

Memorandum



CITY OF DALLAS

DATE June 3, 2016

TO Members of the Budget, Finance & Audit Committee: Jennifer S. Gates (Chair), Philip T. Kingston (Vice Chair), Erik Wilson, Rickey D. Callahan, Scott Griggs, Lee M. Kleinman

SUBJECT Mill Creek/ Peaks Branch/ State Thomas Drainage Relief Tunnel

On Monday, June 6, 2016, the Budget, Finance and Audit committee will be briefed on the Mill Creek/ Peaks Branch/ State Thomas Drainage Relief Tunnel.

Please let me know if you need additional information.

A handwritten signature in black ink, appearing to read 'Mark McDaniel'.

Mark McDaniel
Assistant City Manager

Attachment

c: The Honorable Mayor and Members of the City Council
AC Gonzalez, City Manager
Christopher D. Bowers, Interim City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Joey Zapata, Assistant City Manager
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council

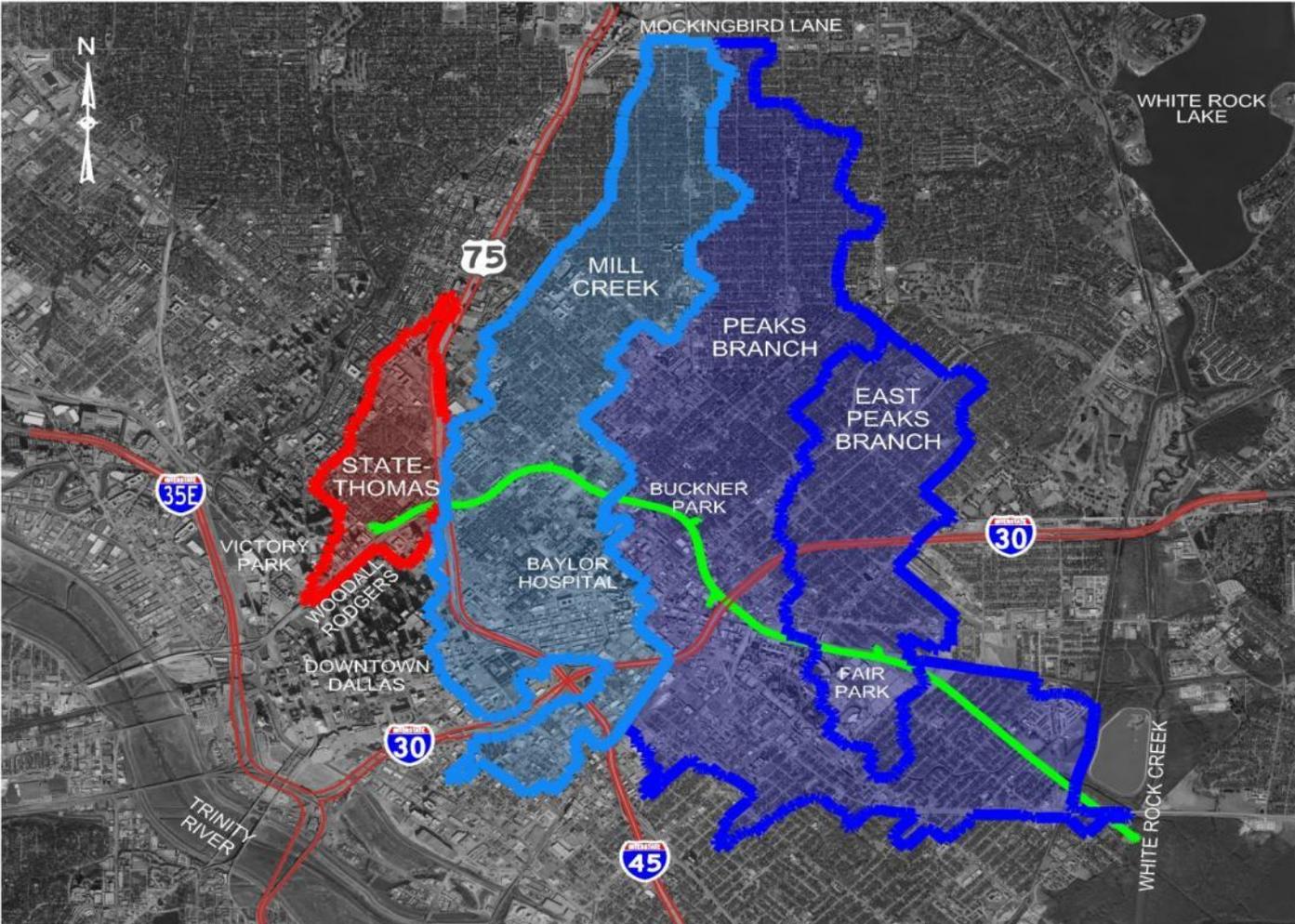
Mill Creek / Peaks Branch/ State Thomas Drainage Relief Tunnel

