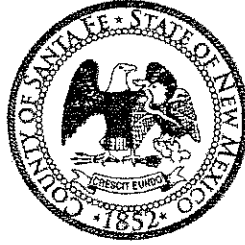


Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: *May 17, 2018*

TO: *Board of County Commissioners*

FROM: *Bill Taylor, Procurement Manager*

Via: *Katherine Miller, County Manager*
Tony Flores, Deputy County Manager
Michael K. Kelley, Public Works Director
Stephanie S. Clarke, Finance Director

ITEM AND ISSUE: BCC Meeting May 29, 2018

Request Authorization to Utilize the Design Build Project Delivery Method for the Design and Construction of a New Water Reclamation Facility Located at the State Penitentiary, Otherwise Known as the Quill Plant. (Bill Taylor, Purchasing)

Issue:

An alternative for construction of projects is available through the design-build delivery method. The objective of design-build contracting is to complete construction projects more efficiently than the conventional design-bid-build delivery method. The process is intended to be fair, uniform, clear and effective for the delivery of a quality project on time and within budget.

Pursuant to 13-1-119.1, NMSA 1978 *Public works project delivery system; design and build projects authorized*. "A design and build project delivery system may be authorized when the state purchasing agent or central purchasing office makes a determination in writing that it is appropriate and in the best interest of the state or local public body to use the system on a specific project."; and pursuant to SFC Resolution 2006-60, Section 34 DESIGN BUILD PROJECTS, REQUEST FOR PROPOSALS, paragraph C. Written Determination, subparagraph 5. "...the proposed use of design-build shall be submitted to the Board of County Commissioners for concept approval to proceed with the procurement process under design-build.

Background:

Santa Fe County currently operates the Quill Wastewater Treatment facility (QWWTF) for the treatment of domestic wastewater from local neighborhoods and the nearby Penitentiary of the New Mexico (PNM) and is actively evaluating connection of additional nearby service areas as part of the ongoing Sewer Master Plan. The treated effluent produced at the facility does not consistently meet the groundwater discharge permit (GWDP) by the New Mexico Environment Department

(NMED). Significant improvements are necessary to meet the GWDP requirements and increase capacity for future growth.

In June 2017, the County contracted with HDR Engineering to complete a preliminary engineering report (PER) that recommended that it would be in the County's best interest and more cost effective for the County to completely replace the QWWTF. The PER ultimately recommended a Membrane Bioreactor Wastewater Treatment Facility with a capacity of 0.50 Million Gallons per Day (MGD) as a replacement option. This new facility is being called the Santa Fe County Water Reclamation Facility (SFCWRF).

The Public Works Department has submitted the appropriate documentation for the request for the determination to utilize the Design Build Project Delivery Method for the design and construction of a new water reclamation facility, located at the State Penitentiary, known as the Quill Plant in Santa Fe, New Mexico.

After reviewing the merits of the recommendation submitted, it has been determined that the request meets the requirements set forth in NMSA 1978, 13-1-119.1. Using the design build project delivery method would be in the best interest of Santa Fe County for the design and construction of the new Santa Fe County Water Reclamation Facility. The merits of this project delivery method will cultivate multiple design solutions needed and provide for a more efficient construction delivery that will meet the expectations of the County, its stakeholders and the Community.

Recommendation:

Approval to utilize the design build project delivery method for the design and construction of the a new Water Reclamation Facility located at the State Penitentiary, also known as the Quill Plant in Santa Fe, New Mexico.

Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager

May 14, 2018

To: Katherine Miller, County Manager

From: Bill Taylor, Procurement Manager, CPO *BT*

Via: Tony Flores, Deputy County Manager
Stephanie S. Clarke, Finance Director
Michael Kelley, PE, Public Works Director
John Dupuis, Utilities Division Director, Public Works Dept.

Subject: **Determination – Utilizing the Design Build Project Delivery Method for the Design and Construction of the Santa Fe County Water Reclamation Facility Project Located at the State Penitentiary, also Known as the Quill Plant in Santa Fe, New Mexico.**

The Public Works Department has submitted the attached recommendation and request to utilize the Design Build Project Delivery Method for the design and construction of a new water reclamation facility, located at the State Penitentiary, known as the Quill Plant in Santa Fe, New Mexico.

Santa Fe County currently operates the Quill Wastewater Treatment facility (QWWTF) for the treatment of domestic wastewater from local neighborhoods and the nearby Penitentiary of the New Mexico (PNM) and is actively evaluating connection of additional nearby service areas as part of the ongoing Sewer Master Plan. The treated effluent produced at the facility does not consistently meet the groundwater discharge permit (GWDP) by the New Mexico Environment Department (NMED). Significant improvements are necessary to meet the GWDP requirements and increase capacity for future growth.

