" Terminal Cleanout Per IRWD Std. S 5, Including 1 Raise to Grade, Complete-	4	EA
087	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra-- Move, Complete	8	EA

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley		L&S Attn: Elton Welham	
\$ 425.00-	\$ 26,350.00-	\$ 406.25-	\$ 25,187.50-	\$ 560.00-	\$ 34,720.00-
\$ 185.00-	\$ 14,800.00-	\$ 268.00-	\$ 21,440.00-	\$ 260.00-	\$ 20,800.00-
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$ 2,750.00-	\$ 11,000.00-	\$ 3,925.00-	\$ 16,700.00-	\$ 2,450.00-	\$ 9,800.00-
\$ 10,500.00-	\$ 21,000.00-	\$ 9,503.00-	\$ 19,186.00-	\$ 13,500.00-	\$ 27,000.00-
\$ 15,000.00-	\$ 60,000.00-	\$ 14,548.00-	\$ 58,192.00-	\$ 18,000.00-	\$ 72,000.00-
\$ 21,000.00-	\$ 21,000.00-	\$ 19,802.00-	\$ 19,802.00-	\$ 25,500.00-	\$ 25,500.00-
\$ 25,000.00-	\$ 25,000.00-	\$ 21,062.00-	\$ 21,062.00-	\$ 27,050.00-	\$ 27,050.00-
\$ 2,000.00-	\$ 2,000.00-	\$ 3,317.00-	\$ 3,317.00-	\$ 1,350.00-	\$ 1,350.00-
\$ 625.00-	\$ 5,000.00-	\$ 525.00-	\$ 4,200.00-	\$ 840.00-	\$ 6,720.00-
	\$ 623,164.66		\$ 493,731.05		\$ 834,084.00

A SUBTOTAL IRWD CODE 7740 CAPITAL 18" SEWER IMPROVEMENTS

AMOUNTS READ AT BID OPENING:

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - 12"SEWER - CONTRACT PRICE SCHEDULE		\$ 1,125,803.46	\$ 851,876.25	\$ 1,128,750.00	
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - 18"SEWER - CONTRACT PRICE SCHEDULE		\$ 1,050,760.96	\$ 907,382.05	\$ 1,225,534.00	
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - DOMESTIC AND RECYCLED WATER ONLY - CONTRACT PRICE SCHEDULE		\$ 427,596.30	\$ 413,651.00	\$ 391,450.00	

<u>Leatherwood</u> <i>Attn: Bobby Kawai</i>		<u>KEC</u> <i>Attn: Khoi Khai</i>	
\$ 700.00	\$ 43,400.00	\$ 2,750.00	\$ 170,500.00
\$ 935.00	\$ 74,800.00	\$ 1,800.00	\$ 144,000.00
\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -
\$ 2,600.00	\$ 10,400.00	\$ 35,000.00	\$ 140,000.00
\$ 10,300.00	\$ 20,600.00	\$ 78,500.00	\$ 157,000.00
\$ 15,100.00	\$ 60,400.00	\$ 67,500.00	\$ 270,000.00
\$ 22,300.00	\$ 22,300.00	\$ 95,500.00	\$ 95,500.00
\$ 23,400.00	\$ 23,400.00	\$ 104,000.00	\$ 104,000.00
\$ 3,100.00	\$ 3,100.00	\$ 10,000.00	\$ 10,000.00
\$ 700.00	\$ 5,600.00	\$ 2,000.00	\$ 16,000.00
	<u><u>\$ 1,005,560.00</u></u>		<u><u>\$ 2,586,015.00</u></u>

<u>Leatherwood</u> <i>Attn: Bobby Kawai</i> <i>Tel: 714.593.6575</i>	<u>KEC</u> <i>Attn: Khoi Khai</i> <i>Tel: 951.734.3010</i>
<u>\$ 1,528,260.00</u>	<u>\$ 3,753,535.00</u>
<u>\$ 1,660,310.00</u>	<u>\$ 3,967,065.00</u>

<u>\$ 654,750.00</u>	<u>\$ 1,381,050.00</u>
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EXHIBIT F

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ

L&S

LEATHERWOOD

D5S6N MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) - CAPITAL IMPROVEMENTS HARRIER (FROM CHINON TO LYNX) 8" & 12" DOMESTIC WATER (ZONE 3 & 4R) 8", 10", 12", & 15" SANITARY SEWER 4" & 10" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. ____ & ____ NON-CAPITAL PROJECT NOS. 11965, 11966 & 11967 IRWD CODE 7808

A1 12229					
A1.1	SUB-TOTAL, SUBSECTION A1.1 - 130-01 SW SEWER-GENERAL	\$ 21,089.89	\$ 8,373.00	\$ 15,150.00	\$ 24,700.00
A1.2	SUB-TOTAL, SUBSECTION A1.2 - 130-02 SW SITE PREPARATION	\$ 3,500.00	\$ 3,800.00	\$ 7,600.00	\$ 15,000.00
A1.3	SUB-TOTAL, SUBSECTION A1.3 - 130-05 SW MAINLINE	\$ 249,373.00	\$ 296,061.00	\$ 327,460.00	\$ 394,800.00
A1.4	SUB-TOTAL, SUBSECTION A1.4 - 130-10 SW MANHOLES	\$ 82,500.00	\$ 71,270.00	\$ 73,800.00	\$ 95,500.00
A1.5	SUB-TOTAL, SUBSECTION A1.5 - 130-25 SW MANHOLE RAISE	\$ 2,625.00	\$ 2,625.00	\$ 4,250.00	\$ 3,850.00
A1.6	SUB-TOTAL, SUBSECTION A1.6 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 359,087.89	\$ 382,129.00	\$ 428,260.00	\$ 533,850.00
A2 12228					
A2.1	SUB-TOTAL, SUBSECTION A2.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 27,490.69	\$ 14,193.00	\$ 8,590.00	\$ 31,100.00
A2.2	SUB-TOTAL, SUBSECTION A2.2 - 131-02 DW SITE PREPARATION	\$ 7,500.00	\$ 12,150.00	\$ 9,400.00	\$ 21,000.00
A2.3	SUB-TOTAL, SUBSECTION A2.3 - 131-05 DW MAINLINE PIPE	\$ 363,726.25	\$ 466,872.50	\$ 521,160.00	\$ 564,590.00
A2.4	SUB-TOTAL, SUBSECTION A2.4 - 131-15 DW GATE/BFV VALVES	\$ 51,840.00	\$ 43,500.00	\$ 48,000.00	\$ 90,000.00
A2.5	SUB-TOTAL, SUBSECTION A2.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 26,810.00	\$ 34,288.00	\$ 47,500.00	\$ 49,000.00
A2.6	SUB-TOTAL, SUBSECTION A2.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 4,500.00	\$ 4,500.00	\$ 6,750.00	\$ 5,400.00
A2.7	SUB-TOTAL, SUBSECTION A2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 481,866.94	\$ 575,503.50	\$ 641,400.00	\$ 761,090.00
A3 12230					
A3.1	SUB-TOTAL, SUBSECTION A3.1 - 132-01 RW RECYCLED WATER-GENERAL	\$ 18,118.19	\$ 9,967.00	\$ 11,050.00	\$ 24,100.00
A3.2	SUB-TOTAL, SUBSECTION A3.2 - 132-02 RW SITE PREPARATION	\$ 4,000.00	\$ 6,325.00	\$ 4,300.00	\$ 13,000.00
A3.3	SUB-TOTAL, SUBSECTION A3.3 - 132-05 RW MAINLINE PIPE	\$ 251,362.00	\$ 203,607.00	\$ 218,600.00	\$ 326,500.00
A3.4	SUB-TOTAL, SUBSECTION A3.4 - 132-15 RW GATE/BFV VALVES	\$ 13,200.00	\$ 16,800.00	\$ 21,600.00	\$ 34,000.00
A3.5	SUB-TOTAL, SUBSECTION A3.5 - 132-20 RW BLOW OFF ASSEMBLIES	\$ 13,405.00	\$ 17,002.00	\$ 23,750.00	\$ 13,500.00
A3.6	SUB-TOTAL, SUBSECTION A3.6 - 132-95 RW SYSTEM ACCEPTANCE	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
A3.7	SUB-TOTAL, SUBSECTION A3.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 302,085.19	\$ 255,701.00	\$ 282,300.00	\$ 413,500.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

ENGINEER'S ESTIMATE

FYDAQ

L&S

LEATHERWOOD

BID SPREAD

PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) CAPITAL IMPROVEMENTS CHINON (HARRIER TO TREBLE) 12" & 8" DOMESTIC WATER (ZONE 4R) 12" DOMESTIC WATER (ZONE 3) 10" & 4" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. ____ & ____ NON-CAPITAL PROJECT NOS. 11965 & 11966 IRWD CODE