**Budget, Finance and Audit
Committee**

June 6, 2016



Mill Creek, Peaks Branch and State-Thomas Drainage Areas



Basin Characteristics

Basin Area

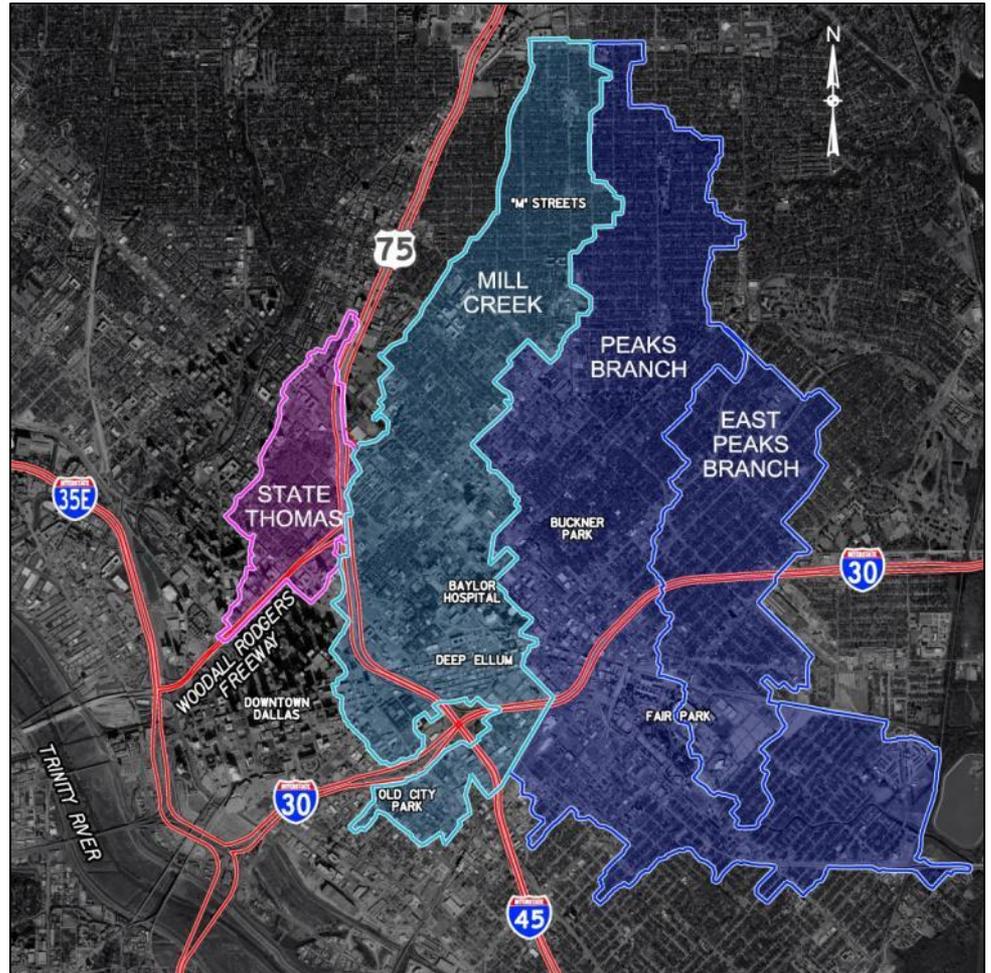
State-Thomas	–	450 acres
Mill Creek	–	2,200 acres
Peaks Branch	–	3,100 acres
East Peaks	–	1,100 acres

Land Uses

Upper Basin – Residential
Lower Basin – Commercial

What's in these basins?

IH-30
Old City Park
Deep Ellum
Fair Park
Baylor Hospital



Mill Creek, Peaks Branch and State-Thomas Drainage Areas

- Current drainage system constructed 50-70 years ago only provides approximately 2-5 year flood protection
- Major flooding in 1995, 2003, 2006 and 2009 resulted in:
 - Water depths were as deep as 9 feet
 - Loss of life – 13 individuals
 - Level 3 emergency service blocked by water
 - Damages to schools, residential and commercial properties
 - Closure of interstate highways
 - Water rescues by emergency personnel

Peaks Branch Flooding At Buckner Park - March 2006



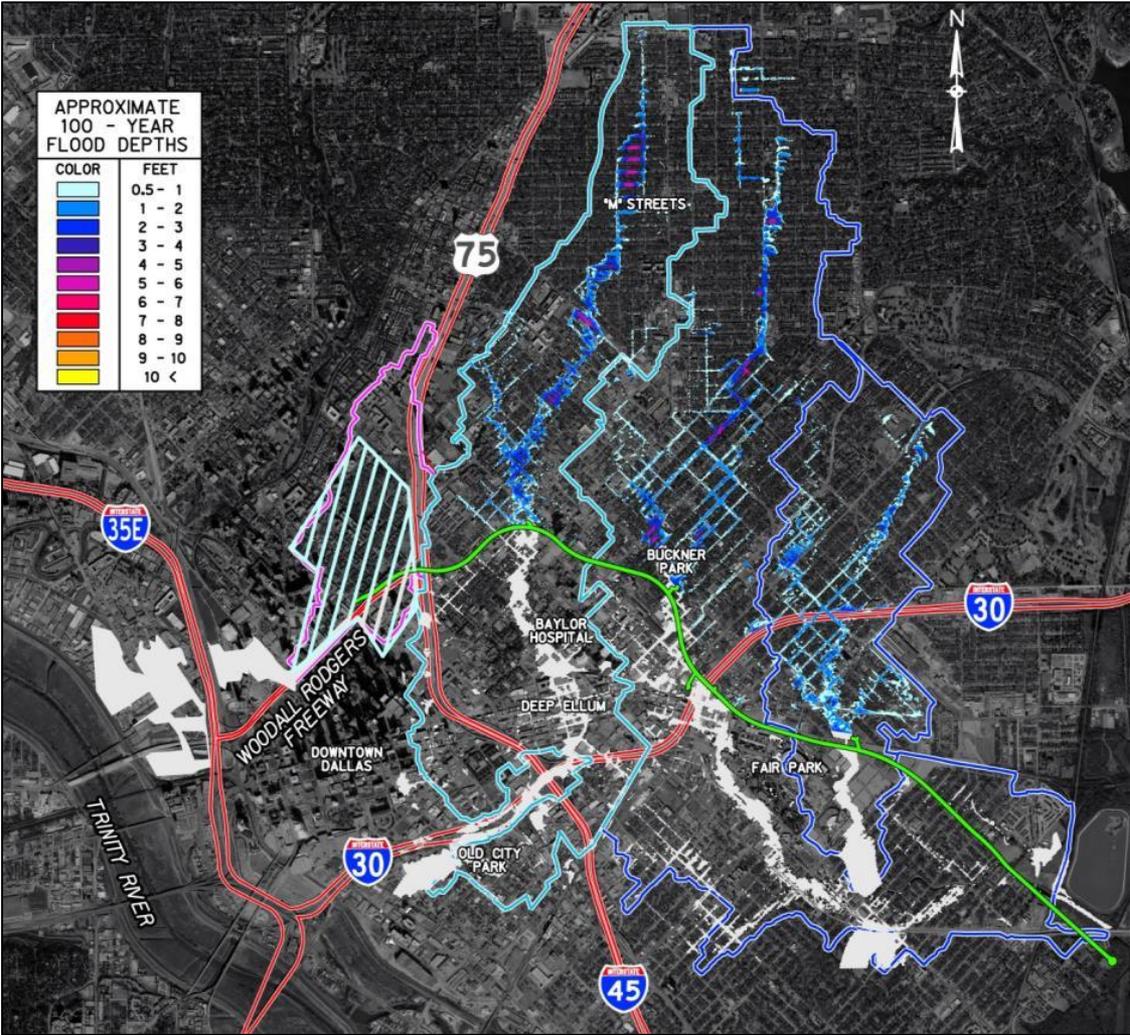
Worth Street Flooding in front of the Zaragoza Middle School