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The Purchasing Division issued RFP No. 2018-0096-PW/IC for Engineering Services to design the new facility. Four proposals were received and three were short-listed. Stantec was selected as the top ranked Firm. The Firm was not in full agreement with the results and cost estimate from the

PER and negotiations with Stantec failed and negotiations were terminated. The second ranked firm was disqualified, resulting in the County's determination to cancel the solicitation as it considered a new procurement delivery method.

The Public Works Department and Utilities Division have submitted the following information in the attached request for a determination:

- Project Summary
- Project Schedule
- Funding Source and Amount
- Benefits to the County for a Design-Build project delivery
- Potential Risks associated with Design-Build

Public Work staff proposed to be responsible for the project and will manage the work consistent with the Project Management Plan established for this project are as follows:

Leroy Alvarado, Utility Infrastructure Manager
Joseph Gonzales, Utility Administrative Manager
Ted Chlastawa, Utility Engineer
John Dupuis, Utility Division Director

Determination:

Pursuant to County Resolution 2006-60, Purchasing Regulations and Policies, "an alternative for construction projects whose value exceeds \$10,000,000, is available through the design build delivery method." However, NMSA 1978 13-1-119.1 was revised in 2013 to remove the \$10,000,000 project value threshold. Therefore, as part of this determination NMSA 1978, 13-1-119.1 may supersede the requirements stated in County Resolution 2006-60.

After reviewing the recommendation from the Public Works Projects Division it has been determined that the request meets the requirements set forth in NMSA 1978, 13-1-119.1. Using the design build project delivery method would be in the best interest of Santa Fe County for the design and construction of the new Santa Fe County Water Reclamation Facility. The merits of this project delivery method will cultivate multiple design solutions needed and provide for a more efficient construction delivery that will meet the expectations of the County, its stakeholders and the Community.

Pursuant to Resolution 2006-60, Purchasing Regulations and Policies, once approved by the Purchasing Manager, the recommendation shall be reviewed by the County Manager. If approved by the County Manager, the proposed use of design-build shall be submitted to the Board of County Commissioners for concept approval to proceed with the procurement process under design-build.



APPROVED

5.16.13

DATE

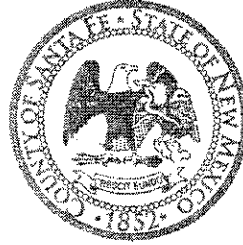
DENIED

DATE

Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager

May 14, 2018

To: Katherine Miller, County Manager

From: Bill Taylor, Procurement Manager, CPO *BT*

Via: Tony Flores, Deputy County Manager
Stephanie S. Clarke, Finance Director
Michael Kelley, PE, Public Works Director
John Dupuis, Utilities Division Director, Public Works Dept.

Subject: **Determination – Utilizing the Design Build Project Delivery Method for the Design and Construction of the Santa Fe County Water Reclamation Facility Project Located at the State Penitentiary, also Known as the Quill Plant in Santa Fe, New Mexico.**

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After reviewing the recommendation from the Public Works Projects Division it has been determined that the request meets the requirements set forth in NMSA 1978, 13-1-119.1. Using the design build project delivery method would be in the best interest of Santa Fe County for the design and construction of the new Santa Fe County Water Reclamation Facility. The merits of this project delivery method will cultivate multiple design solutions needed and provide for a more efficient construction delivery that will meet the expectations of the County, its stakeholders and the Community.

Pursuant to Resolution 2006-60, Purchasing Regulations and Policies, once approved by the Purchasing Manager, the recommendation shall be reviewed by the County Manager. If approved by the County Manager, the proposed use of design-build shall be submitted to the Board of County Commissioners for concept approval to proceed with the procurement process under design-build.



APPROVED

5/16/13
 DATE

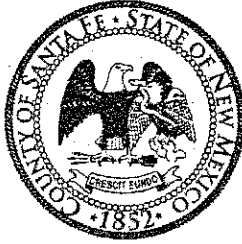
DENIED

DATE

Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3




Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: *May 9, 2018*

TO: *Bill Taylor, Purchasing Manager* 

FROM: *Michael Kelley, PE, Director of Public Works*

ITEM AND ISSUE: *Design Build Determination for the Santa Fe County Water Reclamation Project*

The County operates the Quill Wastewater Treatment Facilities (QWWTF) to treat domestic wastewater from local neighborhoods and the nearby Penitentiary of New Mexico (PNM) and is actively evaluating connection of additional nearby service areas as part of the ongoing Sewer Master Plan. The QWWTF requires significant improvements to meet the National Pollutant Discharge Elimination System (NPDES) requirements, provide adequate quality for beneficial use of reclaimed wastewater with no setback/access limits, plans for future expansion, and meet anticipated limits for land application of biosolids. The QWWTF's maximum treatment capacity is 280,000 gallons per day (gpd) and has the ability to discharge treated effluent by land-applying effluent over 95 acres as permitted by the New Mexico Environment Department (NMED) groundwater discharge permit (GWDP) DP-234. The Current average daily flow is 124,000 gpd.