B1 12231					
B1.1	SUB-TOTAL, SUBSECTION B1.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 5,119.36	\$ 9,060.00	\$ 8,590.00	\$ 17,100.00
B1.2	SUB-TOTAL, SUBSECTION B1.2 - 131-02 DW SITE PREPARATION	\$ 500.00	\$ 500.00	\$ 400.00	\$ 5,000.00
B1.3	SUB-TOTAL, SUBSECTION B1.3 - 131-05 DW MAINLINE PIPE	\$ 17,168.75	\$ 30,985.75	\$ 28,700.00	\$ 79,950.00
B1.4	SUB-TOTAL, SUBSECTION B1.4 - 131-15 DW GATE/BFV VALVES	\$ 20,736.00	\$ 17,400.00	\$ 19,200.00	\$ 36,000.00
B1.5	SUB-TOTAL, SUBSECTION B1.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 7,220.00	\$ 9,632.00	\$ 16,600.00	\$ 12,000.00
B1.6	SUB-TOTAL, SUBSECTION B1.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
B1.7	SUB-TOTAL, SUBSECTION B1.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 52,744.11	\$ 69,577.75	\$ 76,490.00	\$ 152,450.00
B2 12232					
B2.1	SUB-TOTAL, SUBSECTION B2.1 - 132-01 RW RECYCLED WATER-GENERAL	\$ 17,804.80	\$ 8,505.00	\$ 12,550.00	\$ 35,600.00
B2.2	SUB-TOTAL, SUBSECTION B2.2 - 132-02 RW SITE PREPARATION	\$ 41,520.00	\$ 12,806.00	\$ 42,885.00	\$ 532,400.00
B2.3	SUB-TOTAL, SUBSECTION B2.3 - 132-05 RW MAINLINE PIPE	\$ 202,044.00	\$ 169,500.00	\$ 135,600.00	\$ 298,320.00
B2.4	SUB-TOTAL, SUBSECTION B2.4 - 132-15 RW GATE/BFV VALVES	\$ 23,100.00	\$ 31,500.00	\$ 33,600.00	\$ 69,500.00
B2.5	SUB-TOTAL, SUBSECTION B2.5 - 132-20 RW BLOW OFF ASSEMBLIES	\$ 7,605.00	\$ 14,000.00	\$ 13,950.00	\$ 13,500.00
B2.6	SUB-TOTAL, SUBSECTION B2.6 - 132-95 RW SYSTEM ACCEPTANCE	\$ 4,000.00	\$ 4,000.00	\$ 6,000.00	\$ 4,800.00
B2.7	SUB-TOTAL, SUBSECTION B2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 296,073.80	\$ 240,311.00	\$ 244,585.00	\$ 944,120.00
GRAND TOTAL DISTRICT 5 SOUTH, 6 NORTH MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE		\$ 1,491,857.93	\$ 1,523,222.25	\$ 1,673,035.00	\$ 2,805,010.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

D5S6N MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

ENGINEER'S ESTIMATE

FYDAQ

L&S

LEATHERWOOD

MS 16 - WET UTILITY IMPROVEMENTS - CAPITAL

PLANNING AREA 51, GREAT PARK
NEIGHBORHOODS DISTRICT 5(SOUTH) & 6
(NORTH) - CAPITAL IMPROVEMENTS HARRIER
(FROM CHINON TO LYNX) 8", 10", 12", & 15"
WATER (ZONE 3 & 4R) 8", 10", 12", & 15"
SANITARY SEWER 4" & 10" RECYCLED WATER
(ZONE C) CAPITAL PROJECT NOS. _____ &
NON-CAPITAL PROJECT NOS. 11965, 11966 &
11967 IRWD CODE 7808

MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P	AMOUNT
130-01 SW SEWER-GENERAL											
001	Mobilization (Maximum of 2% of Section A1)	1	LS	\$6,759.96	\$ 6,759.96		\$ 1,800.00		\$ 2,500.00	#	\$ 10,600.00
002	Performance, Labor & Payment Bond	1	LS	\$ 3,379.98	\$ 3,379.98		\$ 3,195.00		\$ 4,100.00	#	\$ 5,600.00
003	Erosion Control - SWPPP & BMP's	1	LS	\$2,534.99	\$ 2,534.99		\$ 500.00		\$ 1,500.00	#	\$ 2,000.00
004	Development and Application of Construction Water	1	LS	\$2,534.99	\$ 2,534.99		\$ 500.00		\$ 1,750.00	#	\$ 2,500.00
005	Traffic Control	1	LS	\$2,500.00	\$ 2,500.00		\$ 500.00		\$ 800.00	#	\$ 1,000.00
006	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	1	LS	\$ 3,379.98	\$ 3,379.98		\$ 1,878.00		\$ 4,500.00	#	\$ 3,000.00
A1.1	SUB-TOTAL, SUBSECTION A1.1 - 130-01 SW SEWER-GENERAL				\$ 21,089.89		\$ 8,373.00		\$ 15,150.00		\$ 24,700.00
130-02 SW SITE PREPARATION											
007	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00		\$ 500.00		\$ 400.00	#	\$ 5,000.00
008	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	2	EA	\$ 1,500.00	\$ 3,000.00		\$ 3,300.00		\$ 7,200.00	#	\$ 10,000.00
A1.2	SUB-TOTAL, SUBSECTION A1.2 - 130-02 SW SITE PREPARATION				\$ 3,500.00		\$ 3,800.00		\$ 7,600.00		\$ 15,000.00
130-05 SW MAINLINE											
009	Furnish and Install 12" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	34	LF	\$ 87.00	\$ 2,958.00		\$ 6,562.00		\$ 4,760.00	#	\$ 9,350.00
010	Furnish and Install 12" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 20'-25', Complete	600	LF	\$ 150.00	\$ 90,000.00		\$ 115,800.00		\$ 96,000.00	#	\$ 198,000.00
011	Furnish and Install 15" PVC, SDR 35, Sewer Pipe, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	298	LF	\$ 105.00	\$ 31,290.00		\$ 48,574.00		\$ 44,700.00	#	\$ 119,200.00
012	Furnish and Install 16" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	455	LF	\$ 275.00	\$ 125,125.00		\$ 125,125.00		\$ 182,000.00	#	\$ 68,250.00
A1.3	SUB-TOTAL, SUBSECTION A1.3 - 130-05 SW MAINLINE				\$ 249,373.00		\$ 296,061.00		\$ 327,460.00		\$ 394,800.00
130-10 SW MANHOLES											
013	Construct 60" DIA. Manhole per IRWD Std. DWG. S-1 including 1 Raise, Depth = 15'-20', Complete	1	EA	\$10,500.00	\$ 10,500.00		\$ 8,910.00		\$ 9,800.00	#	\$ 11,500.00
014	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S-1 and Per Detail on Plan, including 1 Raise Depth = 20'-25', Complete	2	EA	\$15,000.00	\$ 30,000.00		\$ 28,670.00		\$ 29,000.00	#	\$ 34,000.00
015	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S-1 and Per Detail on Plan, including 1 Raise Depth = 20'-25', Complete	2	EA	\$21,000.00	\$ 42,000.00		\$ 33,690.00		\$ 35,000.00	#	\$ 50,000.00
A1.4	SUB-TOTAL, SUBSECTION A1.4 - 130-10 SW MANHOLES				\$ 82,500.00		\$ 71,270.00		\$ 73,800.00		\$ 95,500.00
130-25 SW MANHOLE RAISE											
016	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra Move/Complete	5	EA	\$ 525.00	\$ 2,625.00		\$ 2,625.00		\$ 4,250.00	#	\$ 3,850.00
A1.5	SUB-TOTAL, SUBSECTION A1.5 - 130-25 SW MANHOLE RAISE				\$ 2,625.00		\$ 2,625.00		\$ 4,250.00		\$ 3,850.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)											
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
A1.6	SUB-TOTAL, SUBSECTION A1.6 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				\$ -		\$ -		\$ -		\$ -
A1	TOTAL MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....				\$ 359,087.89		\$ 382,129.00		\$ 428,260.00		\$ 533,850.00

MS 16 - DOMESTIC WATER IMPROVEMENTS - CAPITAL

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P	AMOUNT
131-01 DW DOMESTIC WATER-GENERAL											
017	Mobilization (Maximum of 2% of Section A2)	1	LS	\$9,087.53	\$ 9,087.53		\$ 1,800.00		\$ 740.00	#	\$ 10,000.00
018	Performance, Labor & Payment Bond	1	LS	\$ 4,543.76	\$ 4,543.76		\$ 3,195.00		\$ 1,000.00	#	\$ 5,600.00
019	Erosion Control - SWPPP & BMP's	1	LS	\$3,407.82	\$ 3,407.82		\$ 500.00		\$ 1,500.00	#	\$ 2,000.00
020	Development and Application of Construction Water	1	LS	\$3,407.82	\$ 3,407.82		\$ 500.00		\$ 650.00	#	\$ 2,500.00
021	Traffic Control	1	LS	\$2,500.00	\$ 2,500.00		\$ 500.00		\$ 200.00	#	\$ 1,000.00
022	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 4,543.76	\$ 4,543.76		\$ 7,698.00		\$ 4,500.00	#	\$ 10,000.00
A2.1	SUB-TOTAL, SUBSECTION A2.1 - 131-01 DW DOMESTIC WATER-GENERAL				\$ 27,490.69		\$ 14,193.00		\$ 8,590.00		\$ 31,100.00