I-30 Flooding – March 2006



After Construction of the Drainage Tunnel – Areas Subject to 100-Year Flooding

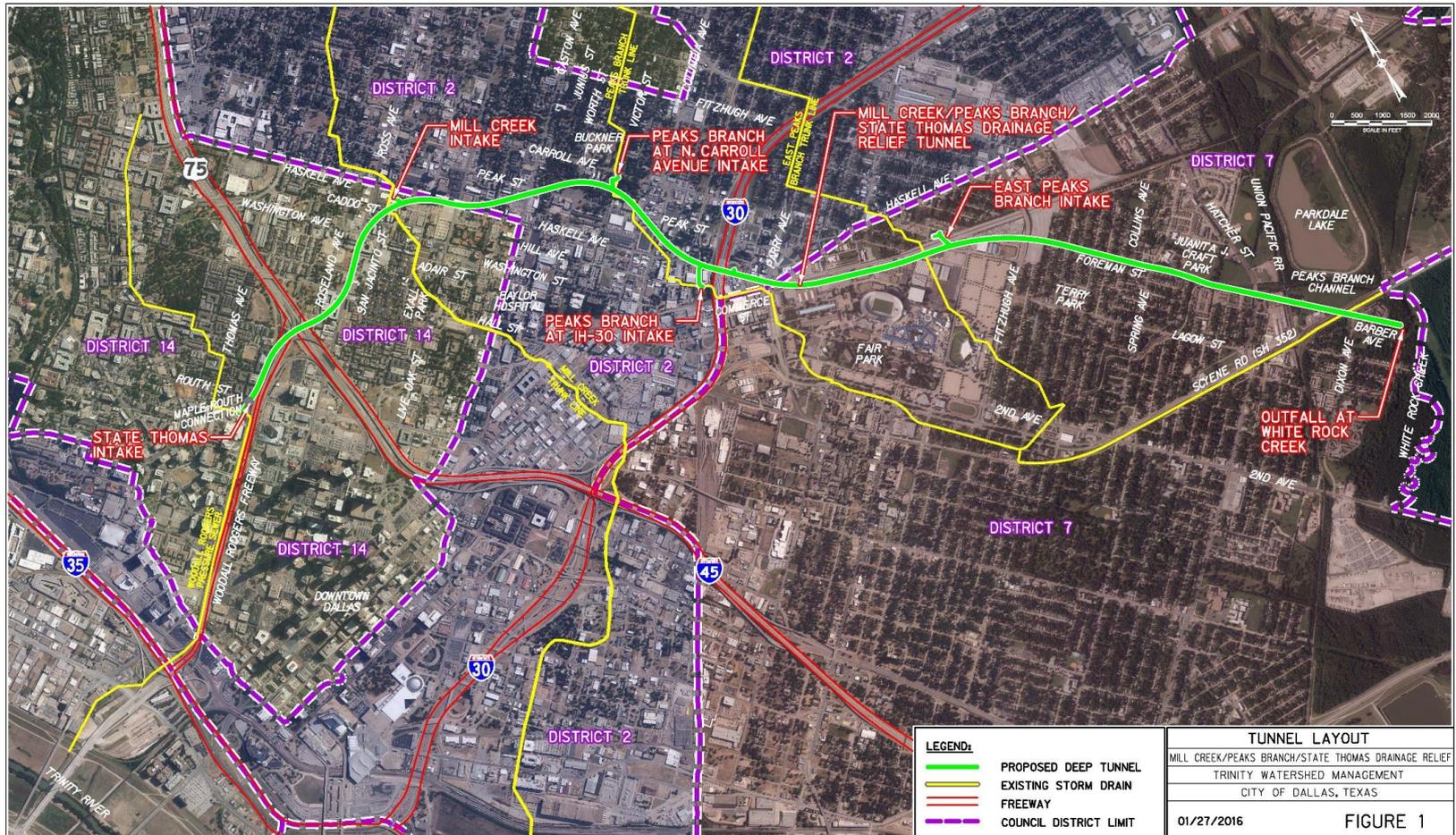
Note:
Areas in gray, generally below the green tunnel alignment line, are removed from 100-yr flooding



Project Information

- Provides 100-Year Flood Protection
- Construction Method – deep tunneling utilizing a tunnel boring machine
- Tunnel Dimensions
 - Diameter – 30 Feet
 - Depth – 70 Feet to 150 Feet
 - Length – 5 Miles
 - Volume – 160 Million Gallons
- Construction Duration – Approximately 5 years

Mill Creek/Peaks Branch/State-Thomas Drainage Tunnel



Consulting Firm Roles and Responsibilities

- Three engineering firms engaged :
 - Halff Associates (2007)– Design and limited support through the construction for reviews and clarifications required during project delivery
 - HNTB (2007)– Provide quality control reviews of design, specifications and bidding phase
 - Parsons (2015)– Construction Manager during bidding (Contract not renewed for the construction period)

Note: Black and Veatch has been presented for consideration to City Council to serve as Construction Manager during construction in lieu of previous consultant

Competitive Environment

- Approximately 5-8 projects of similar size and scope are advertised and awarded globally each year
- Bidding community is limited and highly specialized and generally bidders form joint ventures to compete and construct projects
- Timing of City's bid advertisement selected to maximize the number of bidders, to encourage a highly competitive market and to optimize bids

Factors in Bidding

- Tunnel construction industry accustomed to competing through a low bid process
- Low bid procurement process was utilized for the City's procurement
- State law does not allow for the pre-qualification of bidders for standard construction projects
 - Criteria was included as part of specifications to ensure bidders had prior experience with deep tunneling

Steps In Low Bid Process

1. Owner

- Provides plans and specifications designed and sealed by design engineer
- Advertises project after design is complete to receive sealed bids

2. Contractor

- Purchases plans and specifications in order to prepare bids
- Submits sealed bids at the time and date specified with proper documentation and form

3. Owner

- Receives and opens sealed bids packages
- Tabulates bids, verifies contractors' required documents, qualifications and checks references
- Announces bid results and starts the construction award process

Bid Schedule

- Held meeting (with live streaming) to encourage M/WBE participation on September 18, 2015
- Advertised project September 23, 2015
- Held pre-bid meeting October 6, 2015
- Received bids on December 18, 2015
- Consultants and staff performed due diligence December 2015 – April 2016

Bids Received

Engineer's Construction Estimate: \$257,000,000

- ~~▪ *Odebrecht Contracting, Inc.* \$189,246,994~~
- Southland/Mole \$209,537,742
- Salina/Healy/MCM \$222,079,002
- Archer Western \$234,862,217
- Mill Creek Tunnel Constructors \$262,324,360
- Dragodos/Pulice \$280,121,521

*Bidder deemed non-responsible due to lack of tunnel experience

Low-Bid Criteria*

- Cost - Primary consideration
- Responsive
- Responsible

*Criteria detailed in:

Project Specifications

NCTCOG Public Works Standard Specifications

City of Dallas Addendum

Responsive Bids Include

- Tabulation of bid
 - Accurate and complete
 - No unsolicited conditions or qualifications
- Forms
 - Required unaltered forms submitted with bid
 - Correct and complete

Responsible Bids Require

- Financial Capability
 - Bonds - ability to secure satisfactory bonds
 - Insurance – provide required insurance
- Experience
 - Same nature and magnitude of project
 - Management and personnel experience
- Safety Record
 - Safety Affidavit including Safety Experience Modifier Rate
 - OSHA safety record

Responsible Bids Also Require

- **Prior Performance**
 - References relating to past performance
 - Post-construction evaluations on prior city projects, if applicable
- **MWBE Performance**
 - Compliance with City's "Good Faith Effort Plan"
 - Meets BID goals
- **Environmental Record**
 - Satisfactory record of compliance
 - City construction inspection reports

Bid Review - Responsive

- Five bids were responsive during the initial review of the bid packages
- The apparent lowest bid (Odebrecht Construction, Inc.) had irregularities and contractor errors requiring clarification in order to be responsive:
 - One line item did not total
 - Contractor-generated bid forms omitted words
- Odebrecht Construction, Inc. met with staff and upon clarification, deemed responsive

Bid Review - Responsible

- City consultants reviewed three* lowest bids based on information submitted by contractors December 18, 2015
- Reports issued in January and February stated the bidders could perform work:
 - Identified items for City to consider including items such as the safety records, insurance and key personnel assigned to the project by the bidders

*HNTB only evaluated lowest two bidders

Bid Review - Responsible

- City staff reviewed reports provided by consultants and bid packages submitted by the contractors
- City staff also talked with project owners represented in the bid packages and researched the contractors
- Staff did not document all due diligence activities (as noted in the audit report)

Bid Review - Responsible

- Due to amount of time between the bid opening and the on going due diligence, a briefing was presented to City Council on February 17, 2015
 - Presented project information in open session
 - Provided legal advice in executive session

Non-Responsible Bidder

- Odebrecht Construction, Inc. was asked to clarify several items including their business structure. Their response stated:
 - “Operates as its own independent business with its own officers and board of directors”
 - “Clear separation and independence of management”
- As a result, only the transportation experience provided was considered, not the tunneling experience of other Odebrecht subsidiaries
- Odebrecht Construction, Inc. was deemed non-responsible on March 14, 2016 due to lack of direct tunnel experience

Lowest Responsible Bidder

- Prior work performed by consultants was utilized to move forward with Southland Mole JV as the apparent low bidder
- City staff performed additional research as recommended by consultants
- Construction award packages were sent to the City Attorneys Office for preparation and City Council consideration
- On April 13, 2016 the City Council requested an audit of the procurement process

Audit Responses

- Several departments worked together to provide information, clarification and responses during the audit process
 - Audit focus was on process, not technical capabilities of bidders
- The following slides provide responses to the exceptions noted in the audit

Audit Responses

Procedure 11 - Verify TWM's evaluation of the three lowest bids received for the areas described in the bid specifications including the contractor's: (a) financial capability; (b) contractor experience; (c) safety record; (d) prior contract performance; and, (e) environmental record.

Exception:

2) The eventual low responsible bidder, Southland Mole Joint Venture (Southland Mole), was not included in the additional analysis.

Management Response:

2) Additional analysis was performed.

- On or about January 9, 2016, staff telephoned and requested both Parsons and Halff to provide analysis of the three lowest bidders.
- Requested information was received from Halff on January 14 and March 1 and from Parsons on February 12 and February 29. This information was used by staff to perform additional due diligence via meetings and calls with project owners and city attorney's office.

Audit Responses

Exception:

3) TWM did not perform those recommended reviews.

Management Response:

3) Reviews were conducted.

- Halff and Parsons both reviewed the safety records; Halff provided additional safety reviews on March 1, 2016.
- TWM reviewed all contractors' insurance certificates, safety affidavits with Safety Experience Modifier Rate (EMR), and payment and performance bonds submitted. All were found to be in compliance with OSHA safety standards and the City's Risk Management requirements.
- EMR scores shown on safety affidavits of all contractors are less than 1 for the two lowest bidders, which is better than industry average and the third lowest was at a 1 which is the industry average.

Audit Responses

Procedure 11 - b) Contractor Experience

Exception:

1) With the exception of one Oscar Renda Contracting pump station project reviewed by Parsons, there is no documentation showing TWM's analysis of Southland Mole's performance relative to the 10 criteria identified in the bid specifications.

Management Response:

1) Analysis was performed.

- TWM staff directed the three consultants to review the experience records of the three lowest bidders for the last ten years on December 28, 2015 and February 23, 2016.
- The experience requirement was determined acceptable and meets the intended goals and objectives of the specification as documented by all three consultants' reports.
- Written reports from all consultants include determination that Southland Mole JV and Saline Imperil / Healy / MCM JV were responsible.
- Information was used by staff to perform additional due diligence via meetings with owners and city attorney's office.
- Written documentation is contained in project files for completion of satisfactory work on projects which TWM staff has previous experience with Oscar Renda Contracting as a prime and Southland as a tunneling subcontractor 1991 until 2012. (Refer to separate schedule.)

Audit Responses

Procedure 11 - d) Prior Contract Performance

Exception:

1) There is no documentation showing TWM's analysis of Southland Mole's performance relative to the 10 criteria identified in the bid specifications.

Management Response:

- 1) TWM has no prior experience with Southland Mole JV, but TWM staff has experience with direct oversight on five City projects involving tunneling with Southland as a subcontractor to Oscar Renda Contracting and several more tunneling projects with Oscar Renda Contracting as a prime from 1991 until 2012, tunneling projects. Southland Mole JV leadership is identical to Oscar Renda Contracting, Inc. (Refer to separate schedule.)
- As noted in 11 – b), Southland Mole staff have also worked for Oscar Renda Contracting with the City on two pump station projects more complex than the one for this project as well as water treatment plant facility work, performing satisfactorily on all projects.
- Oscar Renda Contracting, Inc. has been awarded twelve contracts (from May 27, 2006 to May 27, 2016) for a total of \$450,119,656, with eight contract increases for a total of \$3,101,492 and one contract amendment with no cost consideration to the City. The change orders with the City are less than one percent of the amount originally awarded, which is well below the industry standard of 3 to 5 percent.

Audit Responses

Procedure 13- Verify the contracts TWM had with three consulting firms (participating in the procurement evaluation) included conflict of interest policies or disclosure requirements. If so, determine if those policies or requirements were properly followed.

