

AGENDA

**ENGINEERING COMMITTEE MEETING
LEUCADIA WASTEWATER DISTRICT**
Wednesday, April 6, 2016 – 8:30 a.m.
1960 La Costa Avenue, Carlsbad, CA 92009

- 1. Call to Order**
- 2. Roll Call**
- 3. Public Comment**
- 4. New Business**
 - A. Authorize the General Manager to execute an Agreement with Nu Line Technologies Incorporated for construction services to complete the 2016 Gravity Pipeline Rehabilitation Project in an amount not to exceed \$240,000. (Pages 2 - 8)
 - B. Adopt Ordinance No. 133 establishing the District's capacity fee and amending the Equivalent Dwelling Unit Factors Capacity Fee Schedule. (Pages 9 - 15)
- 5. Information Items**
 - A. Results of the Network Intrusion Test. (Page 16)
 - B. Saxony Pump Station Rehabilitation Project update. (verbal)
 - C. Evaluation of solid material discovered during pipeline hydro-cleaning. (verbal)
- 6. Directors' Comments**
- 7. General Manager's Comments**
- 8. Adjournment**

MEMORANDUM

Ref: 16-4920

DATE: April 1, 2016
 TO: Engineering Committee
 FROM: Paul J. Bushee, General Manager 
 SUBJECT: Award of the District's 2016 Gravity Pipeline Rehabilitation Project Construction Contract

RECOMMENDATION:

Staff requests that the Engineering Committee recommend that the Board of Directors:

1. Authorize the General Manager to execute an Agreement with Nu Line Technologies, LLC for construction services to complete the 2016 Gravity Pipeline Rehabilitation Project in an amount not to exceed \$240,000.
2. Discuss and take other action as appropriate.

DISCUSSION:

Tactical Goal: Infrastructure and Technology / FY16 Gravity Pipeline Rehabilitation

The 2016 Gravity Pipeline Rehabilitation project is included as a goal under the Technology and Infrastructure Strategy in the Fiscal Year 2016 (FY16) Tactics & Action Plan.

In July 2015 the Board of Directors authorized the execution of an agreement with Infrastructure Engineering Corporation (IEC) to design the 2016 Gravity Pipeline Rehabilitation Project. The goal of this project is to repair or replace any Rated 3 gravity pipeline and manhole on the Repair Priority List, populated and maintained by Field Service Staff, at the time of project design.

The 2016 project consists of the repair of eleven (11) gravity pipeline sections and one (1) manhole identified during staff's Closed Circuit Television (CCTV) inspections. The Cured in Place Pipe (CIPP) lining of the Leucadia Scenic gravity line was removed from this project and added to the Leucadia (L1) Force Main Replacement Project to encompass the combined work under a single Caltrans Right of Way permit. The Leucadia Scenic line runs adjacent to the on ramp to south bound Interstate 5 (I-5) from La Costa Avenue and east under I-5.

IEC commenced project design in July 2015. Project design was completed in March 2016 and advertised for bids. Bids were due on March 29, 2016. Two bids were received as follows:

<u>Construction Firm</u>	<u>Bid Submitted</u>
Insituform Technologies, LLC	\$222,382
Nu Line Technologies, LLC	\$240,000

The bids were reviewed by Robert Weber, Jamie Taylor and Marie Fawcett at IEC. The bid review memorandum is attached for your review. The bid submitted by Insituform Technologies (Insituform), the lowest bidder, was unresponsive due to the following reasons:

1. Insituform did not meet the requirement that the mobilization percentage not exceed 5% of the bid. Specification Section 01010 limits the mobilization cost to 5% of the overall bid. Insituform's bid listed a mobilization cost of \$61,859. This equates to 27.8% of their overall bid

of \$222,382. IEC and staff believe that the 27.8% mobilization cost is excessive and should not be waived as a minor discrepancy.