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL																		
ITEM	DESCRIPTION				QTY	UNIT	AMOUNT		T P	AMOUNT	T F	AMOUNT	IT P	AMOUNT				
132-01 RW RECYCLED WATER-GENERAL																		
030	Mobilization (Maximum of 2% of Section A3)				1	LS	\$ 5,679.34	\$	5,679.34	\$	1,800.00	\$	1,500.00	#	\$	5,000.00		
031	Performance, Labor & Payment Bond				1	LS	\$ 2,839.67	\$	2,839.67	\$	3,195.00	\$	2,700.00	#	\$	5,600.00		
032	Erosion Control - SWPPP & BMP's				1	LS	\$ 2,129.75	\$	2,129.75	\$	500.00	\$	1,500.00	#	\$	2,000.00		
033	Development and Application of Construction Water				1	LS	\$ 2,129.75	\$	2,129.75	\$	500.00	\$	650.00	#	\$	2,500.00		
034	Traffic Control				1	LS	\$ 2,500.00	\$	2,500.00	\$	500.00	\$	200.00	#	\$	1,000.00		
035	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete				1	LS	\$ 2,839.67	\$	2,839.67	\$	3,472.00	\$	4,500.00	#	\$	8,000.00		
A3.1 SUB-TOTAL, SUBSECTION A3.1 - 132-01 RW RECYCLED WATER-GENERAL											\$	18,118.19	\$	9,967.00	\$	11,050.00	\$	24,100.00
132-02 RW SITE PREPARATION																		
036	Clearing and Grubbing (All Vegetation Within the Project Site)				1	LS	\$ 500.00	\$	500.00	\$	500.00	\$	400.00	#	\$	5,000.00		
037	Remove Existing Temporary Flush-out and Join Existing 10" PVC, Complete				1	EA	\$ 3,500.00	\$	3,500.00	\$	5,825.00	\$	3,900.00	#	\$	8,000.00		
A3.2 SUB-TOTAL, SUBSECTION A3.2 - 132-02 RW SITE PREPARATION											\$	4,000.00	\$	6,325.00	\$	4,300.00	\$	13,000.00
132-03 RW MAINLINE PIPE																		
038	Furnish and Install 10" DIP, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete				8	LF	\$ 514.00	\$	4,112.00	\$	4,732.00	\$	3,600.00	#	\$	4,000.00		
039	Furnish and Install 10" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete				2,150	LF	\$ 115.00	\$	247,250.00	\$	196,875.00	\$	215,000.00	#	\$	322,500.00		
A3.3 SUB-TOTAL, SUBSECTION A3.3 - 132-03 RW MAINLINE PIPE											\$	251,362.00	\$	203,607.00	\$	218,600.00	\$	326,500.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE						FYDAQ	L&S	LEATHERWOOD
132-15 RW GATE/BFV VALVES								
040	Furnish and Install 10" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 3,300.00	\$ 13,200.00	\$ 16,800.00	\$ 21,600.00	# \$ 34,000.00
A3.4	SUB-TOTAL, SUBSECTION A3.4 - 132-15 RW GATE/BFV VALVES			\$ 13,200.00		\$ 16,800.00	\$ 21,600.00	\$ 34,000.00
132-20 RW BLOW OFF ASSEMBLIES								
041	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	2	EA	\$ 5,800.00	\$ 11,600.00	\$ 14,594.00	\$ 19,600.00	# \$ 10,000.00
042	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA	\$ 1,805.00	\$ 1,805.00	\$ 2,408.00	\$ 4,150.00	# \$ 3,500.00
A3.5	SUB-TOTAL, SUBSECTION A3.5 - 132-20 RW BLOW OFF ASSEMBLIES			\$ 13,405.00		\$ 17,002.00	\$ 23,750.00	\$ 13,500.00
132-95 RW SYSTEM ACCEPTANCE								
043	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	4	EA	\$ 500.00	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	# \$ 2,400.00
A3.6	SUB-TOTAL, SUBSECTION A3.6 - 132-95 RW SYSTEM ACCEPTANCE			\$ 2,000.00		\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						T P AMOUNT	T F AMOUNT	T P I AMOUNT
				\$ -	-	\$ -	\$ -	# \$ -
				\$ -	-	\$ -	\$ -	# \$ -
				\$ -	-	\$ -	\$ -	# \$ -
				\$ -	-	\$ -	\$ -	# \$ -
				\$ -	-	\$ -	\$ -	# \$ -
				\$ -	-	\$ -	\$ -	# \$ -
A3.7	SUB-TOTAL, SUBSECTION A3.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)			\$ -	-	\$ -	\$ -	\$ -
A3	TOTAL MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....			\$ 302,085.19		\$ 255,701.00	\$ 282,300.00	\$ 413,500.00

MS 21 - WET UTILITY IMPROVEMENTS - CAPITAL	PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) CAPITAL IMPROVEMENTS CHINON (HARRIER TO TREBLE) 12" & 8" DOMESTIC WATER (ZONE 4R) 12" DOMESTIC WATER (ZONE 3) 10" & 4" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. _____ & _____ NON-CAPITAL PROJECT NOS. 11965 & 11966 IRWD CODE 7809			
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MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL								
ITEM	DESCRIPTION	QTY	UNIT	AMOUNT		T P AMOUNT	T F AMOUNT	T P I AMOUNT
131-01 DW DOMESTIC WATER-GENERAL								
044	Mobilization (Maximum of 2% of Section B1)	1	LS	\$952.50	\$ 952.50	\$ 1,800.00	\$ 740.00	# \$ 3,000.00
045	Performance, Labor & Payment Bond	1	LS	\$ 476.25	\$ 476.25	\$ 3,195.00	\$ 1,000.00	# \$ 5,600.00
046	Erosion Control - SWPPP & BMP's	1	LS	\$357.19	\$ 357.19	\$ 500.00	\$ 1,500.00	# \$ 2,000.00
047	Development and Application of Construction Water	1	LS	\$357.19	\$ 357.19	\$ 500.00	\$ 650.00	# \$ 2,500.00
048	Traffic Control	1	LS	\$2,500.00	\$ 2,500.00	\$ 500.00	\$ 200.00	# \$ 1,000.00
049	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 476.25	\$ 476.25	\$ 2,565.00	\$ 4,500.00	# \$ 3,000.00
B1.1	SUB-TOTAL, SUBSECTION B1.1 - 131-01 DW DOMESTIC WATER-GENERAL			\$ 5,119.36		\$ 9,060.00	\$ 8,590.00	\$ 17,100.00
131-02 DW SITE PREPARATION								
050	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00	\$ 500.00	\$ 400.00	# \$ 5,000.00
B1.2	SUB-TOTAL, SUBSECTION B1.2 - 131-02 DW SITE PREPARATION			\$ 500.00		\$ 500.00	\$ 400.00	\$ 5,000.00
131-05 DW MAINLINE PIPE								
051	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	205	LF	\$ 83.75	\$ 17,168.75	\$ 30,985.75	\$ 28,700.00	# \$ 79,950.00
B1.3	SUB-TOTAL, SUBSECTION B1.3 - 131-05 DW MAINLINE PIPE			\$ 17,168.75		\$ 30,985.75	\$ 28,700.00	\$ 79,950.00
131-15 DW GATE/BFV VALVES								
052	Furnish and Install 12" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 5,184.00	\$ 20,736.00	\$ 17,400.00	\$ 19,200.00	# \$ 36,000.00
B1.4	SUB-TOTAL, SUBSECTION B1.4 - 131-15 DW GATE/BFV VALVES			\$ 20,736.00		\$ 17,400.00	\$ 19,200.00	\$ 36,000.00
131-20 DW BLOW OFF ASSEMBLIES								
053	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	4	EA	\$ 1,805.00	\$ 7,220.00	\$ 9,632.00	\$ 16,600.00	# \$ 12,000.00
B1.5	SUB-TOTAL, SUBSECTION B1.5 - 131-20 DW BLOW OFF ASSEMBLIES			\$ 7,220.00		\$ 9,632.00	\$ 16,600.00	\$ 12,000.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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131-95 DW SYSTEM ACCEPTANCE								
054	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	4	EA	\$ 500.00	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	# \$ 2,400.00
B1.6	SUB-TOTAL, SUBSECTION B1.6 - 131-95 DW SYSTEM ACCEPTANCE				\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				QTY	UNIT	AMOUNT	T P AMOUNT	T F AMOUNT
						\$ -	\$ -	# \$ -
						\$ -	\$ -	# \$ -
						\$ -	\$ -	# \$ -
						\$ -	\$ -	# \$ -
						\$ -	\$ -	# \$ -
B1.7	SUB-TOTAL, SUBSECTION B1.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)					\$ -	\$ -	\$ -
B1	TOTAL MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....					\$ 52,744.11	\$ 69,577.75	\$ 76,490.00


MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL									
ITEM	DESCRIPTION	QTY	UNIT	AMOUNT		T P AMOUNT	T F AMOUNT	IT P I	AMOUNT
132-01 RW RECYCLED WATER-GENERAL									
055	Mobilization (Maximum of 2% of Section B2)	1	LS	\$ 5,565.38	\$ 5,565.38	\$ 1,800.00	\$ 1,850.00	# \$	18,500.00
056	Performance, Labor & Payment Bond	1	LS	\$ 2,782.69	\$ 2,782.69	\$ 3,195.00	\$ 2,400.00	# \$	5,600.00
057	Erosion Control - SWPPP & BMP's	1	LS	\$ 2,087.02	\$ 2,087.02	\$ 500.00	\$ 1,500.00	# \$	2,000.00
058	Development and Application of Construction Water	1	LS	\$ 2,087.02	\$ 2,087.02	\$ 500.00	\$ 1,500.00	# \$	2,500.00
059	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 500.00	\$ 800.00	# \$	1,000.00
060	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 2,782.69	\$ 2,782.69	\$ 2,010.00	\$ 4,500.00	# \$	6,000.00
B2.1	SUB-TOTAL, SUBSECTION B2.1 - 132-01 RW RECYCLED WATER-GENERAL			\$ 17,804.80		\$ 8,505.00	\$ 12,550.00	\$	35,600.00
132-02 RW SITE PREPARATION									
061	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00	\$ 500.00	\$ 400.00	# \$	5,000.00
062	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	293	LF	\$ 39.00	\$ 11,427.00	\$ 8,790.00	\$ 13,185.00	# \$	205,100.00
063	Replace Existing AC Pavement After Wet Utility Operations (Includes Jack and Bore Pit and all Utility Extensions within Existing AC pavement) Per City Std. 223, Alt "A", Complete	293	LF	\$ 101.00	\$ 29,593.00	\$ 3,516.00	\$ 29,300.00	# \$	322,300.00
B2.2	SUB-TOTAL, SUBSECTION B2.2 - 132-02 RW SITE PREPARATION			\$ 41,520.00		\$ 12,806.00	\$ 42,885.00	\$	532,400.00
132-05 RW MAINLINE PIPE									
064	Furnish and Install 10" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	1,356	LF	\$ 149.00	\$ 202,044.00	\$ 169,500.00	\$ 135,600.00	# \$	298,320.00
B2.3	SUB-TOTAL, SUBSECTION B2.3 - 132-05 RW MAINLINE PIPE			\$ 202,044.00		\$ 169,500.00	\$ 135,600.00	\$	298,320.00
132-15 RW GATE/BFV VALVES									
065	Furnish and Install 10" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	7	EA	\$ 3,300.00	\$ 23,100.00	\$ 31,500.00	\$ 33,600.00	# \$	59,500.00
B2.4	SUB-TOTAL, SUBSECTION B2.4 - 132-15 RW GATE/BFV VALVES			\$ 23,100.00		\$ 31,500.00	\$ 33,600.00	\$	59,500.00
132-20 RW BLOW OFF ASSEMBLIES									
066	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA	\$ 5,800.00	\$ 5,800.00	\$ 9,000.00	\$ 9,800.00	# \$	10,500.00
067	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA	\$ 1,805.00	\$ 1,805.00	\$ 5,000.00	\$ 4,150.00	# \$	3,000.00
B2.5	SUB-TOTAL, SUBSECTION B2.5 - 132-20 RW BLOW OFF ASSEMBLIES			\$ 7,605.00		\$ 14,000.00	\$ 13,950.00	\$	13,600.00
132-95 RW SYSTEM ACCEPTANCE									
068	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	8	EA	\$ 500.00	\$ 4,000.00	\$ 4,000.00	\$ 6,000.00	# \$	4,800.00
B2.6	SUB-TOTAL, SUBSECTION B2.6 - 132-95 RW SYSTEM ACCEPTANCE			\$ 4,000.00		\$ 4,000.00	\$ 6,000.00	\$	4,800.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						QTY	UNIT	UNIT PRICE	AMOUNT
				\$ -	\$ -	\$ -	\$ -	# \$	-
				\$ -	\$ -	\$ -	\$ -	# \$	-
				\$ -	\$ -	\$ -	\$ -	# \$	-
				\$ -	\$ -	\$ -	\$ -	# \$	-
				\$ -	\$ -	\$ -	\$ -	# \$	-
				\$ -	\$ -	\$ -	\$ -	# \$	-
B2.7	SUB-TOTAL, SUBSECTION B2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)			\$ -		\$ -	\$ -	\$	-
B2	TOTAL MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....			\$ 296,073.80		\$ 240,311.00	\$ 244,585.00	\$	944,120.00

GRAND TOTAL DISTRICT 5 SOUTH, 6 NORTH MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....	\$ 1,491,857.93	\$ 1,523,222.25	\$ 1,673,035.00	\$ 2,805,010.00
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October 18, 2022

Prepared by: M. Robinson / E. Akiyoshi

Submitted by: K. Burton

Approved by: Paul A. Cook 

ENGINEERING AND OPERATIONS COMMITTEE

REGIONAL FACILITIES CAPACITY OVERVIEW AND ASSET MANAGEMENT

SUMMARY:

Staff will present information highlighting IRWD's robust access to regional water transmission mains and network of potable water supply turnouts that compliment local production capabilities. Additionally, staff will demonstrate tools that provide access to historical agreements and assist in asset management activities.

BACKGROUND:

IRWD's imported potable water is delivered through six regional transmission mains with raw water being delivered to the Baker Water Treatment Plant through two transmission mains as listed below. Exhibit "A" highlights IRWD's access and capacities in these facilities and Exhibit "B" provides an overview of the pipelines and turnout locations.

- Potable Transmission Mains
 - Allen-McColloch Pipeline (AMP)
 - Coastal Supply Line (CSL)
 - East Orange County Feeder #2 (EOCF-2)
 - Orange County Feeder (OCF)
 - Aufdenkamp Transmission Main (ATM)
 - Joint Transmission Main (JTM)
- Raw Water Transmission Mains to Baker Water Treatment Plant
 - Baker / Santiago Aqueduct Commission (SAC) Pipeline
 - Irvine Lake Pipeline (ILP)

IRWD continuously collaborates with local and regional agencies to ensure ownership capacities and agreements are updated to reflect current needs and evolving water resource trends. Periodic updates of major planning resources such as the Urban Water Management Plan, Water Supply Assessment certifications, and the Water Resources Master Plan help ensure information is readily available and current.

Staff developed the Facility Agreement and Search Tool (FAST) providing links between historical agreements and pertinent facilities. Staff will demonstrate at the Committee meeting showing how FAST assists in building a sustainable asset management foundation for IRWD.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

Receive and file.

