REGULAR WORK SESSION & MEETING OF THE CITY COUNCIL

March 22, 2016

ADDISON TOWN HALL

5300 BELT LINE RD., DALLAS, TX 75254
5:30 PM DINNER & EXECUTIVE SESSION
6:00 PM WORK SESSION
7:30 PM REGULAR MEETING

Executive Session

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1. Closed (executive) session of the Addison City Council pursuant to:

   Section 551.071, Tex. Gov. Code, to conduct a private consultation with its attorney(s) on a mater in which the duty of the attorney(s) to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551, Tex. Gov. Code, pertaining to

   - **Town of Addison v. Landmark Structures I, L.P. and Urban Green Energy Cause No. DC-15-0761 44th Judicial District Court, Dallas County, Texas**
   - **Attorney Client Privilege In Regards To Open Records Requests**

   Section 551.072, Tex. Gov. Code, to deliberate the purchase, exchange, lease or value of real property

   - **Airport Development Update**

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2. **RECONVENE INTO REGULAR SESSION:** In accordance with Texas Government Code, Chapter 551, the City Council will reconvene into Regular Session to consider action, if any, on any matter discussed in Executive Session.

WORK SESSION

3. Present An **Update On The Vitruvian Development**.

4. Presentation And Discussion On **Possible Funding Options For The Addison Grove Incentive Agreement**.

REGULAR MEETING

Pledge of Allegiance

Announcements and Acknowledgements regarding Town and Council Events and Activities

Discussion of Events/Meetings

5. Public Comment.
The City Council invites citizens to address the City Council on any topic not on this agenda. Please fill out a **City Council Appearance Card** and submit it to a city staff member prior to Public Participation. Speakers are allowed **up to three (3) minutes per speaker** with **fifteen (15) total minutes** on items of interest or concern and not on items that are on the current agenda. In accordance with the Texas Open Meetings Act, the City Council cannot take action on items not listed on the agenda. The Council may choose to place the item on a future agenda.

Consent Agenda:
All items listed under the Consent Agenda are considered routine by the City Council and will be enacted by one motion with no individual consideration. If individual consideration of an item is requested, it will be pulled from the Consent Agenda and discussed separately.

6. Consider **Approval Of The March 8, 2016 Regular Meeting Minutes.**

Regular Items

7. Presentation And Discussion Regarding **Fiscal Year 2016 Compensation Market Study Results And Recommendation.**

8. Discuss, Consider, And Approve **Authorizing The Recommended Full Time Equivalent Position Changes And Associated Amounts.**

9. Discuss, Consider And Approve A **Resolution Authorizing The City Manager To Award A Construction Contract to Canary Construction, Inc. For The Construction Of The Les Lacs Pond Water Well Transfer Piping System** In The Amount Of $120,325.00.

10. Discuss, Consider And Approve A **Resolution Authorizing The City Manager To Award A Construction Contract to Groves Electrical Services, Inc. For The Construction Of The Les Lacs Pond Well Rebuilding Project** In the Amount Of $224,597.00.

11. Consider An **Ordinance Granting A Meritorious Exception For A Sign Located at 4875 Belt Line Road for Home2 Suites.**

Adjourn Meeting

NOTE: The City Council reserves the right to meet in Executive Session closed to the public at any time in the course of this meeting to discuss matters listed on the agenda, as authorized by the Texas Open Meetings Act, Texas Government Code, Chapter 551, including §551.071 (private consultation with the attorney for the City); §551.072 (purchase, exchange, lease or value of real property); §551.074 (personnel or to hear complaints against personnel); §551.076 (deployment, or specific occasions for implementation of security personnel or devices); and §551.087 (economic development negotiations). Any decision held on such matters will be taken or conducted in Open Session following the conclusion of the Executive Session.

Posted:
Laura Bell, 3/18/16, 6:00 pm

**THE TOWN OF ADDISON IS ACCESSIBLE TO PERSONS WITH DISABILITIES.
PLEASE CALL (972) 450-7017 AT LEAST
48 HOURS IN ADVANCE IF YOU NEED ASSISTANCE.**

AI-1606 **1.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: City Manager

AGENDA CAPTION:

Closed (executive) session of the Addison City Council pursuant to:

Section 551.071, Tex. Gov. Code, to conduct a private consultation with its attorney(s) on a mater in which the duty of the attorney(s) to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551, Tex. Gov. Code, pertaining to

- **Town of Addison v. Landmark Structures I, L.P. and Urban Green Energy Cause No. DC-15-0761 44th Judicial District Court, Dallas County, Texas**
- **Attorney Client Privilege In Regards To Open Records Requests**

Section 551.072, Tex. Gov. Code, to deliberate the purchase, exchange, lease or value of real property

- **Airport Development Update**

BACKGROUND:

n/a

RECOMMENDATION:

n/a

AI-1605 **2.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: City Manager

AGENDA CAPTION:

RECONVENE INTO REGULAR SESSION: In accordance with Texas Government Code, Chapter 551, the City Council will reconvene into Regular Session to consider action, if any, on any matter discussed in Executive Session.

BACKGROUND:

N/A

RECOMMENDATION:

N/A

AI-1564 **3.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Infrastructure- Development Services

AGENDA CAPTION:

Present An **Update On The Vitruvian Development**.

BACKGROUND:

Staff will provide an update on the Vitruvian Development to include plans for infrastructure placements and upcoming phases.

RECOMMENDATION:

This item is informational only.

AI-1601 **4.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Finance

AGENDA CAPTION:

Presentation And Discussion On **Possible Funding Options For The Addison Grove Incentive Agreement**.

BACKGROUND:

On February 9, 2016, staff presented to Council a proposal to fund the Addison Grove incentive payment of $6,500,000. The proposed payments were as follows: $4,250,000 from General Fund, $1,000,000 from Stormwater Fund, $1,000,000 from Utility Fund, and $250,000 in Waived Permit Fees.

Staff presented 4 options for payment of General Fund component, which included all cash, including contribution from Infrastructure Fund, cash and debt and all debt.

Council asked for additional analysis of cash flows from the project, given the incentive payment criteria and the added ad valorem taxes generated by the project.

This presentation provides that analysis and presents an additional option for consideration.

RECOMMENDATION:

Staff requests direction from Council.

AI-1579 **6.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: City Secretary

AGENDA CAPTION:

Consider **Approval Of The March 8, 2016 Regular Meeting Minutes.**

BACKGROUND:

Staff has prepared the minutes from the March 8, 2016 meeting.

RECOMMENDATION:

Administration recommends approval.

Attachments

March 8 2016 Draft Minutes

OFFICIAL ACTIONS OF THE
ADDISON CITY COUNCIL
WORK SESSION & REGULAR MEETING

March 8, 2016
Addison Town Hall, 5300 Belt Line Rd., Dallas, TX 75254
5:30 PM Executive Session & Dinner
6:00 PMWork Session I 7:30 PM Regular Meeting

Present: Arfsten; Carpenter; Heape; Hughes; Mayor Meier; Moore; Wilcox

Executive Session

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1. Closed (executive) session of the Addison City Council pursuant to:

   Section 551.071, Tex. Gov. Code, to conduct a private consultation with its attorney(s) on a mater in which the duty of the attorney(s) to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551, Tex. Gov. Code, pertaining to

   - **Legal Matters Regarding Jesse James Creative Inc.**

   Council convened into Executive Session at 5:32 pm.

Reconvene from Executive Session

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2. **RECONVENE INTO REGULAR SESSION:** In accordance with Texas Government Code, Chapter 551, the City Council will reconvene into Regular Session to consider action, if any, on matter discussed in Executive Session.

   Council adjourned from Executive Session at 5:50 pm.

   Mayor Pro Tem Moore moved that Council ratify the filing of the lawsuit styled Town of Addison v. Jesses James Creative, Inc,; Cause No. DC-16-002268, in the 14th Judicial Court, Dallas County, Texas, and direct the city attorney to take all action necessary to enforce the contractual obligations contained in the Website Design Contract between the Town and Jesse James Creative, Inc.

   Mayor Pro Tem Moore then amended to allow staff to revise the cause number as needed due to the penmanship of the document.

   Councilmember Dale Wilcox seconded the motion. The vote was cast 7-0 in favor of the motion.

WORK SESSION

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3. Discuss The **Possibility Of A New Dog Park For Spruill Park.**

Interim Parks Director, Michael Kashuba presented the item to Council. Mr. Kashuba gave Council a reminder of the history of the Dog Park Committee and goals. The Council assigned $20,000 in the 2015 Budget to start a study on the feasibility of a new dog park at Towne Park. After the committee met and looked at options for that site and the costs associated, Council asked staff and the committee to further look at other sites and options to bring forward a new dog park.

Since the initial meetings and discussions, staff has looked at other options for the new dog park. Staff recommended one of the parks at Addison Circle, Spruill Park.

Mr. Kashuba stated that this park was already being used as a make shift dog park by the residents in the surrounding apartments. He stated that there is good, exisiting infrastructure already in place. He also stated that the park is close to residents who would use it on a daily basis. This would not have the same tendency to become a destination dog park with non-Addison residents coming to use the park. He also stated that the park had good existing lighting and mature trees which would help in the conversion of the space.

Mr. Kashuba stated that staff spoke to Mr. Billy Dries, who has spearheaded the committee, about the possibility of using Spruill Park. Mr. Dries agreed that this option was a good plan.

Mr. Kashuba went over the details of planning out the park, how much of the park to dedicate to the dog park, the option of 2 fenced in areas for dogs or one larger area, and the landscaping details invovled.

Council had questions regarding the type of fencing used, the trees used, revamping the entrance and funding the site.

Council agreed that Spruill park should be considered as a viable option for the dog park. They would like to see more fundraising done before any work starts. Council agreed that the Legacy Foundation should be involved with the fundraising. Council also agreed that the residents in Addison Circle should have input into the option of the dog park at this location. Communication between staff and the residents will be part of the plan. Council agreed to wait until the next budget year to consider an option to provide public funds in order to to see if costs could be covered by private fundraising.

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4. Discuss The **Signature Authority Of The City Manager.**

City Manager, Wes Pierson, stated that when he started in December, he questioned which documents he was authorized to sign. He stated he requested that the City Attorney draft a listing of the documents he was authorized to sign.

City Attorney, Brenda McDonald, stated that she did research into the practices at other cities. She stated that the ordinance did not restrict the powers allowed to the City Manager through State law or Town Charter. She stated that the ordinance aggregated the current authority of the City Manager and additionally lines out the customary functions of the office.

Council had discussion regarding the authority allowed in the ordinance, the policy the City Manager can adopt to delegate signing authority to an Assistant City Manager or Deputy City Manager if needed, and other administrative practices with this authority.

City Manager Pierson agreed that any protocols put in place by a policy will be shared with Council upon request.

REGULAR MEETING

Pledge of Allegiance

Announcements and Acknowledgements regarding Town and Council Events and Activities

Discussion of Events/Meetings

Public Comment.
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Mr. Neil Hewitt, 3756 Park Place, stated he brought a petition with him in regards to the new stop signs proposed for the corners of Les Lacs and Beltway. He stated that the neighborhood is very much against this project. He stated he hoped Council and staff would reconsider the signs.

Mr. John Price, 4114 Leadville Place, stated that he would like to see the Council get the spending of public funds for memberships to private community groups under control. He gave information to the Council about the amount of money spent by the Town on participation in Rotary clubs. He stated he would like to see that practice discontinued in the future.

Consent Agenda:
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Councilmember Bruce Arfsten requested Item #9 be pulled for separate consideration.
Mayor Pro Tem Janelle Moore requested Item #10 be pulled for separate consideration.

Mayor Pro Tem Janelle Moore moved to approve Items 6-8. Councilmember Ivan Hughes seconded the motion. The vote was cast 7-0 in favor of the motion.

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6. Consider **Approval Of The February 23, 2016 Regular Worksession And Meeting Minutes.**

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7. Consider A **Resolution Establishing Signage Guidelines For Open Carry At Open Meetings.**

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8. Consider And Approve Authorizing The City Manager To **Approve A Construction Contract For The Installation Of 137 Illuminated Street Name Signs with Durable Specialties, Inc** In An Amount Not To Exceed $71,925.00.

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9. Consider Approval Of The **Purchase Of Fourteen (14) Ford Police Pursuit Vehicle (PPV) Through An Inter Local Agreement With The Houston Galveston Area Council Of Government (HGAC)** In An Amount Not To Exceed $343,866.70.

   Councilmember Bruce Arfsten requested this item be pulled for Separate Consideration. He asked Director of General Services, Mark Acevedo, about the savings in the budget line and how those funds would be allocated after the purchase of the vehicles.

   Mr. Acevedo stated that part of those funds would be used for graphic design for the vehicles. It is unknown at this time how much that will cost. The wrap already being used on vehicles is budgeted in the cost as of now. Any additional graphics will be an extra cost and will come out of that savings.

   Councilmember Arfsten stated he would like to see that savings put back into another area to help with costs that may not be budgeted. He would like to see the Town save as much of that savings as possible and not use it all in graphic design that may not be necessary.

   Mayor Meier stated that he agreed the savings is important to put aside but he would like to also see the branding and uniqueness of Town be shown through the new vehicles. He would like to see the opportunity to use the vehicles to promote the Town be used.

   Councilmember Arfsten stated that he agreed with branding and uniqueness but he didn't think that the entire amount needed to be spent on graphic design services.

   Mayor Meier moved to approve the item as submitted. Deputy Mayor Pro Tem David Heape seconded the motion. The vote was cast 7-0 in favor of the motion.

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10. Consider A **Resolution Increasing The Public Fuel Flowage Fee From $0.12 To $0.14 And The Non-Public Fuel Flowage Fee From $0.20 To $0.22 At Addison Airport Effective April 1, 2016.**

Mayor Pro Tem Moore requested this item be pulled for Separate Consideration.

Deputy City Manager Cheryl Delaney presented the item to Council. She reviewed that the last fee change was in 1994. She reviewed the budget impacts on this increase.

Mayor Meier stated that a tenant at the airport had requested that Council grandfather the old rate in for their business. They asked for the exception in perpetuity. Council agreed to disagree with the request. They agreed the small amount of change in the tenants cost was not need enough to grant an exception for them.

Mayor Pro Tem Moore moved to approve the item as submitted. Deputy Mayor Pro Tem Heape seconded the motion. The vote was cast 7-0 in favor of the motion.

Regular Items

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11. Discuss, Consider And Approve A **Resolution Authorizing The City Manager To Award A Construction Contract to McMahon Contracting, LP For The Construction Of The Northwest Drainage Channel Improvements Located On Addison Airport** In An Amount Not To Exceed $762,470.09.

    Assistant Director of Infrastructure, Jason Shroyer, presented the item to Council. He showed Council a map included in the agenda packet as to where the project will be located at the airport. He stated these are improvements to the channel to help with access on the airport and to help with stormwater issues that have come up recently. He stated that agenda item for the bid award and additive alternate #1. The additive alternate #2 could easy be included in a future project with the future expansion of the perimeter road. the project was budgeted in the Stormwater Capital Projects fund. The project will take approximately 6 months to complete, depending on the weather.

    Mayor Pro Tem Moore moved to approve Item #11 as presented. Councilmember Arfsten seconded the motion. The vote was cast 7-0 in favor of the motion.

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12. Discuss, Consider And Approve An **Ordinance Establishing Parameters For The Refunding Of Bonds For The Town Of Addison.**

    Interim CFO, Scott Neils, presented the item to Council. He stated that the rate for the bonds the Town currently has is 4.59%. The new proposed rate would be approximately 2.81% with shows a savings of about 2.8 million dollars over the terms of the bonds. A representative from the Town's financial advisors, First Southwest and a representative from the Town's Bond Counsel were on hand to present the details to Council.

    The ordinance is to establish parameters for the refunding of the bonds.

    Mayor Pro Tem Moore clarified that the term of the bonds, year

2033, is the same but the rate is what is changing.

Mayor Meier discussed the rating the Town received from the agencies and what type of things can make that rating change. The financial advisors stated that many things could affect that rating including the tax rate for the Town. The rating agency looks at the Town's ability to sustain the rating through the tax rate, fund balances and service levels.

Councilmember Hughes moved to approve the item as submitted. Councilmember Carpenter seconded the motion. The vote was cast 7-0 in favor of the motion.

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13. Discuss, Consider And Approve An **Ordinance Outlining The Signature Authority Of The City Manager.**

City Manager, Wes Pierson, stated that this is the companion item to the Worksession item in which the Council discussed the ordinance and guidelines set.

Council discussed the ordinance and it's parameters set for the City Managers' signing authority. Council agreed that the ordinance was a good thing to allow for the guidelines for the City Manager.

Deputy Mayor Pro Tem Heape moved to approve the item as submitted. Councilmember Carpenter seconded the motion. The vote was cast 7-0 in favor of the motion.

Adjourn Meeting

Mayor Meier adjourned the meeting at 8:26 pm.

NOTE: The City Council reserves the right to meet in Executive Session closed to the public at any time in the course of this meeting to discuss matters listed on the agenda, as authorized by the Texas Open Meetings Act, Texas Government Code, Chapter 551, including §551.071 (private consultation with the attorney for the City); §551.072 (purchase, exchange, lease or value of real property); §551.074 (personnel or to hear complaints against personnel); §551.076 (deployment, or specific occasions for implementation of security personnel or devices); and §551.087 (economic development negotiations). Any decision held on such matters will be taken or conducted in Open Session following the conclusion of the Executive Session.

_____
Mayor-Todd Meier

Attest:

_____
City Secretary-Laura Bell

AI-1580 **7.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Human Resources

AGENDA CAPTION:

Presentation And Discussion Regarding **Fiscal Year 2016 Compensation Market Study Results And Recommendation.**

BACKGROUND:

During the FY2016 budget process, a market study was commissioned to provide market data for compensation regarding Public Safety and Civilian positions. To address merit and market adjustments, $581,377 was set aside in the budget. The market study looked at core benefits and market competiveness of salaries and salary ranges of 13 comparison cities which included: Allen, Carrollton, Coppell, Famers Branch, Frisco, Flower Mound, Grapevine, Irving, Lewisville, McKinney, Plano, Richardson and University Park.

Private sector data for some positions was also included in the study, as applicable.

While overall Addison's core benefits are in line with the market, the market study reflected that sworn public safety positions are more than 5% behind the market. In addition, out of 91 civilian positions, 14 of those positions are behind the market.

RECOMMENDATION:

To address these findings and ensure market competitiveness, staff recommends adjusting the salary ranges and salaries of public safety employees by 5%.

For civilian positions, staff recommends moving identified positions to the new pay grade and adjusting pay accordingly. For those positions that have large increases recommended, staff will take an incremental approach to bringing pay in line with the market by only awarding a portion of the adjustment this fiscal year.

For all other civilian positions, staff recommends a 2% salary adjustment for those employees in good standing.

As part of the recommendation and implementation process, all adjustments will be retroactive to 1/1/16.

Fiscal Impact

Budgeted Yes/No: Yes

Funding Source: FY16 budget

Amount: $581,377

AI-1600 **8.**
Work Session and Regular Meeting
Meeting Date: 03/22/2016
Department: Finance

AGENDA CAPTION:
Discuss, Consider, And Approve **Authorizing The Recommended Full Time Equivalent Position Changes And Associated Amounts.**

BACKGROUND:
Over the past eight months, the Finance department has experienced turnover in a number of key positions. Due to this turnover and critical loss of institutional knowledge, a review of the staffing structure was initiated. The number of high profile, labor intensive projects (i.e. the implementation of a new Enterprise Resource Planning system, annual external audit, internal controls review) combined with the daily operations of the Finance department has highlighted the need to increase the level of staffing with the necessary skills and training to adequately execute the department's core functions.

In the Kanter Forensics report, it was identified that additional qualified staff were needed to provide the necessary internal controls and required reviews. The Town believes that the overall staffing plan as proposed in this item achieves this objective. In addition, the additional staff will allow for the internal controls and key accounting processes to be put into place that will allow for uniform accounting practices to be followed throughout the Town.

In addition, this new staffing plan addresses not only the current staffing issues, but many of the key issues and concerns identified in recommendations provide by Kanter Forensics, LLC.

Listed below are key recommendations identified by the recent review by Kanter Forensics, LLC (Kanter):

1. Hire two experienced persons who are Certified Public Accountants to augment the current staff
2. Adopt the COSO Framework
3. Allow for the appropriate segregation of duties and implementation of needed internal controls
4. All purchases that are above a specified dollar amount or are sensitive in nature (such as weapons) would be ***automatically*** added to the GEMS [MUNIS] Fixed Asset Module at the time of purchase
5. Fixed assets should be periodically counted and reconciled to the GEMS [Munis] system
6. The assets identified in the physical count (not previously recorded) should be

recorded in the GEMS [MUNIS] Fixed Asset module. The physical count of assets should also be compared to the various MS Excel and department level fixed asset spreadsheets currently in existence in an attempt to locate any missing assets. (Applies to the recording of Infrastructure assets as well)

Listed below are how the new staffing plan addresses the Kanter recommendations.

GENERAL FUND

The Town now has three finance staff who were/are CPA's. The Interim CFO is a retired CPA and the Assistant Finance Director and Accounting Manager are both active Texas CPA's. The new positions as proposed in this plan will all receive direction from one of these three individuals.
Addresses Kanter Forensics recommendations 1-6

Existing Position: Reclassification of Department Assistant to Accounting Specialist II

This position will work with the Senior Accountant and will be responsible for maintaining the CIP and Fixed Asset ledgers, working with IDS and other departments to ensure that the Town's assets are properly recorded and reconciled to the General Ledger. Also works closely with the Senior Budget Analyst to ensure that planned projects are incorporated into the budget process and that all projects have project codes assigned. Increase lever of accounting expertise. Proposed Salary: $15,442
Addresses Kanter Forensics recommendations 2-6

New Position: Manager, Office of Management and Budget

Supervises Senior Accountant and Senior Budget Analyst. Enhances analysis and preparation of the budget, forecasting capabilities, and quality of management and financial reporting. Member of Investment Committee. Analyzes internal controls for the Town using the COSO framework as a guide. Proposed Salary: $114,393
Addresses Kanter Forensics recommendations 2-6

New Position: Senior Accountant, Office of Management And Budget

Analyzes economic trends and revenue forecasting. Conducts internal reviews and continuous improvements assessments throughout the Town using COSO Framework. Assists with budget preparation, accounting related systems integration, and training. Increases level of accounting expertise. Proposed Salary: $101,646
Addresses Kanter Forensics recommendations 2-6

New Position: Senior Accountant, Accounting Department

Serves as backup to the Accounting Manager. Assists with reconciliations. Oversees Inventory, CIP, and Fixed Assets. Conducts internal control reviews using COSO Framework. Increases level of accounting expertise. Proposed Salary: $101,646
Addresses Kanter Forensics recommendations 2-6

New Position: Accounting Specialist I (Adding 0.3 FTE to existing 0.7 FTE)

Will assist Purchasing Manager and OMB Manager in areas of procurement, P-Card audits, budgets, investments, internal control reviews, and risk management functions. Increases level of accounting expertise Proposed Salary: $41,387
Addresses Kanter Forensics recommendations 2-6

UTILITY FUND

Existing Position: Reclassify Utility Billing Supervisor

Increase pay grade to be more consistent with the duties of the position and in line with comparable positions within the Town. Additional Annual Cost: $13,906
Addresses Kanter Forensics recommendations 2-3

NewPosition: Utility Billing Accountant Specialist II

Serves as backup to Utility Billing Supervisor. Will be responsible for recording UB payments and reconciling accounts. Increases level of accounting expertise. Proposed Salary: $72,675
Addresses Kanter Forensics recommendations 2-3

A summary of the Finance Department proposed staffing levels is as follows:

Position	FTE	**Filled/Vacant/Temporary**	**New/Existing**
Chief Financial Officer	1.0	Filled (Interim)	Existing
Assistant Finance Director	1.0	Filled	Existing
Accounting Manager	1.0	Filled	Existing
Purchasing Manager	1.0	Filled	Existing
Utility Billing Manager	1.0	Filled	Existing
Office of Budget and Management Manager	1.0	Temporary	New
Senior Accountant (General Fund)	1.0	Proposed	New

Senior Accountant (General Fund)	1.0	Proposed	New
Senior Accountant (Hotel Fund)	1.0	Filled	Existing
Accountant	1.0	Temporary to Permanent	Existing
Payroll Specialist	1.0	Temporary	Existing
Accounting Specialist II (Payables)	1.0	Filled	Existing
Accounting Specialist II (Utility Billing)	1.0	Proposed	New
Accounting Specialist II (Capital/Fixed Assets)	1.0	Filled	New
Accounting Specialist I (Purchasing)	1.0	Vacant	New
Senior Budget Analyst	1.0	Filled	Existing
Total	16.0		

Human Resources

In addition to increasing the FTE count for Finance, staff has identified an immediate need for additional resources within the Human Resources department and Town Hall. To accomplish this, the proposal includes reclassifying the Human Resources Intern (0.3) to a Human Resources Coordinator (1.0). The increase in the salary and benefits cost would be absorbed in the Human Resources and City Manager's departmental budgets.

This position would be an integral part of the Town's Human Resources team, entering data into the master file and ensuring all payroll changes are successfully processed on a biweekly basis. In addition, the position would assist the Town in identifying training needs and implementing programs for our employees to ensure the successful transfer of the Addison culture and succession planning. Finally, the Human Resources

Coordinator will serve as backup to the City Manager's Administrative Assistant position during absences.

Position	Filled/Vacant/Temporary	New/Existing
Human Resources Coordinator	Filled	Existing (Reclassified)/Adding 0.7 FTE

Total Number of FTE's:

Fund	**# of FTE's**
General Fund	4.0
Utility Fund	1.0
Total	5.0

The new positions will be funded by the existing tax rate. In order to fund these positions, in future budgets, the tax rate will need to generate the same amount of revenue as Fiscal Year 2016.

RECOMMENDATION:

Administration recommends approval.

Attachments

Staffing Compensation Information

FINANCE

General Fund	FTE	Salary $ Impact#	BENEFITS: ER MEDICARE	ER TMRS	ER DEF COMP	Blue Cross/ Blue Shield	DELTA	Term Life	LTD & EAP	Total Benefits	Total Compensation*
Beginning FTE	**9.7**										
Add:											
Budget/Risk Mgr	**1.0**	**$83,000**	$1,204	$7,885	$3,320	$17,285	$925	$492	$282	**$31,393**	**$114,393**
Sr. Accountant	**1.0**	**72,000**	1,044	6,840	2,880	17,285	925	427	245	**29,646**	**101,646**
Sr. Accountant	**1.0**	**72,000**	1,044	6,840	2,880	17,285	925	427	245	**29,646**	**101,646**
Acct Specialist I	**0.3**	**20,000**	290	1,900	800	17,285	925	119	68	**21,387**	**41,387**
Reclass Admin (9 to 11)	**-**	**13,325**	193	1,266	533	-	-	80	45	**2,117**	**15,442**
Total Gen Fund Adds	**3.3**	**260,325**	3,775	24,731	10,413	69,140	3,700	1,544	885	**114,188**	**374,513**
Total General Fund	**13.0**	**$260,325**	3,775	24,731	10,413	69,140	3,700	1,544	885	**$114,188**	**$374,513**
Utility Funds											
Beginning FTE	**1.0**										
Add:											
UB Supervisor Reclass (11-13)	**0.0**	**$12,000**	$174	$1,140	$480	$-	$-	$71	$41	**$1,906**	**$13,906**
Accounting Specialist II	**1.0**	**47,000**	682	4,465	1,880	17,285	925	279	160	**$25,675**	**72,675**
Total Utility Fund Adds	**1.0**	**59,000**	856	5,605	2,360	17,285	925	350	201	**$27,581**	**86,581**
Total Utility Funds	**2.0**	**$59,000**	856	5,605	2,360	17,285	925	350	201	**$27,581**	**$86,581**
Hotel Fund											
Beginning FTE	**1.0**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$0.00**
Add:	**0.0**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$0.00**
Total Hotel Fund	**1.0**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$-**	**$0.00**
Summary											
Beginning	**11.7**										
Add:											
General Fund	**3.3**	**$260,325**	$3,775	$24,731	$10,413	$69,140	$3,700	$1,544	$885	**$114,188**	**$374,513**
Utility Fund	**1.0**	**59,000**	856	5,605	2,360	17,285	925	350	201	**$27,581**	**86,581**
Hotel Fund	**0.0**	**-**	-	-	-	-	-	-	-	**$-**	**-**
Total	**16.0**	**$319,325**	4,630	30,336	12,773	86,425	4,625	1,894	1,086	**$141,769**	**$461,094**

- Mid-Range Compensation for Position.