The QWWTF currently utilizes aerated lagoons and settling ponds for biological treatment and disinfection via chlorine. The treated effluent produced at the QWWTF does not consistently meet GWDP standards. The Quill WWTF has been maintained but due to its advanced age, deteriorating condition, inadequate technology, and limited potential for upgrades and/or repairs, it will be replaced. Significant improvements are necessary to meet the GWDP/NPDES requirements and increase capacity for future growth which can most cost-effectively be accomplished by replacement of the facility.

The County contracted with HDR, Engineering in June 2017, for a Preliminary Engineering Report (PER) that recommended that the QWWTF be replaced. The PER looked at two different processes but ultimately recommended a Membrane Bioreactor Wastewater Treatment Facility

RFP

with a capacity of 0.50 Million Gallons per Day (MGD). This new facility is being called the Santa Fe County Water Reclamation Facility (SFCWRF). The Purchasing Division issued a RFP for design services for a design/bid/build procurement for the design of SFCWRF. As you are aware, this procurement was unsuccessful in procuring a design engineer and the solicitation was cancelled.

The Utility Division feels that the Design Build process would be a custom fit for the procurement process for the SFCWRF. This option was not chosen initially because all of the funding for the project would not have been in place prior to executing a contract with a Design/Build firm. Since the first procurement was unsuccessful, this places the start of the project closer to the time that the 2019 Bonds would be sold and all of the funding secured for the project. The Utility Department would like to proceed with Design-Build procurement for this project.

Project Summary:

The project consists of the design and construction of a new 0.50 MGD Wastewater Treatment Facility to replace the existing QWWTF facility at the PNM location. The existing QWWTF will remain in operation during construction and commissioning of the new facility. The proposed project contemplates the construction of one Membrane Bioreactor (MBR) train with a 0.50 MGD process capacity with a modular design for expansion to either 1.0 MGD or 2.0 MGD ultimate capacity in the near future.

The project includes all utility and infrastructure requirements including but not limited to electrical, gas, telecommunications, SCADA, sanitary sewer, permitting, and fire protection/suppression. Specialty elements and considerations for the project shall include but are not limited to the following:

- Membrane Bioreactor (MBR) Basin and Equipment.
- Future modular expandability in 0.50 MGD increments.
- New Wastewater Lift Station.
- New Fine Screen and Grit Building.
- New Operations Building with blowers, RAS pumps, Sodium Hypochlorite/Citric Acid Equipment, and Disinfection.
- Biological Basins and Aeration Equipment.
- Aerobic Digesters.
- Reuse storage and pumping.
- Alternate driveway construction.
- Concrete sludge drying beds.
- Maintain existing QWWTF operations during construction and commissioning.
- Decommissioning of existing facility.
- Meet all applicable NPDES Tier 2 permit requirements, including:

- Effluent quality less than 3.0 mg N/L total nitrogen.
- Effluent quality less than 1.0 mg P/L total phosphorus.
- Discharge from the WWTF by effluent reuse shall meet GWQB and NMED Class 1A permit requirements.

Cost Estimate:

The following project cost estimate for a 0.50 MBR Wastewater Treatment Plant was prepared and presented in the Preliminary Engineering Report that was prepared by HDR, Engineering:

Component	MBR
Site Work, including Mobilization and Demobilization	\$758,855
Existing Wastewater Ponds	\$20,000
Lift Station, Fine Screen, and Grit Building	\$1,095,000
Operations Building	\$989,100
Biological Basins	\$440,000
MBR Basin	\$1,712,000
Aerobic Digesters	\$330,000
Sludge Drying Beds	\$268,000
Permits, Bonds, Insurance, Start-up, Testing Allowance	\$295,000
Subtotal	\$5,907,955
Contingency @ 20%	\$1,181,591
Total Estimated Construction Costs	\$7,089,546
Engineering @ 10%	\$708,955
Survey & Geotechnical	\$10,000
Construction Observation Services @ 3%	\$212,686
Subtotal Total Estimated Costs	\$8,021,187
NMGRT @ 7%	\$561,483
TOTAL ESTIMATE OF PROBABLE COSTS	\$8,582,670

Project Schedule:

The PER outlined an anticipated construction schedule for a Design, Bid, Build approach. The maximum time allowed for design in the PER was 8 months and the maximum amount of time for construction was 18 months. The total maximum estimate for time was 26 months. The Design-Build approach allows for an accelerated schedule. Once a contract has been awarded to a Design-Build team, it is anticipated that the design and construction would be complete within 18 months from the date of the contract award.