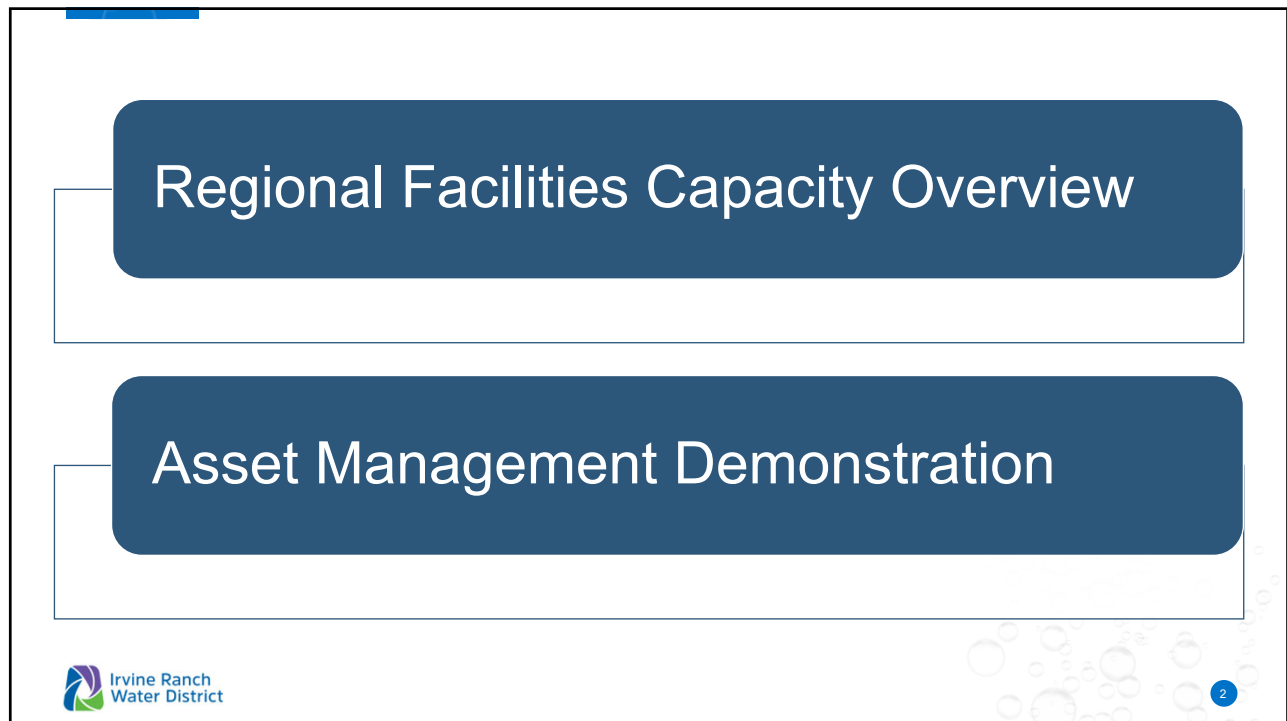
LIST OF EXHIBITS:

Exhibit “A” – PowerPoint Presentation

Exhibit “B” – Regional Pipeline and Turnout Locations



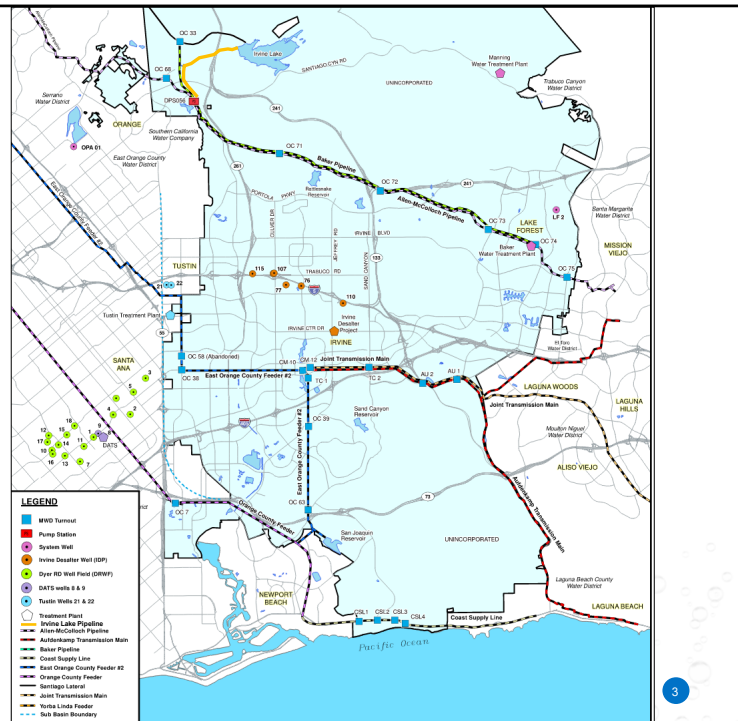
1



2

Regional Potable Supply Overview

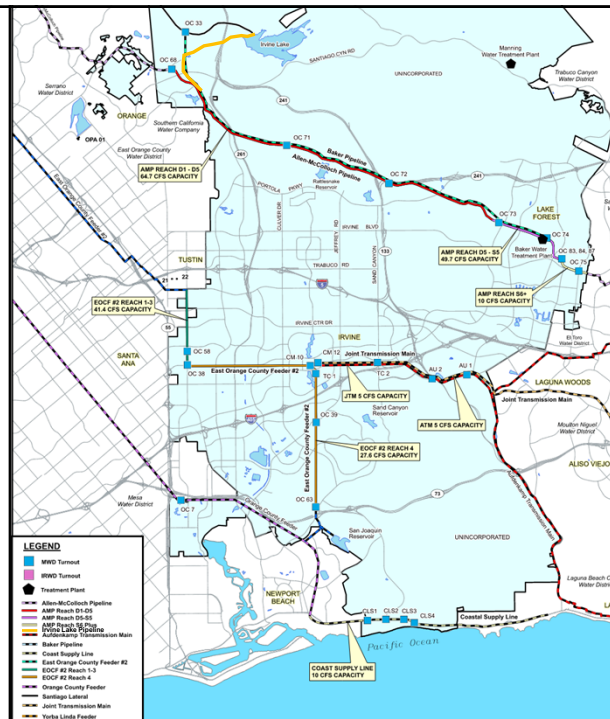
- Major Transmission Mains
 - Allen-McColloch Pipeline
 - Coastal Supply Line
 - EOCF-2
 - OCF
 - Aufdenkamp Transmission Main
 - Joint Transmission Main
 - Baker / SAC Pipeline
 - Irvine Lake Pipeline



3

Potable Supply Overview

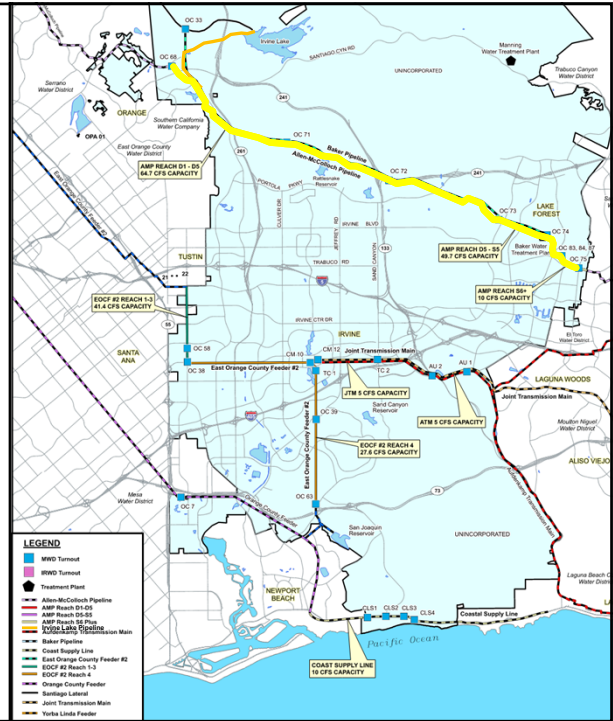
Pipeline	Pipeline Operator	Reach	Total Reach Capacity (cfs)	IRWD Capacity (cfs)
Allen-McColloch Pipeline	MWDOC	D1-D4	416-340.5	64.7
Allen-McColloch Pipeline	MWDOC	D5-S5	313.5-303.9	49.7
Allen-McColloch Pipeline	MWDOC	S6A	101	10
East Orange County Feeder #2	MWDOC	1 to 3	300-218	41.4
East Orange County Feeder #2	MWDOC	4	92.5	27.6
Orange County Feeder	MWDOC	CM-01A	CM-01A	10
Coastal Supply Line	LBCWD	N/A	N/A	10
Joint Transmission Main	SCWD	N/A	N/A	10
Aufdenkamp Transmission Main	LBCWD	N/A	N/A	5
Irvine Lake Pipeline	IRWD	N/A	63.4	63.4
Baker Pipeline	Baker WTP Partners	1U	99	50
Baker Pipeline	Baker WTP Partners	2U	54.78	15.65
Baker Pipeline	Baker WTP Partners	3U	50.68	11.6
Baker Pipeline	Baker WTP Partners	4U	50.68	11.6
Baker Pipeline	Baker WTP Partners	5U	49.5	10.5



4

AMP Pipeline

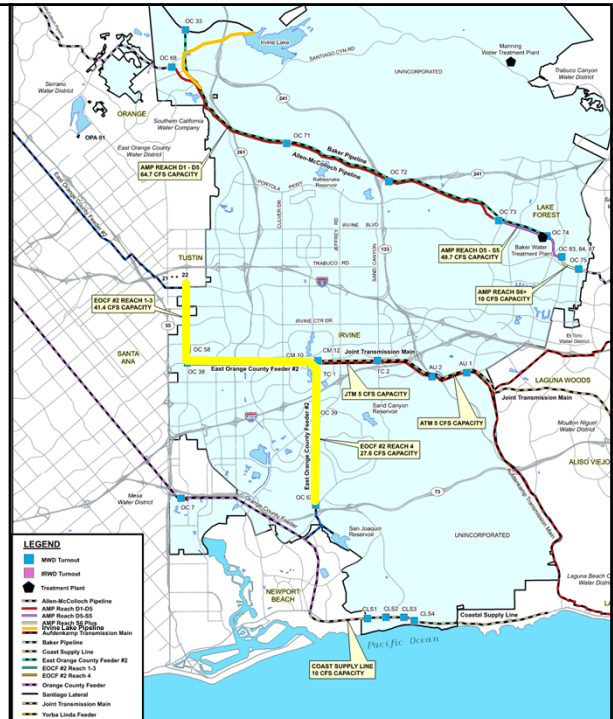
Pipeline	Pipeline Operator	Reach	Total Reach Capacity (cfs)	IRWD Capacity (cfs)
Allen-McColloch Pipeline	MWDOC	D1-D4	416-340.5	64.7
Allen-McColloch Pipeline	MWDOC	D5-S5	313.5-303.9	49.7
Allen-McColloch Pipeline	MWDOC	S6A	101	10