2. IEC's evaluation revealed a bid item discrepancy. Several of Insituform's bid item amounts were low in comparison to both the engineer's opinion of probable construction cost and the second lowest bidder's bid costs. In particular, Bid Item 3 is listed at \$569. The work for this bid item includes, staging traffic control in a three lane section of El Camino Real, curtain grouting two manholes, bypassing flow and installing a short length of CIPP liner. The amount of \$569 does not seem sufficient for the work required of this bid item. A full bid comparison is included in Table 1 of the attached bid review memorandum. Insituform's Bid items 5, 6, 7 and 8 are also comparatively low.
3. Failure to list required subcontractor. The plans and specifications clearly require that chemical grouting of existing infiltration is required. There is one known southern California contractor that performs this service, National Plant Services (NPS). NPS was not listed as a subcontractor on Insituform's bidding documents. From previous experience with NPS their services to perform chemical grouting would exceed 0.5% (\$1,112) of Insituform's bid price.

The second lowest bidder, Nu Line Technologies (Nu Line), submitted a bid that satisfies the requirements of the bid. Nu Line's bid was \$17,618 (7.9%) higher than Insituform's bid. Upon completion of IEC's review, it was recommended that Nu Line be awarded the contract as the lowest responsive and responsible bidder.

Nu Line's bid is \$39,000 (14%) less than the engineer's opinion of probable cost of \$279,000. Nu Line's individual bid item amounts roughly correlate with those of the engineer's opinion of probable cost. IEC reviewed Nu Line's bid and believe that the bid costs reflect the current market conditions and reasonably stringent installation guidelines and do not constitute grounds to reject the received bids.

Therefore, Staff recommends that the Board of Directors award the contract to Nu Line as the lowest responsive and responsible bidder in an amount not to exceed \$240,000.

FISCAL IMPACT:

There is sufficient appropriation in the Fiscal Year 2016 Budget to cover the construction costs of the project.

rym:PJB

Attachment



BID REVIEW MEMORANDUM

Date: April 1, 2016
Subject: **2016 Gravity Pipeline Rehabilitation Project**
Prepared By: Marie Fawcett, E.I.T. and Jamie Fagnant, P.E.
Reviewed By: Rob Weber, P.E.

PURPOSE

This memorandum provides a summary of our evaluation of bid results and the responsiveness of the submitted bids for the subject project.

BID RESULTS

Two bids were received and opened on March 29th, 2016. The bids are summarized on Table 1 - Bid Summary (see attached) and characteristics of the bids are as follows:

Low Bid:	\$222,382
High Bid:	\$240,000
Engineer's Opinion of Probable Cost:	\$279,000

Review of bid amounts and individual bid items is discussed further below.

REVIEW OF LOW BIDDER

Insituform Technologies, LLC. (Insituform), Chesterfield, Missouri, submitted the apparent low bid. IEC recommends the District reject Insituform's bid for the following reasons:

Excessive Mobilization Costs: Insituform listed a mobilization cost of \$61,859. This constitutes a 27.8% mobilization cost. Specification Section 01010 limits the percentage of this mobilization cost to 5% of the overall bid. In our opinion, a 27.8% mobilization cost is excessive and should not be waived as a minor discrepancy.

Bid Item Discrepancy: Several of Insituform's bid item amounts are low in comparison to both the engineer's opinion of probable construction cost and the second lowest bidder's bid costs. In particular, bid item 3 is listed at \$569. The work for this bid item includes, staging traffic control in a three lane section of El Camino Real, curtain grouting two manholes, bypassing flow and installing a short cured in place pipe liner. The amount of \$569 does not seem sufficient for the work required of this bid item. A full bid comparison is included in Table 1. Bid items 5, 6, 7 and 8 are also comparatively low.

Chemical Grouting: The plans and specifications clearly require that chemical grouting of existing infiltration is required. There is one known local subcontractor that performs this service (National Plant) and they were not listed as a subcontractor on Insituform's bidding documents. From previous experience with National Plant their services to perform chemical grouting would exceed 0.5% of Insituform's bid price. IEC contacted Insituform to clarify. Insituform indicated that they have a method self-performing chemical grouting,



that they could use a pre-liner, or that if there was too much infiltration to handle in house they would call someone in.

IEC attempted to contact Insituform again to request additional information on their method to self-perform chemical grouting. Insituform indicated that they were discussing the issue internally and did not have an immediate response. Although the chemical grouting issue was not resolved at the time this letter was prepared, there is sufficient grounds to reject Insituform's bid as not in the District's best interest on the grounds of the excessive mobilization cost and low cost shown for many of the bid items.