* assumes highest possible amount of BC/BS and Delta Dental benefits.

HUMAN RESOURCES

Beginning FTE	**3.3**										
Reclassify											
Human Resources Coordinator	**0.7**	**$14,479**	$210	$1,376	$579	$7,785	$414	$86	$49	**$10,499**	**$24,978**
Total	**4.0**	$14,479	210	1,376	579	7,785	414	86	49	**$10,499**	**$24,978**

AI-1566 **9.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Infrastructure- Development Services

AGENDA CAPTION:

Discuss, Consider And Approve A **Resolution Authorizing The City Manager To Award A Construction Contract to Canary Construction, Inc. For The Construction Of The Les Lacs Pond Water Well Transfer Piping System** In The Amount Of $120,325.00.

BACKGROUND:

In order to address on-going water quality concerns, Halff Associates recommended various improvements to the Les Lacs Pond. Those recommendations were:

1. The relocation of the existing well discharge piping from the north end of the pond to the south
2. The replacement of the existing well pump
3. A water quality monitoring program for continued maintenance and operations of the pond.

This authorization relates to the first recommendation. The movement of the water in the pond is from the south to the north end. Since both the discharge point of the well and the outfall for the pond are located on the north end of the pond, the fresh water from the well does not circulate into the southern portion of the pond. This relocation of the piping system will help circulate fresh well water into the southern end of the pond resulting in an exchange of stagnant water for fresh water as the water moves to the north outflow.

The project includes placement of new 4" PVC pipe and fittings to relocate the existing well discharge from the north to the southern end. The project was developed with two construction options. The first option was to perform the work by an "open cut" method, in which the pipe trench would be either hand dug or "cut" open with a trenching machine. This method is more cost effective, however, it is much more disruptive to the site and the adjoining neighborhood. This method will also require more landscape restoration. The second option was the use of a boring machine to bore a trench underground. This would minimize the amount of "open" trenching in the project area, protect more of the existing landscaping, provide a safer work environment for the contractor, and potentially speed up the construction process. In either option, the landscaping damaged as a result of the construction is be required to be replaced.

The project was advertised on Bidsync on February 2, 2016. Plans and specifications for the project can be found on the Town of Addison website under the Finance department tab. The bids closed on February 23, 2016 and a total of three (3) bids were received. The initial bids are below:

Description	Canary Construction, Inc.	Groves Electrical Service, Inc.	InControl Construction, LLC.
Total - Base Bid (Open Cut Method)	$105,065.00	$199,871.95	$469,853.00
Total - Ad Alt 1 (Bore Method)	$120,325.00	$271,372.68	$469,645.00

The bids were reviewed by Town staff and Halff Associates. A bid pricing meeting was held with the owner and project manager for Canary Construction, Inc., at to help us understand their methodology in pricing the line items. Upon the conclusion of that meeting, their approach was found to be reasonable. Staff checked Canary Construction's references related to past performance, schedules, change orders, punch list items, and final completion ability. The responses from those interviews were positive. Therefore, we are recommending the award of the base bid plus additive alternate #1 to Canary Construction, Inc. in the amount of $120,325.00. The project is budgeted in the Stormwater Capital Projects Fund and is expected to take 6 months to complete, weather permitting.

The intial budget for the transfer piping construction portion was $263,450.00. The actual cost for the transfer piping construction portion is $120,325. The chart below shows the breakdown for the Total Project Costs associated with Les Lacs. In the Fiscal Year 2016 budget, $900,000 was budgeted for the entire Les Lacs project. Below is a comparison of the budget and actual expenditures for each portion of this project:

Project	Budget	Bid Price
Water Well Transfer Piping	$263,450.00	$120,325.00
Water Well Rebuild	$379,940.00	$224,597.00
Water Quality Program	$154,932.00	$154,932.00
Total	$798,322.00	$499,854.00

RECOMMENDATION:

Administration recommends approval.

Attachments

Sidewalk Exhibit

Resolution

Contract

LEGEND
SIDEWALK CLOSED IN THIS AREA DURING CONSTRUCTION

SIDEWALK CLOSURE EXHIBIT

ADDISON

HALFF
12225 GREENVILLE AVE, SUITE 200
DALLAS, TEXAS 75243
TEL (214) 572-2272
FAX (214) 572-2273
TBPE FIRM #F-312

N

TOWN OF ADDISON, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS APPROVING A CONSTRUCTION CONTRACT BETWEEN THE TOWN OF ADDISON AND CANARY CONSTRUCTION, INC., INC. FOR SERVICES RELATED TO THE LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS IN AN AMOUNT NOT TO EXCEED $125,325.00, AUTHORIZING THE CITY MANAGER TO EXECUTE THE CONTRACT, AND PROVIDING AN EFFECTIVE DATE.

BE IT RESOLVED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS:

Section 1. The Contract Agreement between the Town of Addison and Canary Construction, Inc. for services related to the Les Lacs Pond water well transfer piping system Improvements in an amount not to exceed $120,325.00, a copy of which is attached to this Resolution as **Exhibit A** and which incorporates the Town of Addison's General and Specific Conditions for construction contracts, and the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans and other bid documents, is hereby approved. The City Manager is hereby authorized to execute the agreement.

Section 2. This Resolution shall take effect from and after its date of adoption.

PASSED AND APPROVED by the City Council of the Town of Addison, Texas this the 22nd day of March, 2016.

_____
Todd Meier, Mayor

ATTEST:

By: _____
Laura Bell, City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

SECTION CA

CONTRACT AGREEMENT

EXHIBIT A

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2014, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and **Canary Construction, Inc.**, of the City of Coppell, County of Dallas, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-44

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date of written notice to do so shall have been given to him, to complete the work within _____ (____) calendar days, after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR One Hundred Twenty Thousand Three Hundred Twenty Five Dollars and No Cents **($120,325.00)** in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

EXHIBIT A

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON, TEXAS (OWNER) **ATTEST:**

By: _____ By: _____
Wesley S Pierson, City Manager

(CONTRACTOR) ATTEST:

By: _____ By: _____

The following to be executed if the CONTRACTOR is a corporation:

I, _____ certify that I am the secretary of the corporation named as CONTRACTOR herein; that _____, who signed this Contract on behalf of the CONTRACTOR is the _____ (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: _____

Corporate Seal

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

BID NUMBER 16-44

TOWN OF ADDISON, TEXAS
INFRASTRUCTURE & DEVELOPMENT SERVICES

JANUARY 2016

PREPARED BY

12225 Greenville Avenue, Suite 200
Dallas, Texas 75243
(214) 572-2272
Fax (214) 739-0095

TOWN OF ADDISON, TEXAS

MAYOR

Todd Meier

COUNCIL MEMBERS

Janelle Moore

David Heape

Bruce Arfsten

Mary Carpenter

Ivan Hughes

Dale Wilcox

CITY MANAGER

Wesley Pierson

DIRECTOR OF INFRASTRUCTURE AND DEVELOPMENT SERVICES

Lisa Pyles

DEPUTY CITY MANAGER

Cheryl Delaney

HALFF

12225 Greenville Avenue, Ste. 200
Dallas, Texas 75243
(214) 572-2272

ADDENDUM No. 3

To:	Jayson Shroyer P.E.	**Date:**	**2/19/2016**
From:	Timothy E Lackey, P.E.	**AVO:**	**29751, WA15**
Email:	tlackey@halff.com	**Project:**	**Les Lacs Pond Water Well Transfer Piping System Improvements. Addison Bid # 16-44.**
Subject:	Addendum No.3		

The following is a list of changes made to the plans and specifications. The changes are outlined by item number, as well as plan sheet number.

Drawings:

ITEM 1. No Change.

Specifications:

ITEM 1. No Change.

Clarifications:

Question 2 on Overall Bid

Are all ductile iron fittings to be C153 compact or C110 full body? Are import fittings acceptable? (Submitted: Feb 18, 2016 10:18:52 AM CST

ANSWER: The City of Addison will not accept compact fittings or non-United States manufactured fittings. Refer to Addison Water System Requirements for additional specifications at the following link –

http://addisontexas.net/ckeditorfiles/files/Infrastructure%20%26%20Development%20Services/Infrastructure-Engineering-Water-System-Requirements.pdf

END OF ADDENDUM.

Attachments: No Attachments.

Copies: File.

TABLE OF CONTENTS

Section AB	**Advertisement for Bids**
Section IB	**Instructions to Bidders**
Section PF	**Proposal Form**
Section PQ	**Prequalification Statement**
Section BB	**Bid Bond**
Section CI	**Indemnification Agreement**
Section CA	**Contract Agreement**
Section PrB	**Performance Bond**
Section PyB	**Payment Bond**
Section MB	**Maintenance Bond**
Section BP	**Contractor's Affidavit of Bills Paid**
Section GP	**General Provisions** ***Standard Specifications for Public Works Construction – North Central Texas***
Section SP	**Special Provisions**
Section PS	**Project Sign**
Section TS	**Technical Specifications**

SECTION AB

ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS

1. Sealed bids addressed to the Town of Addison, Texas, for the **Les Lacs Pond Water Well Transfer Piping System Improvements** in the Town of Addison, Texas, hereinafter called "City" or "Owner" in accordance with specifications and contract documents prepared by **Halff Associates, Inc.** will be received at the office of Wil Newcomer, Purchasing Manager, Finance Building, 5350 Belt Line Road, Addison, Texas until **2:00 p.m. on Tuesday, February 23, 2016**. Bids received by the appointed time will be opened and read aloud. Any bids received after closing time will be returned unopened.

2. The Contractor shall identify his bid on the outside of the envelope by writing the words **INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-44, LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS.**

3. Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a reliable surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties, or a Binder of Insurance executed by a surety company licensed by the State of Texas to act as a surety or its authorized agent as a guarantee that the bidder will enter into a contract and execute a Performance Bond within ten (10) days after notice of award of contract to him.

4. Plans, specifications and bidding documents may be downloaded from www.bidsync.com. The Town of Addison is a "free buyer", meaning that prospective bidders need only a free registration to sign up for plan updates. Bidders assume all risk for acquiring specs and/or plans from third party sites and plan rooms, as only Bidsync.com will be directly updated by Addison.

5. The right is reserved by the Mayor and the City Council as the interests of the City may require to reject any or all bids and to waive any informality in bids received and to select the proposal deemed most advantageous to the City.

6. The Bidder (Proposer) must supply all the information required by the Proposal Form.

7. A Performance Bond, Labor and Material Payment Bond, and Maintenance Bond will be required by the Owner; each Bond shall be in the amount of 100% of the total contract amount. Bonds shall be issued by a surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties.

8. For information on bidding, call Wil Newcomer, Purchasing Manager, Town of Addison, (972) 450-7091. All questions on the work to be performed shall be submitted through www.bidsync.com.

9. The project consists of installing the Les Lacs Pond water well transfer piping and related improvements in accordance with the plans and specifications.

10. A **Pre-Bid Conference**, will be held at **2:00 p.m. on Monday, February 8, 2016** in the Les Lacs Park, 3925 Beltway Dr., Addison, Texas, (972) 450-7051.

Advertise: February 2, 2016
February 9, 2016
February 16, 2016

SECTION IB

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

A. **PROJECT: WELL TRANSFER PIPING**, in the Town of Addison. The bids will be evaluated as stated in Section "O" of these Instructions to Bidders.

B. **PROJECT DESCRIPTION:** The project consists of installing approximately 1100LF of 4-inch water pipe along the eastern edge of the Les Lacs Pond and the replacement of grasses and other features disturbed by construction for Les Lacs Pond Water Well Transfer Piping System Improvements Project.

C. **PROPOSALS:** Proposals must be in accordance with these instructions in order to receive consideration.

D. **DOCUMENTS:** Bidding Documents include the Project Manual (consisting of the Advertisement for Bids, these Instructions to Bidders, Proposal Forms, Contract Agreement, Performance Bond, Payment Bond, Maintenance Bond, Contractor's Affidavit of Bills Paid, General Provisions, Special Provisions, Project Sign, and Technical Specifications), a Waiver of Lien, Drawings, and Addenda which may be issued by the Town of Addison during the bidding period. Bidding Documents may be viewed and/or obtained under the terms and conditions set forth in the Advertisement for Bids, Section AB of this Project Manual.

E. **EXAMINATION OF DOCUMENTS AND SITE:** Bidders shall carefully examine the Bidding Documents and the construction site to obtain firsthand knowledge of the scope and the conditions of the Work. Each Contractor, Subcontractor and Sub-subcontractor, by submitting a proposal to perform any portion of the Work, represents and warrants that he has examined the Drawings, Specifications (Project Manual) and the site of the Work, and from his own investigation has satisfied himself as to the scope, accessibility, nature and location of the Work; the character of the equipment and other facilities needed for the performance of the Work; the character and extent of other work to be performed; the local conditions; labor availability, practices and jurisdictions; and other circumstances that may affect the performance of the Work. No additional compensation will be allowed by the Owner for the failure of such Contractor, Subcontractor or Sub-subcontractor to inform himself as to conditions affecting the Work. A **Pre-Bid Conference**, will be held at **2:00 p.m. on Monday, February 8, 2016** in the Les Lacs Park, 3925 Beltway Dr., Addison, Texas, (972) 450-7051.

F. **INTERPRETATION OF DOCUMENTS:** If any person contemplating submitting a bid for the proposed Contract is in doubt as to the meaning of any part of the Drawings, Specifications (Project Manual) or other proposed Contract Documents, he may submit to the Town of Addison, not later than one (1) week prior to the date set for opening bids, a written request for an interpretation or clarification. Bidders should act promptly and allow sufficient time for a reply to reach them before preparing their bids. Any interpretation or clarification will be in the form of an Addendum duly issued. No alleged verbal interpretation or ruling will be held binding upon the Owner.

G. **SUBSTITUTIONS:** Conditions governing the submission of substitutions for specific materials, products, equipment and processes are in the Special Provisions. Requests for

substitutions must be received by the Town of Addison seven (7) calendar days prior to the established bid date.

H. ADDENDA: Interpretations, clarifications, additions, deletions and modifications to the Documents during the bidding period will be issued in the form of Addenda and a copy of such Addenda will be released through www.bidsync.com. It will be the responsibility of each person who has been issued a set of bid documents to secure all Addenda from www.bidsync.com. Addenda will be a part of the Bidding Documents and the Contract Documents, and receipt of them shall be acknowledged in the Bid Form. All such interpretations and supplemental instructions will be in the form of written addenda to the contract documents which, if issued, will be released through www.bidsync.com not later than three (3) calendar days prior to the date fixed for the opening of bids. If any bidder fails to acknowledge the receipt of such addenda in the space provided in the bid form, his bid will nevertheless be construed as though the receipt of such addenda had been acknowledged.

I. COMPLETION TIME: The completion time of the project will be **120** Calendar Days.

J. PREPARATION OF BIDS: Prices quoted shall include all items of cost, expense, taxes, fees and charges incurred by, or arising out of, the performance of the work to be performed under the Contract. Bids shall be submitted in duplicate and shall be signed in ink. Any bid on other than the required form will be considered informal and may be rejected. Erasures or other changes in a bid must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures and alterations, or irregularities of any kind may be rejected as informal. The prices should be expressed in words and figures or they may be deemed informal and may be rejected. In case of discrepancy between the price written in the bid and that given in the figures, the price in writing will be considered as the bid. In the case of a discrepancy between a unit price and its extension, the unit price will govern. Failure to submit all requested information will make a bid irregular and subject to rejection. Bids shall be signed with name typed or printed below signature, and, if a partnership, give full name of all partners. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

NOTE: A COMPUTER-GENERATED PROPOSAL FORM MAY BE USED IN LIEU OF THE ENCLOSED FORMS. THE FORM SHALL BE 8 1/2" BY 11" IN SIZE, AND WILL BE ATTACHED TO THE PROPOSAL IN THE PROPER SECTION, AND WILL BE MADE PART OF THE PROPOSAL AND CONTRACT DOCUMENTS.

NOTE: THE SPREADSHEET OPTION IS FOR THE CONVENIENCE OF THE BIDDER. NO WORDING IN THE SPREADSHEET SHALL MODIFY OR AMEND THE WORDING IN THE BID PROPOSAL OR PLANS. THE UNIT PRICE ON THE FORM SHALL BE THE PRICE OF THE ITEM, AND ERRORS THAT MAY BE PRESENT IN THE PRINTOUT WILL NOT BE RECOGNIZED AS AN OPPORTUNITY TO REVISE THE PROPOSAL. THE SUMMARY SHEET INCLUDED IN THIS BID DOCUMENT SHALL BE UTILIZED FOR SUMMARIZING THE BID. THE SPREADSHEET SHALL PRESENT EACH ITEM IN THE ORDER AND NUMBER AS SHOWN IN THE CITY'S PROPOSAL AND BID SCHEDULE FOR THIS PROJECT. THE SPREADSHEET SHALL BE IN A COLUMN FORMAT WITH THE FOLLOWING COLUMNS:

1. ITEM NUMBER
2. DESCRIPTION & UNIT PRICE IN WORDS
3. UNIT OF MEASURE
4. UNIT PRICE
5. ESTIMATED QUANTITY
6. AMOUNT BID

K. SUBMITTAL OF BIDS: Sealed proposals will be received at the time, date and place stated in the Advertisement for Bids. Proposals shall be made on unaltered Proposal Forms furnished by the Town of Addison. Bidders shall submit proposals in an opaque, sealed envelope addressed to the Owner and plainly mark on the outside of the envelope the name and address of the bidder. The envelopes shall also be marked with the following project description:

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-44
LES LACS WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

The Bid Bond must be completed and signed by each bidder and submitted with the bid. Submit Bids by mail or in person prior to the time for receiving bids set forth in the Advertisement for Bids issued by the Town.

NOTE: THE BID SUBMITTAL FORM SHALL BE 8 1/2" BY 11" IN SIZE. NO ELECTRONIC SUBMITTAL IS ACCEPTABLE. THE BID SUBMITTAL SHALL CONSIST OF THE ORIGINAL COMPLETED BID PROPOSAL WITH BID BOND, TWO COPIES OF THE BID PROPOSAL AND BID BOND, AND A THUMB DRIVE WITH THE ELECTRONIC COPY OF THE BID PROPOSAL.

L. MODIFICATION AND WITHDRAWAL OF BIDS: Prior to the time set for bid opening, bids may be withdrawn or modified. Bids may be modified only on the official bid form and must be signed by a person legally empowered to bind the bidder. No bidder shall modify, withdraw, or cancel his bid or any part thereof for sixty (60) calendar days after the time agreed upon for the receipt of bids.

M. DISQUALIFICATION: The Owner reserves the right to disqualify proposals, before or after the opening, upon evidence of collusion with intent to defraud or other illegal practices relating to this proposal upon the part of the bidder.

N. SUBMISSION OF POST-BID INFORMATION: Upon notification of acceptance, the selected bidder shall, within five (5) calendar days, submit the following:

1. A designation of the portions of the Work proposed to be performed by the bidder with his own force.
2. A list of names of the Subcontractors or other persons or organizations, including those who are to furnish materials and equipment fabricated to a special design proposed for such portions of the Work as may be designated in the Bidding Documents or as may be requested by the Town of Addison. The bidder will be required to establish to the satisfaction of the Owner the reliability and responsibility of the proposed Subcontractors and suppliers to furnish and perform the Work.

O. AWARD: The Owner reserves the right to accept any or to reject any bids without compensation to bidders and to waive irregularities and informalities. The Town of Addison Infrastructure & Development Services Department, in making its recommendation, will consider the following elements:

1. Whether the bidder is a contractor with experience in the type of work involved.
2. Whether the bidder has adequate plant, equipment and personnel to perform the work properly and expeditiously.
3. Whether the bidder has a suitable financial status and reputation for meeting obligations incident to work of the kind specified.
4. Whether the bidder has complied with the terms and conditions.

Alternate items may or may not be awarded. Addition or deletion of other items or schedules will be governed by the *Standard Specifications for Public Works Construction – North Central Texas, 4th Edition*, (hereinafter called SSPWC) Item 104.2 "Change or Modification of Contract".

P. EXECUTION OF THE CONTRACT: The successful bidder will be required to enter into a contract with the Owner within ten (10) days of notice by the Owner that his bid has been accepted. Failure to enter into a contract within the established time limit shall be considered grounds for forfeiture of the bid bond.

Q. CONSTRUCTION SCHEDULE: It is the Owner's desire to have the project completed and operational in as short a time as possible. The number of calendar days for completion of the project will begin with the date specified in the Notice to Proceed. The Notice to Proceed will be issued in a manner to facilitate a smooth construction of the project. The Contractor shall begin construction within ten (10) calendar days of the issuance of the Notice to Proceed.

R. COST PLUS TIME BIDDING: N/A

S. FORM OF CONTRACT: The contract for the construction of the project will be drawn up by the Owner. A sample form of agreement is included in the Contract Agreement Section.

T. BONDS: A Performance Bond, a Labor and Material Payment Bond and a Maintenance Bond will be required by the Owner. The Performance Bond and Payment Bond shall name the Town of Addison, and others as directed by the Town, as joint obligees. Sample forms have been included in the Performance Bond, Payment Bond, and Maintenance Bond sections. (Contractor shall confirm the legal names of obligees prior to execution of Bonds.)

U. BID SECURITY: Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a surety company licensed to do business in the State of Texas as a guarantee that the bidder will enter into a contract and execute a Performance Bond and Payment Bond within ten (10) calendar days after notice of award of contract to him. Such checks or bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the Owner has

made an award of contract, or, if no award has been made within thirty (30) calendar days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

V. **RESOLUTIONS:** If the bidder is a corporation, a copy of the resolution empowering the person submitting the bid to bind the bidder must be included with the bid.

W. **CONSTRUCTION STAKING:** Construction staking and re-staking will not be provided by the Owner. Benchmarks and Horizontal Control are shown on the plans. There is no separate bid item for staking, therefore, the contractor must include value for staking in the various bid items as subsidiary to the contract. Any staking or re-staking that is required shall be the responsibility of the Contractor and shall be at no cost to the Owner.

X. **FINAL PAYMENT:** The general provisions for Final Payment shall be as stated in Item 109.5.4 of the SSPWC including all Amendments and Additions. Prior to final payment the Contractor shall provide the Owner with the following items:

1. A Contractor's Affidavit of Bills Paid in accordance with Section BP.
2. A Consent of Surety Company to Final Payment.
3. A complete set of record plans which indicate all construction variations from the original construction documents in accordance with the Special Provisions.
4. A two (2) year Maintenance Bond in accordance with Section MB.
5. Acknowledgement that the project has been reviewed and accepted by TDLR.

Y. **PREVAILING WAGE RATES:** Wage rates paid on this project shall not be less than specified in the schedule of general prevailing rates of per diem wages as attached in the Special Provisions.

Z. **PRIORITY OF CONTRACT DOCUMENTS:** In case of conflict between contract documents, priority of interpretation shall be in the following order: signed agreement; performance and payment bonds; proposal; special provisions (or conditions); technical specifications; general provisions; advertisement for bids; project drawings; Standard Specifications for Public Works Construction (NCTCOG, October 2004); Town of Addison Standard Drawings. This priority list shall take precedence over Item 105.1.1 of the SSPWC.

SECTION PF

PROPOSAL FORM

PROPOSAL FORM

02/23/2016, 2016

TO: The Honorable Mayor and Town Council
Town of Addison, Texas

Gentlemen:

The undersigned bidder, having examined the plans, specifications and contract documents, and the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all equipment and to perform labor and work necessary for completion of the work described by and in accordance with the Plans, Specifications and Contract for the following prices, to wit:

Signed by: _____

ACKNOWLEDGMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

The following pages contain all bid items for:

BID SCHEDULE – LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

BID SCHEDULE

LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

BID NUMBER 16-44

Base Bid – Removal, Site Preparation and Miscellaneous

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
001	1	LS	Mobilization and Town required bonds and insurance, amount not to exceed 5% of the total bid amount, for the sum of eight thousand five hundred Dollars and no Cents per Lump Sum.	$ 8,500-	$8,500.00
002	1	LS	Pedestrian control during construction, including barricades, traffic signs and all other materials and incidentals, complete in place for the sum of two thousand Dollars and no Cents per Lump Sum.	$2,000-	$2,000.00
003	1	LS	Furnish, install, and maintain SW3P, Inlet Protection and Erosion Control including permitting, complete in place for the sum of one thousand five hundred Dollars and no Cents per Lump Sum.	$1,500-	$1,500.00
004	3	EA	Furnish and Install Project Signs as specified in plans, complete in place, for the sum of six hundred fifty Dollars and no Cents per Each.	$650-	$1,950.00
005	1	LS	Provide Trench Safety Plans, complete in place for the sum of five hundred Dollars and no Cents per Lump Sum.	$500-	$500.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
006	1	LS	Implement Trench Safety System for water installation, complete in place for the sum of three thousand two hundred Dollars and no Cents per Lump Sum.	$3,200.00	$3,200.00

SUB-TOTAL BASE BID (Items 001-006) 17,650.00

seventeen thousand, six hundred fifty **Dollars**

no **Cents**

Base Bid – Piping Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
101	763	LF	Furnish and Install 4" PVC AWWA C900 (DR18)/ ASTM F477 Water Pipe, fittings and other incidentals as necessary according to the plans, specifications and details, complete in place for the sum of fifty-five Dollars and no Cents per Linear Foot.	$ 55-	$41,965.00
102	342	LF	Furnish and Install 4" HDPE AWWA C906 (DR11)/ ASTM F714 Water Pipe and fittings by other than open cut and other incidentals as necessary according to the plans, specifications and details, complete in place for the sum of seventy-five Dollars and no Cents per Linear Foot.	$ 75-	$25,650.00
103	7	LF	Furnish and Install 4" Ductile Iron Pipe AWWA C151, fittings and other incidentals as necessary according to the plans, specifications and details, complete in place for the sum of one-hundred Dollars and no Cents per Linear Foot.	$ 100-	$700.00

SUB-TOTAL BASE BID (Items 101-103) 68,315.00

Sixty-eight thousand three hundred fifteen **Dollars**

no **Cents**

Base Bid – Landscape Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
201	11,250	SF	Furnish and Install, Common Bermuda 'Mid Iron' Sod, according to the plans, specifications and details, complete in place for the sum of no Dollars and eighty Cents per Square Foot.	$ .80	$9,000.00
202	1	LS	Tree Protection according to the plans, specifications and details, complete in place for the sum of five-hundred Dollars and no Cents per Lump Sum.	$ 500.-	$500.00
203	1	LS	90 Day Establishment Period, complete in place for the sum of four-thousand Dollars and no Cents per Lump Sum.	$ 4,000.-	$4,000.00
204	1	LS	1 Year Maintenance, complete in place for the sum of five thousand six hundred Dollars and no Cents per Lump Sum.	$ 5,600.-	$ 5,600.00

SUB-TOTAL BASE BID (Items 201-204) 19,100.00

nineteen thousand one-hundred **Dollars**

no **Cents**

Alternate Bid – Alternate Piping Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
A101	- 763	LF	Deduct 4" PVC AWWA C900 (DR18)/ ASTM F477 Pipe, fittings and other incidentals as necessary according to the plans, specifications and details from Base Bid Item 101, complete in place for the sum of Fifty-five Dollars and no Cents per Linear Foot.	$ 55.00	$ -(41,965.00)
A102	763	LF	Furnish and Install 4" HDPE AWWA C906 (DR11)/ ASTM F714 Water Pipe and fittings by other than open cut and other incidentals as necessary according to the plans, specifications and details, complete in place for the sum of Seventy five Dollars and no Cents per Linear Foot.	$ 75.00	$ 57,225.00

SUB-TOTAL ALTERNATE BID (Items A101-A102) 15,260.00

fifteen thousand two-hundred sixty **Dollars**

no **Cents**

SUMMARY

BID SCHEDULE – LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

1. Removal, Site Preparation and Miscellaneous Subtotal

   (Items 001-006) 17,650.00

2. Piping Improvements Subtotal

   (Items 101-103) 68,315.00

3. Landscape Improvements Subtotal

   (Items 201-204)..... 19,100.00

4. Alternate Piping Improvements Subtotal

   (Items A101-A102)..... 15,260.00

TOTAL BID 120,325.00

Written in Words: one-hundred, twenty thousand, three-hundred, twenty-five dollars and no cents

The pay items included in this proposal form comprise all of the pay items for the project. Any additional required work shall be considered subsidiary to the related pay items provided herein.