5

East Orange County Feeder #2

Pipeline	Pipeline Operator	Reach	Total Reach Capacity (cfs)	IRWD Capacity (cfs)
East Orange County Feeder #2	MWDOC	1 to 3	300-218	41.4
East Orange County Feeder #2	MWDOC	4	92.5	27.6

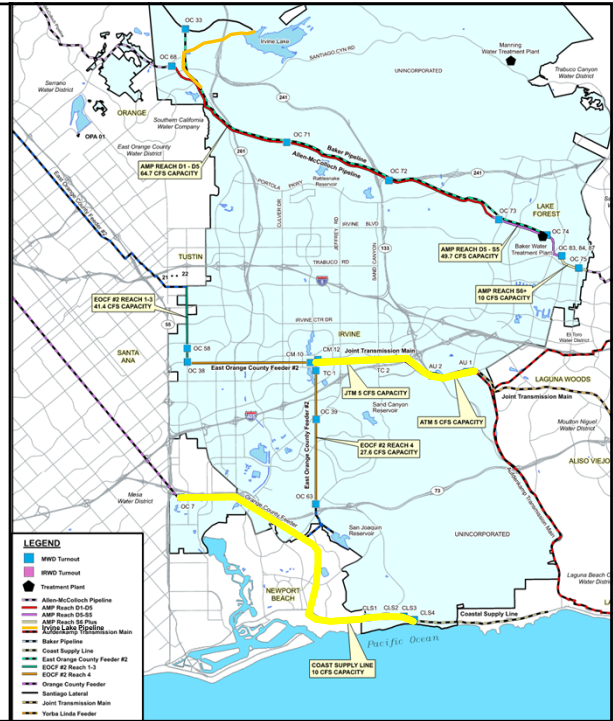


6

ATM / JTM / OCF / CSL

Pipeline	Pipeline Operator	Reach	Total Reach Capacity (cfs)	IRWD Capacity (cfs)
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Orange County Feeder	MWDOC	CM-01A	CM-01A	10
Coastal Supply Line	LBCWD	N/A	N/A	10
Joint Transmission Main	SCWD	N/A	N/A	10
Aufdenkamp Transmission Main	LBCWD	N/A	N/A	5

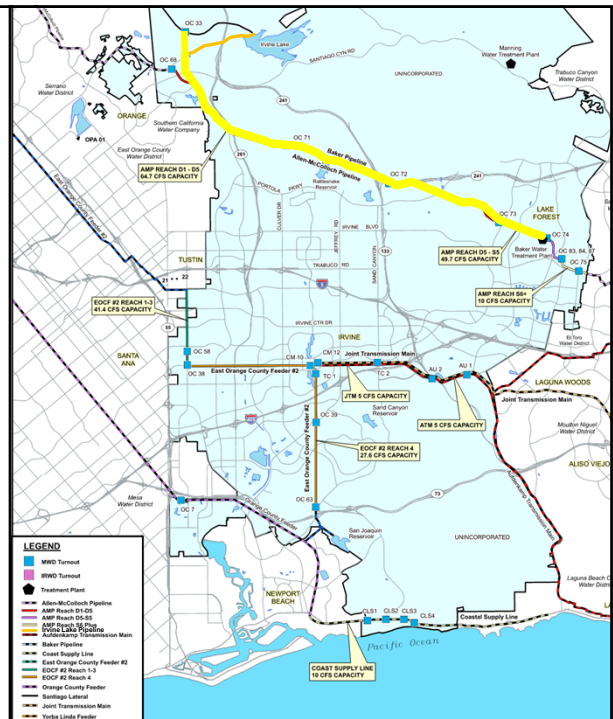


7

Baker Pipeline

Pipeline	Pipeline Operator	Reach	Total Reach Capacity (cfs)	IRWD Capacity (cfs)
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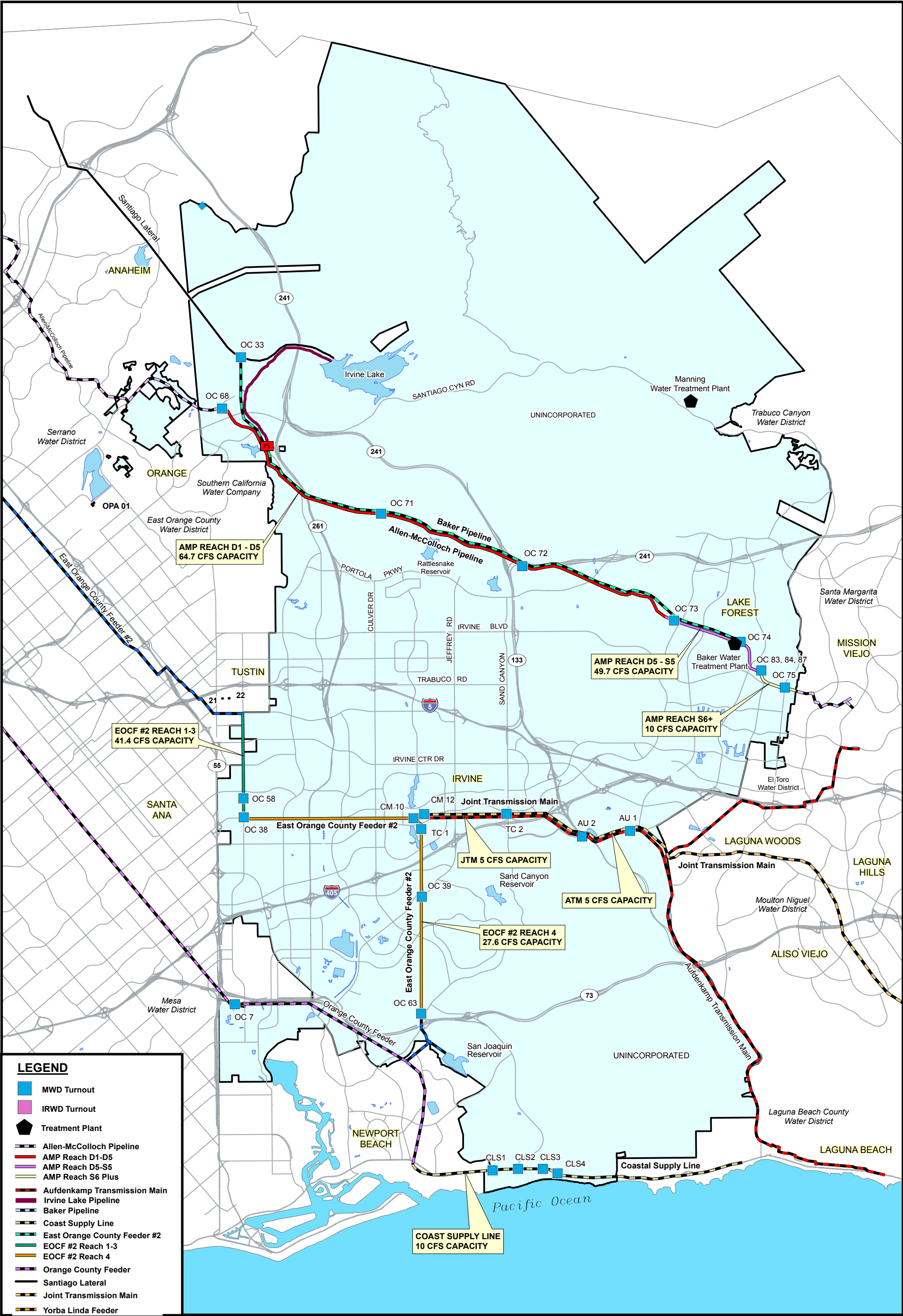
Baker Pipeline	Baker WTP Partners	1U	99	50
Baker Pipeline	Baker WTP Partners	2U	54.78	15.65
Baker Pipeline	Baker WTP Partners	3U	50.68	11.6
Baker Pipeline	Baker WTP Partners	4U	50.68	11.6
Baker Pipeline	Baker WTP Partners	5U	49.5	10.5



8




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PROJECT: V:\PROJECTS\2042519\100\design\analysis\IRWD_WRPMP_FIGURES\Fig_4_Treated Imported Potable Supply.mxd
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October 18, 2022
Prepared by: J. Colston
Submitted by: J. Colston / K. Burton
Approved by: Paul A. Cook 

ENGINEERING AND OPERATIONS COMMITTEE

RESEARCH BUSINESS PLAN UPDATE

SUMMARY:

Staff will provide an update on the research projects in which IRWD is currently involved.