Exception:

1) None of the contracts with the three consulting firms participating in the procurement evaluation mentioned conflict of interest with a bidder. The only conflict of interest wording in the contracts was the standard wording covering conflict of interest of City officials and employees quoted from City Charter Chapter XXII Sec. 11

Management Response:

- 1) Current City Charter nor the City Code prohibit a City consultant from having a prior or current business relationship with another party involved with the project.
 - However, the City contracts with the consultants did include provisions to address conflicts of interests related to City officials and employees from having a financial interest in a contract with the city or being financially interested in the sale to the City of any land, materials, supplies, or services; and consultant offering or agreeing to confer any benefit on a City official or employee.
 - Supplemental agreements with the consultants would also initiate compliance with January 2016 implementation of HB1295 which requires business entities provide a Disclosure of Interested Parties to governmental entities when entering into a contract with the governmental entity.
 - Both individuals and firms licensed to practice engineering are governed by the State of Texas Board of Professional Engineers. Parsons Environmental and Infrastructure, selected by the City to perform Construction Management Services is registered in the State of Texas, as well as several of their staff members who served as client representatives for the Construction Management.
 - The Texas Engineering Practice Act and related Practice Rules require both Engineers and Engineering Firms to engage in all professional and business activities in an honest and ethical manner, and to disclose possible conflicts of interest to a potential or current client or employer upon discovery of the possible conflict.

Audit Responses

Procedure 14 - Determine whether TWM had conflict of interest policies or disclosure requirements in place for the bidding companies. If so, determine if those policies or requirements were properly followed.

Exception:

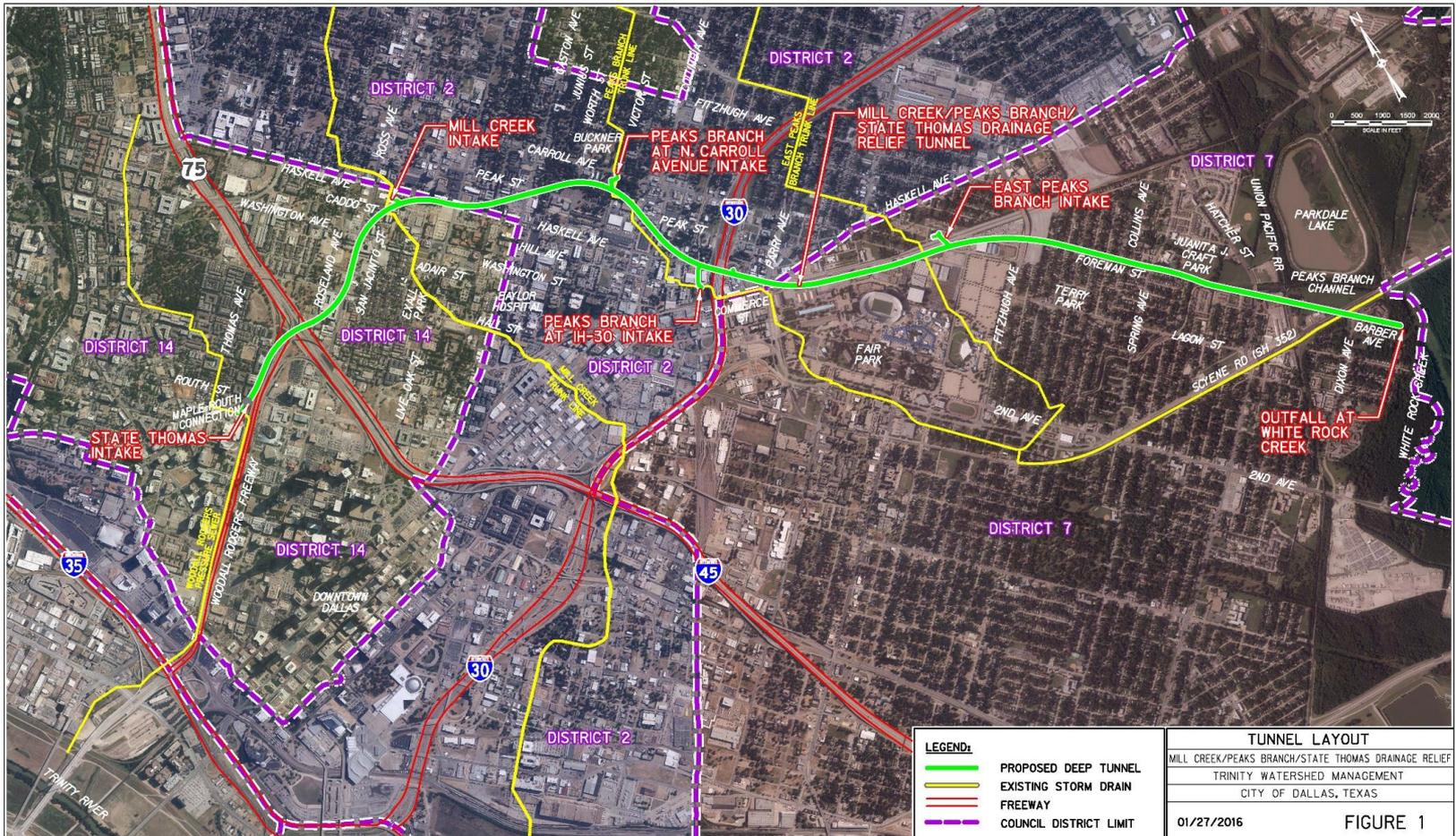
1) There were no conflict of interest policies or disclosure requirements stated in the bid requirements provided to the bidding companies.

Management Response:

1) Current City Charter nor the City Code prohibit a City consultant from having a prior or current business relationship with another party involved with the project.

- However, the City contracts with the consultants did include provisions to address conflicts of interests related to City officials and employees from having a financial interest in a contract with the city or being financially interested in the sale to the City of any land, materials, supplies, or services; and consultant offering or agreeing to confer any benefit on a City official or employee.
- Additionally, the specifications for the project include references to the conflict of interest for bidding companies in both the forms showing the standard contract language as well as the Standard Specification for Public Works Construction – North Central Texas Item 107.1 describes Contractor Independence.

Questions



Appendix

May 1995 Flood

Dallas Morning News Front Page May 7, 1995

- Fair Park
- Old City Park
- Flooding businesses and homes
- Baylor Emergency Room closed - flood damage \$5M
- IH 30 closed due to high water

16 deaths blamed on storm



4 missing after floods; 100 hurt

By Randy Lee Lefels and Nora López
of The Dallas Morning News

The stunning violence of the latest spring storm to slam through the Dallas area became clear Saturday. At least 16 people were dead and as much as \$400 million worth of property damaged after Friday night's rampage.