REVIEW OF SECOND LOWEST BIDDER

Nu Line Technologies LLC. (Nu Line or Contractor), submitted the second lowest bid. IEC has determined Nu Line to be responsive to the bid requirements and recommends that the District award the project to Nu Line. The following reviews have been completed.

Contractor's License: The Contractor holds the required Class A License (No. 997520). The license is current and active.

Bid Bond: A bid bond in the amount of ten percent (10%) of the bid amount was submitted with North American Specialty Insurance Company as surety. North American Specialty Insurance Company has a Best's Key Rating of A+, XV

Signatures: The Contractor's Partners, Dominic Burtech and Frank Durazo, signed the Closing Statement, Dominic Burtech signed the Bidder's Bond, and Non-Collusion Affidavit.

Project Manager's Experience: The Contractor has identified Frank Durazo as the project manager. His resume has been enclosed as part of the bid documents. IEC has reviewed his resume and found his experience suitable to manage the 2016 Gravity Pipeline Rehabilitation.

Approach to Work: The Contractor addressed the anticipated project issues as required in the Approach to Work section of the Bid Documents as outlined below:

Nu Line Technologies, LLC is conveniently located in the immediate area. We along with our subcontractor Burtech Pipeline Inc. will require no on-site staging of equipment and materials. Our approach to this project is straightforward and simple. Once project contracts are finalized we will initiate the project with our clean and CCTV of all segments on the project. We will review and submit our post cleaning CCTV work and logs for your review. All RFI's will be submitted (if applicable) and reviewed at this time for your approval. Once this phase is completed, Burtech Pipeline will mobilize and begin the dig and replace/repairs. Post repairs video work will be submitted for your review. Upon completion of all external point repairs. Mechanical grouting contractor will be brought in to address any active infiltration that may be found per the CCTV review. Post grouting phase, CIPP lining crew will mobilize and begin the sewer rehabilitation CIPP lining of the project. Once CIPP segments are completed mechanical grouting subcontractor will mobilize to address the lateral connections on the project. CIPML liner will be installed and post CCTV inspection will be conducted upon completion of CIPP lining, liner samples will be submitted to testing lab and post video work will be submitted for review.



Worker's Compensation Insurance: Policy is in affect through 09/03/2016.

Experience Requirements: The bid documents require the Contractor to submit three project references where the Contractor was required to install at least 300 linear feet cured-in-place-pipe (CIPP) lining into an 8 inch or greater diameter pipe in each project. Nu Line's submitted experience records show more than adequate experience.

References: IEC contacted Nu Line's listed references to perform an assessment of the Contractor's prior work. In all cases, Insituform was recommended as a good contractor with no record of claims.

Registration with the Department of Industrial Relations (DIR):

As of 03/01/2015 contractors and their subcontractors are required to be registered with the DIR prior to bidding a public works project. The table below demonstrates that Nu-Line and each of its subcontractors have met this requirement.

Contractor Legal Name	Registration Number	Registration Date	Expiration Date
Nu Line Technologies, LLC	1000003808	06/18/2015	06/30/2016
Burtech Pipeline, Inc.	1000006324	06/16/2015	06/30/2016
Sancon Technologies, Inc.	1000008879	07/02/2015	06/30/2016
National Plant Services, Inc	1000002703	07/01/2015	06/30/2016

Source: <https://efiling.dir.ca.gov/PWCR/Search>

List of Subcontractors:

Contractor Legal Name	Location of Business	Portion of Work
Butech Pipeline, Inc.	Encinitas, CA	Point Repair & New PVC
Sancon Technologies, Inc.	Huntington Beach, CA	Manhole Rehabilitation
National Plant Services	Long Beach, CA	Chemical Grouting

Bid Item/Cost Review: Nu Line's individual bid item amounts roughly correlate with those of the engineer's opinion of probable cost. Nu-Line's bid was approximately 14% below the engineer's opinion of probable cost. Although the bid cost is lower than the engineer's opinion of probable construction cost, it is our opinion that the bid costs reflect the current market conditions and reasonably stringent installation guidelines and do not constitute grounds to reject the received bids.