NOTES:

1. All items, labor, materials, equipment, facilities, incidentals and work required for construction of the project are to be provided and installed by the Contractor as part of the project and payment for the cost of such shall be included in the price bid for the construction of the project.

2. Prices must be shown in words and figures for each item listed in the Proposal. In the event of discrepancy, the words shall control.

3. Materials, which are "tax exempt", are those items which are physically incorporated into the facilities constructed for the Town of Addison, as set forth in the Special Provisions. Materials include, but are not limited to purchased items such as water pipe, sanitary sewer pipe, storm drain pipe, etc.

   Services, which are "not tax exempt", are those items which are used by the Contractor but are not physically incorporated into the Town of Addison's facility and/or items which are consumed by construction, as set forth in the Special Provisions. Services include, but are not limited to, items such as supplies, tools, skill and labor, the purchase, rental or lease of equipment, etc.

WAYNE BORSTAD
Name of Person Signing Bid

Signature of Person Signing Bid

523 GREENWICH, COPPELL, TX 75019
Address

469-464-3823 972-462-0872
Telephone No. Fax No.

75-2922071
T.I.N. (Tax Identification or Employer's Number)

If BIDDER is:

AN INDIVIDUAL

By _____ (Seal)
(Individual's Name)

doing business as _____

Business address: _____

_____

_____

Phone No. _____

A PARTNERSHIP

By _____ (Seal)
(Firm Name)

_____
(General Partner)

doing business as _____

Business address: _____

_____

_____

Phone No. _____

A CORPORATION

By CANARY CONSTRUCTION
(Corporation Name)

TEXAS
(State of Incorporation)

By Wayne Borstad
(Name of Person Authorized to Sign)

PRESIDENT
(Title)

(Corporate Seal)

Attest
(Secretary)

Business address: 523 GREENWICH LN

COPPELL, TX

Phone No. 469-464-3823

A JOINT VENTURE

By
(Name)

(Address)

By
(Name)

(Address)

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

SECTION PQ

PREQUALIFICATION STATEMENT

PREQUALIFICATION STATEMENT

FOR

PUBLIC IMPROVEMENTS

IN THE

TOWN OF ADDISON

Contractor: CANARY CONSTRUCTION Date: 02/22/2016

Project name, if applicable: LESLACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS #16-44

INSTRUCTIONS

All information on the PREQUALIFICATION STATEMENT FOR PUBLIC IMPROVEMENTS *and the* PREQUALIFICATION STATEMENT OF CONTRACTOR'S SURETY *must be complete and the forms submitted together with bid documents as indicated in the Advertisement for Bids and Instructions to Bidders.*

This Prequalification Statement consists of two (2) parts. The first part (Sections A through D) pertains to Contractor's status information and work history. The second part is the Prequalification Statement of Contractor's Surety, in which the Surety Company will need to complete. Additional information/documentation from the Contractor or Surety Company may be required during the application review process.

CONTRACTOR INFORMATION:
Please complete the appropriate Section A, B, or C. All contractors must complete Section D.

SECTION A: If the contractor is a CORPORATION, complete this section

Name of corporation:

CANARY CONSTRUCTION — Registered name of corporation
CANARY CONSTRUCTION — Doing business as

TX — State of corporation
03/07/2001 — Date of corporation filing (if non-Texas corporation, date Certificate of Authority was issued)
Date charter expires

Registered agent:

WAYNE — First name
Middle name
BORSTAD — Last name

523 GREENWICH — Address
COPPELL — City
DALLAS — County
TX — State
75019 — Zip

469-464-3823 — Area code and phone number
972-462-0872 — Area code and fax number

214-549-8738 — Area code and cell phone number
waynecanary@gmail.com — e-mail address

Corporation's principal office:

523 GREENWICH — Street address
COPPELL — City
DALLAS — County
TX — State
75019 — Zip

Mailing address (if different from above)
City
County
State
Zip

469-464-3823 — Area code and phone number
972-462-0872 — Area code and fax number

Person executing contract on behalf of corporation:

WAYNE — First name
L. — Middle name
BORSTAD — Last name
PRESIDENT — Title

523 GREENWICH — Street address
COPPELL — City
DALLAS — County
TX — State
75019 — Zip

Mailing address (if different from above)
City
County
State
Zip

469-464-3823 — Area code and phone number
972-462-0872 — Area code and fax number
75-2922071 — Federal Tax Identification No.

214-549-8738 — Area code and cell phone number
waynecanary@gmail.com — e-mail address

Additional Officers/Personnel:

First name	Middle name	Last name	Title
Area code and cell phone number		e-mail address	
First name	Middle name	Last name	Title
Area code and cell phone number		e-mail address	

SECTION B: If the contractor is a PARTNERSHIP, complete this section

First Partner:

First name	Middle name		Last name	
Residence Address	City	County	State	Zip
Area code and cell phone number		email address		

Second Partner:

First name	Middle name		Last name	
Residence Address	City	County	State	Zip
Area code and cell phone number		email address		

Business:

Name under which you are engaged in business (if operating under an assumed name)				Website Address
Street address	City	County	State	Zip
Mailing address (if different from above)	City	County	State	Zip
Principal place of business - County & State		Name of contact person		Title
Area code and phone number	Area code and fax number		Federal Tax Identification No.	

SECTION C: If the contractor is a SOLE PROPRIETOR, complete this section

Name:

First name | Middle name | Last name

Business name under which you are engaged in business (if operating under an assumed name)

Residence:

Street address | City | County | State | Zip

Area code and phone number

Business:

Street address | City | County | State | Zip

Mailing address (if different from above) | City | County | State | Zip

Area code and phone number | Area code and fax number | Federal Tax Identification No.

Area code and cell phone number | e-mail address

Principal place of business:

County | State

Contact Person:

First name | Middle name | Last name | Title

Area code and phone number | Area code and fax number

Area code and cell phone number | email address

SECTION D: Work history and references

1. **Name of Bidder:** CANARY CONSTRUCTION

2. **Do you operate under assumed name(s)?** NO **If yes, please list:**

3. **How many years engaged in the contracting business under present firm or trade name?** 15 **Give former names of firm or trade names, with dates of operation under each:**

N/A

4. **Number of years in business as a general contractor on the types of work requesting to be prequalified for:** 15

5. **Types of work done: (check all that apply)**

Asphalt Paving ✓	Concrete Structures	Landscaping	Subgrade Preparation
Auxiliary Lanes	Demolition ✓	Misc. Concrete	Manhole Rehabilitation ✓
Bridge Work	Earth Work ✓	Sidewalks	Booster/Pump Stations
Channel Lining	Fencing	Storm Sewer ✓	Tank Erection
Concrete Paving ✓	Gabions	Street Repair	Plant Construction
Painting	Water & Sanitary Sewer Lines ✓	Water Wells	Other _____

6. **List major construction equipments, such as paving machine or other equipments appropriate to perform work (for example, GOMACO GPH 2800 Slipform Paver):** (use attachments if necessary)

SEE ATTACHED

7. **Greatest number of contracts in excess of $100,000 under construction at one time in the company's history:**

4.

8. **Greatest number of contracts in excess of $1,000,000 under construction at one time in the company's history:**

1

9. **Approximate average of dollar volume of incomplete work outstanding under contract at any one time:**

$300,000.00

10. **List completed projects of the type of work qualifying for or similar work, plus the following information on each project:** (use attachments if necessary)

a. WSM-E PART III — 2015
Project — Year Built

WATER LINES & SANITARY SEWER
Type(s) of work

CITY OF FORT WORTH — $748,703.00 — CARLOS VASQUEZ — 817-392-8306
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

Carlos Vasquez 817-392-8302
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

b. La Quinta - Plano — 2015
Project — Year Built

Install Storm Drain
Type(s) of work

Greenstreet, Inc. — $430,000.00 — Terry Moore — 806-745-9444
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City of Plano, TX 972-941-7557
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

c. CVS - Melissa, TX — 2015
Project — Year Built

Install water line, sanitary sewer, storm drain, and fire line
Type(s) of work

Wurzel Builders, LTD. — Barry Wurzel — 512-282-9488
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City of Melissa, TX 972-838-2338
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

11. Experience in water and sanitary sewer line work within the past 10 years similar in cost and length to this project. Include, at a minimum, three (3) projects. (use attachments if necessary).

a. See attached

Project Name and Location | Year Built

Describe Scope of Work

Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

b. See attached

Project Name and Location | Year Built

Describe Scope of Work

Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

c. See attached

Project Name and Location | Year Built

Describe Scope of Work

Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

12. On the projects listed in response to question #11 above, what were the final project change order amounts? Were the projects completed within the specified timeframes (this includes both substantial completion and interim milestone dates)? If not, why not, and were any damages or liquidated damages paid to the Owner as a result of the late completion?

13. Background and experience of the Project Manager and Superintendent that will be utilized on this project. Include Owner references and contact names with area code and telephone numbers indicating experience with projects similar in size and to those listed in response to question #11 above.

14. **Will a subcontractor be performing any work for this project?** YES **If yes, provide subcontractor's name, address, telephone and provide information to question #s 15, 16, 17 below. (use attachments if necessary)**

MABAK DIRECTIONAL DRILLING - 940-458-5337

3447 McREYNOLDS RD, SANGER, TX 76266

15. **Subcontractor's experience in performing similar work within the past 10 years similar in cost and length to this project. Include, at a minimum, three (3) projects. (use attachments if necessary).**

a. Castle Hills — Windhaven — The Colony — 2015
Project Name and Location — Year Built

Describe Scope of Work

Directional Bore for electric & install 2E6

Willbros — 84,000 — Matt Jeco — 940-565-1640
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required)

City Engineer/Contact Number (optional)

b. Miramonte Ph4 — 15
Project Name and Location — Year Built

Describe Scope of Work
Directional Drilling

Williams — 17,985 — Terry Jones — 903-436-8274
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

c. Pippy Rd - Krum — 16
Project Name and Location — Year Built

Describe Scope of Work
Directional Drilling 200' 10" steel

Gary Dill — 20000 — Gary Dill — 940 736 3405
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

16. On the projects listed in response to question #15 above, what were the final project change order amounts? Were the projects completed within the specified timeframes (this includes both substantial completion and interim milestone dates)? If not, why not, and were any damages or liquidated damages paid to the Owner as a result of the late completion?

17. If subcontractor is performing work, provide background and experience of the subcontractor's Project Manager and Superintendent that will be utilized on this project. Include Owner references and contact names with area code and telephone numbers indicating experience with projects similar in size and to those listed in response to question #15 above.

18. Have you even been terminated by the Owner of a project? If so, where and why? Give name of Owner.

N/D

19. List incomplete projects, plus the following information for each project listed: (use attachments if necessary)

a. City of Richardson Phase VII — 2016
Project — Year Built

Street + Alley Paving drainage and Utility Rehabilitation
Type(s) of work

2D Paving — $499,016.00 — Roger Dupree — 972-746-6703
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City of Richardson 972-744-4100
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

b. The Learning Experience - Allen, TX — 2016
Project — Year Built

Storm Drain, water Line, Underground Fire Line
Type(s) of work

Buelle Cottrell Partners — $107,925.00 — Guy Sanders — 940-597-2049
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City of Allen, TX 214-509-4100
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

c. Poly-America — 2016
Project — Year Built

Storm drain
Type(s) of work

Poly-America — $380,000.00 — Andrew Richards — 972-337-7192
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City of Grand Prairie 972-237-8000
City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

20. Have you or any present partner(s) or officer(s) failed to complete a contract? NO

If yes, name of project — Year built

Owner/Engineer — Contract price — Contact person — Area code & phone number

Name of owner and/or surety — Contact person — Area code & phone number

21. Are there any unsatisfied demands upon you as to your accounts payable?_____

If yes, give names, amounts, and explanations:

_____

_____

_____

22. Bank reference (use additional sheets of paper, if necessary):

Independent Bank — Name of bank
Sarah Carder — Bank officer
1054 North Denton Tap Rd. Coppell — Mailing address
Dallas — County
TX — State
75019 — Zip
972-892-9900 — Area code and phone number
972-459-3220 — Area code and fax number

23. Municipality reference (use additional sheets of paper, if necessary):

FORT WORTH, TX — Name of city
CARLOS VASQUEZ — Contact person
INSPECTOR — Title
1000 THROCK MORTON — Mailing address
FORT WORTH — City
TARRANT — County
TX — State
76 — Zip
817-392-8306 — Area code and phone number
Area code and fax number

Area code and cell phone number
e-mail address

24. Other credit references:

a. _____
Name — Area code and phone number — Area code and fax number

Address — City — County — State — Zip

Area code and cell phone number — e-mail address

b. _____
Name — Area code and phone number — Area code and fax number

Address — City — County — State — Zip

Area code and cell phone number — e-mail address

Canary Construction
523 Greenwich Ln., Coppell, TX 75019
Tel 469.464.3823 Fax 972.462.0872
waynecanary@gmail.com
www.canaryconstruction.com

REFERENCES AND COMPLETED PROJECTS

Job Name: GTUA CGMA 30" Water Transmission Line Relocation at SH121
Job Description: Relocate water transmission line on roadway
Contractor: Prime Contractor
Location/City Inspector: City of Melissa, TX - Alan Moore - 940.727.1145
Contract Amount: $260,000.00
Project Date: February 2014

Job Name: NRH-Wastewater Improvements, Sanitary Sewer Rehabilitation
Job Description: Sanitary Sewer
Contractor: Prime Contractor
Location/City Inspector: City of North Richland Hills, TX – Marc Brown – 817.538.8008
Contract Amount: $877,055.00
Project Date: August 1, 2014

Job Name: North 6th St. Sewer Line Rehabilitation
Job Description: Install sewer line and manhole
Contractor: Prime Contractor
Location/City Inspector: City of Midlothian, TX – David Ford – 972.775.7153
Contract Amount: $16,900.00
Project Date: May 20, 2014

Job Name: Royal Lane at Regent Boulevard Drainage Improvements
Job Description: Utilities Construction – Water, Sanitary Sewer, and Drainage Systems
Contractor: Prime Contractor
Location/City Inspector: City of Irving, TX – Gary Peacock – 972.754.0283
Contract Amount: $347,800.00
Project Date: August 2014

Job Name: Albert Retail Building – Graves Street and West University Drive
Job Description: Open cut-water conduit installation, flush lines, and disinfect water mains
Contractor: Subcontractor – Kirk Sharp - 972.754.4496
Location/City Inspector: City of McKinney, TX – Matt Verner – 469.667.7280
Contract Amount: $60,000.00
Project Date: October 10, 2014

Job Name: City of North Richland Hills
Job Description: Sanitary Sewer
Contractor: City of North Richland Hills
Location/City Inspector: City of North Richland Hills, TX – Wayne Jarvis – 817.427.6447
Contract Amount: $880,000.00
Project Date: Fall/Winter 2014

Project Name: Royal Lane and Regent Project
Project Description: Install water line and storm drain
Contractor: City of Irving
Location/City Inspector: City of Irving, TX – Garry Fennel – 972.721.7877
Contract Amount: $325,000.00
Project Date: Fall/Winter 2014

Project Name: WSM-E Part III
Project Description: Sanitary sewer and water line
Contractor: City of Ft. Worth
Location/City Inspector: City of Ft. Worth – Carols Vasquez – 817.392.8306
Contract Amount: $748,703.00
Project Date: February 2015

Project Name: Granbury Starbucks
Project Description: Install water line, sanitary sewer, and storm drains
Contractor: SCI Stovall Construction – Bill Schnoor – 817.572.1331
Location/City Inspector: City of Granbury
Contract Amount: $28,480.00
Project Date: February 2015

Project Name: La Quinta – Plano
Project Description: Install storm drain
Contractor: G. Greenstreet, INC. – Terry Moore – 806-745-9444
Location/City Inspector: City of Plano, TX
Contract Amount: $430,000.00
Project Date: March 2015

Project Name: CVS- Melissa
Project Description: Install water line, sanitary sewer, storm drain, and fire line
Contractor: Wurzel Builders, Ltd. – Barry Wurzel – 512.282.9488
Location/City Inspector: City of Melissa, TX
Contract Amount: $209,000.00
Project Date: May 2015

Project Name: Golden Chick – Garland
Project Description: Install storm drains, sanitary sewer, and water lines
Contractor: DENCO Construction Specialists – Steven Smith – 972.226.0165
Location/City Inspector: City of Garland, TX
Contract Amount: $58,710.00
Project Date: May 2015

Project Name: Dollar Tree – Wylie
Project Description: Install water lines, fire lines, and sanitary sewer
Contractor: Hutton Construction – Chuck Carter – 423.456.9267
Location/City Inspector: City of Wylie, TX
Contract Amount: $75,000
Project Date: July 2015

Corporate Qualifications Statement – Canary Construction, Inc.

Introduction

Canary Construction, Inc. is an underground utilities company specializing in the installation, maintenance, and rehabilitation of water mains, sanitary sewer lines, and storm drains. Canary Construction was founded in March 2001 by Wayne Borstad, is headquartered in Coppell, TX, and services the general North Texas region. Our customer base includes governments, public districts, and private contractors.

Company Profile

- 14 consecutive years delivering superior underground utility service
- Excellent safety record
- Experienced foreman, crews, and professional staff of 23 employees
- Well maintained fleet of construction equipment
- Bonded
- Solid financial status
- Credible references
- Successful history of completing projects within preferred time and budget constraints

Staff

Wayne Borstad, President – Wayne has over 30 years in the underground utilities industry serving most of his tenure as a foreman, superintendent, and company president. Wayne founded Canary Construction in 2001 where he advanced his industry knowledge as a company executive and underground utilities professional.

Cary Fogus, Project Manager – Cary is involved with the project management, bidding, and financial operations of Canary Construction. Prior to entering the underground utilities industry, Cary worked as a licensed financial broker for 11 years. Cary graduated from Southern Methodist University (SMU) in Dallas, TX.

Jorge Reyes, Superintendent – Jorge supervises the foreman and crews of Canary Construction and communicates with the project inspectors to ensure a timely, accurate, and safe completion of current and on-going projects. Jorge is bi-lingual and has several decades of experience in the underground utilities industry. Jorge is adept at understanding and implementing what is required from the engineer's plans and inspector's instructions.

Tina Thorne, Office Administrator – Tina is responsible for the front office operations and accounts payable / receivable at Canary Construction. Tina has over five years of experience managing financial books and inventory as well as communicating with customers, vendors, and employees. She is a valuable asset to Canary Construction and our business partners.

Equipment Schedule - Canary Construction

Hitatchi Excavator ZX135US-3

220 Volvo Backhoe

300 Kobelco Excavator

160 Kobelco Excavator

120 John Deere Excavator

314 Cat Excavator

PC 75 UU Komatsu Excavator

544 John Deere Loader

310 John Deere Tractor Back Hoe

LB75 New Holland 3 – Each

(2) 18 Wheelers and Dump Trailers

Tool Trucks

Storage Container

Street Sweeper

Pipe Lasers

Trench Jacks

Trench Shields

Asphalt Roller

Compaction Wheel

Traffic Control

25. Will you, upon request, fill out a detailed financial statement and furnish any other pertinent information that may be required by the Town of Addison?

YES

26. Please provide OSHA safety record, including a list and status of all OSHA violations.

N/A

Pursuant to advertisement for bids and information for prospective bidders for above-mentioned types of projects, the undersigned is submitting the information as required with the understanding that the purpose is for your confidential use, only to assist in determining the **Prequalifications** for this organization to perform the type and magnitude of work designated, and further, guarantee the truth and accuracy of all statements made, and will accept your determination of prequalifications without prejudice. The surety herein named, any other bonding company, bank, subcontractor, supplier, or any other person(s), firm(s), or corporation(s) with whom I (we) have done business, or who have extended any credit to me (us) are hereby authorized to furnish you with any information you may request concerning performance on previous work and my (our) credit standing with any of them; and I (we) hereby release any and all such parties from any legal responsibility whatsoever on account of having furnished such information to you.

CONTRACTOR:

Canary Construction
Company name (please type or print)

Signature

President
Title

2/23/16
Date

Copy to local underwriting office of proposed surety:

Company name (please type or print)

Address

City State Zip

Area code and phone number Fax number

SECTION BB
BID BOND

BID BOND

Bidder shall submit a bid bond equal to five percent (5%) of the bid price. Failure to submit a bid bond when required may deem the bid non-responsive. Bid Bonds may NOT be submitted electronically.

SECTION CI

INDEMNIFICATION AGREEMENT

Town of Addison
Indemnification Agreement

Contractor's Indemnity Obligation. Contractor covenants, agrees to, and shall DEFEND (with counsel reasonably acceptable to Owner), INDEMNIFY, AND HOLD HARMLESS Owner, its past, present and future elected and appointed officials, and its past, present and future officers, employees, representatives, and volunteers, individually or collectively, in both their official and private capacities (collectively, the "Owner Persons" and each being an "Owner Person"), from and against any and all claims, liabilities, judgments, lawsuits, demands, harm, losses, damages, proceedings, suits, actions, causes of action, liens, fees (including attorney's fees), fines, penalties, expenses, or costs, of any kind and nature whatsoever, made upon or incurred by Owner and/or Owner Person, whether directly or indirectly, (the "Claims"), that arise out of, result from, or relate to: (i) the services to be provided by Contractor pursuant to this Agreement, (ii) any representations and/or warranties by Contractor under this Agreement, (iii) any personal injuries (including but not limited to death) to any Contractor Persons (as hereinafter defined) and any third persons or parties, and/or (iv) any act or omission under, in performance of, or in connection with this Agreement by Contractor or by any of its owners, directors, officers, managers, partners, employees, agents, contractors, subcontractors, invitees, patrons, guests, customers, licensees, sublicensees, or any other person or entity for whom Contractor is legally responsible, and their respective owners, directors, officers, directors, officers, managers, partners, employees, agents, contractors, subcontractors, invitees, patrons, guests, customers, licensees, sublicensees (collectively, "Contractor Persons"). SUCH DEFENSE, INDEMNITY AND HOLD HARMLESS SHALL AND DOES INCLUDE CLAIMS ALLEGED OR FOUND TO HAVE BEEN CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR GROSS NEGLIGENCE OF OWNER OR ANY OTHER OWNER PERSON, OR CONDUCT BY OWNER OR ANY OTHER OWNER PERSON THAT WOULD GIVE RISE TO STRICT LIABILITY OF ANY KIND.

Contractor shall promptly advise Owner in writing of any claim or demand against any Owner Person related to or arising out of Contractor's activities under this Agreement and shall see to the investigation and defense of such claim or demand at Contractor's sole cost and expense. The Owner Persons shall have the right, at the Owner Persons' option and own expense, to participate in such defense without relieving Contractor of any of its obligations hereunder. This defense, indemnity, and hold harmless provision shall survive the termination or expiration of this Agreement.

The provisions in the foregoing defense, indemnity and hold harmless are severable, and if any portion, sentence, phrase, clause or word included therein shall for any reason be held by a court of competent jurisdiction to be invalid, illegal, void, or unenforceable in any respect, such invalidity, illegality, voidness, or unenforceability shall not affect any other provision thereof, and this defense, indemnity and hold harmless provision shall be considered as if such invalid, illegal, void, or unenforceable provision had never been contained in this Agreement. **In that regard, if the capitalized language included in the foregoing indemnity is so determined to be void or unenforceable, the parties agree that:**

(i) the foregoing defense, indemnity, and hold harmless obligation of Contractor shall be to the extent Claims are caused by, arise out of, or result from, in whole or in part, any act or omission of Contractor or any Contractor Persons; and

(ii) notwithstanding the provisions of the foregoing subparagraph (i), to the fullest extent permitted by law, Contractor shall INDEMNIFY, HOLD HARMLESS, and DEFEND Owner and Owner Persons from and against all Claims arising out of or resulting from bodily injury to, or sickness, disease or death of, any employee, agent or representative of Contractor or any of its subcontractors, regardless of whether such Claims are caused, or are alleged to be caused, in whole or in part, by the negligence, or any act or omission, of Owner or any Owner Persons, it being the expressed intent of Owner and Contractor that IN SUCH EVENT THE CONTRACTOR'S INDEMNITY, HOLD HARMLESS, AND DEFENSE OBLIGATION SHALL AND DOES INCLUDE CLAIMS ALLLEGED OR FOUND TO HAVE BEEN CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR GROSS NEGLIGENCE OF OWNER OR ANY OTHER OWNER PERSON, OR CONDUCT BY OWNER OR ANY OTHER OWNER PERSON THAT WOULD GIVE RISE TO STRICT LIABILITY OF ANY KIND. The indemnity obligation under this subparagraph (ii) shall not be limited by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor under workers compensation acts, disability benefit acts, or other employee benefit acts.

I understand that the indemnification provisions are required of all Town of Addison Contracts. I have read the provisions and agree to the terms of these provisions.