Among the victims of one of the area's deadliest, most destructive storms in history were five members of an Oak Cliff family who drowned when floodwaters swamped away their car.

At least seven people drowned in other flooded areas. A lightning-caused fire killed a Dallas woman, and a lightning strike killed an Irving boy. Late Saturday, at least four people were missing and feared dead. Late Saturday, rescuers continued going through a

Please see 16 DEATHS on Page 2A.

911 response times criticized

By Nora López and Jason Siskles
of The Dallas Morning News

During Friday's devastating rains and hail, hundreds of motorists were stranded in city streets submerged under several feet of water. Roads collapsed under the weight of heavy rain. Practise watched in horror as loved ones were swept away in storm drains.

Nearly all turned to 911 for help. Many times, all they got was a busy signal.

City officials said the demand for city services was so great late Friday that the calls simply overloaded the 911 system, resulting in busy signals and delayed response times of up to an hour.

"In practice, we train. We study. And we prepare. Please see CALLERS on Page 2A.

The Dallas Morning News Michael Armstrong

Lives lost, families torn

Storm victims from all walks of life, neighborhoods in her neighborhood. The teacher who had proudly posed for a recent photo with her young students. The family as five swept away as they headed for a restaurant.

One woman was saved from the flooding — only to be regarded who quietly cared for the animals. Please see VICTIMS on Page 2A.

NORTH TEXAS STORMS	
■ Storm makeup. 2A	■ Closings. 2A
■ Worst storms. 2A	■ TV coverage. 2A
■ The damage. 2A	■ Effect on voting. 2A
■ How to help. 2A	■ Drainage woes. 2A
■ Vigorites. 2A	■ Fair Park. 2A
■ PW's damage. 2A	■ Driving tips. 2A
■ Business impact. 2A	■ Weather. 2A

Mill Creek and Peaks Branch History

- Underground Storm Sewer Construction - 1930s
- May 1995 Flood
- March 2006 Flood
- September 2007 Flood



March 2006 Flood



- Widespread flooding throughout Dallas
- March 19th rainfall totals as high as 9.8" in Old East Dallas
- Extensive street, structure and vehicle flooding in East Dallas

Procedures	Results	Exceptions	Management Response
<p>Procedure 11 - Verify TWM's evaluation of the three lowest bids received for the areas described in the bid specifications including the contractor's: (a) financial capability; (b) contractor experience; (c) safety record; (d) prior contract performance; and, (e) environmental record.</p>	<p>1) The TWM used bid evaluations performed by three separate consultants (Parsons, HALFF, and HNTB) (1) to assess the lowest bids. These consultants identified issues related to contractor experience, safety record, and prior contract experience. The TWM's analyses of the identified issues were not consistently performed for the three lowest bidders, and the related decisions were not consistently documented.</p> <p>Consultant recommendations to perform additional analysis were not always followed or were not always followed for all bidders. For example:</p>		<p>1) The procurement of this project was performed in accordance with low bid contracting policies which utilizes price first, then determination of responsiveness (correct forms and correct tabulation), then determination of responsible which, as provided in the specifications, may include elements such as integrity, experience factors, financial capability, environmental record, or safety. These determinations are at the discretion of the owner.</p>
	<p>2) When HNTB recommended the City review both Odebrecht and Southland Mole for the following five areas for follow-up in its January 8, 2016 report, the City directed Parsons to conduct that analysis for only the low bidder at the time, Odebrecht:</p> <p>a. Key people and their commitment to this project</p> <p>b. Ability to meet Minority Business Enterprises (MBE) requirements in the past and explanation of how they will meet requirements for this project</p> <p>c. Current workload of the company and commitment of resources to this project for the duration</p> <p>d. Documentation showing bid price vs. final price on similar previous projects</p> <p>e. Litigation history on similar projects, including a brief description of the allegations and current status</p>	<p>2) The eventual low responsible bidder, Southland Mole Joint Venture (Southland Mole), was not included in the additional analysis.</p>	<p>2) Additional analysis was performed.</p> <ul style="list-style-type: none"> On or about January 9, 2016, staff telephoned and requested both Parsons and Half to provide analysis of the three lowest bidders. Requested information was received from Half on January 14 and March 1 and from Parsons on February 12 and February 29 (as noted in footnote). This information was used by staff to perform additional due diligence via meetings and calls with project owners and city attorney's office as noted in the detail below.
	<p>3) When HNTB recommended the City use safety, risk, or insurance consultants to evaluate the three low bidders or to directly request safety and experience information from the three low bidders on February 29, 2016.</p>	<p>3) TWM did not perform those recommended reviews.</p>	<p>3) Reviews were conducted.</p> <ul style="list-style-type: none"> Half and Parsons both reviewed the safety records; Half provided additional safety reviews on March 1, 2016. TWM reviewed all contractors' insurance certificates, safety affidavits with Safety Experience Modifier Rate (EMR), and payment and performance bonds submitted. All were found to be in compliance with OSHA safety standards and the City's Risk Management requirements. EMR scores shown on safety affidavits of all contractors are less than 1 for the two lowest bidders, which is better than industry average and the third lowest was at a 1 which is the industry average. See also 11-c regarding safety record examination.

1 Parsons - Conducted evaluations of Odebrecht, Southland Mole, and Salini Impregilo
HALFF - Conducted evaluations of Odebrecht, Southland Mole, and Salini Impregilo
HNTB - Conducted evaluations of Odebrecht and Southland Mole