Claims Filed: Nu-Line has not filed claims or had claims filed against them in the last five (5) years.

At this time, IEC has no concern regarding Nu Line's ability to complete the work for the cost given.



RECOMMENDATION

IEC recommends award of the contract to Nu Line Technologies, LLC. based on their knowledge and experience record and responsiveness to the bidding requirements.

Attachments

Table 1 – Bid Summary

**LEUCADIA WASTEWATER DISTRICT
2016 GRAVITY PIPELINE REHABILITATION PROJECT
Table 1 - Bid Summary**


Item	Article	Unit	Qty.	Engineer's Opinion of Probable Construction Cost	Insituform	Nuline
1	Mobilization, Bonds, Permits, Cleanup and Demobilization	LS	1	\$13,000	\$61,859	\$12,500
2	Sheeting, Shoring and Bracing	LS	1	\$10,000	\$6,325	\$5,880
3	Cured-in-Place Pipe Lining	LS	1	\$19,800	\$569	\$9,455
4	Cured-in-Place Pipe Lining	LS	1	\$22,961	\$8,090	\$16,828
5	Cured-in-Place Pipe Lining	LS	1	\$9,240	\$1,852	\$14,872
6	Cured-in-Place Pipe Lining	LS	1	\$12,923	\$1,801	\$12,772
7	Cured-in-Place Pipe Lining	LS	1	\$15,338	\$3,187	\$12,680
8	Cured-in-Place Pipe Lining	LS	1	\$24,974	\$5,439	\$23,143
9	New 8" PVC, Cured-in-Place Pipe Lining	LS	1	\$31,964	\$12,115	\$20,452
10	Replace Existing Cleanout and Cured-in-Place Pipe Lining	LS	1	\$33,099	\$20,044	\$25,077
11	New 8" PVC	LS	1	\$34,320	\$70,707	\$52,500
12	New 8" PVC	LS	1	\$24,420	\$12,463	\$16,695
13	Cured-in-Place Pipe Lining	LS	1	\$9,240	\$2,119	\$6,796
14	Install Cured-in-Place Manhole Liner (CIPML)	LS	1	\$17,820	\$15,812	\$10,350

Engineer's Opinion of Probable Construction Cost
\$279,100

TOTAL:	\$279,100	\$222,382	\$240,000
Check Total:		\$222,382	\$240,000
Amount in Words:		\$222,382	\$240,000

MEMORANDUM

Ref: 16-4921

DATE: April 1, 2016
TO: Engineering Committee
FROM: Paul J. Bushee, General Manager 
SUBJECT: **Proposed Ordinance No. 133 - Amend Equivalent Dwelling Unit Factors Capacity Fee Schedule**

RECOMMENDATION:

Staff requests that the Engineering Committee recommend that the Board of Directors:

1. Adopt Ordinance No. 133 – An Ordinance of the Board of Directors of the Leucadia Wastewater District Establishing the District's Capacity Fee and Amending the Equivalent Dwelling Unit Factors Capacity Fee Schedule.
2. Discuss and take other action as appropriate.

BACKGROUND:

Tactical Goal: Services / Review and Revise EDU Factors

Recently, legal challenges have been filed questioning the use of Equivalent Dwelling Unit (EDU) factors to establish sewer service fees. An example is the case against the Ramona Water District. Additionally, in November 2014 the Board adopted Ordinance No. 131 which amended the District's EDU factors to clarify and add factors for an Accessory Dwelling Unit and a Second Dwelling Unit. These events served as the impetus to review the District's EDU factors. Staff believes that it is prudent to evaluate the EDU factors and included the evaluation as a goal under the Services Strategy in the Fiscal Year 2016 (FY16) Tactics & Action Plan.

DISCUSSION:

EDU factors are used to calculate capacity and sewer service fees for District customers. Therefore, it is critical that these factors are evaluated to ensure they are established on a well-founded, logical and justifiable basis. Doing so will ensure that the District will withstand legal challenges of its fees.

As part of the evaluation Staff researched and assessed the methods neighboring and regional agencies use to determine their EDU factors. Additionally, staff evaluated wastewater strength and flow to validate the District's current EDU factors. As a result, the evaluation confirmed that the District's EDU factors are appropriate and are established on a well-founded, logical and justifiable basis. Therefore, staff recommends the continued use of the existing District EDU factors.