Project/Bid#: 16-44

Company Name: CANARY CONSTRUCTION

Signature: _____ Date: 2/23/2016

SECTION CA

CONTRACT AGREEMENT

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2016, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and Canary Construction, Inc., of the City of Coppell, County of Dallas, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-44

LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date of written notice to do so shall have been given to him, to complete the work within **one hundred and twenty (120)** calendar days, after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR, One Hundred Twenty Thousand Three Hundred and Twenty Five Dollars (**$120,325.00**) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON, TEXAS (OWNER)

By: _____
Wesley Pierson, City Manager

ATTEST:

By: _____
Chris Terry, Assistant City Manager

(CONTRACTOR)

By: _____
Canary Construction, Inc.
523 Greenwich Lane
Coppell, TX 75019

ATTEST:

By: _____

The following to be executed if the CONTRACTOR is a corporation:

I, Wayne Bobtad certify that I am the secretary of the corporation named as CONTRACTOR herein; that Canary Construction Inc, who signed this Contract on behalf of the CONTRACTOR is the President (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: _____

Corporate Seal

SECTION PrB

PERFORMANCE BOND

PERFORMANCE BOND

STATE OF TEXAS }
COUNTY OF DALLAS }

WHEREAS, _____ as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct _____
_____
_____
which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall well, truly and faithfully perform all of the undertakings, duties, terms, conditions and agreements of the Contract; shall satisfy all claims and demands incurred under the Contract; shall fully indemnify and hold the Town harmless; shall reimburse and repay the Town for any outlay or expense which the Town may incur in making good any default, and shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR: SURETY: 1

By:_____ By:_____

Title:_____ Title:_____

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS }
COUNTY OF DALLAS }

Before me _____ (insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS }
COUNTY OF DALLAS }

This instrument was acknowledged before me on the ___day of _____, 2_____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary

My Commission Expires:_____

1 Please see attached contact sheet for Surety and the Texas Department of Insurance.

Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

_____
(Name of surety)

_____
(Mailing address)

_____
(Physical address)

_____
(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION PyB

PAYMENT BOND

PAYMENT BOND

STATE OF TEXAS }
COUNTY OF DALLAS }

WHEREAS, _____, as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct _____
_____

which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension of time or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR: SURETY: 1

By:_____ By:_____

Title:_____ Title:_____

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS }
COUNTY OF DALLAS }

Before me _____ (insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS }
COUNTY OF DALLAS }

This instrument was acknowledged before me on the _____ day of _____, 2_____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary

My Commission Expires:_____

1 Please see attached contact sheet for Surety and the Texas Department of Insurance

Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

_____
(Name of surety)

_____
(Mailing address)

_____
(Physical address)

_____
(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION MB

MAINTENANCE BOND

MAINTENANCE BOND – TWO YEAR

STATE OF TEXAS '

COUNTY OF DALLAS '

WHEREAS,_____, as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, under the Contract it is provided that the Contractor will maintain and keep in good repair all work to be performed and done under the Contract for a period of **two (2) year** from the date of acceptance of the completed work by the Town, and to do and perform all necessary work and repair any defective condition, it being understood that the purpose of this maintenance bond is to insure all warranties, express or implied, made or given by the Contractor to the Town and to cover all defective, inadequate or non-conforming conditions arising by reason of any materials or labor installed, provided, constructed or performed by the Contractor and in case the Contractor shall fail to correct any such conditions it is agreed that the Town may make such corrections and charge the cost of making those corrections against the Contractor and the Surety on this obligation, and the Contractor and Surety shall be subject to the liquidated damages provided in the contract, the plans and the specifications for each day's failure on its part to comply with the terms and provisions of the Contract;

NOW, THEREFORE, if the Contractor shall keep and perform its obligation to maintain the work and keep the work in repair for the full maintenance period of two (2) year as herein provided, then these presents shall be null and void and have no further effect, but if default shall be made by Contractor in the performance of its obligations, then these presents shall have full force and effect, and the Town shall have and recover from the Contractor and its Surety damages in the premises as provided and it is further understood and agreed that this obligation shall be a continuing one against the Contractor and the Surety and that successive recoveries may be had hereon for successive breaches until the full amount of this bond shall have been exhausted; and it is further understood that the obligation under this bond to maintain the work shall continue throughout the maintenance period and shall not be changed, diminished, or in any other manner affected during the term of this bond. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR:	SURETY:
By:_____	By:_____
Printed Name:_____	Printed Name:_____
Title:_____	Title:_____
Address of Principal:	Address of Surety:
_____	_____
_____	_____
_____	_____

ACKNOWLEDGMENTS

[Contractor]

STATE OF TEXAS '
COUNTY OF DALLAS '

Before me _____(insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS '
COUNTY OF DALLAS '

This instrument was acknowledged before me on the ___ day of _____, 2____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
2-4-13 2 yr

SECTION BP

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

STATE OF TEXAS

COUNTY OF DALLAS

Personally, before me the undersigned authority, on this day appeared _____ who, being duly sworn, on oath, says that he is a legal representative of _____
(full name of Contractor as in contract)

and that the contract for the construction of the project, designated as

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-44
LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

has been satisfactorily completed and that all bills for materials, apparatus, fixtures, machinery and labor used in connection with the construction of this project have, to the best of my knowledge and belief, been fully paid.

_____
Signature

_____
Title

Sworn to and subscribed before me this _____day of _____, 201_.

_____
Notary Public in and for

_____ County, Texas

Instructions:

If the contractor is an individual, he shall sign the affidavit. If the contractor is a partnership, any partner may sign the affidavit. If the contractor is a corporation, a person authorized by the by-laws or by the Board of Directors shall sign the affidavit. If the Contractor is a joint-venture of individuals, any of the individuals may sign the affidavit. If the Contractor is a joint-venture of partnerships, or of individuals and partnerships, the affidavit may be signed by the individual or any partner of any partnership. If the contractor is a joint-venture in which a corporation is a party, separate affidavits must be executed in the name of the joint-venture: one by each corporation and one by each individual or partnership. Signatures for corporations should be by a duly authorized officer. If signature is by another, a showing of authority to sign must accompany the affidavit.

SECTION GP

GENERAL PROVISIONS

GENERAL PROVISIONS

The General Provisions of the Contract shall be as stated in the *Standard Specifications for Public Works Construction – North Central Texas, 4th Edition (2004)*, under Division 100, "General Provisions," Items 101.1 through 109.6 inclusive, as amended or supplemented and except as modified by the Special Provisions, Instructions to Bidders, and Technical Specifications.

SECTION SP

SPECIAL PROVISIONS

SPECIAL PROVISIONS

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SPECIAL PROVISIONS

1. **SCOPE OF WORK**: The work to be performed under the provisions of these Contract Documents shall consist of furnishing all materials, labor, equipment, supplies and appurtenances; providing all construction, removal, installation, planting, equipment and tools; performing all necessary labor and supervision; and the construction complete, including all work appurtenant thereto, the proposed improvements for: *Les Lacs Pond Water Well Transfer Piping System Improvements.*

2. **GENERAL:** This work shall conform to the requirements of the specifications and the details as shown on the Drawings. These Contract Documents are intended to be complementary. Requirements of any of the Contract Documents are as binding as if called for by all. In the event of conflict between the Drawings and the Specifications, the Contractor will be deemed to have assumed the more expensive way of doing the work unless, before submitting a bid, the Contractor shall have asked for and obtained (by addendum) a written decision as to which method or material is intended.

   In cases of discrepancies, calculated dimensions shall govern over scaled dimensions; special provisions and special specifications shall govern over both general and standard specifications; and quantities shown on the plans shall govern over those shown in the proposal.

3. **EXAMINATION OF SITE**: The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, or similar physical conditions at the site, conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor acknowledges that he has inspected the site of the work and is familiar with the soil conditions to be encountered. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Town of Addison assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Town and the Engineer.

4. **SPECIFICATIONS:** Construction improvements shall be governed by the following published specifications and details (except as modified by these Special Provisions):

   Standard Specifications for Public Works Construction, North Central Texas - North Central Texas Council of Governments (latest edition);

   Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges – Texas Department of Transportation, 2004;

   Town of Addison Standard Construction Details;

The Contractor shall keep copies of applicable specifications on the project site at all times. Where reference is made to specifications compiled by other agencies, organizations or departments, such referenced specifications are hereby made a part of the project specifications.

5. **SUBSURFACE INVESTIGATION:** There is no subsurface geotechnical report prepared for this project. Subsurface exploration to ascertain the nature of soils, including the amount of rock, if any, is the responsibility of any and all prospective bidders. It shall be the responsibility of the bidders to make such subsurface investigations as he deems necessary to determine the nature of the material to be encountered. Some preliminary subsurface exploration has been performed by the Town of Addison and the Engineer, and is provided to the Contractor in the plan documents. This information is provided only as preliminary and all bids shall be based on information obtained by the Contractor. The Town of Addison and the Engineer disclaim any responsibility for the accuracy, true location and extent of the soils information that has been prepared by others. They further disclaim responsibility for interpretation of that data by bidders, as in projecting soil bearing values, rock profiles, soils stability and the presence, level and extent of underground water.

6. **COMPLIANCE WITH LAWS:** The Contractor shall familiarize himself with the nature and extent of the specifications, site conditions, traffic and safety requirements, and shall fully comply with all local, state and federal laws, including all codes, ordinances, rules and regulations applicable to this Contract and the work to be done hereunder, which exist or which may be enacted later by governmental bodies having jurisdiction or authority for such enactment. The Contractor shall comply with all federal, state and local laws, rules and regulations of every kind and nature applicable to the performance of its Work hereunder, and shall hold the Town of Addison and the Engineer harmless therefrom.

7. **PERMITS, LICENSES. AND REGULATIONS:** Permits and licenses for the prosecution of the Work shall be secured and paid for by the Contractor. Wherever the work under this contract requires the obtaining of permits from the Town of Addison or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor hereunder before the work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS ARE OBTAINED.**

8. **RIGHTS-OF-WAY AND EASEMENTS:** No right-of-way acquisition or easements are required for this project. However, when working within the public rights-of-way and easements, the Contractor shall at all times observe and comply with all Federal and State Laws, and Town of Addison ordinances and regulations which in any way affect the conduct of the work or his operations, and shall observe and comply with all orders, laws, ordinances and regulations which exist or which may be enacted later by bodies having jurisdiction or authority for such enactment. No plea of misunderstanding or ignorance thereof will be considered. The Contractor and his Sureties shall indemnify and save harmless the Town of Addison, the Engineer and all of their officers, agents, and employees against any and all claims or liability arising from or based on the violation of any such law, ordinance, regulation, or order, whether it be by himself or his employees. There shall be no work

performed on private property. If necessary, it shall be the responsibility of the Contractor, prior to the initiation of construction on easements through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the Work. All easements and property shall be cleaned up after use and restored to their original conditions or better.

9. **RESTRICTED WORK HOURS:** Construction may only occur from 7 a.m. to 7 p.m. Monday through Friday and from 8 a.m. to 7 p.m. on Saturdays. No work shall occur on Sundays or on legal Holidays, as determined by the Town of Addison. It is in the interest of the public safety and convenience for the work under this project to occur within the standard work hours. As a submittal, the Contractor must present a detailed work schedule to the Town for approval prior to construction.

10. **COMPLIANCE WITH IMMIGRATION LAWS:** Contractor shall take all steps necessary to ensure that all of the Contractor's employees are authorized to work in the United States as required by the Immigration Reform and Control Act of 1986.

11. **NON-DISCRIMINATION POLICY:** It is the policy of the Town of Addison to afford all people an equal opportunity to bid on any contract being let by the Town. The Town of Addison has a policy that prohibits discrimination against any person because of race, color, sex, or national origin, in the award or performance of any contract. The Town of Addison will require its employees, agents, and Contractors to adhere to this policy.

12. **ANTITRUST LAWS:** The Contractor hereby assigns to the Town of Addison any and all claims for overcharges associated with this contract which arise under the antitrust laws of the United States 15 U.S.C.A. Sec. 1, et seq. (1973).

13. **ABANDONMENT:** The Town of Addison reserves the right to abandon, without obligation to the Contractor, any part of the project, or the entire project, at any time before the Contractor begins any construction work authorized by the Town of Addison. In case of total abandonment of the project, the contract becomes void. The Town of Addison may abandon portions of the project at any time during the project duration. In case of such partial abandonment, the Contractor shall not be due any payment for lost or unrealized profits on the abandoned portions of the project.

14. **DISCREPANCIES:** If the Contractor, in the course of the Work, finds any discrepancy between the Contract Documents and the physical conditions of the locality, or any errors or omissions in drawings or in the layout as given by survey points and instructions, or if it appears that any Plan, Specification or other Contract Document is or may not be in compliance with any building code or other requirement of any governmental body, he shall immediately inform the Town of Addison and the Engineer in writing, and the Town of Addison and the Engineer shall promptly verify the same. Any Work done after such discovery, until authorized, will be done at the Contractor's risk.

15. **PREPARATION OF STORM WATER POLLUTION PREVENTION PLAN:** A Storm Water Pollution Prevention Plan (SW3P) will be prepared by the Contractor in accordance with the Texas Pollution Discharge Elimination System, General Permit Number TXR150000 relating to Discharges from Construction Activities issued by the Texas Commission on Environmental Quality (TCEQ). The SW3P will include the following information as required by the TCEQ Permit: Project description that includes: description of the construction activities, intended schedule or sequence of major soil disturbing activities, number of total acres of the project area and number of acres where soil will be disturbed, estimate of the runoff coefficient of the site for pre-construction and post-construction conditions, data describing the soil, a general location map, the name of receiving waters at or near the site, and a copy of the TPDES General Permit.

A Best Management Plan is provided in the plans with minimum elements for perspective Bidders. The contractor is required to prepare a detailed site map will be prepared showing drainage patterns and approximate slopes after grading, areas where soil disturbance will occur, locations of major structural controls, locations where stabilization practices are expected to be used, surface waters, and locations where storm water discharges from the site directly to a surface water.

The Contractor shall prepare a SW3P and submit a Notice of Intent (NOI) as required by the TPDES Permit if the total disturbed area is 5 acres or more.

A three-ring SW3P binder will be prepared containing all information and reports that are required as part of the SW3P. The Contractor will be required to prepare and utilize the SW3P as listed above, and maintain all records on-site during the project including performing inspections and maintaining all required documentation required by the TPDES General Permit.

This specification is not all inclusive of the requirements for an SW3P. The Contractor shall comply with all requirements of the TCEQ TPDES permit and the local authorities' storm water ordinance and/or regulations.

The SW3P plan provided by the Contractor shall be designed, signed, and sealed by a professional engineer registered in Texas.

16. **ADDENDA:** Bidders desiring further information, or interpretation of the Plans and Specifications, must make written request for such information to the Engineer (not later than three (3) working days prior to the date set for the Bid opening. The ability to ask questions will close at 2:00 pm, February 17, 2016. Answers to all such requests will be issued in the form of Addenda and a copy of such Addenda will be released through *www.bidsync.com*. It will be the responsibility of each person who has been issued as set of Bidding Documents to secure all Addenda from *www.bidsync.com*. Addenda will be bound with and made a part of the Contract Documents. No other explanation or interpretation will be considered official or binding. Should a Bidder find discrepancies in, or omissions from, the Plans, Specifications or Contract Documents, or should he be in doubt as to their meaning, he shall at once notify the Engineer in writing in order that a written addendum may be sent to all Bidders.

17. **PAY ITEMS:** Pay items provided are intended to be all-inclusive of the work required on this project. Work required by the plans or specifications but not provided with a specific pay item shall be considered incidental to other items of work. Final payment to the construction Contractor shall not be made until all Work has been finally completed and verified in accordance with the construction contract, plans and specifications and have been finally accepted by the Town of Addison.

See Special Provisions 93. Bid Item Descriptions for reference specifications, plans, and details.

18. **INCREASE OR DECREASE IN QUANTITIES:** The quantities shown in the proposal are approximate. Final payment will be based on quantities determined by measurement methods described for each work item.

When the quantity of work to be done or materials to be furnished under any major pay item or contract is more than 125% of the quantity stated in the contract, whether stated by Town of Addison or by Contractor, then either party to the contract, upon demand, shall be entitled to negotiate for revised consideration on the portion of work above 125% of the quantity stated in the contract.

When the quantity of the work to be done or materials to be furnished under any major pay item of the contract is less than 75% of the quantity stated in the contract, whether stated by Town of Addison or by Contractor, then either party to the contract, upon demand, shall be entitled to negotiate for revised consideration on the portion of work below 75% of the quantity stated in the contract. This paragraph shall not apply in the event Town of Addison deletes a pay item in its entirety from this contract.

19. **SUBSIDIARY WORK:** Any and all work specifically governed by documentary requirements for the project, such as conditions imposed by the Plans or these Special Provisions, in which no specific item for bid has been provided for in the Proposal, shall be considered as a subsidiary item of work, the cost of which shall be included in the various bid items in the Proposal. Costs of permits, inspection fees, traffic control, construction staking, surface restoration and cleanup are general items of work which fall in the category of subsidiary work. Any repairs or replacement of items damaged during demolition or as a result of new construction will be considered subsidiary. Limits of all work requiring repair will be determined by the Town of Addison staff or the inspector. Extreme care should be taken during all demolition and construction operations.

20. **QUALIFICATION OF BIDS:** The Town of Addison reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. The Town reserves the right to reject the Bid of any Bidder if the Town believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Town. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor

of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolve in favor of the correct sum.

To be considered responsive, the apparent three lowest bidders are required to submit the Statement of Experience per Spec 00 45 16 within 5 days.

The apparent low three bidders will be notified by the Engineer to request the information.

21. **AWARD AND EXECUTION OF CONTRACT:** For the purpose of award, each bid submitted shall consist of two parts whereby the correct summation of the products of the estimated quantities shown in the proposal, multiplied by their bid unit prices for the following parts:

- **Base Bid – Parts 001 thru A102**

The method of Award will be as shown below:
Award = Bid Most Advantageous to the City

The Town reserves the right to accept whichever bid is determined to be in the best interest of the public and to reject all bids.

All payments will be based on actual quantities and bid unit prices.

22. **EXPLANATION OF CONTRACT TIME:** The term "Contract Time" as used in this Provision will mean the **120** calendar days for completion of the work of the Contract from the date the Contract was executed. The term "calendar day" as used in this Article will mean every day shown on the calendar. Calendar days will be consecutively counted from commencement of Contract Time regardless of weather, weekends, holidays, suspensions of Contractor's operations, delays or other events as described herein.

In the event of a catastrophic event (i.e., war, invasion, riot, declared state of emergency, national strike, or other situations as declared by the Town of Addison) directly and substantially affecting the Contractor's operations on the Contract, the Contractor and the Town shall agree as to the number of calendar days to extend the Contract Time. In the event the Contractor and Town are unable to agree to the number of calendar days to extend the Contract Time, the Town shall unilaterally determine the number of calendar days to extend the Contract Time reasonably necessary and due solely to such catastrophic event and the Contractor shall have no right whatsoever to contest such determination, save and except that the Contractor establishes that the number of calendar days determined by the Town were arbitrary or without any reasonable basis.

Should the Contractor fail to complete the Contract on or before expiration of the Allowable Contract Time, as adjusted in accordance with the provisions above, the Town shall deduct from the moneys due the Contractor the Liquidated Damages as shown in provision 95 for each calendar day completion exceeds the Allowable Contract Time. The term "Allowable Contract Time" as used in this Article shall mean the Original Contract Time plus

adjustments pursuant to the statements above. This deduction shall be the disincentive for the Contractor's failing to timely complete the Contract. **This shall be strictly enforced.**

23. **COPIES OF PLANS FURNISHED:** One (1) copy of 11" x 17" and one (1) electronic copy of the plans shall be furnished to the successful Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of $150.00 per set upon request.

24. **PRE-CONSTRUCTION CONFERENCE:** The successful Contractor, Engineer, and Town of Addison shall meet for a pre-construction conference before any of the work begins on this project. At this time, details of sequencing of the work, contact individuals for each party, testing requirements, submittals, and pay requests will be covered. Prior to the meeting, the Contractor shall prepare schedules showing the sequencing and progress of their work and its effect on others. A final composite schedule will be prepared during this conference to allow an orderly sequence of project construction.

25. **MOBILIZATION:** The work specified in this item consists of the preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of temporary offices, utilities, and other facilities, if necessary, for the construction of proposed improvements. The provisions of TxDOT Standard Specification Item (TxDOT Item) 500 "Mobilization" shall apply, except the maximum amount allowed will be 5% of the total bid amount.

26. **GENERAL SEQUENCE OF CONSTRUCTION:** Prior to the start of work, the Contractor shall develop a detailed construction and sequence of construction schedule using the critical path method (CPM) and submit to the Town of Addison for approval. The CPM shall reflect all definable features of work and activities that shall cause minimum interference with traffic along, across and adjacent to the project during construction. If the schedule or sequence becomes unworkable or unsatisfactory as work proceeds, adjustments shall be made. During all phases of construction access to all existing residences and businesses must be maintained at all times unless otherwise authorized in writing by the Town of Addison. Erosion control devices must be properly installed and maintained during all stages of construction.

    The Contractor must comply with all lane closure and traffic movement restrictions as indicated in the plans unless specifically authorized in writing ty the Town of Addison.

    The general intent is for the contractor to begin at one end and steadily progress limiting the area of construction to minimize disruptions to the traveling public, residences and businesses along the route.

27. **PROJECT REPRESENTATIVE:** The Town of Addison, the Engineer, the Contractor(s), and any applicable public utilities shall designate a single individual within their organization to act as liaison for the project. This individual shall be aware of the day to day activities on the project, have authority to make decisions binding on the party, and serve as single point

for coordination of activities with the other team members. The Contractor's representative must be available to meet and discuss construction related issues on site or at the Town's offices within 20 minutes of a request during working hours and throughout the entire construction period. Upon repeated failure of attendance at requested meetings, Contractor will be required to have a project representative on-site at all times.

28. **COORDINATION WITH OTHERS:** In the event that other Contractors are doing work in the same area simultaneously with this project, the Contractor shall coordinate his proposed construction with that of the other Contractors. The Town of Addison and/or the Engineer shall mediate any disputes, and the Contractors shall comply with their decisions.

29. **INSURANCE/INDEMNIFICATION**

Attached as separate documents are the required insurance and indemnification forms. These forms must be signed and included in the bid.

Each insurance policy that the Contractor must furnish in accordance with these contract documents shall name the Town of Addison and the Engineer as additional insured. Contractor shall include in their bid package, a copy of their certificate of insurance showing compliance to the limits established by the Town of Addison.

1.0 The Contractor shall agree to furnish and maintain continuously during the period of this agreement, any renewals or extension, insurance coverage meeting all of the following requirements:

1.1 Commercial General Liability Insurance at minimum combined single limits of $1,000,000 per occurrence and $2,000,000 general aggregate for Bodily Injury and Property Damage, which coverage shall include Products/Completed Operations, and XCU Hazards. Coverage for product/completed operations must be maintained for at least two (2) years after the construction work has been completed. Coverage must be amended to provide for an each-project aggregate limit of insurance. Contractual Liability must be included.

1.2 Workers Compensation Insurance at statutory limits, including employer's liability coverage at minimum limits of $1,000,000 each occurrence-each accident, $1,000,000 by disease-each occurrence and $1,000,000 by disease aggregate

1.3 Commercial Automobile Liability Insurance at minimum combined single limits of $1,000,000 per occurrence for bodily injury and property damage, including owned, non-owned, and hired car coverage.

1.4 Umbrella Liability at minimum limits of $1,000,000 each-occurrence $4,000,000 aggregate with respect to primary commercial general liability, automobile liability and employer's liability policies.

1.5 Any Subcontractor(s) hired by the Contractor shall maintain insurance coverage equal to that required by the Contractor. It is the responsibility of the Contractor to assure compliance with this provision. The Town accepts no responsibility arising from the conduct, or lack of conduct, of the Subcontractor.

1.6 A comprehensive general liability insurance form may be used in lieu of a commercial general liability form. In this event, coverage must be written on an occurrence basis, at limits of $1,000,000 each-occurrence, combined single limit and coverage must include a broad form comprehensive general liability endorsement, products/completed operations, XCU hazards and contractual liability.

2.0 With reference to the foregoing insurance requirements, Contractor shall specifically endorse applicable insurance policies as follows:

2.1 The Town shall be named as an additional insured with respect to general liability and automobile liability.

2.2 All liability policies shall contain no cross liability exclusions or insured versus insured restrictions.

2.3 A waiver of subrogation in favor of the Town of Addison shall be contained in the workers compensation and all liability policies.

2.4 All insurance policies shall be endorsed to require the insured to immediately notify the Town of Addison of any material changes in the insurance coverage.

2.5 All insurance policies shall be endorsed to the effect that the Town will receive at least thirty (30) days notice prior to cancellation or non-renewal of the insurance.

2.6 All certificates shall be mailed to Town of Addison, Purchasing Dept., P.O. Box 9010, Addison, Texas 75001 or emailed to purchasing@addisontx.gov.

2.7 All insurance policies, which name the Town as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.

2.8 Required limits may be satisfied by any combination of primary and umbrella liability insurances.

2.9 Contractor may maintain reasonable and customary deductibles, subject to approval by the Town.

3.0 All insurance shall be purchased from an insurance company who meets the following requirements:

3.1 Must be issued by a carrier, which is rated "A-" VII or better by A.M. Best's Key Rating Guide.

3.2 Licensed and admitted to do business in the State of Texas and is a subscriber to the Texas Guaranty Fund.

4.0 All insurance must be written on forms filed with and approved by the Texas State Board of Insurance. Certificates of insurance shall be prepared and executed by the

insurance company or its authorized agent and shall contain provisions representing and warranting the following:

4.1 Set forth all endorsements and insurance coverages according to requirements and instruction contained herein.

4.2 Shall specifically set forth the notice-of-cancellation or termination provisions to the Town.

5.0 Upon request, Contractor shall furnish the Town of Addison with certified copies of all insurance policies.

30. WORKERS' COMPENSATION INSURANCE COVERAGE:

A. Definitions.

Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self insure issued by the Texas Workers' Compensation Commission (the "TWCC"), or a coverage agreement (TWCC-81, TWCC-82, TWCC-83 or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the Project - includes the time from the beginning of the work on the project until the Contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons Providing Services on the Project ("Subcontractor" in Section 406.096 of the Texas Labor Code) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, Subcontractors, leasing companies, motor carriers, Town-operators, employees of any such entity or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The Contractor shall provide coverage, based on property reporting of classification codes and payroll amounts and filing of any coverage agreement, which meets the statutory requirements of Texas Labor Code, 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.

C. The Contractor must provide a certificate of coverage to the Town of Addison prior to being awarded the contract.

D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Town of Addison, showing that the coverage has been extended.

E. The Contractor shall obtain from each person providing services on the project, and provide to the Town of Addison:

(1) a certificate of coverage, prior to that person beginning work on the project, so that the Town of Addison will have on file certificates of coverage showing coverage for all persons providing services on the project; and,

(2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

F. The Contractor shall retain all required certificates of coverage on file for the duration of the project and for one year thereafter.

G. The Contractor shall notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

H. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the TWCC, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage.

I. The Contractor shall contractually require each person with whom it contracts to provide Services on a project to:

(1) Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Codes 401.011 (44) for all its employees providing services on the project, for the duration of the project;

(2) Provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) Provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) Obtain from each person with whom it contracts, and provide to the Contractor;

a. a certificate of coverage, prior to the other person beginning work on the project; and,

b. a new certificate of coverage showing extension of the coverage period, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

(5) Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) Notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(7) Contractually require each other person with whom it contracts to perform as required by paragraphs (1) - (7) with the certificate of coverage to be provided to the person for whom they are providing services.

J. By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Town of Addison that all employees of the Contractor who will provide services on the project will be covered by worker's compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the TWCC's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties or other civil actions.

K. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Town of Addison to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Town.

The following is the form of notice of workers' compensation coverage prescribed by the TWCC. Pursuant to Section 110.110 (d) (7), this notice must be printed with a title in at least 30-point bold type, and text in at least 19-point nominal type, and shall be in both English and Spanish and any other language common to the worker population.