Procedures	Results	Exceptions	Management Response
<p>Procedure 11 - b) Contractor Experience</p>	<p>1) Parsons and Half raised concerns about Southland Mole's on-time performance, budget performance, project completion, and commitment to safety on its past projects.</p>	<p>1) With the exception of one Oscar Renda Contracting pump station project reviewed by Parsons, there is no documentation showing TWM's analysis of Southland Mole's performance relative to the 10 criteria identified in the bid specifications.</p>	<p>1) Analysis was performed.</p> <ul style="list-style-type: none"> TWM staff directed the three consultants to review the experience records of the three lowest bidders for the last ten years on December 28, 2015 and February 23, 2016. The experience requirement was determined acceptable and contractor meets the intended goals and objectives of the specification as documented by all three consultants' reports. Written reports from all consultants include determination that Southland Mole JV and Salini Impregilo / Healy / MCM JV were responsible. Information was used by staff to perform additional due diligence via meetings with owners and city attorneys office. <p><i>• Written documentation is contained in project files for completion of satisfactory work on projects which TWM staff has previous experience with Oscar Renda Contracting as a prime and Southland as a tunneling subcontractor 1991 until 2012, (examples include Elm Fork Water Treatment Plant Raw Water Pipeline with tunneling under IH-35 and a DART transit rail, Bachman Water Treatment Plant Raw Water Pipeline with tunneling under State Highway 354/Harry Hines Blvd. and a DART transit rail, Lake Fork Raw Water Pipeline Contracts 3, 4 and 5).</i></p>
<p>Note: The bid specifications stated, "The BIDDER shall submit the documentation listed below along with their bid:</p>	<ul style="list-style-type: none"> The Parsons' review stated Southland Mole JV: <ul style="list-style-type: none"> 2) Provided a total of five tunnel projects. As only three were requested, reference checks were limited to the first three. The first reference does not meet the 20' minimum diameter requirements. Review of documentation provided for the remaining (2) tunnel projects indicates neither meet the minimum 20' diameter requirement. 		<p>2) Southland Mole JV provided five tunnel examples and demonstrated their experience with excavated tunnels of varying degrees of complexity as documented by Half and HNTB. The requirement for experience with 20' is satisfied. As noted by the Auditor's report, Parsons selectively reviewed only a part of their experience. Additional diligent review verified that Southland Mole JV's experience meets the intended requirement, is acceptable and meets the intended goals and objectives of the specification.</p>
<p>a. Three (3) examples of tunnel projects completed by the contractor with excavated tunnel diameters of over 20 feet.</p>			
<p>b. Three (3) examples of shaft excavation projects completed by the contractor with shaft excavations over 20 feet in diameter.</p>			
<p>c. Three (3) examples of pump station projects completed by the contractor or subcontractor with multiple submersible pumps, at least one of which has one or more pumps with 8-inch or larger outlets."</p>	<p>3) No referenced project included submersible pumps. All references were for Oscar Renda Contracting who was not identified as part of the joint venture.</p>		<p>3) Southland Mole JV staff also work for Oscar Renda Contracting. Oscar Renda Contracting has successfully built several pump stations, including two for the City: Cadiz Street Replacement and Camp Wisdom Pump Stations, both with more complex pumps than the ones for this project. Oscar Renda Contracting has also successfully built highly complicated water and wastewater treatment plant facilities for the City. This experience was determined to be relevant and deemed acceptable.</p>
	<p>4) The owner representative noted that there were a number of quality issues and inconsistencies in the quality of work throughout the project. The contractor was reported as not correcting all deficiencies in a timely manner, but eventually correcting all items.</p>		<p>4) This is Reference No. 1 - Lake Mead Intake Tunnel Number Three and the issues were resolved per Parson's February 12 report.</p> <ul style="list-style-type: none"> TWM staff contacted this reference following Half's findings and found that the owner is satisfied with Southland's work. No non-conformance items were documented on this 5 year project.
	<p>5) The owner representative stated the work was completed later than scheduled finish date resulting in liquidated damages being assessed against the contractor.</p>		<p>5) Staff did verify with owner that liquidated damages were assessed without recourse to any formal process; however, owner is satisfied with the work.</p>
	<p>6) The owner representative reported that there was a claim by contractor employees that they were not paid the wages that they were owed. The owner commented that the State Labor Commission ruled in favor of the employees and the contractor is currently appealing the case.</p>		<p>6) Southland Mole JV provided an unsolicited response to the audit report issued by the City Auditor with the update below:</p> <ul style="list-style-type: none"> Complainants recanted and withdrawn from the Office of Labor Commissioner. Matter was vacated and dismissed.

Procedures	Results	Exceptions	Management Response
	7) HALFF reviewed a Southland Mole JV project encountering \$28 million in construction change orders due to encountering methane gas.		7) The Parsons February 12, 2016, report addressed this issue. <ul style="list-style-type: none"> • Unforeseen site conditions were encountered during construction and methane gasses had to be addressed. • Owner agreed to this change and this issue is not a reflection on their work quality. • Additionally, the city's design for our project has addressed the potential discovery of dangerous gases during construction and this experience is valuable to the City.
	8) Another Southland Mole project HALFF reviewed was generally performed according to expectations, but was delivered late and a contractor's claim regarding different site conditions was settled after it was heard in a disputes review board.		8) Resolution of these types of construction issues are normal in construction and a dispute review board is also a standard in the tunneling industry, established to evaluate and negotiate these types of issues on tunneling projects. <ul style="list-style-type: none"> • This process is also included as part of the tunnel project. • The issue was settled out of court and the owner reported that differing site conditions from the design were found and the processes in place worked as intended and there were no concerns related to the project.
Procedure 11 - c) Safety Record	1) Southland Mole's safety violations (2) appear to exceed the threshold stated in the bid specifications. Specifically, the Bid specifications stated the Occupational Safety and Health Administration (OSHA) record shall reflect no more than six serious safety violations, none of which may be repeats, or three willful violations, none of which may be repeats, in the six preceding years. Similar safety violations in City construction inspections reports will be considered the same as an OSHA violation		1) Safety records were examined. Per Addendum #2, issued November 2, 2015, requiring only all members of a joint venture to provide safety records. On February 23, 2016, TWM staff directed the three consultants to review the safety records of Southland Mole JV. <ul style="list-style-type: none"> • TWM staff reviewed the reports provided by Parsons and Halff (HNTB declined to provide one) and found Southland Mole JV to be in compliance with the specifications. In its review, TWM staff considered only "closed" cases that reported by OSHA in the last six years as required in the specifications. • Southland Mole JV had 6 violations that were closed on the date of the bid submission, no willful or repeats. • City and Halff discussed the safety findings and whether open or closed should be counted and determined based on OSHA's website that open cases had not been resolved and were subject to change, that this was not to be included on any contractor. • Additional calls to OSHA office in Ft. Worth during the audit confirmed this approach. • OSHA violations that have an "open" status were not considered because the type and number of violations are subject to change and may be dismissed.
	2) The HALFF review showed Southland Mole and its Joint Venture partners combined for 18 serious Occupational Safety and Health Administration (OSHA) violations in the past six years, ten of which were closed, eight of which were open (3). In addition, there was one open repeat violation and one closed willful violation.		2) See above.
	3) The Parsons Review also identified 18 serious violations, one open repeat violation, and one closed willful violation during the period, but had some differences. It said two of the serious violations included in the HALFF report as opened on December 10, 2015 were issued in 2016, after the bid opening date. It included two more closed serious violations from a Southland Tutor Perini Joint Venture not included in the HALFF report. The Parsons review noted all open violations were being contested.		3) See above.