As an additional validation, Staff reviewed industry text books and the State Revenue Program Guidelines from the California State Water Resources Control Board (SWRCB) Policy for Implementing the State Revolving Fund for Construction of Wastewater Treatment Facilities. The District's EDU factors fall within those references and guidelines.

To clarify the use categories, Staff recommends administrative modifications to the EDU category for Food Establishment including Restaurants, Taverns and Similar. These administrative modifications do not change the current EDU factors. It is recommended that specific Food Preparation categories of "Limited Food Preparation Establishments - seating not included" and "All Other Food Establishments - seating not included" be specifically identified. The base EDU for Limited Food Preparation Establishments is one (1) and the base EDU for All Other food Establishments is two and six tenths (2.6). Then supplemental EDU assessments would be added for the number of customer seats within the business and whether it uses "multi-service utensils" (washed and reused) or "single-service utensils" (typically paper and plastic throw-away). For both categories of Food Establishments, the supplemental assessment is recommended at one (1) EDU for 7 seats per supplemental EDU for multi-service utensils and one (1) EDU for 15 seats per supplemental EDU for single-service utensils. The new Ordinance No. 133 implements this clarification and is attached for your review.

It should be noted that Ordinance No. 133 continues the capacity fee at the current \$4,006 per EDU. Additionally, these EDU factors will be referenced in the District's Standard Specifications and Procedures for Wastewater Facility Projects (Standard Spec).

FISCAL IMPACT:

Going forward, there will be a minor increase in capacity and sewer service fee revenue from food service establishments resulting from implementation of the amended EDU Factors Capacity Fee Schedule when the new Ordinance No. 133 takes effect.

sld:PJB

Attachment

ORDINANCE NO. 133

**AN ORDINANCE OF THE BOARD OF DIRECTORS
OF THE LEUCADIA WASTEWATER DISTRICT
ESTABLISHING THE DISTRICT'S CAPACITY FEE AND AMENDING THE
EQUIVALENT DWELLING UNIT FACTORS CAPACITY FEE SCHEDULE**

WHEREAS, the Leucadia Wastewater District (LWD) is a county water district that operates as a special district in accordance with Government Code Section 56036; and,

WHEREAS, the LWD Board of Directors has determined and set Equivalent Dwelling Unit (EDU) Factors for various Wastewater Use Categories used throughout LWD by Exhibit A of Ordinance No. 131;

WHEREAS, the LWD Board of Directors has determined that a Capacity Fee per EDU is appropriate and that the Capacity Fee has been set by Ordinance No. 131 at \$4,006 per EDU;

WHEREAS, the LWD Board of Directors has determined that the Equivalent Dwelling Unit (EDU) Wastewater Use Categories and EDU Factors Exhibit A should be amended to clarify how Food Establishments are assessed; and,

WHEREAS, a public hearing to consider continuation of the Capacity Fee per EDU and an amended EDU assessment for Food Establishments was duly noticed and held in accordance with Government Code Section 66016 on the date hereof,

NOW, THEREFORE, BE IT ORDAINED:

1. The LWD Wastewater Capacity Fee is continued at \$4,006 per Equivalent Dwelling Unit (EDU) for the privilege of capacity in the District's wastewater system.
2. That the capacity fee charges shall be assessed in accordance with the EDU Factors established by the District and amended herein as "Exhibit A".
3. That the provisions of this ordinance shall be effective immediately after its adoption, and thereafter, Ordinance No. 131 shall be void and of no further force and effect.

PASSED AND ADOPTED this 13th day of April, 2016 by the following vote:

AYES: TBD.

NOES: TBD.

ABSENT: TBD.

ABSTAIN: TBD.