REQUIRED WORKERS' COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee.

"Call the Texas Workers' Compensation Commission (TWCC) at (512) 440-3789 to receive further information on the legal requirements for coverage,

to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

31. **CLEAN AIR ACT AND CLEAN WATER ACT:** Include in all construction contracts exceeding $100,000, the following requirement: "Contractor is responsible for compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act, Section 505 of the Clean Water Act, Executive Order 11738, and Environmental Protection Agency regulations."

32. **RESOLUTION OF DISPUTES:** The parties hereby covenant and agree that in the event of any controversy, dispute, or claim, of whatever nature arising out of, in connection with or in relation to the interpretation, performance or breach of this agreement, including but not limited to any claims based on contract, tort or statute, before filing a lawsuit, the parties agree to submit the matter to Alternative Dispute Resolution pursuant to the laws of the State of Texas. The parties shall select a third party arbitrator or mediator from the current list of neutrals on file with the Alternative Dispute Resolution Administrator of the Dallas County District Courts. All forms of Alternative Dispute Resolution may be used except binding arbitration. The proceedings shall be conducted in accordance with the laws of the State of Texas.

33. **SHOP DRAWINGS:** The Contractor shall provide, review, approve and submit all shop drawings, product data and samples required by the Town of Addison, the Engineer and the Contract Documents in accordance with Item 1.28 of the Standard Specifications for Public Works Construction, North Central Texas Council of Governments, latest edition. The Contractor shall furnish a minimum of four and a maximum of six copies of shop drawings for review by the Engineer, who will review, approve and forward to the Town of Addison for acceptance. Approved submittals will be returned as follows:

Two (2) – Town of Addison

One (1) – Contractor

Two (2) – Halff Associates, Inc.

Maximum size of submittals shall be 11 x 17 inch. No fax copies are acceptable. Shop drawings shall include all items to be installed in the project, including:

- Concrete Mix Designs
- Backfill Materials
- Pedestrian Control Plan
- Irrigation Fittings & Appurtenances
- Construction Entrance Layout
- Piping
- Operation Site Layout
- Finishes

34. **PROJECT VIDEO:** Prior to the start of construction, Contractor shall video the construction area and property adjacent to construction in the presence of the Project Manager. The format shall be DVD. The video shall be narrated. The Contractor shall furnish the Town of Addison a copy of the video in DVD format prior to commencement of project. This shall be subsidiary to project.

35. **SAMPLES AND TESTS OF MATERIALS:** The Contractor shall designate and pay an independent testing laboratory to furnish testing for this project. Random testing will be

provided by the independent lab as necessary for compliance with the specifications. The Contractor shall coordinate construction with the testing lab and the Town of Addison, and shall provide assistance to the testing labs by providing excavation, access, trench safety, materials for testing and any other work required to insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All costs for the field quality control testing shall be paid for by the Contractor, including any and all re-testing. As a guide, the Contractor shall be responsible for providing any test required by the specifications.

All samples and tests shall be performed in accordance with the Standard Specifications for Public Works Construction, North Central Texas Council of Governments (Latest Edition) as amended or supplemented. The Town of Addison may elect to have its own independent lab if it so desires.

36. **INSPECTION**: The Town of Addison and the Engineer reserve the right to inspect, test, measure or verify the construction work for this project as they deem necessary to ascertain that the Work is being accomplished in accordance with the standards and requirements set forth in the Contract Documents. Notwithstanding such reviews, the Contractor will be held responsible for the finished Work and any acceptance of the Work by the Town or governmental agencies will not relieve the Contractor from responsibility for the Work. The Town reserves the right to place full-time construction inspectors at the site of the Work. Costs for inspection services will be paid by the Town of Addison. The Contractor shall provide assistance to the Town of Addison and the Engineer by providing excavation, trench safety, or other work necessary to facilitate inspection activities, and shall give sufficient notice well in advance of pending construction activities for scheduling of inspection services.

If the Specifications, the Town's instructions, laws, ordinances, or any public authority require any Work to be specially tested, the Contractor shall give the Town timely notice (at least 48 hours) of its readiness for testing, and if the testing is by an authority other than the Town, of the date fixed for such testing. Tests by the Town shall be made promptly, and where practicable at the source of supply.

37. **ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS:** All haul roads and access routes and the location of job site trailers, staging areas, and storage areas shall be subject to the approval of the Town and the Engineer. The Contractor shall be responsible for maintaining and repairing all roads and other facilities used during construction. Upon completion of the project all existing roads and other disturbed areas shall be left in a condition equal to that at the time the Contractor commences work on this project.

38. **PROPERTY ACCESS:** Access to adjacent properties shall be maintained at all times unless otherwise directed by the Engineer and/or Town of Addison. Contractor shall also maintain sufficient access throughout the project limits to the existing buildings and businesses during construction operations.

39. **PLANT, PROCEDURES, METHODS AND EQUIPMENT:** The Contractor shall determine the methods to be employed, the procedures to be followed, and equipment to be used on the work under this contract, subject to the requirements of these specifications and approval of the Engineer and Town of Addison. Only adequate and safe procedures, methods and equipment shall be used.

The Contractor shall so arrange his work and provide such plant and equipment as is necessary in order to meet the progress requirements of the approved time schedule and to complete the work within the period of time as specified in the Construction Agreement. Only such materials and equipment as are necessary for the construction of the work under this contract shall be placed, stored or allowed to occupy any space at the site of the work.

It is expressly agreed that the acceptance or approval of any order of procedure, methods or equipment submitted or employed by the Contractor shall not in any manner relieve the Contractor of responsibility for the safety, maintenance and repairs of any work, or for the construction maintenance and safety of the work hereunder, or from any liability whatsoever on account of any procedure or method employed by the Contractor.

Where the work under this contract requires permits from the Town of Addison, the State of Texas, or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor before the work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE REQUIRED PERMITS ARE OBTAINED AND DISTRIBUTED.**

40. **PARKING OF CONSTRUCTION EQUIPMENT:** At night and during all other periods of time when equipment is not being actively used on the construction work, the Contractor shall park the equipment at locations, within project limits, which are approved by the Town of Addison or the Engineer. The Contractor shall provide adequate barricades, markers and lights to protect the Town of Addison, the Engineer, the public and other work. All barricades, lights, and markers must meet the requirements of the Town of Addison, State and Federal regulations.

41. **ZONING REQUIREMENTS:** During the construction of this project, the Contractor shall comply with the present zoning requirements of the Town of Addison in the use of vacant property for storage purposes.

42. **CONSTRUCTION IN PUBLIC ROADS AND PRIVATE DRIVES:** No public road shall be entirely closed overnight (except as shown in plans). It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads involved in the work included in this contract. No interference with traffic flow on city streets shall be permitted during the hours of 6:30 a.m. to 9:30 a.m. and 3:30 p.m. to 7:30 p.m., Mondays through Fridays (except as shown in plans).

The Contractor shall make every effort to complete construction and allow immediate access

to adjacent property at driveway entrances located along the roadways. Towns or tenants of improvements where access and/or entrance drives are located shall be notified at least twenty-four (24) hours prior to the time the construction will be started at their driveways or entrances and informed as to the length of time driveways will be closed. Contractor shall at all times maintain at least one point of access into all properties, unless obtaining written permission from property Town to do otherwise with such written permission being provided to the Town's inspector.

The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of two years from the date of such reconstruction. In the event the repairs and maintenance are not made immediately to the satisfaction of the Town, and it becomes necessary for the Town to make such repairs, the Contractor shall reimburse the Town for the cost of such repairs.

The Contractor shall, at all times, keep a sufficient width of the roadway clear of dirt and other material to allow the free flow of traffic. The Contractor shall assume any and all responsibility for damage, personal or otherwise, that may be caused by the construction along roads and private drives.

43. **HAULING ON TOWN OF ADDISON STREETS:** The Contractor shall receive approval of his haul routes and type of equipment to be used prior to beginning construction. The Contractor shall be responsible for maintaining the cleanliness of existing paved roadways and shall provide equipment and manpower for that purpose.

44. **EXISTING POWER POLES & GUY WIRES:** The Contractor shall have the responsibility of coordinating with the proper authorities for the bracing, replacing or relocating of all utility poles and guy wires which interfere with the construction of this project prior to beginning his construction operations. The Contractor will also be responsible for all damage to poles, guy wires, etc. that are damaged or destroyed by Contractor's operations.

45. **SAFETY RESTRICTIONS - WORK NEAR HIGH VOLTAGE LINES:** The following procedures shall be followed for work near high voltage lines on this contract:

a. A warning sign not less than five (5) inches by seven (7) inches, painted yellow with black letters that are legible at twelve (12) feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile driver, hoisting equipment or similar apparatus. The warning sign shall read as follows: "Warning - Unlawful to Operate This Equipment within Six Feet of High Voltage Lines."

b. Equipment that may be operated within ten (10) feet of high voltage lines shall have an insulating cage guard protecting the boom or arm, except backhoes or dippers, and insulator links on lift hook connections.

c. When necessary to work within six (6) feet of high voltage electric lines, notify the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. All such work done by the power company shall be at the

expense of the Contractor. The Contractor shall maintain an accurate log of all such calls to the power company.

d. The Contractor is required to make arrangements with the power company for the temporary relocation or raising of high voltage lines at the Contractor's sole expense.

e. No person shall work within six (6) feet of high voltage lines without protection measures having been taken as outlined in Paragraph c.

46. **PROTECTION OF EXISTING UTILITIES AND STRUCTURES:** The location and dimensions shown on the plans relative to existing utilities and subsurface structures are based on the best records and/or field information available and are not guaranteed by the Town of Addison or the Engineer to be accurate as to location and depth. It shall be the Contractor's responsibility to verify locations of adjacent and conflicting utilities sufficiently in advance of his activities in order that he may negotiate such restrictive locations with the Town of Addison of the conflicting utility and/or make local adjustments to provide adequate clearances. The Contractor shall take all necessary precautions in order to protect all utilities and services encountered, whether or not they are indicated on the plans. All damage to utilities resulting from Contractor's operations shall be restored at his expense. The Town of Addison and the Engineer assume no responsibility for failure to show any or all of these utilities or structures on the plans, or to show them in their exact locations. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special work, provisions for which are not made in the plans, in which case, provisions in these specifications for extra work shall apply.

47. **PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED:** In case it is necessary to change or move the property of a public utility, such property shall not be moved or interfered with until authorized by the Town of Addison or the Engineer. The right is reserved for the Owner of public utilities to enter upon the limits of the project for the purpose of making such changes or repairs of their property that may be made necessary by performance of the Contract. The Contractor shall be responsible for coordination with the Town of Addison and the Engineer, and all utility companies whose utility lines or streets may be affected by the proposed improvements. The Contractor shall observe the following:

a. Prior to any excavation, the Contractor shall determine the locations of all existing water, gas, sewer, electric, telephone, telegraph, television, pipelines and other underground utilities and structures.

b. After commencing work, the Contractor shall use every precaution to avoid interference with existing underground and surface utilities and structures, and protect them from damage.

c. Where the locations of existing underground and surface utilities and structures are indicated, these locations are generally approximate, and all items which may be encountered during the work are not necessarily indicated. The Contractor shall

determine the exact locations of all items indicated, and the existence and locations of all items not indicated.

d. The Contractor shall repair or pay for all damage caused by his operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall settle in total the cost of all damage suites which may arise as a result of his operations.

e. To avoid unnecessary interferences or delays, the Contractor shall coordinate all utility removals, replacements and construction with the appropriate utility company, and then request written authorization from the Town of Addison or the Engineer. The Town of Addison and the Engineer will not be liable for damages due to delay as a result of the above.

48. **MAINTENANCE AND REPAIRS:** The Contractor shall maintain and keep in good repair all work contemplated under these plans, specifications, and drawings which shall include the maintenance and repair of all existing streets, storm sewer crossings, utility crossings, temporary crossings for access to adjacent property, barricades, lights, and danger signals, and all work which is necessary for the well being of the general public. In the event the Contractor fails in his obligations to properly maintain the work, the Town of Addison shall make such repairs as are necessary and the cost of such repairs shall be deducted from payment due the Contractor.

49. **PROTECTION OF WORK:** During performance and up to date of final acceptance, the Contractor shall be under the absolute obligation to protect the finished work against damage, loss or injury. In the event of damage, loss or injury, the Contractor shall promptly replace or repair such work, whichever the Town of Addison shall determine to be preferable. The obligation to deliver finished work in strict accordance with the contract prior to final acceptance shall be absolute and shall not be affected by the Town of Addison's approval of or failure to prohibit means and methods of construction used by the Contractor. All risk of loss or damage to the work shall be borne solely by the Contractor until final acceptance of all work by the Town of Addison, as evidenced by the Town of Addison's issuance of a certificate of acceptance.

50. **PUBLIC CONVENIENCE AND SAFETY:** In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.

Materials stored about the work site shall be so placed, and the work shall at all times be so conducted, as to cause no greater obstruction to the traveling public than is considered necessary by the Town of Addison. The materials excavated shall be placed so as not to endanger the work or prevent free access to all fire hydrants, water valves, gas valves, manholes (telephone, telegraph or electrical conduits, and sanitary sewers) and fire alarm or police call boxes in the vicinity.

The Town of Addison reserves the right to remedy any neglect on the part of the Contractor as regards to the public convenience and safety which may come to the Town of Addison's attention, after 24 hours notice in writing to the Contractor, save in cases of emergency, when the Town of Addison shall have the right to remedy any neglect without notice; and, in either case, the cost of such work done by the Town of Addison shall be deducted from the monies due or to become due the Contractor. The Contractor shall notify the Town of Addison and the Engineer when any street is to be closed or obstructed. The Contractor shall provide for emergency vehicle access at all times.

The Contractor, material, and equipment shall stay within the project limits. The Contractor shall notify the proper representatives of any public utility, corporation, company or individual, not less than 48 hours in advance of work which might damage or interfere with the operation of their property along or adjacent to the work. The Contractor shall be responsible for all damage or injury to property of any character (except such as may be required by the provisions of the Contract Documents, or caused by agents or employees or the Town of Addison) by reason of any negligent act or omission on the part of the Contractor, his employees, agents or Subcontractors, or at any time due to defective work or materials, or due to his failure to reasonably or properly prosecute the work, and said responsibility shall not be released by the fact that the work shall have been completed and accepted.

When and where any such damage or injury is done to public or private property on the part of the Contractor, he shall restore or have restored at his own cost and expense such property to a condition equal to or better than that existing before such damage was done, by repairing, rebuilding or otherwise restoring as he may be directed, or he shall make good such damage or injury in a manner acceptable to the property Town of Addison and the Engineer. In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Town of Addison may, upon 48 hour written notice under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be determined necessary, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under this contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

51. **PROTECTION OF PERSONS AND PROPERTY:** The Contractor shall have the responsibility to provide and maintain all warning devices and take all precautionary measures required by law or otherwise necessary to protect persons and property while said persons or property are approaching, leaving or within the work site or any area adjacent to said work site. No separate compensation shall be paid to the Contractor for the installation or maintenance of any warning devices, barricades, lights, signs, or any other precautionary measures required by law or otherwise necessary for the protection of persons or property.

The Contractor shall assume all responsibilities to the general public in connection with the general public's immediate approach to and travel through the work site and the area adjacent to said work site.

Where the work is in or adjacent to any street, alley, sidewalk, public right-of-way or public place, the Contractor shall at his own cost and expense provide such flagmen and watchmen and furnish, erect and maintain such warning devices, barricades, lights, signs, and other precautionary measures for the protection of persons or property as may be prudent or necessary, or as required by law. The Contractor's responsibility for providing and maintaining flagmen, watchmen, warning devices, barricades, signs and lights and other precautionary measures shall not cease until the project shall have been completed and accepted by the Town of Addison, and shall cease when the Town of Addison notifies the Contractor in writing of final project acceptance.

If the Town of Addison discovers that the Contractor has failed to comply with applicable federal or state laws (by failing to furnish the necessary flagmen, warning devices, barricades, lights, signs or other precautionary measures for the protection of persons or property), the Town of Addison may order the Contractor to take such additional precautionary measures as required by law to protect persons and property. In addition, the Contractor shall be held responsible for all damages to the work and other public or private property due to the failure of warning devices, barricades, signs, lights or other precautionary measures in protecting said property; and whenever evidence is found of such damage, the Town of Addison may order the damaged portion immediately removed and replaced by and at the cost and expanse of the Contractor.

52. **TRAFFIC CONTROL:** It shall be the responsibility of the Contractor to provide traffic control during the construction as required by the State of Texas, the Town of Addison, and in accordance with the following additional requirements:

a. The Contractor shall be required to furnish barricades, flares, flagmen, etc., for the protection of the public, employees and the work.

b. The Contractor shall prosecute his work in such a manner as to create a minimum of interruption to traffic along adjacent roadways.

c. The unit price bid under the appropriate bid item of the proposal shall cover all cost for providing signage, markings, lighting, barricades, flagmen and other devices and personnel required for traffic control during construction of the project.

d. The Contractor shall not remove any regulatory sign, instructional sign, warning sign, street name sign or any other sign or signal which currently exists.

e. The Contractor shall provide a comprehensive Traffic Control Plan to the Town of Addison and Engineer for review, comment, and approval in the event the planned sequence of work is different in any way from that sequence of work provided for in the plans or where additional details are required. The Traffic Control Plan shall be designed in accordance with established standards and regulations and signed and sealed by a professional engineer, registered in the State of Texas. The comprehensive plan shall reflect the Contractor's proposed construction phasing and methodology and include the design layout for all proposed detour and traffic situations.

53. **BARRICADES, WARNING SIGNS, DETOURS AND SEQUENCE OF CONSTRUCTION:** Throughout the construction operations, streets and intersections will remain open to traffic by constructing the work in stages. All streets, driveways, adjacent business and alleys shall remain open to traffic as far as is practicable.

A. General Construction: The Contractor shall plan his work sequence in a manner that will cause minimum interference with traffic during construction operations. Before beginning work on this project, the Contractor shall submit, for approval by the Town of Addison, a plan of construction operations outlining in detail a sequence of work to be followed; setting out the method of handling traffic on streets, roads and driveways along, across and adjacent to the work. If at any time during the construction, the Contractor's proposed plan of operation for handling traffic does not provide for safe comfortable movement, the Contractor shall immediately change his operations to correct the unsatisfactory conditions.

Ditches across the traffic lanes will be kept covered with a portable traffic-bearing surface at all times unless work in the ditch is in progress. Only one lane of traffic may be closed at a time when work is in progress in a ditch.

B. Safety: The Contractor shall provide, construct and maintain barricades and signs at locations set out in the plans and in the Special Provisions in accordance with the Texas Manual on "Uniform Traffic Control Devices for Streets and Highways". In addition, he shall provide and maintain such other barricades and signs as deemed necessary by the Town or the Engineer, and provide and maintain, between sunset and sunrise, a sufficient number of lights at barricades and points of danger for the protection of vehicular and pedestrian traffic.

Barricades shall be placed in such a manner as not to interfere with the sight distance of drivers entering the street from side streets.

The Contractor shall keep traveled surfaces used in his hauling operation clear and free of dirt, mud, silt, or other material.

The Contractor shall provide and maintain qualified flagmen at such points and for such periods of time as may be required to provide for the safety and convenience of public travel and Contractor's personnel.

54. **EXCAVATION SAFETY SYSTEMS**

The work performed under this section of the specifications consists of providing trench safety systems consisting of shoring, sheeting, trench shield, and/or laid back slopes to meet the trench safety requirements of the Occupational Safety and Health Administration (O.S.H.A.), as required for this project and specified herein.

A. General: Trench safety systems shall be provided by the Contractor as provided in Subpart P - Excavation, Trenching and Shoring, Part 1926 of the Code of Federal Regulations which describes safety and health regulations as administered by the U.S. Department of Labor Occupational Safety and Health Administration (O.S.H.A.). The standards specified by the O.S.H.A. Regulations shall be the minimum allowed on this

project. It shall be the responsibility of the Contractor to design and install adequate trench safety systems for all trenches excavated on this project.

The Contractor shall furnish to the Town for review, prior to beginning construction activity, a Trench Safety Plan for the entire project. The trench safety plan must be prepared and sealed by a Professional Engineer registered in the State of Texas. In addition, all trench safety systems utilized in this project must be designed by a Professional Engineer registered in the State of Texas. The Contractor shall be totally responsible for the safety of all persons involved in the construction of this project.

B. Core Borings: Any core borings and soil data furnished by the Town are for the convenience of the Contractor. The Contractor shall be responsible for any additional soil or geotechnical information required. The Contractor shall be responsible for properly designed trench safety systems to be utilized for any type of subsurface condition found on this project. The furnishing of soil information by the Town of Addison in no way relieves the Contractor of this obligation. If no core borings or soil data are furnished by the Town, it shall be the Contractor's responsibility to obtain whatever geotechnical information required for preparation of trench safety systems.

C. Inspections: In addition to the inspections of the trench and trench safety systems required of the Contractor by the O.S.H.A. Regulations, the Town may further inspect the work. The Town shall have the right to reject any trench safety systems which he finds to be inadequate, and the Contractor shall immediately improve the system to comply with this specification.

D. Measurement and Payment: Measurement and payment of Trench Safety Systems shall be based on lump sum for the entire project. The payment shall be full compensation for all planning, engineering, materials, equipment, fabrications, installation, recovery and all incidental work required. All excavation and backfill in addition to that specified elsewhere in these specifications shall be considered subsidiary to this bid item.

55. TRENCH EXCAVATION, BACKFILL AND COMPACTION: Trench excavation, backfill and compaction of storm drain and utility trenches shall be in accordance with Town of Addison Standards and with details shown on the Construction Drawings.

A. Trench Excavation: If the stated maximum trench widths are exceeded, either through accident or otherwise, and if the Engineer determines that the design loadings of the pipe will be exceeded, the Contractor will be required to support the pipe with an improved trench bottom. The expense of such remedial measures shall be entirely the Contractor's own. All trenching operations shall be confined to the width of permanent rights-of-way, permanent easements and any temporary construction easements. All excavation shall be in strict compliance with the Trench Safety Systems Special Conditions of this document.

B. Trench Backfill: Trenches shall be backfilled above the top of the embedment material with approved backfill material per Town of Addison Standards for the appropriate pipe size,

pipe material, depth, and soil condition. NCTCOG, Type B backfill, item 504.2.3.3 or native material meeting the requirements of Type B backfill are considered the minimum requirement.

C. Compaction: All trenches under proposed or existing pavement shall be compacted to within a range of 95% to 100% Standard Proctor Density. Trenches which lie outside limits of pavement shall be compacted to a minimum of 90% Standard Proctor Density (ASTM D-698).

56. **TRENCH WALLS:** The Contractor shall use shoring or a drag box in those areas where it is required to protect existing improvements. This shall be subsidiary to the linear foot cost of the pipe and not a separate pay item.

57. **PROPERTY LINES AND MONUMENTS:** The Contractor shall protect all property corner markers, and when any such markers or monuments are in danger of being disturbed, they shall be properly referenced and if disturbed shall be reset at expense of the Contractor.

58. **CONSTRUCTION STAKING:** Construction staking will not be provided by the Town of Addison or Engineer. This item will be performed by the Contractor and shall be subsidiary to other bid items. The Contractor will also be responsible for maintaining stakes. If re-staking is required for any reason, it will be the Contractor's responsibility, including associated costs.

All construction staking shall be done under the supervision of a Registered Professional Land Surveyor registered in the State of Texas. The Contractor shall submit copies of cut sheets and field books for the construction of all paving, water, wastewater, and stormwater improvements to the Town of Addison for review prior to construction of the improvements. The information on the cut sheets and field books shall include but not be limited to the following:

a. Heading to include date, contract number, project name, surveying firm, Contractor, and construction plan sheet number.

b. Location, description of street/line and street/line name, number, letter, etc. designation.

c. Benchmark Data: Location, description, and elevation.

d. Slope or percent of grade of each curb line or utility line.

e. Stations at 50 foot intervals and including all PC, PT, PI, PVC, PVI, PVT, PRC, grade changes, etc.

f. Offset description including distance to center line or back of curb and direction of offset; left, right, east, west, etc,

g. Cut to subgrade, pavement, top of curb, or flowline of the street or utility being staked.

h. Clarifying remarks such as top of curb, gutter, pavement, subgrade, manhole, cleanout, valve, tee, cross, fire hydrant, wastewater lateral, water service, etc.

i. Cut sheets shall be signed by a Texas Registered Professional Land Surveyor.

59. **VENDOR'S CERTIFICATION:** All materials used in construction shall have a vendor's certified test report. Test reports shall be delivered to the Engineer before permission will be granted for use of the material. All vendors' test reports shall be subject to review by the Engineer, and shall be subject to verification by testing of samples of materials as received for use on the project. In the event additional tests are required, they shall be performed by an approved independent testing laboratory and shall be paid for by the Contractor.

60. **PVC WATER PIPE:** All water mains twelve-inch (12") diameter and smaller shall be AWWA C-900 PVC pressure pipe with cast iron o.d. Pipe joints shall be rubber ring and integral thickened bell, assembled with a factory supplied lubricant. Water mains shall have a minimum class rating of 165-psi for domestic use and a minimum class rating of 235-psi for fire line applications. Joint material for PVC shall conform to ASTM F477.

61. **HDPE WATER PIPE:** All water mains twelve-inch (12") diameter and smaller installed using by other than open cut methods shall be AWWA C-906 HDPE (DR 11) pressure pipe with cast iron o.d. Pipe joints shall be rubber ring and integral thickened bell, assembled with a factory supplied lubricant. Water mains shall have a minimum class rating of 165-psi for domestic use and a minimum class rating of 235-psi for fire line applications. Joint material for HDPE shall conform to ASTM F714.

62. **POLYETHYLENE WRAPPING:** All d33valves, ductile iron pipe, cast iron fittings, and specials, shall be polyethylene wrapped. Payment for the polyethylene wrapping for these components shall be subsidiary to the various items bid for the furnishing and installing pipe complete in place. Polyethylene wrap shall precede blocking.

63. **PIPE CLEANING:** Joints shall be wiped and then inspected for proper installation by the inspectors. Each joint shall be swept daily and kept clean during installation. A temporary night plug shall be installed on all exposed pipe ends during any period of work stoppage.

64. **PLUGS:** Pipe plugs for water and wastewater lines shall be considered incidental and shall not be a separate pay item.

65. **NON-METALLIC WATER PIPE DETECTION:** Detectable underground utility warning tapes, which can be located from the surface by a pipe detector, shall be installed directly above non-metallic pipe. The detectable tape shall be "Detect Tape" as manufactured by Allen Systems, Inc. or an approved equal, and shall consist of a minimum thickness of 0.35-mil. Solid aluminum foil encased in a protective inert plastic jacket that is impervious to all known alkalis, acids, chemical reagents and solvents found in the soil. The minimum overall thickness of the tape shall be 5.5-mils. And the width shall not be less than two-inch with a

medium unit weight of 2 ½ pounds per inch x 1,000 feet. The tape shall be color coded and imprinted with the messages as follow:

Type of Utility	Color Coded	Legend
Water	Safety Precaution Blue	CAUTION BURIED WATER LINE BELOW
Sanitary	Safety Green	CAUTION BURIED SEWER LINE BELOW

Installation of detectable tapes shall be per manufacturer's recommendations, and shall be as close to the grade as is practical for optimum protection and detectability. Allow a minimum of 18 inches between the tape and the water line. Payment for detectable tapes shall be included in the linear foot price bid for applicable pipe(s).