BACKGROUND:

Periodically IRWD receives requests to participate in various research projects pertaining to emerging technologies through either direct funding or dedication of in-kind staff resources. Guidelines were developed to assist staff with its evaluation and response to those requests. These guidelines were incorporated into the IRWD Research Business Plan, which also provides a tracking mechanism for the various requests and ongoing research projects and programs in which IRWD participates. The underlying purpose of the Research Business Plan is to ensure that IRWD's research resources are being prioritized and utilized effectively.

One of the components of the Research Business Plan is for staff to provide a status update on the research projects to the Engineering and Operations Committee on a quarterly basis. IRWD actively participates in the Technology Approval Group (TAG) sponsored by Isle Utilities. The TAG hosts numerous developing technology providers in order to match interested agencies with their technologies. A status update on the current research projects is attached as Exhibit "A".

Changes since the last quarterly report:

- Update: UCI Industry-University Research Center-Perfluorinated Compound Sources and Loading at Wastewater Treatment Plants-A Sewershed-Scale Analysis – Sampling will be complete in 2022, and identification of residential sources of per-and polyfluoroalkyl substances (PFAS) will commence in 2023.
- Update: Biosolids Pellets Land Application Crop Study – Study has progressed from the initial selection of targeted analytes and methods for study to the growing of the first crops (fall crops) with IRWD biosolids pellets. Dr. Nicole Dennis from the University of California, Riverside provided staff with a detailed presentation on the project and its status.
- Wastewater Surveillance – While IRWD is not currently a formal participant in a wastewater surveillance project, the District will continue to provide wastewater (raw sewage) for testing by UCI. Wastewater surveillance has been very successful in California and has moved past the stage of proof of concept. The California Department of Public Health is establishing a detailed program in cooperation with wastewater treatment agencies around the state to target numerous infectious diseases including Covid-19, Monkeypox, Polio, Flu, Respiratory Syncytial Virus, and others. The information developed through the surveillance will be used to help local and state health professionals prepare for infectious disease outbreaks.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit “A” – Research Projects Summary Table

Exhibit "A"

Research Projects Summary Table

No.	Project Title	Project Description	IRWD Contact	Organizations Involved	Type of Research	IRWD Participation Resource	Start Date	Projected Completion Date	Comments/Next Steps
1	UCI Industry-University Research Center-Perfluorinated Compound Sources and Loading at Wastewater Treatment Plants-A Sewershed-Scale Analysis	This project will develop and implement methodology for sewershed analysis to identify raw wastewater sources of PFAS.	Weghorst/Colston	UCI Industry-University Research Center	Case study, data review, best practice analysis and technical report.	Staff time for review of reports, sharing information, and site analysis. Also providing automated sampling equipment.	Sep-20	Dec-23	Wastewater collection from sub-sewershed locations in Orange County has commenced and is expected to finish by the end of 2022. Based on data from samples analyzed so far, the mean concentration of PFAS in Orange County residential wastewater is 28.7 – 51.6 ng/L. Studies to identify major sources of PFAS from residences will commence in January 2023.
2	Biosolids Pellets Land Application Crop Study	The primary goal is to determine if ~40-50 of the roughly 400 unregulated organic contaminants listed in the 'EPA contaminants in biosolids database' can be found in, or remain in, the edible portions of food and feed crops following land application at standard agronomic rates based on the nitrogen needs of the test crop.	Zepeda	UC Riverside/South Coast Research and Education Center in Irvine with funding by USEPA	Field study with laboratory analysis of biosolids and crops	Provide Class A biosolids pellets (approximately 1-2 tons of material)	Apr-22	Jul-23	Phase 1 is ending with the choice of targeted analytes and methods. Phase 2 has begun as approximately 200 lbs. of biosolids pellets have been provided to UC Riverside researcher Dr. Nicole Dennis for analysis. Field study is now commencing with biosolids pellets provided by IRWD, and researchers are growing crops this fall.

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October 18, 2022

Prepared by: M. Marcacci / J. McGehee / R. Mori

Submitted by: K. Burton

Approved by: Paul A. Cook



ENGINEERING AND OPERATIONS COMMITTEE

IRVINE DESALTER PROJECT PRINCIPAL AQUIFER PLANT AND SHALLOW GROUNDWATER UNIT OPTIMIZATION FOR PFAS TREATMENT CONSULTANT SELECTION

SUMMARY:

The design for the Irvine Desalter Project Principal Aquifer Plant (PAP) and Shallow Groundwater Unit (SGU) Optimization for per-and polyfluoroalkyl substances (PFAS) treatment project is complete. In preparation for the construction phase, staff solicited a proposal from Tetra Tech for engineering support services during construction. Staff recommends the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$335,000 with Tetra Tech for engineering services during construction of the PAP and SGU Optimization for PFAS treatment project.

BACKGROUND:

IRWD operates and maintains the existing PAP, including Well ET-1 and its associated volatile organic compound (VOC) treatment facilities in accordance with the 2001 Settlement Agreement. Water from Well ET-1 is treated at a maximum flow of 1,000 gallons-per-minute (gpm) through air stripping, and the off-gas from the air strippers is delivered to a vapor phase granular-activated carbon (GAC) treatment system where the VOCs are removed. The treated water is then delivered into the recycled water distribution system.

IRWD also operates and maintains the existing SGU treatment facility that provides treatment for 43 Department of Navy (DON) extraction wells located within the boundary of the former Marine Corps Air Station El Toro site that contains elevated levels of VOCs. The existing treatment system consists of a packed-tower air stripper and vapor phase GAC adsorbers. The facility is capable of treating a maximum flow of 550 gpm. Treated water from the facility is pumped into the South Irvine Brine Line, which conveys the water to the Los Alisos Water Recycling Plant, where the treated water is conveyed to the South Orange County Wastewater Authority ocean outfall for disposal. The location of the facilities is shown on Exhibit "A".

In recent years, elevated levels of PFAS compounds have been detected at both Well ET-1 and SGU which cannot be removed by the existing treatment systems. As such, improvements at the facilities are required to allow the effective removal of both VOCs and PFAS compounds. The recommended improvements include installation of a liquid phase GAC treatment system which will effectively remove both VOCs and PFAS compounds. The recommended improvements will be incorporated at both the PAP and SGU facilities.

In accordance with the 2001 Settlement Agreement with the DON, IRWD has maintained a \$20,000,000 pollution insurance policy to reasonably cover risks associated with the facilities included in this agreement. Staff submitted a claim to the insurance carrier to cover the cost

associated with implementing modifications at both PAP and SGU to incorporate PFAS treatment optimization. The insurance carrier accepted the claim and all costs associated with the design, construction, and implementation of PFAS treatment facilities are to be reimbursed by them. The insurance policy carries a \$250,000 deductible which has already been satisfied through the ongoing work associated with implementing PFAS treatment improvements at the sites.

Consultant Selection:

Tetra Tech performed all elements of the preliminary and final design for the project including geotechnical, civil, mechanical, structural, electrical, and instrumentation and control. Tetra Tech was also the engineer of record for the initial design of both facilities. At staff's request, Tetra Tech submitted a proposal for engineering services during construction in the amount of \$335,000. The proposal, provided as Exhibit "B", includes the scope for submittal reviews, responses to contractor requests for information, site visits, record drawing preparation, updating the DON operation and maintenance manuals for both sites, and construction coordination and engineering support commensurate with the requirements of the project.

Staff reviewed the proposal and recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$335,000 with Tetra Tech for engineering services during construction for the Irvine Desalter Project PAP and SGU Optimization for PFAS Treatment project.

FISCAL IMPACTS:

The PAP PFAS Treatment System, Project 11171, and the SGU PFAS Treatment System, Project 11864, are included in the FY 2022-23 Capital Budget and will be funded through an insurance reimbursement. The existing budgets are sufficient to fund the recommendation presented herein.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the PAP site was filed with the County of Orange on December 2, 2021 and for the SGU site on April 4, 2022.

RECOMMENDATION:

That the Board authorize the General Manager to execute a Professional Services Agreement with Tetra Tech in the amount of \$335,000 for engineering services during construction of the Irvine Desalter's Principal Aquifer Plant Treatment System, Project 11171, and Shallow Groundwater Unit Optimization for per-and polyfluoroalkyl treatment, Project 11864.