2 Source: Occupational Safety and Health Administration. Willful -A willful violation exists under the OSHA Act where an employer has demonstrated either an intentional disregard for the requirements of the OSHA Act or a plain indifference to employee safety and health. Serious- A serious violation shall be deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation. Repeated- An employer may be cited for a repeated violation if that employer has been cited previously, within the last five years, for the same or a substantially similar condition or hazard and the citation has become a final order of the Occupational Safety and Health Review Commission. A citation may become a final order by operation of law when an employer does not contest the citation, or pursuant to court decision or settlement.

3 OSHA violations remain "OPEN" until the employer has demonstrated compliance and paid any monetary penalties, or until the violations are dismissed through the appeals process.

Procedure 11 - d) Prior Contract Performance

1) Southland Mole had prior contractor experience with the City. Criteria as stated in the bid specifications:

The Contractor's Post-Construction Evaluations on the prior work for the City must reflect a record of having:

- a. A satisfactory record of paying subcontractors and suppliers on time
- b. Provided timely and accurate scheduling information as required by the contract documents
- c. Provided a quality of work consistent with the contract documents
- d. Protected the public during the construction of the project
- e. Corrected deficiencies in a timely and satisfactory manner
- f. Responded to warranty problems in a timely and satisfactory manner
- g. Provided insurance updates and notices

1) There is no documentation showing TWM's analysis of Southland Mole's performance relative to the 10 criteria identified in the bid specifications.

1) TWM has no prior experience with Southland Mole JV, but TWM staff has experience with direct oversight on five City projects involving tunneling with Southland as a subcontractor to Oscar Renda Contracting and several more tunneling projects with Oscar Renda Contracting as a prime from 1991 until 2012. Southland Mole JV leadership is identical to Oscar Renda Contracting, Inc.

These projects include:

- Elm Fork Water Treatment Plant Raw Water Pipeline with tunneling under IH-35 and a DART transit rail.
- Bachman Water Treatment Plan Raw Water Pipeline with tunneling under State Highway 354/Harry Hines Blvd. and a DART transit rail.
- Lake Fork Raw Water Pipeline, Contracts 3, 4 and 5, each of the three Lake Fork Pipeline Contracts required tunneling under all State Highways along the twenty eight mile alignment – the projects were completed satisfactorily meeting the performance measures in the bid specification on prior projects with the City.

•As noted in 11 – b), Southland Mole staff have also worked for Oscar Renda Contracting with the City on two pump station projects more complex than the one for this project as well as water treatment plant facility work, performing satisfactorily on all projects.

•Oscar Renda Contracting, Inc. has been awarded twelve contracts (from May 27, 2006 to May 27, 2016) for a total of \$450,119,656, with eight contract increases for a total of \$3,101,492 and one contract amendment with no cost consideration to the City. The change orders with the City are less than one percent of the amount originally awarded, which is well below the industry standard of 3 to 5 percent.

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- h. Provided subcontractor submittal to the City for approval prior to the start of construction
- i. No record of unsubstantiated or unreasonable claims filed
- j. Completed the project within the time allotted by the contract documents

Procedure 13- Verify the contracts TWM had with three consulting firms (participating in the procurement evaluation) included conflict of interest policies or disclosure requirements. If so, determine if those policies or requirements were properly followed.

1) None of the contracts with the three consulting firms participating in the procurement evaluation mentioned conflict of interest with a bidder. The only conflict of interest wording in the contracts was the standard wording covering conflict of interest of City officials and employees quoted from City Charter Chapter XXII Sec. 11

1) Current City Charter nor the City Code prohibit a City consultant from having a prior or current business relationship with another party involved with the project.

- However, the City contracts with the consultants did include provisions to address conflicts of interests related to City officials and employees from having a financial interest in a contract with the city or being financially interested in the sale to the City of any land, materials, supplies, or services; and consultant offering or agreeing to confer any benefit on a City official or employee.

- Supplemental agreements with the consultants would also initiate compliance with January 2016 implementation of HB1295 which requires business entities provide a Disclosure of Interested Parties to governmental entities when entering into a contract with the governmental entity.

- Both individuals and firms licensed to practice engineering are governed by The State of Texas Board of Professional Engineers.

•The Texas Engineering Practice Act and Rules Concerning the Practice of Engineering and Professional Engineering Licensure applicable rules are: §137.57 Engineers Shall be Objective and Truthful - (c) The engineer shall disclose a possible conflict of interest to a potential or current client or employer upon discovery of the possible conflict. (d) A conflict of interest exists when an engineer accepts employment when a reasonable probability exists that the engineer's own financial, business, property, or personal interests may affect any professional judgment, decisions, or practices exercised on behalf of the client or employer. An engineer may accept such an employment only if all parties involved in the potential conflict of interest are fully informed in writing and the client or employer confirms the knowledge of the potential conflict in writing. An engineer in a conflict of interest employment shall maintain the interests of the client and other parties as provided by §137.61 of this title (relating to Engineers Shall Maintain Confidentiality of Clients) and other rules and statutes. Source Note: The provisions of this §137.57 amended to be effective Dec 21, 2008.

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•§137.63 Engineers' Responsibility to the Profession - (a) Engineers shall engage in professional and business activities in an honest and ethical manner. Texas Engineering Practice Act and Rules Page 60 of 72 Effective 5/1/16 business or professional practices of a fraudulent, deceitful, or dishonest nature, or any action which violates any provision of the Texas Engineering Practice Act or board rules; (b)(4) act as faithful agent for their employers or clients; (5) conduct engineering and related business affairs in a manner that is respectful of the client, involved parties, and employees. Source Note: The provisions of this §137.63 amended to be effective Dec 21, 2008.

Procedure 14 - Determine whether TWM had conflict of interest policies or disclosure requirements in place for the bidding companies. If so, determine if those policies or requirements were properly followed.

1) There were no conflict of interest policies or disclosure requirements stated in the bid requirements provided to the bidding companies.

1) Current City Charter nor the City Code prohibit a City consultant from having a prior or current business relationship with another party involved with the project.

- However, the City contracts with the consultants did include provisions to address conflicts of interests related to City officials and employees from having a financial interest in a contract with the city or being financially interested in the sale to the City of any land, materials, supplies, or services; and consultant offering or agreeing to confer any benefit on a City official or employee.

- Additionally, the specifications for the project include references to the conflict of interest for bidding companies in both the forms showing the standard contract language as well as the Standard Specification for Public Works Construction – North Central Texas Item 107.1 describes Contractor Independence.