66. **PIPE EMBEDMENT:** All storm drain and utility construction shall be installed with embedment per the Town of Addison Standard Details shown on the plans for the appropriate pipe size, pipe material, depth and soil condition unless otherwise directed by the Town of Addison or the Engineer.

67. **REMOVALS, ADJUSTMENTS AND REPLACEMENTS:** Existing pavements, driveways, curbs, gutters, sidewalks, etc., to be removed to facilitate the construction of the improvements shall be broken up and disposed of. Care shall be exercised to leave a neat, uniform edge or joint at the excavation limits or sections removed where only portions are to be removed. The Engineer will designate the limits to be removed. Where pavements, driveways, curbs, gutters, sidewalks, etc., shall be replaced, then said replacements shall be to the standard of the previously removed portion or better. Re-sawing of damaged edges will be at the Contractor's expense.

Existing structures such as manholes, inlets, cleanouts, valve boxes, etc. which are not the property of a private firm or company, or an individual required to move their own property, shall be adjusted, altered or reset to the required elevation and alignment. New materials and workmanship necessary shall conform to the requirements of these Specifications covering the particular Work. Salvaged materials in good condition may be used in rebuilding such structures, provided the materials are thoroughly cleaned before their use. These items shall be subsidiary to other bid items unless quantified in the proposal as a separate bid item.

All private obstructions which are indicated on the Plans to be moved, will be removed and replaced, or moved to new permanent locations by the Contractor, without additional payment to the Contractor. Any such additional item which the Contractor moves or causes to be moved for his own convenience shall be at his own expense.

68. **PAVEMENT REPAIR:** The unit price bid under the appropriate bid item of the proposal shall cover all cost for providing pavement repair per the pavement repair detail provided in the plans.

69. **WATER FOR CONSTRUCTION:** The Contractor shall acquire a meter and make the necessary arrangements with the Town of Addison for securing and transporting all water required for construction, including water required for mixing of concrete, sprinkling, testing or flushing. There will be no separate pay item for connection into the existing water system and quantity of water required for construction purposes. The Town of Addison will not furnish water for initial cleaning and sterilization of water lines. All additional water used by the Contractor for compaction or any other purpose incidental to this project may be obtained from existing hydrants along adjacent roadways. Note that the Contractor will be responsible for supplying chlorine gas or chlorinated lime (HTH) for water line sterilization.

70. **EXISTING STOCKPILES OF MATERIAL ON SITE:** There shall be no stockpiling of excavated material on site.

71. **BORROW SOURCE:** If additional sources of earthen material are required to complete the project to the alignment, grades and cross sections indicated on the plans, Contractor will be required to locate, obtain, excavate, deliver and place suitable fill material from an off-site source. Borrow materials should be compatible with existing on-site materials and shall be tested by the Geotechnical Engineer (employed and paid for by the Contractor) for acceptance as an approved source of borrow prior to borrow operations. Item 3.6 - Borrow of the Standard Specifications for Public Works Construction, North Central Texas Council of Governments shall apply for all work performed.

72. **EXCESS MATERIAL:** Suitable excess material (if any) may not be disposed of on this site. Tree stumps and limbs, concrete debris, discarded materials and all unsuitable excess spoil material, including rock measuring larger than 12" in the largest dimension, shall become the property of the Contractor and shall be removed from the site and disposed of by the Contractor at his expense. The Contractor shall also comply with all applicable laws governing spillage of debris while transporting to a disposal site, and shall indemnify and save harmless the Town of Addison and the Engineer from all suits, actions, or claims of any character resulting from his arrangements for the disposal of spoil.

73. **DURING CONSTRUCTION:** During construction of the work, the Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove same from any portion of the site if, in the opinion of the Town of Addison or the Engineer, such material, debris or rubbish constitutes a nuisance or is objectionable. In case of failure on the part of the Contractor to maintain a clean site, the Town of Addison may, upon 24 hour written notice, clean the site, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under his contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

74. **CONTRACTOR'S CONTINUING OBLIGATION:** Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the Town of Addison, nor the issuance of a certificate of Substantial Completion, nor any payment by Town of Addison to Contractor under the Contract Documents, nor any use or occupancy of the Work or any part

thereof by Town of Addison, nor any act of acceptance by Town of Addison nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by the Town of Addison pursuant to final payment nor any correction of defective Work by Town of Addison will constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

75. **TOP SOILING, SODDING AND FERTILIZING:** This item shall cover the topsoiling, sodding, fertilizing, watering and required maintenance for the grassing of all unpaved areas of the right-of-way and the easements, and all other areas of the project site that have been disturbed by this Contractors' operations including batch plant site, haul roads, etc. excluding building pad sites and lots which will not require seeding and fertilizing. The pay item shall only include that area which is within the right-of-way and the easements. All other disturbed areas requiring seeding and fertilizing shall be considered subsidiary to the cost of the project. Top soiling, sodding and fertilizing shall be provided in accordance with NCTCOG Items 202.2, 202.5 and 202.4, respectively and as amended by the Special Provisions and Technical Specifications Section 32 92 23 "Sodding".

76. **IRRIGATION AND SPRINKLER REPAIR:** The Contractor shall maintain all existing irrigation systems within the limits of the project during the duration of the contract. The Contractor shall employ a licensed irrigator who is responsible for the repair or replacement of any damage to irrigation lines, valves, controllers, sprinklers, wiring and appurtenances which are damaged during construction. This repair is subsidiary to the various other items bid. The Contractor will be responsible for any vegetation that dies as a result of damage to the irrigation system and replace it with equal vegetation at his own cost.

After construction is complete, the Contractor shall reinstall the sprinkler heads. The Town will test the sprinkler system. Any defects due to construction shall be the Contractor's responsibility.

77. **REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:** All work which has been rejected or condemned shall be repaired; or if it cannot be repaired satisfactorily, it shall be removed and replaced at the Contractor's expense. Defective materials shall be immediately removed from the work site. Work done without line and grade having been provided; work done beyond the line or not in conformity with the grades shown on the Drawings or as provided, work done without proper inspection; or any extra or unclassified work done without written authority and prior agreement in writing as to prices, shall be at the Contractor's risk and will be considered unauthorized, and at the option of the Town of Addison may not be measured and paid for and may be ordered removed at the Contractor's expense. Upon failure of the Contractor to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized or condemned work or materials immediately after receiving notice from the Town of Addison, the Town will, after giving written notice to the Contractor, have the authority to cause defective work to be remedied or removed and replaced, or to cause unauthorized work to be removed and to deduct the cost thereof from any monies due or to become due to the Contractor under his contract; or where sufficient

contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

78. **DISPOSITION AND DISPOSAL OF MATERIALS:** All materials to be removed from the site including refuse and other debris shall become the property of the Contractor and shall be disposed of outside the limits of the project. Contractor shall also comply with all applicable laws governing the spillage of debris while transporting to a disposal site.

79. **CLEAN-UP FOR FINAL ACCEPTANCE:** The Contractor shall make a final cleanup of all parts of the work before acceptance by the Town of Addison. This cleanup shall include removal of all objectionable rock and other construction materials, and in general preparing the site of the work in an orderly manner and appearance.

80. **MATERIALS TO BE FURNISHED BY FRANCHISE UTILITY COMPANIES:** No franchise utility materials are to be furnished for this project.

81. **TESTING REQUIREMENTS:** Testing shall be conducted in accordance with Town of Addison Specifications except as modified in the Special Provisions, Technical Specifications, or as on the plans. The Contractor shall coordinate with the Town of Addison, and shall insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All retesting shall be at the expense of the Contractor. As a general guide, the Contractor shall be responsible for providing the following tests:
    (1) Compressive strength tests on concrete.
    (2) Gradation soil tests on backfill as may be required.
    (3) Providing test results from manufacturer as specified in Town of Addison Specifications.

82. **SILICONE JOINT SEALANT:** Silicone joint sealant must be used in all instances where joint sealant applies to Portland Cement Concrete pavement and curbs. Payment for the use of silicone joint throughout this project will in all cases be subsidiary to this contract at no extra cost.

83. **CLAIMS FOR DAMAGES OR INJURY:** Item 1.24.3 - SMALL CLAIMS FOR DAMAGE OR INJURY is amended to read as follows: If any person files a claim against the Town of Addison or Contractor for personal injury or property damage resulting from, arising out of, or caused by, the operations of the Contractor, or any work within the limits of the project, the Contractor must either submit to the Town of Addison, a duly executed full release within thirty (30) days from the date of written claim, or immediately report the claim to his liability insurance carrier for their action in adjusting the claim. If the Contractor fails to comply with this provision within the stipulated time limit, it will be automatically deemed that the Contractor has appointed the Town as it's irrevocably Attorney-In-Fact authorizing the Town to report the claim directly with the liability insurance carrier. This provision is in and of itself a Power-of-Attorney from the Contractor to the Town which authorizes the Town to take said action on behalf of the Contractor without the necessity of the execution of any other document. If the Contractor fails to comply with the provisions of this item the Town, at its own discretion, may terminate this contract or take any other actions it deems appropriate. Any payment or portion thereof due the Contractor, whether it

is a final payment, progress payment, payment out of retainage or refund payment may be withheld by the Town as is authorized by Item 109.4. Bankruptcy, insolvency or denial of liability by the insurance carrier shall not exonerate the Contractor from liability.

As a result of the additional work created to Town of Addison due to un-responded claims for damages by Contractor to third parties, Contractor shall incur penalties for failure to abide by this Special Provision.

Contractor shall respond to the claimant in writing regarding the status of the claim, including whether Contractor disputes the claim, wishes to settle, or will notify its liability insurance carrier regarding the claim. Contractor will be assessed a penalty by the Town of $75.00 per claim, for its failure to respond to the claimant as described above within thirty days of its written notice of claim by the Town.

To ensure Contractor compliance, the Town of Addison shall be notified, by copied correspondence of responses or settlement by Contractor.

84. **WAIVER OF CLAIMS:** The making and acceptance of final payment will constitute:

A. A waiver of all claims by Town of Addison against Contractor, except claims arising from unsettled Liens, from defective Work appearing after final inspection or failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by Town of Addison of any rights in respect of Contractor's continuing obligations under the Contract Documents.

B. A waiver of all claims by Contractor against Town of Addison other than those previously made in writing and still unsettled.

85. **MECHANICS AND MATERIALMEN'S LIEN:** The Contractor shall be required to execute a release of mechanics and materialmen's liens upon receipt of payment.

86. **CONTRACTOR'S AFFIDAVIT OF BILLS PAID:** The Contractor shall be required to execute the form provided in Section BP prior to the acceptance of the project.

87. **PROJECT RECORD DOCUMENTS:** The Contractor shall maintain record drawings and legibly annotate shop drawings to record changes made after review. A red felt-tip marking pen shall be used for all recording.

Maintenance of Documents: The Contractor shall maintain at the job site one record copy of the Contract Drawings, Specifications, Shop Drawings, Change Orders, other modification to the Contract, field test records and other documents submitted by Contractor in compliance with specification requirements. These documents shall be maintained at the job site apart from documents used for construction. These documents are not to be used for construction purposes. The documents shall be maintained in clean, legible condition. The documents shall be made available at all times for inspection by the Town.

Recording: Each document shall be labeled Project Record Copy in 2-inch high printed letters. The record documents shall be kept current. No work shall be covered until required information has been recorded.

Contract Drawings: The appropriate drawing shall be legibly marked to record, where applicable:

a. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.

b. Field changes of dimension and detail made during construction process.

c. Changes made by Change Order or Supplemental Agreement.

d. Details not on original Contract Drawings.

e. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.

f. Changes made by Change Order or Supplemental Agreement.

g. Other matters not originally specified.

Shop Drawing: The Contractor shall maintain the Shop Drawings as record drawings and legibly annotate shop drawings to record changes made after review.

Submittal: At the completion of the project, the Contractor shall deliver record drawings to the Town. The transmittal letter shall be accompanied, in duplicate, with:

a. Date, project title and number.
b. Contractor's name and address.
c. Title and number of each record document.
d. Certification that each document as submitted is complete and accurate.
e. Signature of Contractor or his authorized representative.

88. **TOWN OF ADDISON APPROVAL:** This project is subject to final approval and acceptance by the Town of Addison. Final approval acceptance will not be given until the punch list items are completed to the Town's satisfaction and as-built drawings are given to the Town of Addison.

89. **USE OF EXPLOSIVES:** The use of explosives by the Contractor to complete the Work shall be prohibited.

90. **POWER FOR CONSTRUCTION:** The Contractor shall contract with the local power provider and make the necessary arrangements for securing power required for the construction, including power required for lighting, machinery operation, or temporary

offices. There will be no separated pay item for connection into the existing power system or for the power required for construction purposes.

91. **LIQUIDATED DAMAGES:** If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Town of Addison in the amount of $500 for each calendar day of delay until the work is completed or accepted.

92. **PREVAILING WAGE RATES:** Wage rates paid on this project shall not be less than specified in the schedule of general prevailing rates of per diem wages as attached hereto under Davis & Bacon Wage Determinations for Heavy Highway.

PREVAILING WAGE RATES

General Decision Number: TX160028 01/08/2016 TX28

Superseded General Decision Number: TX20150028

State: Texas

Construction Type: Heavy

Counties: Collin, Dallas, Denton, Ellis, Kaufman and Rockwall

Counties in Texas.

Water and Sewer Lines/Utilities (Including Related Tunneling

Where the Tunnel is 48" or Less in Diameter)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

* PLUM0100-002 07/01/2013

	Rates	Fringes
Plumbers and Pipefitters	$ 28.88	8.83

SUTX1991-004 09/23/1991

	Rates	Fringes
Laborers:		
Common	$ 7.25	
Utility	$ 7.467	
Pipelayer	$ 7.828	
Power equipment operators:		
Backhoe	$ 10.804	
Crane	$ 10.942	
Front End Loader	$ 9.163	
Tunneling Machine (48" or less)	$ 9.163	
TRUCK DRIVER	$ 8.528	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited

type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1,2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination

* a survey underlying a wage determination

* a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator.(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

93. **BID ITEMS/REFERENCE SPECIFICATIONS:** The requirements of NCTCOG standard specifications for Public Works construction 4th Edition dated 2004, and TxDOT standard

specifications for construction and maintenance of highways, streets and bridges, dated 2004, shall apply as described.

94. **BID ITEM DESCRIPTIONS:** The series of numbers shown after the description are for either the Texas Department of Transportation (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (2004), the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction, Fourth Edition (October 2004), or technical specifications number provided with this document.

Description of Bid Items

Bid Item #001 **Mobilization**

The provisions of TxDOT Item 500, "Mobilization", shall apply except as modified or clarified below:

A. Partial payments of the lump sum bid for mobilization shall be per the provisions of TxDOT Item 500.
B. Measurement for this bid item shall be for Lump Sum.
C. Payment for this bid item shall be paid for at the unit price bid for "Mobilization".

Bid Item #002 **Pedestrian Control**

The following provisions shall apply:

A. This item includes all labor, equipment, materials and incidentals required to provide traffic and pedestrian control as necessary. Materials include but are not limited to signage including traffic and pedestrian control devices, barricades, low profile concrete barrier, temporary striping, and any other items called for in the plans or necessary for the safety of pedestrians in construction areas.
B. Contractor shall provide access to existing driveways at all times, except when concrete is curing. Gravel shall be placed at driveways and sidewalks once existing pavement has been removed for construction. Gravel material is incidental to this bid item.
C. Street access shall be maintained at all times for emergency vehicles.
D. Measurement for this bid item shall be per Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Pedestrian Control".

Bid Item #003 **SW3P Including Maintenance, Site Protection and Erosion Control**

The provisions of NCTCOG Item 201, "Temporary Erosion, Sedimentation, and Water Pollution Prevention and Control", shall apply except as modified or clarified below:

A. This item includes all labor, equipment, materials, planning, excavating, compacting, testing and incidentals required to complete the work in accordance with plans and specifications.
B. Refer to NCTCOG Item 201.3, "Preconstruction Submittals", and Special Provisions, Number 15, "Preparations of Storm Water Pollution Prevention Plan," for additional specification on submitting the Storm Water Pollution Prevention Plan prior to the beginning of construction.
C. Refer to NCTCOG Item 201.4, "Construction Requirements", for additional specification on erosion control during construction.
D. Refer to NCTCOG Item 201.5, "Silt Fence", for additional specification regarding inlet protection.
E. Refer to NCTCOG Item 201.14, "Inlet Protection", for additional specification regarding inlet protection.
F. Contractor shall refer to the Stormwater Pollution Prevention Plan (SWPPP) for requirements of all temporary and permanent erosion control measures. Preparation of the SWPPP shall be subsidiary to

these bid items.

G. Measurement for this bid item shall be per Lump Sum, including silt fence, inlet protection, sidewalk protection, and SW3P maintenance and erosion control.
H. Payment for this bid item shall be paid for at the unit price bid for "SW3P Including Maintenance, Site Protection and Erosion Control".

Bid Item #004 **Project Signs**

The provisions of NCTCOG Item 107.20, "Project Signs", shall apply except as modified or clarified below:

A. The Contractor shall be responsible for furnishing the project signs per the specifications shown on the Project Sign Detail Sheet (see Section PS of this Contract Documents and Specifications book).
B. Measurement for this bid item shall be for Each.
C. Payment for this bid item shall be paid for at the unit price bid for "Project Signs".

Bid Item #005 **Trench Safety Plan Design**

The provisions of NCTCOG Item 107.19.3, "Trench Safety", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 31 23 33 "Trenching, Backfilling and Compacting" for additional details.
B. This item includes all labor, equipment, materials and incidentals required to provide a trench safety design as necessary.
C. Measurement for this bid item shall be for Lump Sum.
D. Payment for this bid item shall be paid for at the unit price bid for "Trench Safety Plan Design".

Bid Item #004 **Trench Safety Plan Implementation**

The provisions of NCTCOG Item 107.19.3, "Trench Safety", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 31 23 33 "Trenching, Backfilling and Compacting" for additional details.
B. This item includes all labor, equipment, materials and incidentals required to provide a trench safety design as necessary.
C. Measurement for this bid item shall be for Lump Sum.
D. Payment for this bid item shall be paid for at the unit price bid for "Trench Safety Plan Implementation".

Bid Item #101 **4-inch PVC Water Pipe**

The provisions of NCTCOG Item 501.14 "Polyvinyl Chloride (PVC) Water Pipe", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 13161, "PVC Pipe and Pipe Fittings Basic Requirements" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Feet.
E. Payment for this bid item shall be paid for at the unit price bid for "4-inch PVC Water Pipe"

Bid Item #102 **4-inch HDPE Water Pipe (B.O.T.O.C.)**

The provisions of NCTCOG Item 503 "Trenchless Installation", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 33 11 14, "Water Force Main HDPE Pipe and Fittings" and Technical Specification Section 33 05 23, "Trenchless Utility Installation" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Feet.
E. Payment for this bid item shall be paid for at the unit price bid for "4-inch HDPE Water Pipe (B.O.T.O.C.)"

Bid Item #103 **4-inch Ductile Iron Water Pipe**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Linear Feet.
D. Payment for this bid item shall be paid for at the unit price bid for "4-inch Ductile Iron Water Pipe".

Bid Item #201 **Bermuda 'Mid Iron' Sod**

The following provisions shall apply:

A. Refer to Technical Landscape Specification Section 32 92 23, "Sodding" for additional requirements.
B. Refer to Plans for location and general notes.
C. This item includes all labor, equipment, materials, excavating, compacting, and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Square Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "Common Bermuda Mid Iron Sod".

Bid Item #202 **Tree Protection**

The provisions of NCTCOG Item 202.1, "Removal, Protection, and Replacement of Trees, Shrubbery, Plants, Sod, and Other Vegetation" shall apply except as modified or clarified below:

A. All trees not noted in Demolition plans as to be removed shall be protected.
B. This item includes all labor, equipment, materials, excavating, compacting, and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Lump Sum.
D. Payment for this bid item shall be paid for at the unit price bid for "Tree Protection".

Bid Item #203 **90 Day Establishment Period**

The following provisions shall apply:

A. Refer to Technical Specification Section 32 01 90, "90 Day Establishment Planting" for additional requirements.
B. Refer to Construction Plans for details, and general notes.
C. This item includes all labor, equipment, materials, and incidentals required to implement landscape maintenance program for a period of 90days after planting in accordance with plans and specifications.
D. Measurement for this bid item shall be Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "90 Day Establishment Period".

Bid Item #204 **1 Year Maintenance**

The following provisions shall apply:

A. Refer to Technical Specification Section 32 01 92, "Landscape Maintenance - 1 Year" for additional requirements.
B. Refer to Construction Plans for details, and general notes.
C. This item includes all labor, equipment, materials, and incidentals required to implement landscape maintenance program for a period of 1 year after final acceptance from Town in accordance with plans and specifications.
D. Measurement for this bid item shall be Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for Implementation of Landscape Maintenance Program for a Period of (1) Year from Date of Final Acceptance.

Alternate Bid Item #A101 **Deduct 4-inch PVC Water Pipe (Base Bid Item 101)**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Linear Feet.
D. Payment for this bid item shall be paid for at the unit price bid for "Deduct 4" PVC by Open Cut"

Alternate Bid Item #A102 **Add 4-inch HDPE Water Pipe (B.O.T.O.C.)**

The provisions of NCTCOG Item 503 "Trenchless Installation", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 33 11 14, "Water Force Main HDPE Pipe and Fittings" and Technical Specification Section 33 05 23, "Trenchless Utility Installation" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Feet.
E. Payment for this bid item shall be paid for at the unit price bid for "Add 4-inch HDPE Water Pipe (B.O.T.O.C.)"

SECTION PS

PROJECT SIGN

PROJECT SIGN

1. Quantity

Three (3) Project Designation signs will be constructed and installed on the project site as directed by the Owner. It will be the responsibility of the Contractor to maintain the sign in a presentable condition at all times during construction. Maintenance will include painting and repairs as directed by the City Engineer or his appointee. The locations of the signs will be given to the Contractor by the Town of Addison at the Pre-Construction Conference.

2. Material

Sign shall be constructed of ¾-inch thick smooth finish fir plywood (Grade A-C, exterior or better).

Sign will be securely mounted to 6" x 6" square posts. Nuts and bolts will not protrude from face of sign. Posts will be mounted to a support system that will provide adequate stabilization to ensure the sign will not fall over in heavy winds. Sand bags or other techniques may be necessary to protect sign.

3. Dimensions

Size of sign will be four feet tall and six feet wide. The height and arrangement of the lettering shall be in accordance with the attached detail.

4. Paint

Sign will be one-sided and will have a white background. Text will be black, except for the word "Addison!" which will be a blue color approved by the City Engineer. The paint will be an outdoor paint and will be maintained throughout the project in proper order. The quality of the paint, painting, and lettering on the signs shall be approved by the City Engineer or his appointee.

5. Payment

Project Signs will be a separate pay item. This will include all labor, equipment, tools, and incidentals necessary to complete and install the work.

The Town of ADDISON

PLEASE PARDON THE TEMPORARY INCONVENIENCE DURING THIS PROJECT

LES LACS POND WATER WELL TRANSFER PIPING SYSTEM IMPROVEMENTS

CONTRACTOR: _____

ESTIMATED COMPLETION DATE: XXX

AN ADDISON PROJECT

FOR MORE INFORMATION, PLEASE CALL (972) 450-2871

SECTION TS

TECHNICAL SPECIFICATIONS

01010	SUMMARY OF WORK
01330	SUBMITTAL PROCEDURES
01400	QUALITY CONTROL
01568	EROSION CONTROL
01710	SITE CLEARING AND ADJUSTING
02231	TREE PROTECTION
03312	CAST-IN-PLACE CONCRETE
13161	PVC PIPE AND FITTINGS
33 05 23	TRENCHLESS UTILITY INSTALLATION
33 11 14	WATER FORCE MAIN HDPE PIPE AND FITTINGS
31 23 33	TRENCHING, BACKFILLING AND COMPACTING
32 01 90	90 DAY ESTABLISHMENT PLANTING
32 01 92	LANDSCAPE MAINTENANCE – 1 YEAR
32 91 19	LANDSCAPE GRADING
32 92 23	SODDING
32 93 00	LANDSCAPE PLANTING

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Definitions for terms used in specifications and plans
   2. Work covered by the Contract Documents.
   3. Work phases.
   4. Use of premises.
   5. Work restrictions.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Les Lacs Pond Water Well Transfer Piping System Improvements.
   1. Project Location: Eastern side of the Les Lacs Pond adjacent to Beltway Dr. in between Proton Dr. and Les Lacs Ave. in Addison, Texas.

B. Owner: Town of Addison

C. Engineer: Halff Associates, Inc. 12225 Greenville Avenue, Suite 200 Dallas, TX 75243

D. The Work generally consists of the following:
   1. Mobilization and Demobilization.
   2. Install temporary facilities, including but not limited to barriers (cofferdams, dikes, berms, site protection, etc.) and construction of staging areas.
   3. Develop and implement pedestrian control plan.
   4. Develop and implement erosion control provisions and a Stormwater Pollution Prevention Plan.
   5. Develop and implement sequencing plan.
   6. Install transfer piping improvements.
   7. Install sod as necessary.
   8. Remove all temporary facilities and construction.

1.4 WORK PHASES

A. The Work shall be phased in a manner that achieves the following goals:
   1. Minimize the time that the trail is closed.
   2. Maintain the safety of trail users and separate them from work areas.

B. Suggested Construction Sequencing
   1. Refer to drawings for more details.

1.5 USE OF PREMISES

A. Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
   1. Limits: Confine constructions operations to City property and public rights of way unless approved by Owner.
      a. Limit site disturbances to areas immediately surrounding the proposed improvements as indicated on the Drawings.
      b. No construction activity or site disturbances shall occur on:
         1) Ridgelake Ct., Lakeview Ct., and any other streets east of the construction limits. No staging on roadways, unless indicated on the Drawings.
         2) Private property unless approved by the owner.
         3) Town of Addison property outside construction limits unless approved by the Town.
      c. No construction vehicles shall be allowed on:
         1) Ridgelake Ct., Lakeview Ct., and/or any other residential streets enclosing the pond, unless as specified on the plans.
         2) Private property unless approved by the owner.
         3) Town of Addison property outside construction limits unless approved by the Town.
   2. Existing trees shall not be removed. Note that not all existing trees are shown on the Drawings. Trees not shown shall remain unless approved by the Engineer.
   3. Staging Area and Traffic Control
      a. Barricading during construction shall be the responsibility of the Contractor and shall conform to the Texas Manual of Uniform Traffic Control Devices (TMUTCD).
      b. Access shall be provided to all businesses and residences at all times during the work.
      c. Street access shall be maintained at all times for emergency vehicles.
   4. Pedestrian trail
      a. Only one segment of the pedestrian trail shall be closed at a time and for no more than 60 days.
      b. Maintain proper barricades and fencing to separate trail traffic from construction areas.
   5. Driveways and Entrances: Driveways may not be closed to the public at any time. The Contractor shall maintain the entrances and make them available to Owner, Owner's employees, and emergency vehicles at all times.
      a. Schedule deliveries to minimize impacts to drives and pedestrian trail.
      b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.6 WORK RESTRICTIONS

A. On-Site Work Hours: Refer to general notes and special provisions for more details.

B. The Contractor is permitted to request approval to exceed the normal work hours outlined in Part 1.7.A. However, the Contractor must present a detailed work schedule to obtain written approval from the Town.