Funding Source and Amount:

The following table represents the current project funding for the SFCWRF. All of the funding is currently in place except for the \$2,800,000 that will be part of the GOB sale in 2019.

\$3,726,372.00	Capital Outlay GRT (Fund 313)	
\$1,220,214.00	GOB Fund 351	
\$250,000.00	GOB Fund 352	
\$1,231,000.00	GOB Fund 354	
\$6,427,586.00	Subtotal	
\$2,800,000.00	GOB Bond Sale in 2019	
\$9,227,586.00	TOTAL Project Funding	

Benefits to the County of a Design-Build process of delivery include:

- **Schedule:** More expeditious project delivery.
- **Collaboration with Design Elements:** Review and participate with Design-Builder's selection of design elements that will minimize overall future operation concerns and maintenance costs.
- **Single Point of Accountability:** To have the Design-Builder provide the Owner with a single point of contract accountability for design, construction and performance activities. This single point of responsible for providing the Owner with complete resolutions to design and construction issues that may arise reduces the risk for change orders.
- **Innovative Solutions:** Opportunities for Design-Builders to provide innovative solutions for accelerated project scheduling, maximum cost control, improved constructability and minimization of operations and maintenance costs.
- **Cost and Scope Control:** The process reduces opportunities for Santa Fe County to provide late input or change requirements that can alter the scope of work and significantly influence the project budget. Design-Build team takes on cost and scope control from the onset.
- **Competitive Bidding of Components:** Many of the elements that make up the design of the new facility can be provided by several different manufactures (off the shelf technology). The Design/Build process will allow for a more competitive bidding environment which will allow for lower overall project costs.

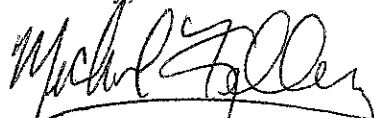
Potential Risks associated with Design-Build:

- **Limited Design Build Experience:** Experience in Design-Build for wastewater treatment plants may be limited compared to traditional methods of project delivery. The risks associated with this concern can be partially mitigated by requiring existing wastewater design build experience as part of the evaluation criteria for the RFP.
- **Open-ended Specifications:** If the specifications are too open to interpretation, the contractor may exploit this to their advantage, proposing specifications for products that are the lowest grade possible to achieve the basic requirements in the specification. Ambiguity can lead to problems and conflicts. A mitigating factor to this is that the specifications for this project are very concise as to the proposed plant capacity and the treatment level that is required at the end of pipe (NPDES Tier 2 and NMED Class 1A reuse requirements), and for the modular expansion of the facility over time. The fact that there are multiple components of this design that will be able to be supplied by many different manufactures also helps to guard against this risk.
- **Risk Assignment:** The Owner may pay more if they ask the contractor to take on an unreasonably high level of risk due to a lack of design clarity. Detailed dialog with the Design-Build team during the contract negotiation phase should assist in mitigating this factor. This item is also mitigated by the detail that is contained within the PER and by the collaborative approach regarding the design elements and their ability to bring innovative solutions to the project. Developing an innovative/collaborative team will reduce the risk to both the County and the Design-Build Team.
- **Adherence to Specifications:** The quality may be compromised if the Owner's specifications requirements are not adequately enforced. The Owner must ensure adherence to the specifications. There is sufficient budget to include a third party consultant to assist County Staff with contract oversight and construction observation if the need arises. This has yet to be determined. If this service is needed then this will help to mitigate all four potential risk discussed above.

Utility Division Staff are proposed to be responsible for the project and will manage the work associated with this project. Utility Staff specifically assigned to this project will be Utility Infrastructure Manager Leroy Alvarado, Utility Administrative Manager Joe Gonzalez, Utility Engineer Ted Chlastawa, and Utility Director John Dupuis. As previously mentioned, there is sufficient budget assigned to this project for the Utility Staff to supplement their contract oversight and construction observation with a third party consultant, if the need arises.

We request you consider the information provided and make a determination in favor of proceeding with a Design-Build method for design and construction of the Santa Fe County Water Reclamation project. Thank you for your consideration.

Sincerely,



Michael Kelley, PE
Director of Public Works
Santa Fe County