LIST OF EXHIBITS:

Exhibit “A” – Location Map

Exhibit “B” – Tetra Tech Scope of Work and Fee Proposal

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Exhibit "A"
PAP and SGU Facilities
Location Map



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October 4, 2022

Mr. Richard K. Mori, PE
Engineering Manager – Capital Projects
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Reference: Proposal to Provide Engineering Services during Construction for Shallow Groundwater Unit (SGU) and ET-1 PFAS Water Treatment Plants

Dear Mr. Mori,

Thank you for providing Tetra Tech with the opportunity to submit our proposal for engineering services during construction for SGU and ET-1 PFAS Water Treatment Plants. We plan to use the same experienced, local team of water quality experts and design engineers who completed the design of the SGU and ET-1 PFAS Plants. Our team is very familiar with the requirements during construction for these types of projects. Additionally, our team has recently completed similar services on three PFAS projects for Orange County Water District.

Our team will work closely with the Irvine Ranch Water District (IRWD) throughout the construction to ensure that submittals, RFIs and other project related issues are handled in accordance with the approved plans, and specifications.

This proposal includes information on the following:

- Scope of Work
- Price Proposal

Our team is available to begin work on the project immediately upon receipt of your authorization to proceed. We are assuming that the project will begin on approximately November 15, 2022, and will be completed on approximately September 15, 2023.

A detailed breakdown of tasks, labor hours and expenses are also included. Tetra Tech will provide the services listed in our Scope of Work for a not to exceed fee of \$335,000.

If you have any questions regarding our proposal, please feel free to contact us.

Sincerely,

A blue ink signature of Steve Tedesco, consisting of a stylized 'S' and 'T' followed by a horizontal line.

Steve Tedesco, PE
Senior Vice President

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SCOPE OF WORK

Tetra Tech proposes to provide the following Scope of Work for services during construction of the SGU and ET-1 PFAS Water Treatment Plants. Our proposal is based on the information provided by IRWD.

All work performed on the project will conform to the approved plans and specifications for the project including: IRWD Project Manual, IRWD Construction Manual, and IRWD Electrical and Instrumentation and Control Design Standards.

1.0 Engineering Services During Construction

- 1.1 Project Management - Tetra Tech will conduct project management activities to ensure adherence to scope, schedule, and budget; promote efficient communication between Tetra Tech, IRWD, Construction Contractor and others as required; and implement an effective quality assurance/quality control program.
- 1.2 Meetings – We have included a total of 16 meetings as requested by IRWD staff. Tetra Tech will prepare the meeting agenda, meeting minutes and lead the meeting as required.
- 1.3 Conformed Contract Documents – Tetra Tech will prepare a conformed set of design drawings and specifications that include all changes from the time of the date the design documents were signed including changes made through permitting and bidding.
- 1.4 Request for Information (RFI) – Tetra Tech will respond to RFIs from the Contractor during the construction phase of the project. All RFIs will be reviewed within 2 business days and responded within 4 business days. If an RFI requires extensive work or a major design change, we will respond with our proposed solution and the number of days required to complete the redesign.
- 1.5 Submittals – Our team will review all submittals within the contract required time frame. If the Contractor requests a rush placed on a submittal our team will respond as quickly as possible to meet the Contractor's request. In accordance with IRWD staff request we have assumed a total of 150 submittals (including resubmittals) will be required for the project.
- 1.6 Minor Plan Changes – Tetra Tech will provide minor plan changes as required during construction. As requested, we have assumed 100 hours for delta drawings.
- 1.7 Site Visits – Tetra Tech will perform visits to the site during construction to confirm the construction is being performed as required by the contract documents and to view any construction issues or potential changed conditions. As requested, we have assumed 8 visits to the project sites.
- 1.8 Energy Control Procedures and Asset Management – Tetra Tech will provide services for energy control and asset management on the project. Since the exact scope of work is not defined at this time, we included a budget of \$7,500 as requested by IRWD staff.
- 1.9 Record Drawings – Tetra Tech will produce record drawings based on redlines received from the Contractor. Completed record drawings will be provided in electronic format.

- 1.10 Additional Construction Coordination – Tetra Tech will provide miscellaneous construction support that is not related to the above tasks. The support will be provided as a result of IRWD or Contractor general inquiries rather than submitted RFIs, submittals, or plan revisions. Support will be provided as directed by IRWD. A budget of \$50,000 was included as requested by IRWD staff.
- 1.11 Operations and Maintenance Manuals (O&M) – Tetra Tech will revise the existing O&M manuals for SGU and ET-1 treatment plants to include the new equipment and construction performed. Submittals of the O&M manuals shall be as follows:
 - 1.11.1 Draft O&M manuals will be prepared by Tetra Tech and sent to IRWD for review.
 - 1.11.2 Revised draft O&M manuals will be prepared addressing all IRWD comments. The revised draft will be submitted to Department of Navy (DON) for review.
 - 1.11.3 Final O&M manuals incorporating both DON and any additional IRWD comments will be prepare for DON intended filing.

<div><div><div>Tt</div></div><div>Price Proposal</div></div>		Revision Date: Oct 04, 2022					Labor Plan																Price Summary / Totals						
							12 Resource																Task Pricing Totals				335,000		
IRWD SGU & ET-1- PFAS Water Treatment Plants							Bill Rate >	235.00	190.00	135.00	150.00		225.00	125.00	145.00		225.00	110.00	125.00		120.00		185.00	Specify Add'l Fees on Setup				0	
							Proj Area >																		Technology Use Fee				
Engineering Services during Construction for SGU and ET-1 PFAS Treatment Plants																								Total Price		335,000			
Submitted to: Irvine Ranch Water District (Attn: Richard K. Mori, PE)																								Pricing by Resource					
Contract Type: T&M							Project Unit	Project Manager 2 Civil & Process	Sr Engineer 2	Engineer 3	Sr CAD Designer 2	Structural	Sr Engineer 3	Engineer 3	Sr CAD Designer 2	Elect & Instrmt	Sr Engineer 3	Engineer 1	Engineer 2	Administration Sr Project Administrator	Traffic	Sr Engineer 2	Labor Rate Esc.	Labor	Subs	Travel	Mat'l's & Equip	ODCs	Task Pricing Totals
Project Phases / Tasks		Schedule			Work Days Off	Work Days	Total Labor Hrs	2,233	200	202	536	56	84	404	60	92	396	137	54	12	0.00%	334,320		680			335,000		
		From	Thru	Months				2,233	200	202	536	56	84	404	60	92	396	137	54	12	0.00%	334,320		680			335,000		
1.0 Engineering Services During Construction							2,233	200	202	536	56	84	404	60	92	396	137	54	12		334,320		680			335,000			
1.1 Project Management		11/15/22	09/30/23	10.3	23	205	60	60														14,100				14,100			
1.2 Meetings (16)		11/15/22	06/30/23	7.3	17	146	80	48				8				8				16		16,800				16,800			
1.3 Conformed Contract Documents		11/15/22	12/15/22	1.0	3	19	72	2			20	8		20				20		2		9,310				9,310			
1.4 Requests for Information (40)		11/15/22	06/30/23	7.3	17	146	372	12	36	80			32	80			36	80		16		56,480				56,480			
1.5 Submittals (150)		11/15/22	06/30/23	7.3	17	146	750	16	80	200			16	200			16	200		18	4	103,060				103,060			
1.6 Minor Plan Revisions (100 Hours)		11/15/22	07/30/23	8.3	19	165	100	12	12	24			4	24			4	16			4	15,640				15,640			
1.7 Site Visits (8)		11/15/22	07/30/23	8.3	19	165	112	16		20			16	20			16	20			4	19,100		680		19,780			
1.8 Energy Control Procedures & Asset Management		11/15/22	12/15/22	1.0	5	39	49	4	12	16									16	1		7,500				7,500			
1.9 Record Drawings		07/30/23	09/15/23	1.5	4	30	73	2	2	20	8			20				20		1		9,570				9,570			
1.10 Additional Construction Coordination		11/15/22	07/30/23	8.3	19	165	345	8	40	60	40		8	40	60		4	40	45			50,000				50,000			
1.11 O&M Manuals (2)							220	20	20	96							8		76			32,760				32,760			
1.11.1 Draft for IRWD Review		04/30/23	05/20/23	0.6	2	13	76	4	8	40							4		20			11,260				11,260			
1.11.2 Revised Draft for DON		06/01/23	06/20/23	0.6	2	12	82	8	8	32							2		32			12,170				12,170			
1.11.3 Final Incorporating IRWD & DON Comments		08/01/23	08/25/23	0.8	2	16	62	8	4	24							2		24			9,330				9,330			
Totals		11/15/22	09/30/23	10.3			2,233	200	202	536	56	84	404	60	92	396	137	54	12	0.00%	334,320		680			335,000			