C. The Contractor shall comply and cooperate with the Parks Department and other Town and non-Town agencies in the planning of park events potentially impacted by construction under this

contract. The Contractor shall provide construction schedules and inform event organizers of potential impacts due to construction.

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Construction Manager and Owner of utility not less than two days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Utility Owner's written permission.

1.7 MISCELLANEOUS PROVISIONS

A. Completion of the work shall be determined by the Owner.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.

B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. Coordinate transmittal of different types of submittals for related parts of the Work to avoid a delay in processing because of need to review submittals concurrently for coordination.
      a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
   1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
   2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
   3. Resubmittal Review: Allow 14 days for review of each resubmittal.

C. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into an indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.
    a. File name shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 01330.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 01330.01.A).
3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Engineer.
4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
    a. Project name.
    b. Date.
    c. Name and address of Engineer.
    d. Name of Contractor.
    e. Name of firm or entity that prepared submittal.
    f. Names of subcontractor, manufacturer, and supplier.
    g. Category and type of submittal.
    h. Submittal purpose and description.
    i. Specification Section number and title.
    j. Specification paragraph number or drawing designation and generic name for each of multiple items.
    k. Drawing number and detail references, as appropriate.
    l. Related physical samples submitted directly.
    m. Indication of full or partial submittal.
    n. Submittal and transmittal distribution record.
    o. Other necessary identification.

D. Options: Identify options requiring selection by Engineer.

E. Deviations: Identify deviations from the Contract Documents on submittals.

F. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.

G. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

H. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Engineer's action stamp.

1.4 SUBMITTAL SCHEDULE

Items requiring a formal submittal include but are not necessarily limited to the following:

1. Construction Schedule
2. Schedule of Values of all Bid Items
3. Schedule of Values for Draw Requests
4. Site Work & Associated Work
5. Cast-in-Place Concrete and Reinforcing Steel
6. Pre-Construction Project Video
7. Quality Control Plan
8. Pedestrian/Traffic Control Plan
9. Construction Sequencing Plan
10. Proposed Staging Area Plan
11. Proposed Site Plan
12. Pipe, Fittings, Valve Technical Data and Manufacturer Data Sheets
13. Trench Safety Plan
14. Pollution Control Plan
15. Spill Containment Contingency Plan
16. Copies of SW3P, NOI, and NOT
17. Testing Reports
18. Any other items which the Contractor wishes confirmation from the Engineer as to the appropriateness of application and suitability for incorporation into the project.

PART 2 PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements:
   1. Submit electronic submittals via email as PDF electronic files.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
   1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
   2. Mark each copy of each submittal to show which products and options are applicable.
   3. Include the following information, as applicable:
      a. Manufacturer's catalog cuts.
      b. Manufacturer's product specifications.
      c. Standard color charts.
      d. Statement of compliance with specified referenced standards.
      e. Testing by recognized testing agency.
      f. Application of testing agency labels and seals.
      g. Notation of coordination requirements.
      h. Availability and delivery time information.
   4. Submit Product Data before or concurrent with Samples.

5. Submit Product Data in the following format:
   a. PDF electronic file.

C. Shop Drawings: Refer to Special Provisions for more details.

D. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 01400 Quality Control.

E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Engineers and owners, and other information specified. Refer to Section PQ, "Prequalification Statement".

F. Insert definition of Contractor certificates here if required by individual Specification Sections. See Evaluations.

G. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

H. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

I. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

J. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

K. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

L. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

M. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.

N. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 Quality Control.

O. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

P. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

Q. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

R. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

PART 3 EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S ACTION

A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.

D. Incomplete submittals will not be accepted. Incomplete submittals will be considered nonresponsive and will be returned for resubmittal without review.

E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.1 QUALITY ASSURANCE ACTIVITIES BY THE OWNER AND THE CONTRACTOR

Quality assurance activities of the Owner through their own forces or through contracts with materials testing laboratories and survey crews are for the purpose of monitoring the results of the Contractor's work to see that it is in compliance with the requirements of the Contract Documents. Failure on the part of the Owner or Engineer to perform or test products or constructed works in no way relieves the Contractor of the obligation to perform work and furnish materials conforming to the Contract Documents.

The Contractor shall provide testing for proposed materials such as backfill material types, gradations, concrete mix designs, and all other testing specified and not being performed by the Owner.

1.2 CONTRACTOR'S RESPONSIBILITIES

A. Control the quality of work produced and verify that the work performed meets the standards of quality established in the Contract Documents.
   1. Inspect the work performed by the Contractor, subcontractors, and suppliers. Correct defective work.
   2. Inspect products to be incorporated into the project. Provide only those products that comply with the Contract Documents.
   3. Verify conformance of the work and products with the Contract Documents before notifying the Owner of need for testing.
   4. Provide consumable construction materials of adequate quality to provide a finished product that complies with the Contract Documents.
   5. Perform tests as indicated in this and other sections of the specifications. Schedule the time and sequence of testing with the Owner and Engineer. Testing is to be observed by the Owner, Engineer, or designated representative.
   6. Provide labor, materials, tools, equipment, and related items for testing by the Owner including, but not limited to temporary construction required for testing and operation of new and existing utilities.

B. Provide Certified Test Reports as applicable on products or constructed works to be incorporated into the project as required by Section 01330, SUBMITTAL PROCEDURES. Reports are to indicate that products or constructed works are in compliance with the Contract Documents.

C. Provide and maintain a written Quality Control Program that establishes the methods of assuring compliance with the Contract Documents.

D. Designate Quality Control personnel at the start of the project. These personnel shall

have the authority to monitor the work effectively and to implement and enforce the Quality Control program.

E. Assist the Engineer, Owner, and Owner's testing organization to perform quality assurance activities.
   1. Provide access to the work and to the Manufacturer's operation at all times work is in progress.
   2. Cooperate fully in the performance of sampling, inspection, and testing.
   3. Furnish copies of the tests performed on products.
   4. Give the Owner adequate notice before proceeding with work that would interfere with testing.
   5. Do not proceed with any work until testing services have been performed and results of tests indicate that the work is acceptable.
   6. Provide complete access to the site and make Contract Documents available.
   7. Provide personnel and equipment needed to perform sampling or to assist in making the field tests.
   8. Testing performed by the Owner will be paid for by the Owner. If tests fail, Contractor shall reimburse the Owner for cost of re-testing once corrections are made.

G. Provide personnel certified to perform the test required.

H. Should requirements of this Section of the specification conflict with the requirements of the detailed specifications, the technical specifications shall govern.

1.3 SUBMITTALS

Submittals shall be in accordance with Section 01330, SUBMITTAL PROCEDURES, and shall include:

A. The name of the proposed testing laboratory along with documentation of qualifications, a list of tests that can be performed, and a list of recent projects for which testing has been performed with references from those projects.

B. Test reports per Paragraph 1.06, TEST REPORTS of this specification.

1.5 VERIFICATION TESTING

A. Provide verification testing when tests performed by the Owner indicate that materials or the results of construction activities are not in conformance with Contract Documents.

B. Verification testing is to be provided at the Contractor's expense to verify products or constructed works are in compliance after corrections have been made.

C. Tests must comply with recognized methods or with methods recommended by the Owner's testing laboratory and approved by the Engineer.

1.6 TEST REPORTS

A. Test reports are to be prepared for all tests.

1. These reports must include the following:
   a. Name of the Owner, project title and number, equipment installer and general contractor.
   b. Name of the laboratory, address, and telephone number (if applicable).
   c. Name and signature of the laboratory personnel performing the test (if applicable).
   d. Description of the product being sampled or tested.
   e. Date and time of sampling, inspection, and testing.
   f. Date the report was issued.
   g. Description of the test performed.
   h. Weather conditions and temperature at time of test or sampling.
   I. Location at the site or structure where the test was taken.
   j. Standard or test procedure used in making the test.
   k. A description of the results of the test.
   l. Statement of compliance or non-compliance with the Contract Documents.
   m. Interpretations of test results, if appropriate.
2. Submit reports on tests performed by Contractor or his suppliers.

1.7 NON-CONFORMING WORK

A. Immediately correct any work that is not in compliance with the Contract Documents or submit a written explanation of why the work is not to be corrected immediately and when the corrective work will be performed.

B. Payment for non-conforming work shall be withheld until work is brought into compliance with the Contract Documents.

PART 2 PRODUCTS

2.1 TESTING APPARATUS

Furnish testing apparatus and related accessories necessary to perform the tests.

PART 3 EXECUTION

3.1 PROTECTIVE COATINGS

A. NOT APPLICABLE

3.2 LEAKAGE TESTS FOR STRUCTURES

A. NOT APPLICABLE

3.3 PIPING SYSTEMS

A. NOT APPLICABLE

3.4 ELECTRICAL TESTING

A. QUALIFICATIONS

1. Unless otherwise specified, testing shall be performed by qualified personnel with a minimum of five (5) years' experience installing and testing electrical equipment and machinery.
2. Except as permitted by the Owner, the firm and individuals performing the tests shall be "third party", not providing other services or materials, or otherwise related or affiliated with other contractors or suppliers for this project.

B. REPORT FORMS

1. The appropriate test report for the items being tested shall be completed in its entirety. Listed data that is not applicable or cannot be obtained shall be noted "N/A" or documented with an explanation for the omission. Incomplete test forms will not be witnessed by the Owner or his representative and the test shall be required to be repeated before acceptance is granted. Substitute forms, when provided by the Engineer, shall require recording similar data and test equipment as that specified.

C. TEST EQUIPMENT

1. The testing firm or individuals shall provide and test equipment and materials necessary to perform the requested tests.
2. Test equipment and apparatus shall be appropriate for the full range and duration of the test to be performed.
3. The test operator shall demonstrate to the Owner or his representative that the test equipment is functioning properly, prior to the commencement of the test. If a failure of the test equipment should occur during any portion of a test, the test shall be suspended and the equipment repaired or replaced. The test shall then be repeated in its entirety or as otherwise required by the Owner or his representative.
4. A copy of the test equipment calibration certificate shall be provided to the owner prior to the commencement of the test. Most recent test equipment calibration dates shall not exceed six (6) months prior to the date of the test, and accuracy shall be traceable to the National Institute of Standards and Technology.

D. EXECUTION

1. If the circuit, equipment or machinery being tested does not pass, appropriate repairs or replacements shall be made and the test shall be repeated as directed by the Owner or his representative.
2. The general provisions of Section 01400-1.00 and other applicable sections of these specifications and plans regarding testing, shall apply to all tests. If test procedures or equipment conflicts occur between the various sections and/or Manufacturer's recommendations, the more rigid requirement shall prevail.

E. RECIRCULATION PUMPS AND IRRIGATION SYSTEMS

1. All pumps and associated electrical wires shall be tested in front of the Town prior to acceptance of completion. Run the recirculation pumps for 4 hours and the irrigation systems for 15 minutes on 4 different days with the Town and Engineer present. Any deficiencies shall be considered incidental to the work and shall be fixed by the Contractor at no extra pay.

END OF SECTION

SECTION 01568

EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION

PART 1 GENERAL

1.1 WORK INCLUDED

A. Furnish labor, materials, equipment and incidentals necessary to provide erosion and sediment control for the duration of the construction period including furnishing, installing and maintaining erosion and sediment control structures and procedures and the proper removal when no longer required.

B. The intent of this specification is to provide guidelines for the Contractor to adhere to all State, Federal, and Local environmental regulations. It is also the intent to provide preventive measures to keep sediment from entering any storm water system, including open channels. It is the Contractor's responsibility to adhere to all State, Federal and Local requirements. While the Owner may require the Contractor to install erosion control devices during construction, this will in no way relieve the Contractor of his responsibility.

C. The estimated items of temporary erosion control will be based on the work area needed for the construction of the proposed improvements. However, the Engineer may increase or decrease the quantity of these items as the need arises. The engineer may specify other materials and work as the need arises.

D. Prior to the start of construction, the Contractor shall submit for approval his schedules for accomplishment of soil erosion control work and his plan to keep the area of exposed soil to a minimum. He shall also submit for acceptance his proposed method of soil erosion control on the construction site, and haul roads and material sources, and his plan for disposal of waste materials. No work shall be started until the soil-erosion control schedules and methods of operations have been reviewed and approved by the engineer.

1.2 QUALITY ASSURANCE

A. Comply with applicable requirements of all governing authorities having jurisdiction. The Specifications and the Plans are not represented as being comprehensive, but rather to convey the intent to provide complete slope protection and erosion control for both the Owner's and adjacent property.

B. Erosion control measures shall be established at the beginning of construction and maintained during the entire length of construction. On-site areas which are subject to severe erosion and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation are to be identified and receive additional erosion control measures as directed by the Owner or the Engineer.

C. All land-disturbing activities shall be planned and conducted to minimize the size of the area to be exposed at any one time and to minimize the time of exposure and off-site sedimentation damage.

D. Surface water runoff originating upgrade of exposed area shall be controlled to reduce erosion and sediment loss during the period of exposure.

E. When the increase in the peak rates and velocity of storm water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving ditch or stream, the Contractor shall install measures to control both the velocity and rate of release so as to minimize accelerated erosion and increased sedimentation of the stream as directed by the Owner or the Engineer.

F. Waste or disposal areas and construction roads shall be located and constructed in a manner that will minimize the amount of sediment entering the streams.

G. When work areas or material sources are located in or adjacent to live streams, such areas shall be separated by erosion control barriers to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize the muddying of a stream.

H. All waterways shall be cleared, as soon as practicable, of falsework, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.

I. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or minimize siltation of streams, lakes and reservoirs.

J. Qualified operator personnel must inspect the site at least once every 14 days and within 24 hours of a storm event of 0.5 inches or greater. As an alternative, an inspection can be conducted once every seven calendar days on a defined day. A decision on which method to use must be decided before work begins and must be followed throughout the project.

1.3 SUBMITTALS

A. Submittals shall be in accordance with Section 01300, SUBMITTALS, and shall include:
1. Manufacturer's Literature: Descriptive data of installation methods and procedures.
2. Certificates: Manufacturer's certification that materials meet specification requirements.

1.4 STANDARDS [Not Used]

1.5 DELIVERY AND STORAGE [Not Used]

1.6 JOB CONDITIONS; CODES AND ORDINANCES

A. Comply with the local codes and ordinances. If local codes and ordinances require more stringent or additional erosion and sediment control measures during construction, Contractor shall provide such measures.

1.7 OPTIONS [Not Used]

1.8 GUARANTEES [Not Used]

PART 2 PRODUCTS

2.1 MATERIALS

A. STRAW BALES: Straw bales shall weigh a minimum of fifty (50) pounds and shall be at least 30" in length. Bales shall be composed entirely of vegetable matter and be free of seeds. Binding shall be either wire or nylon string, jute or cotton binding is unacceptable. Bales shall be used for not more than three months before being replaced. However, if weather conditions cause biological degradation of the straw bales, they shall be replaced sooner than the three month time period to prevent a loss of structural integrity of the dike.

B. SILT FENCE: Silt fence fabric shall be a nylon reinforced polypropylene fabric which has a built-in cord running the entire length of the top edge of the fabric. The fabric must meet the following minimum criteria:

Tensile Strength, ASTM D4632	90 lbs.
Puncture Rating, ASTM D4833	60 lbs.
Mullen Burst Rating, ASTM D3786	200 psi
Apparent Opening Size, U.S. Sieve No.	40

Silt fence shall be "Enviro Fence" preassembled silt fence, AMXCO Silt Stop prefabricated silt fence, AMOCO Style 2155 preassembled silt fence or approved equal.

C. SILT FENCE POSTS: A minimum 2" x 2" (nominal) x 54" pressure treated wood posts of Number 2 Grade southern yellow pine or approved equal.

D. SAND BAG: Sand bag material shall be polypropylene, polyethylene, polyamide or cotton burlap woven fabric, minimum unit weight four (4) ounces per square yard, mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70%. Length shall be 24 to 30 inches, width shall be 16 to 18 inches and thickness shall be six (6) to eight (8) inches and having an approximate weight of 40 pounds. Sand bags shall be filled with coarse grade sand, free from deleterious material. All sand shall pass through a No. 10 sieve.

2.2 MIXES [Not Used]

2.3 FABRICATIONS [Not Used]

2.4 MANUFACTURED PRODUCTS [Not Used]

PART 3 EXECUTION

3.1 PREPARATION [Not Used]

3.02 INSTALLATION

A. TEMPORARY STRAW BALE DIKE

1. Straw bales shall be embedded a minimum of 4" and securely anchored using 2" x 2" wood stakes driven through the bales into the ground a minimum of 6". Straw bales are to be placed directly adjacent to one another leaving no gap between them.

2. Bales shall be placed in a single row, lengthwise on proposed line, with ends of adjacent bales tightly abutting one another. In swales and ditches, the barrier shall extend to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale. Additional bales shall be placed behind the first row where the bales abut each other. The additional bale is used to prevent unfiltered runoff from escaping between the bales.
3. The excavated soil shall be backfilled against the barrier. Backfill shall conform to ground level on the downhill side and shall be built up to 4" above ground level on the uphill side. Loose straw shall be scattered over the area immediately uphill from a straw barrier.

B. SILT FENCE

1. The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas to a limited extent. The Contractor shall excavate a 6" by 6" trench for site fence bedding along the lower perimeters of the site where necessary to prevent sediment from entering any drainage system.
2. The Contractor shall install the silt fence in accordance with the manufacturer's recommendations and instructions. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence shall remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way or where soil conditions prevent a minimum toe-in depth of 6" or installation of support post to depth of 12". Fabric shall overlap at abutting ends a minimum of 3' and shall be jointed such that no leakage or bypass occurs. If concentrated flow occurs after installation, corrective action must be taken such as placing rock berm in the areas of concentrated flow.

C. SAND BAG BERM

1. The purpose of a sandbag berm is to intercept sediment-laden water from disturbed areas such as construction in steam beds, create a retention pond, detain sediment and release water in sheet flow.
2. A temporary sand bag berm shall be installed across a channel or right of way in a developing or disturbed area and should be used when the contributing drainage area is greater than 5 acres. The berm shall be a minimum height of 18", measured from the top of the existing ground at the upslope toe to the top of the berm. The berm shall be sized to have a minimum width of 48" measured at the bottom of the berm and 18" measured at the top of the berm.
3. The sand bag berm shall be inspected after each rain. The sand bags shall be reshaped or replaced as needed during inspection. Additional inspections shall be made daily by the responsible party and when the silt reaches 6", the accumulated silt shall be removed and disposed of at an approved site in a manner that will not contribute to additional siltation. The sand bag berm shall be left in place until all upstream areas are stabilized and accumulated silt removed; removal must be done by hand.

D. PROTECTION OF BARE AREAS

1. Apply seeding and soil retention blanket to bare areas including new embankment areas, fills, stripped areas, graded areas or otherwise disturbed areas, which have a grade greater than 5% or which will be exposed for more than 30 days.
2. Bare working areas on which it is not practical or desirable to install seeding and soil retention blankets, as determined by the Engineer, such as areas under proposed building

slabs, shall be temporarily sloped to drain at a minimum of 0.2% and a maximum of 5% grade. These areas shall then be "trackwalked" with a crawler dozer traveling up and down the slope to form the effect of small "terraces" with the tracks of the dozer. Apply a minimum of three (3) coverages to each area with the dozer tracks.

3. Route runoff from the areas through the appropriate silt fence system.
4. Protect earth spoil areas by "trackwalking" and silt fences.

E. SILT CURTAINS

1. Silt curtains shall be used as necessary in areas of active excavation to prevent silt plumes.
2. Refer to TxDOT Special Specification 5538, "Floating Turbidity Barrier".

F. LOCATION OF EROSION AND SEDIMENT CONTROL STRUCTURES

1. Locate erosion and sediment control structures as required to prevent erosion and removal of sediment from the project site. Silt fences shall be required for disturbed areas and soil stockpiles/spoil areas. Each silt fence installation shall have a minimum net length (exclusive of embedments into diversion dikes or other ineffective areas) of 25'. The runoff from a maximum of one (1) acre of disturbed area or soil stockpile/ spoil area shall be routed through any individual silt fence installation.
2. Install diversion dikes to divert runoff to the silt fence installation.
3. Install silt traps at the inlet (upstream) end of the drainage structures, including open channels, through which runoff from disturbed areas or soil stockpiles/spoil areas may drain.
4. Provide an overall erosion and sediment control system which protects disturbed areas and soil stockpiles/spoil areas. The system shall be modified by the Contractor from time to time to effectively control erosion and sediment during construction.

3.3 MAINTENANCE

A. Maintain erosion and sediment control structures and procedures in full working order at all times during construction. This shall include any necessary repair or replacement of items which have become damaged or ineffective. Remove sediment on a regular basis which accumulates in sediment control devices and place the material in approved earth spoil areas or return the material to the area from which it eroded.

B. Upon completion of construction, properly remove the temporary erosion and sediment control structures and complete the area as indicated.

3.4 FIELD QUALITY CONTROL

A. In the event of conflict between the requirements and storm water pollution control laws, rules or regulations or other Federal, State or Local agencies, the more restrictive laws, rules or regulations shall apply.

END OF SECTION

SECTION 01710

SITE CLEARING AND ADJUSTING

PART 1 GENERAL

1.1 PROGRESS CLEANING AND MAINTENANCE

A. General: Clean project site and work areas, including common areas. Collect and dispose of waste materials at least daily.
   1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
   2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
   3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

B. Site:
   1. Maintain the project site free of waste materials and debris.
   2. Maintain the project site such that the Contractor's work and temporary facilities do not pose a safety hazard to local residents, traffic, or park users. Install signs, barricades, fencing and other warning and security devices, whether shown on the plans or not, where safety issues exist or where directed by the Owner.
   3. The Contractor shall be responsible for mowing the grass on Town property within construction limits. The mowing frequency shall be as directed by the Town of Addison, but not more frequent than once every week.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
   1. Remove liquid spills promptly.
   2. Store materials in a central, secure location.

D. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

E. Waste Disposal: Dispose of materials lawfully. Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

F. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

G. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

PART 2 PRODUCTS

[Not Used]

PART 3 EXECUTION

3.1 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
   1. Repairing includes replacing defective components, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating components.

B. Restore permanent facilities used during construction to their pre-construction condition.
   1. Remove all temporary facilities and control, including but not limited to: erosion control devices, signs and barricades.

C. Remove and replace damaged pavement in accordance with the Construction Plans and City requirements.

D. All disturbed non-paved areas shall be finished to grade, smoothed with a suitable cement free topsoil (two-inches minimum) and covered with grass sod.

E. Any disturbance or damage to private property shall be repaired to the satisfaction of the Owner.

END OF SECTION

SECTION 02231

TREE PROTECTION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the protection and trimming of existing trees that interfere with, or are affected by, execution of the Work, whether temporary or permanent construction.

B. Related Sections include the following:
   1. Section 01710 - Site Clearing and Adjusting
   2. Section 32 93 23 - Landscape Planting

1.3 DEFINITIONS

A. Tree Protection Zone: Area surrounding individual trees or groups of trees to remain during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Tree Removal and Pruning Schedule: Written schedule from arborist detailing scope and extent of tree removal and pruning of trees to remain that interfere with or are affected by construction.

C. Qualification Data: For tree service firm and arborist.

D. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.

E. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.

1.5 QUALITY ASSURANCE

A. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed tree removal, trimming and protection work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of tree removal, trimming and protection.

B. Arborist Qualifications: An arborist certified by ISA or licensed in the jurisdiction where Project is located.

C. Tree Pruning Standard: Comply with ANSI A300 (Part 1), "Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Pruning)."
   1. Before tree protection and trimming operations begin, meet with representatives of authorities having jurisdiction, Owner, Landscape Architect, consultants, and other concerned entities to review tree protection and trimming procedures and responsibilities.

PART 2 PRODUCTS

2.1 MATERIALS

A. Drainage Fill: Selected crushed stone, or crushed or uncrushed gravel, washed, ASTM D 448, Size 24, with 90 to 100 percent passing a 2-1/2-inch sieve and not more than 10 percent passing a 3/4-inch sieve.

B. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 1 inch in diameter; and free of weeds, roots, and toxic and other nonsoil materials.
   1. Obtain topsoil only from well-drained sites where topsoil is 4 inches deep or more; do not obtain from bogs or marshes.

C. Filter Fabric: Manufacturer's standard, nonwoven, pervious, geotextile fabric of polypropylene, nylon, or polyester fibers.

D. Chain-Link Fence: Metallic-coated steel chain-link fence fabric of 0.120-inch-diameter wire; a minimum of 48 inches high; with 1.9-inch-diameter line posts; 2-3/8-inch-diameter terminal and corner posts; 1-5/8-inch-diameter top rail; and 0.177-inch-diameter bottom tension wire; with tie wires, hog ring ties, and other accessories for a complete fence system.

E. Organic Mulch: Shredded hardwood, free of deleterious materials.

PART 3 EXECUTION

3.1 PREPARATION

A. Temporary Fencing: Install temporary fencing around tree protection zones to protect remaining trees and vegetation from construction damage. Maintain temporary fence and remove when construction is complete.
   1. Install chain-link fence according to ASTM F 567 and manufacturer's written instructions.

B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

C. Mulch areas within drip line of trees to remain and other areas indicated.

1. Apply 2-inch average thickness of organic mulch. Do not place mulch within 6 inches of tree trunks.

D. Do not store construction materials, debris, or excavated material inside tree protection zones. Do not permit vehicles or foot traffic within tree protection zones; prevent soil compaction over root systems.

E. Maintain tree protection zones free of weeds and trash.

F. Do not allow fires within tree protection zones.

3.2 EXCAVATION

A. Install shoring or other protective support systems to minimize sloping or benching of excavations.

B. Do not excavate within tree protection zones, unless otherwise indicated.

C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.
1. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches back from new construction.
2. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

D. Where utility trenches are required within tree protection zones, tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand.
1. Root Pruning: Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots with sharp pruning instruments; do not break or chop.

3.3 REGRADING

A. Grade Lowering: Where new finished grade is indicated below existing grade around trees, slope grade beyond tree protection zones. Maintain existing grades within tree protection zones.

B. Grade Lowering: Where new finished grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist, unless otherwise indicated.
1. Root Pruning: Prune tree roots exposed during grade lowering. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots with sharp pruning instruments; do not break or chop.

C. Minor Fill: Where existing grade is 6 inches or less below elevation of finished grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.

D. Moderate Fill: Where existing grade is more than 6 inches but less than 12 inches below elevation of finish grade, place drainage fill, filter fabric, and topsoil on existing grade as follows:
   1. Carefully place drainage fill against tree trunk approximately 2 inches above elevation of finish grade and extend not less than 18 inches from tree trunk on all sides. For balance of area within drip-line perimeter, place drainage fill up to 6 inches below elevation of grade.
   2. Place filter fabric with edges overlapping 6 inches minimum.
   3. Place fill layer of topsoil to finish grade. Do not compact drainage fill or topsoil. Hand grade to required finish elevations.

3.4 TREE REMOVAL

A. Remove trees as indicated in plans.

3.5 TREE PRUNING

A. Prune trees to remain that are affected by temporary and permanent construction.

B. Prune trees to remain to compensate for root loss caused by damaging or cutting root system. Provide subsequent maintenance during Contract period as recommended by arborist.

C. Pruning Standards: Prune trees according to ANSI A300 (Part 1) as follows:
   1. Type of Pruning: Cleaning.
   2. Specialty Pruning: Restoration.