Donald Olmsted
President

ATTEST:

Paul J. Bushee
Board Secretary

**LEUCADIA WASTEWATER DISTRICT
 EDU FACTORS
 CAPACITY FEE SCHEDULE**

WASTEWATER USE CATEGORIES	EDU FACTORS
<u>Single Family Residence</u>	1.0
<u>Second Dwelling Unit (Detached)</u> w/Kitchen and w/Bathroom	1.0
<u>Accessory Dwelling Unit (Attached)</u> w/Kitchen and w/Bathroom, 750 sq. ft. or smaller w/Kitchen and w/Bathroom, 751 sq. ft. or greater	0.5 1.0
<u>Multiple Dwelling</u> (Apartments, duplexes, condominiums, and townhouses) Each living unit	1.0
<u>Mobile Home or Trailer Park</u> Mobile home or trailer space	1.0
<u>Motel or Hotel</u> Each Unit w/o Kitchen Each Unit w/Kitchen	0.33 0.55
<u>Medical Care or Elder Care</u> (Hospitals, skilled nursing homes, convalescent homes, retirement homes, assisted living homes, and similar facilities) Multiple dwelling without individual kitchen & with community eating facilities, Per individual bed with minimum 1.0 EDU Multiple dwelling with internal kitchen and on-site community eating facilities per living unit Multiple dwellings with internal kitchen and no on-site community eating facility per living unit Single dwellings with internal kitchens regardless of community facilities	0.4 0.8 1.0 1.0

WASTEWATER USE CATEGORIES	EDU FACTORS
<u>Churches, Theaters and Auditoriums</u> Each unit of 115 Persons or fraction thereof	1.0
<u>Schools</u> Elementary per 60 pupils or fraction thereof for each elementary school Junior High per 50 pupils or fraction thereof for each Jr. High school High School per 30 pupils or fraction thereof for each High school	1.0 1.0 1.0
<u>Laundries - Self Service</u> Per each washer	0.75
<u>Food Establishment including Restaurants, Taverns, and Similar</u> Limited Food Preparation Establishments ¹ – seating not included Additional for each unit of 7 seats with multi-service utensils (washable) Additional for each unit of 15 seats with single-service utensils (disposable) All Other Food Establishments – seating not included Additional for each unit of 7 seats with multi-service utensils Additional for each unit of 15 seats with single-service utensils	1.0 1.0 1.0 2.6 1.0 1.0
<u>Ballrooms, Banquet Facilities, and Convention Facilities</u> Per block of 40 seats	1.0
<u>Automobile Service Stations</u> Not more than four (4) gasoline pumps More than four (4) gasoline pumps Additional for each washing rack, pit, or floor drain (Drains subject to collecting toxic, hazardous, or potentially explosive waste are not allowed to be connected to sewer). Car washes shall be individually evaluated by LWD Engineer based on peak net discharge rate of specific equipment to be used with internal water recycling required.	2.0 3.0 2.0 Per Review
<u>Banks and Savings and Loan Associations</u> Each 3000 SF or portion thereof	1.0

¹ See LWD Wastewater Ordinance Section 2.18

WASTEWATER USE CATEGORIES	EDU FACTORS
<u>Other Commercial or Industrial Users</u> Up to 1,000 SF Plus for each additional 1,000 SF or portion thereof up to 5,000 SF Plus for each additional 1,000 SF or portion thereof over 5,000 SF The capacity fee for establishments with unusual sewer characteristics or for any commercial use not described in the categories above shall be fixed by the Board of Directors by motion, resolution, or ordinance when each specific application is submitted.	1.0 0.4 0.6 Per Case

At any time the District may review the current standards of practice of any commercial or industrial customer with regard to sewer use during the previous year. If such use is not within the limits of the previous classification, the service may be reclassified accordingly and any additional capacity charges shall become due and payable immediately on request.

MEMORANDUM

Ref: 16-4922

DATE: April 1, 2016
TO: Engineering Committee
FROM: Paul J. Bushee, General Manager
SUBJECT: Results of the Network Intrusion Test



RECOMMENDATION:

This item is presented for information purposes.

DISCUSSION:

With the current environment of constant cyber attacks, staff believes it is prudent to conduct a network intrusion test of the District's information systems network on a periodic basis. The objective of this test is to reveal weaknesses in the network's security software and hardware. The results of this test will enable staff to correct or modify the security protocols and/or equipment to maintain the integrity of the network and defend against cyber attacks. Progent Corporation was contracted to perform the intrusion test on the District's network and report its findings. The results of the test will be presented to the committee.

rym:PJB