D. Cut branches with sharp pruning instruments; do not break or chop.

E. Chip removed tree branches and remove offsite.

3.6 TREE REPAIR AND REPLACEMENT

A. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to arborist's written instructions.

B. Remove and replace trees indicated to remain that die or are damaged during construction operations that arborist determines are incapable of restoring to normal growth pattern.
   1. Provide new trees of same size and species as those being replaced.
   2. Provide new trees of 6-inch caliper size and of a species selected by Architect when damaged trees more than 6 inches in caliper size, measured 12 inches above grade, are required to be replaced. Plant and maintain new trees as specified in Section 32 93 00 Landscape Planting.

C. Aerate surface soil, compacted during construction, 10 feet beyond drip line and no closer than 36 inches to tree trunk. Drill 2-inch-diameter holes a minimum of 12 inches deep at 24 inches o.c. Backfill holes with an equal mix of augered soil and sand.

3.7 DISPOSAL OF WASTE MATERIALS

A. Burning is not permitted.

B. Disposal: Remove excess excavated material and displaced trees from Owner's property.

END OF SECTION

SECTION 03312

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Cast-in-place concrete foundation walls, footings, and supported slabs.
B. Control, expansion, and contraction joint devices associated with concrete work, including joint sealants.

1.2 REFERENCES

A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
B. ACI 211.2 - Standard Practice for Selecting Proportions for Structural Lightweight Concrete
C. ACI 302 - Guide for Concrete Floor and Slab Construction
D. ACI 304R - Guide for Measuring, Mixing, Transporting and Placing Concrete
E. ACI 305R - Hot Weather Concreting.
F. ACI 306R - Cold Weather Concreting.
G. ACI 308 - Standard Specification for Curing Concrete
H. ACI 347 - Guide to Formwork for Concrete
I. ASTM C33 - Standard Specification for Concrete Aggregates
J. ASTM C39C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
K. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete
L. ASTM C150 - Standard Specification Portland Cement
M. ASTM C260 - Standard Specification Air Entraining Admixtures for Concrete
N. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete
O. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcinated Natural Pozzolan for Use in Concrete
P. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
Q. ASTM- C11933- Standard Guide for Use of Joint Sealants
R. ASTM D994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)
S. ASTM D1190 - Standard Specification for Concrete Joint Sealer, Hot-Applied Elastic Type
T. ASTM D1751 - Standard Specification Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
U. ASTM D1752 - Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
V. ASCE 7 – Minimum Design Loads for Buildings and other Structures.

1.3 SUBMITTALS FOR REVIEW and INFORMATION

A. Section 01330 Submittals Procedures
B. Product Data: Provide data on joint devices, attachment accessories, admixtures, curing compound, sealers, and integral coloring.

C. Manufacturer's Installation Instructions: Indicate installation procedures and interface required with adjacent Work.
D. Shop Drawings:
    1. Submit drawings indicating the locations of all joints in the concrete; construction joints, expansion joints, and contractions joints.
    2. Include concrete placement schedule, method, sequence, quantities, location, and boundaries.

1.4 DESIGN REQUIREMENTS

A. Provide expansion joints, control joints, construction joints, and isolation joints to prevent uncontrolled stress cracks in the structure and according to the details shown on structural drawings.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301.
B. Mix and deliver ready mixed concrete in accordance with ASTM C94/C94M.
C. Maintain one copy of each document on site.
D. Acquire cement and aggregate from same source for all work.
E. Conform to ACI 305R when concreting during hot weather.
F. Conform to ACI 306R when concreting during cold weather.

PART 2 PRODUCTS

2.1 CONCRETE MATERIALS

A. Cement: ASTM C150, Type I - Normal, Portland type
B. Fine and Coarse Aggregates: ASTM C33
C. Water: Clean and not detrimental to concrete

2.2 ADMIXTURES

A. Air Entrainment: ASTM C260
B. Chemical: ASTM C494
    1. Water Reducing - Type A
    2. Retarding - Type B
    3. Accelerating - Type C
    4. Water Reducing and Retarding - Type D
    5. Water Reducing and Accelerating - Type E
    6. Water Reducing, High Range - Type F
    7. Water Reducing, High Range and Retarding - Type G
    8. Flowing Concrete - ASTM C1017/C1017M
C. Fly Ash: ASTM C618

2.3 ACCESSORIES

A. Bonding Agent: Polymer resin emulsion, Polyvinyl Acetate, Latex emulsion, 2-component modified epoxy resin, Non-solvent two-component polysulfide epoxy, Mineral filled polysulfide polymer epoxy, Mineral filled polysulfide polymer epoxy-resin, and Versamid cured epoxy.

B. Non-Shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 3,600 psi in 28 days.

2.4 JOINT DEVICES AND FILLER MATERIALS

A. Joint Filler: ASTM D1751; Asphalt impregnated fiberboard or felt
B. Joint Filler: ASTM D1752; Closed cell polyvinyl chloride foam, resiliency recovery of 95% if not compressed more than 50% of original thickness
C. Construction Joint Devices: Integral galvanized steel; formed to tongue and groove profile, with removable top strip exposing sealant trough, ribbed steel spikes with tongue to fit top screed edge.
D. Expansion and Contraction Joint Devices: ASTM B221 alloy, extruded aluminum; resilient elastomeric filler strip with a Shore A hardness of 35 to permit plus or minus 25% joint movement with full recovery; extruded aluminum cover plate, of longest manufactured length at each location, flush mounted; color as selected.
E. Sealant and Primer: Refer to Special Provisions for more details.
F. Sealant: Cold applied

2.5 CONCRETE MIX

A. Mix concrete in accordance with ACI 304. Deliver concrete in accordance with ASTM C94/C94M
B. Select proportions for normal weight concrete in accordance with ACI 301 Method 3
    1. W/C Ratio: Piers = 0.53; Pier caps, grade beams and walls = 0.50; Slabs on grade = 0.49
    2. Maximum slump: Piers = 5.00 in (+/- 1.00 in); Grade beams, pier caps, and walls = 4.00 in (+/- 1.00 in); Slabs on grade = 4.00 in (+/- 1.00 in).
C. Select aggregate proportions for lightweight concrete in accordance with ASTM C330
D. Use accelerating admixtures in cold weather only when approved by the Engineer.
E. Use of admixtures will not relax cold weather placement requirements.
F. Use set retarding admixtures during hot weather only when approved by the Engineer.
G. Add air-entraining agent to normal weight concrete mix for work exposed to exterior.
H. Refer to construction documents for minimum compressive strength for reinforced concrete structures.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify requirements for concrete cover over reinforcement.
B. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.

3.2 PREPARATION

A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
B. In locations where doweling new concrete to existing work, drill holes in existing concrete; insert steel dowels and pack solid with non-shrink grout.

C. Coordinate the placement of joint devices with erection of concrete formwork and placement of form accessories.
D. Remove all foreign matter and water from forms or structural excavations.

3.3 FORMWORK

A. Conform to ACI 347
B. Form foundations, earth forms not allowed, unless Engineer of record and the Soil's report can provide information to building official showing the soil conditions are conducive to earth forms.

3.4 PLACING CONCRETE

A. Place concrete in accordance with ACI 301.
B. Notify the Town minimum 72 hours prior to commencement of operations.
C. Ensure reinforcement, inserts, embedded parts, formed expansion, and contraction joints are not disturbed during concrete placement.
D. Place joint filler in floor slab pattern placement sequence.
    1. Set top to required elevations.
    2. Secure to resist movement by wet concrete.
E. Extend joint filler from bottom of slab to within ¼" of finished slab surface.
F. Install joint devices in accordance with manufacturer's instructions.
G. Install construction joint devices in coordination with floor slab pattern placement sequence.
    1. Set top to required elevations.
    2. Secure to resist movement by wet concrete.
H. Install joint device anchors.
    1. Maintain correct position to allow joint cover to be flush with floor and wall finish.
I. Install joint covers in one-piece length, when adjacent construction activity is complete.
J. Maintain records of concrete placement.
    1. Record date, location, quantity, air temperature, and test samples taken.
K. Place concrete continuously between predetermined expansion, control, and construction joints.
L. Do not interrupt successive placement; do not permit cold joints to occur.
M. Place floor slabs in checkerboard or saw cut pattern indicated.
N. Saw cut joints within 24 hours after placing.
    1. Use 3 / 16 " thick blade, cut into ¼ depth of slab thickness.

3.5 CONCRETE FINISHING

A. Provide formed concrete surfaces with exposed, concrete walls, columns, beams, joists, with smooth rubbed finish.
B. Finish concrete floor surfaces in accordance with ACI 301.
C. Steel trowel surfaces scheduled to be exposed.

3.6 CURING AND PROTECTION

A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
C. Cure floor surfaces in accordance with ACI 308.

D. Ponding: Maintain 100% coverage of water over floor slab areas continuously for 4 days.
E. Spraying: Spray water over floor slab areas and maintain wet for 7 days.

3.7 FIELD QUALITY CONTROL

A. Contractor shall provide free access to Work and cooperate with Town Inspector.
B. Submit proposed mix design of each class of concrete to the Town for review prior to commencement of Work.
C. The Town may perform tests of cement and aggregates to ensure conformance with specified requirements.
D. Take three concrete test cylinders for every 150 cu yards or less of each class of concrete placed.
E. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
F. Take one slump test for each set of test cylinders taken.

3.8 PATCHING

A. Contractor shall allow Engineer to inspect concrete surfaces immediately upon removal of forms.
B. Excessive honeycomb or embedded debris in concrete is not acceptable; notify the Town and Engineer discovery.
C. Patch imperfections in accordance with ACI 301.

3.09 DEFECTIVE CONCRETE

A. Defective concrete is concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
B. The Engineer shall determine the repair or replacement of defective concrete.
C. Do not patch, fill, touch-up, repair or replace-exposed concrete except upon express direction of Engineer for each individual area.

END OF SECTION

SECTION 13161

PVC PIPE AND FITTINGS

PART 1 – GENERAL

1.01 DESCRIPTION

A. All material, labor, equipment, tools and superintendence necessary to furnish and install polyvinyl chloride (PVC) Pipe and Fittings. This specification covers restrained joint polyvinyl chloride (PVC) Pipe to be used for pressure-rated potable water distribution system.

1.02 REFERENCES

A. AWWA C605 - Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water

B. AWWA C900 - Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100mm Through 300mm), for Water Distribution

C. AWWA M23 - AWWA Manual of Supply Practices PVC Pipe Design and Installation, Second Edition

D. ASTM D1784 Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds

E. ASTM F477 - Elastomeric Seals (Gaskets) for Joining Plastic Pipe

F. NSF-14 Plastics Piping System Components and Related Materials

G. UNI-PUB-08 - Tapping Guide for PVC Pressure Pipe

1.03 SUBMITTALS:

Submittals shall be in accordance with Section 01330 – Submittal Procedures and shall include the following:

A. The following product data is required from the pipe supplier identifying or verifying following items:

1. Name, address, phone number, and fax number of manufacturer's representative.
2. Pipe diameter
3. Dimension Ratio (DR) of 14 or as per plans
4. Pressure Class per applicable standards
5. Color

6. Confirmation/ Recommended minimum bending radius

7. Confirmation/ Recommended maximum safe pull force.

8. Type of joint and joint restraint.

9. Certification with full compliance with the specifications

10. Statement of Warranty.

11. An estimated delivery date for the equipment (which shall be stated in calendar days after the releases date to the manufacturer).

B. Submittals required prior to Shipping

1. Certified copies of all test.

2. Lifting instructions

1.04 QUALITY ASSURANCE

A. Manufacturer: Finished pipe shall be the product of one (1) manufacturer. Pipe manufacturing operations (pipe, fittings, lining, coating) shall be performed at one (1) location. Manufacturers shall be fully experienced, reputable, and qualified in the manufacture of the products to be furnished. The pipe and fittings shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with these specifications as applicable.

B. Warranty: A one-year warranty for the pipe shall be included from the Contractor, and shall cover the cost of replacement pipe and freight to project site, should the pipe have any defects in material or workmanship. Unless otherwise specified, the warranty periods shall begin Certificate of Acceptance is issued for the contract.

C. Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 501.14.2.

1.05 DELIVERY AND STORAGE

A. Delivery and Storage shall be in accordance with AWWA C605 and AWWA Manual of Practice M23.

PART 2 – PRODUCTS

2.01 POLYVINYL CHLORIDE (PVC) PIPE

A. The pipe material must meet AWWA C900 standards for PVC pressure pipe and fittings with a dimension ratio of DR18. PVC pipe that is intended for use as a casing pipe may have the dimension ratio of 14.

B. Pipe and couplings shall be made from unplasticized PVC compounds having a minimum cell classification of 12454, as defined in ASTM D 1784. The compound shall qualify for a Hydrostatic Design Basis (HDB) of 4000 psi for water at 73.4 degrees F, in accordance with the requirements of ASTM D 2837. Restrained joint water pipe shall carry the UL1285 listing.

C. Pipe shall be joined using non-metallic couplings to form an integral system for maximum reliability and interchangeability. High-strength, flexible thermoplastic splines shall be inserted into mating, precision machined grooves in the pipe and coupling to provide full 360° restraint with evenly distributed loading.

D. Cut exposed splines 3/4" from coupling to reduce soil drag.

E. Couplings shall be beveled as part of the manufacturing process on the leading edges so as to minimize soil friction.

F. Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 501.14.

2.02 JOINTS

A. Pipe shall be joined using non-metallic couplings to form an integral system for maximum reliability and interchangeability. High-strength, flexible thermoplastic splines shall be inserted into mating, precision machined grooves in the pipe and coupling to provide full 360° restraint with evenly distributed loading.

B. Joints shall be designed to meet the zero leakage test requirements of ASTM D 3139 or the Owner's requirements which is more stringent.

C. Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 501.14.4.

2.03 FITTINGS

A. Fittings shall be designed for use at or above the pressure class of the pipe with which they are utilized, and shall incorporate twin elastomeric sealing gaskets meeting the requirements of ASTM F 477.

B. Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 501.14.5.

PART 3 – EXECUTION

3.01 INSTALLATION

A. The deflection radius must not exceed 75% of the maximum allowable curvature allowed for standard C-900 PVC pipe.

B. Installation shall be in accordance with AWWA C605 and AWWA Manual of Practice M23.

END OF SECTION

SECTION 33 05 23

TRENCHLESS UTILITY INSTALLATION

PART 1 – GENERAL

1.01 DESCRIPTION

A. All material, labor, equipment, tools and superintendence necessary to furnish and install utility lines using trenchless installation methods ("by other than open cut" (BOTOC)) as shown on the drawings.

1.02 REFERENCES

A. By Other Than Open Cut details included in the Drawings.

B. *Public Works Construction Standards*, NCTCOG, 4th Edition, Items 503.

1.03 QUALITY ASSURANCE

A. Design Criteria:

The pipe casing or jacked carrier pipe shall be designed by a Professional Engineer registered in the State of Texas for the following loading conditions and applicable combinations thereof:

1. AASHTO HS-20 or Cooper E80 loading as applicable.
2. Earth loading with the height of fill above the casing or carrier pipe as shown on the plans.
3. Loads applied during jacking, including axial load from jacking.
4. All other applicable loading conditions, including loads applied during transportation and handling.

B. Installer's Qualifications:

Installation shall be by a competent, experienced contractor or subcontractor. The installation contractor shall have a satisfactory experience record of at least 3 years engaged in similar work of equal scope. An individual's experience from former companies does not qualify as project management experience for the contractor or sub-contractor. Provide written certification that trenchless procedures and personnel comply with the Contract Documents and best management practices for trenchless technology. Include names of firms and personnel certified to be performing and supervising the work.

C. Performance Requirements:

Lateral or vertical variation in the final position of the pipe casing from the line and grade established by the Engineer shall be permitted only to the extent of 1 inch in 10 feet, provided

that such variation shall be regular and only in the direction that will not detrimentally affect the function of the carrier pipe.

D. Job Conditions, Permit and Easement Requirements

1. Comply with the requirements of all applicable permit(s) and/or easement(s). If required by the right-of-way owner, obtain protective liability insurance in the amount required by the particular company or other insurance as is specified in the permit at no cost to the Owner. Acquire a permit, agreement, or work order from the right-of-way owner as is required.

2. No blasting shall be allowed. Existing pipelines are to be protected. The Contractor shall verify location and elevation of any pipelines and utility cables before proceeding with the construction and plan his construction so as to avoid damage to the existing pipelines or utility cables. Verification of location of existing utilities shall be the complete responsibility of the Contractor.

3. Construction along roads shall be performed in such manner that the excavated material be kept off the roads at all times, as well as all operating equipment. Construction shall not interfere with the operations of the roads.

4. Barricades, warning signs and flagmen, when necessary and/or specified, shall be provided by the Contractor.

E. By Other Than Open Cut Methods

Unless specified otherwise, the Contractor may use boring, jacking or tunneling for the installation method of casing material or carrier pipe. Tunnel liner plate shall not be used where bore or jack methods are used. The Contractor shall be fully responsible to ensure the methods used are adequate for the protection of workers, pipe, property and the public. Provide a finished product as required.

1.04 SUBMITTALS

Submittals shall include:

A. Shop drawings of the carrier pipe from the manufacturer. Shop drawings shall include calculations for the design of the casing by a Professional Engineer registered in the State of Texas.

B. Provide certificate of adequacy of design of casing and/or carrier pipe.

C. Provide casing spacer manufacturer product data and installation requirements.

D. Provide record data of casing insulators including sketches of insulators with material components and dimensions and proposed locations of insulators.

E. Provide pressure grout material and method.

PART 2 – PRODUCTS

2.01 Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 503.1.

PART 3 – EXECUTION

3.01 GENERAL

A. Where encasement is not specified on the Drawings, it shall be the responsibility of the Contractor to determine whether casing pipe or tunnel liner plate is required for the applicable soil conditions.

B. All casing pipe joints shall be watertight with no water entering the casing from any sources prior to carrier pipe installation.

C. The carrier pipe shall be installed within the casing between the limits indicated on the Drawings to the specified lines and grades, and utilizing methods which include due regard for safety of workers, adjacent structures and improvements, utilities and the public.

D. Furnish all necessary equipment, power, water and utilities for carrier pipe installation, insulator runner lubricant, grouting and other associated work required for the Contractor's methods of construction.

E. Conduct all operations such that trucks and other vehicles do not interfere with traffic or create a dust or noise nuisance in the streets and to adjacent properties. Promptly clean up, remove and dispose of spoils and slurry spillage and any slurry discharges.

F. All work shall be done so as not to disturb roadways, adjacent structures, landscaped areas or existing utilities. Any damage shall be immediately repaired to original or better condition and to the satisfaction of the Owner.

3.02 INSTALLATION OF CARRIER PIPE

A. Pipe Installation: Carrier pipe shall meet the requirements as specified herein. Remove all loose soil from casing. Grind smooth all rough welds at casing joints. Provide casing spacers, insulators or other approved devices, as required, to prevent floatation, movement or damage to the pipe during installation and annular space grout placement. Carrier pipe shall be installed without sliding or dragging it on the ground or in the casing in a manner that could damage the pipe. Coat the casing spacer runners with a non-corrosive, environmentally safe lubricant to minimize friction when installing the carrier pipe.

B. Testing of Carrier Pipe: Pressure testing shall be performed in accordance with the specification for the selected pipe material. Any leakage found during this inspection shall be corrected.

3.03 SAFETY

A. The Contractor is responsible for safety on the job site. Perform all work in accordance with all current applicable federal, state and local regulations. In the event of conflict, comply with the more restrictive applicable requirement.

B. No gasoline powered equipment shall be permitted in jacking shafts and receiving shafts/pits. Diesel, electrical, hydraulic and air powered equipment is acceptable, subject to applicable local, state, and federal regulations.

C. Methods of construction shall be as such to ensure the safety of the work, Contractor's and other employees on site, and the public.

D. Perform all work in accordance with all current applicable federal, state and local regulations and safety requirements. Comply with all applicable provisions of 29 CFR Part 1926, Subpart S, Underground Construction and Subpart P, Excavations, by OSHA. In the event of conflict, comply with the more stringent requirements.

E. The Contractor shall develop an emergency response plan for rescuing personnel trapped underground in a shaft excavation or pipe. Keep on-site all equipment required for emergency response in accordance with the agency having jurisdiction.

END OF SECTION

SECTION 33 11 14

WATER FORCE MAIN HDPE PIPE AND FITTINGS

PART 1 – GENERAL

1.01 DESCRIPTION

A. All material, labor, equipment, tools and superintendence necessary to furnish and install new high density polyethylene (HDPE) pipe and fittings for water force main.

1.02 REFERENCES

A. ANSI A21.11 (AWWA C111) – *Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings,* latest edition
B. APWA Uniform Color Code
C. ASTM D2774 – *Standard Practice for Underground Installation of Thermoplastic Pressure Piping,* latest edition
D. ASTM D3261 – *Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing,* latest edition
E. ASTM D3350 – *Standard Specification for Polyethylene Plastics Pipe and Fittings Materials,* latest edition
F. ASTM F714 – *Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter,* latest edition
G. ASTM F2164 – *Standard Specification for Field Leak Testing of Polyethylene (PE) and Crosslinked Polyethylene (PEX) Pressure Piping Systems Using Hydrostatic Pressure,* latest edition
H. ASTM F1055 – *Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing,* latest edition
I. ISO 9001 – *Quality Management Systems – Requirements,* latest edition
J. PPI TR-4 – *PPI Listing of Hydrostatic Design Basis (HDB), Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Ratings for Thermoplastic Piping Materials or Pipe,* latest edition
K. PPI TR-33 – *Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe,* latest edition

1.03 SUBMITTALS

A. Material list naming each product to be used identified by manufacturer and type number.
B. Material designations for HDPE pipe and fittings including PE designation, cell classification, and hydrostatic design basis.
C. Pipe and fittings manufacturer's certifications that HDPE pipe and fittings meet requirements of this Specification and ASTM F714.
D. Pipe and fittings manufacturer's written instructions outlining the proper method of handling, storing, and installing pipe and fittings.

E. Shop drawings showing design of new pipe and fittings, indicating alignment and grade, laying dimensions, marking system, fabrication, fittings, flanges, and special details including dimension ratio (DR) and working pressure rating of each fitting.
F. Material specification including gradation chart and method of compaction for pipe equipment.
G. Documentation that fusion equipment is from a manufacturer listed as a member of the Plastic Pipe Institute's (PPI) Municipal and Industrial Division.
H. Fusion equipment manufacturer's written instructions outlining proper fusion techniques and safety procedures.
I. Procedural information for leakage tests and disinfection.
J. Product data sheets and material specifications for mechanical joint adapter kits.

1.04 QUALITY CONTROL

A. HDPE pipe and fittings manufacturers must be members of the Plastic Pipe Institute's (PPI) Municipal and Industrial Division and have a quality control program that is certified to comply with ISO 9001.

B. All quality control programs shall include testing, sampling, and inspection on incoming polyethylene raw materials, pipe, and fittings during the manufacturing process and at the completion of the manufacturing process. Testing shall be in accordance with the application sections of ASTM F714. Testing, inspection and sampling shall be performed full-time during the production of pipe and fittings for incorporation into this Contract.

C. The pipe and/or fittings manufacturer's production facility shall be open for inspection by the Owner or his representative with a reasonable advance notice. During inspection, the manufacturer shall demonstrate that it has facilities capable of manufacturing and testing the pipe and/or fittings to the standards required by this Specification.

D. The manufacturer shall be able to provide to the Owner reports which include the results and date of testing, sampling, and inspections for all pipe and fittings to be incorporated into this Contract. Reports shall be traceable to specific pipe lots or pieces and reference each test used.

E. When foreign material is proposed for use, have material tested for conformance to applicable ASTM requirements by a certified independent testing laboratory located in the United States. Certification from any other source is not acceptable. Furnish copies of test reports to the Owner for review. Cost of testing shall be borne by the Contractor or supplier.

PART 2 – PRODUCTS

2.01 EMBEDMENT MATERIAL

A. Embedment materials shall be as indicated on the Drawings.

B. Concrete embedment shall be constructed with TxDOT Class B concrete.

C. Crushed stone embedment shall have a maximum particle size not to exceed ¾ inch and be compacted to achieve a relative density of at least 85%.

D. Granular material shall be free flowing, such as sand or hydraulically graded crushed stone fines, or mixed sand and gravel, or sandy loam. The material shall be free from lumps, stones over 2 inches in diameter, clay and organic matter.

2.02 BACKFILL MATERIAL

A. Backfill shall be free of trash, hazardous and toxic materials, and spongy or otherwise objectionable material and shall be approved by the Inspector. Excavated or imported material may be used for trench backfill, provided it meets the requirements specified herein.

B. Backfill shall have a maximum liquid limit of 35 and maximum plasticity index of 12. Stone shall be a maximum of 3 inches and shall not total more than 50% of total backfill volume. Clay or gumbo lumps shall be a maximum of 6 inches and shall not total more than 25% of total backfill volume.

C. Backfill below paved areas shall be of such characteristics that it shall stabilize without the use of lime or other similar additive and form an acceptable subbase material. The top 24 inches of backfill below paved areas shall be compacted to achieve a density of 100% of maximum density.

2.03 PIPE

A. Water force main HDPE pipe shall conform to ASTM F714. Pipe shall adhere to Ductile Iron Pipe Size (DIPS) sizing system and have a dimension ratio (DR) of DR 11 (working pressure rating of 200 psi) unless otherwise specified in the Drawings.

B. Pipe shall be manufactured from a PE 3608 or PE 4710 resin meeting the requirements of the Plastics Pipe Institute (PPI) Technical Report 4 (TR-4). The resin shall meet the specifications of ASTM D3350. The pipe shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. All pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, blisters, dents and other injurious defects. No reworked material shall be allowed.

C. Pipe shall be no older than 6 months from the date of manufacture to the date of installation. All pipe shall be packaged in standard commercial coils or bundles that provide protection from shipping injuries, and shipped with end caps.

D. Pipe markings shall be in a color that contrasts with that of the pipe and spaced at intervals not exceeding 2 feet. All required markings shall be legible and so applied as to remain legible under normal handling and installation practices. These markings shall consist of: the word "Water, ASTM F714"; the designation ASTM D3350; the manufacturer's name or trademark; the nominal pipe DIPS size, outside diameter, and DR number; the type of material PE 3408 or PE 4710; the month and year of manufacture; and identification of resin supplier.

2.04 FITTINGS

A. GENERAL

1. All HDPE fittings shall be pressure rated to provide a working pressure rating no less than that of the pipe.

2. Fittings shall be manufactured from a PE 3608 or PE 4710 resin meeting the specifications of ASTM D3350. Fittings shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. All fittings shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, blisters, dents and other injurious defects. No reworked material shall be allowed.

3. Fittings shall be no older than 6 months from the date of manufacture to the date of installation. All fittings shall be packaged in standard commercial cardboard boxes that provide protection from shipping injuries.

B. BUTT FUSION FITTINGS

1. HDPE butt fusion fittings shall conform to ASTM D3261 and shall be manufactured by injection molding, a combination of extrusion and machining, or fabricated from HDPE pipe conforming to this Specification.

2. Fabricated fittings shall be manufactured using a data logger to record fusion pressure and temperature. A graphic representation of the temperature and pressure data for all fusion joints made producing fittings shall be maintained as part of the quality control records.

C. ELECTROFUSION FITTINGS

1. HDPE electrofusion fittings shall conform to ASTM F1055.

D. FLANGED AND MECHANICAL JOINT ADAPTERS

1. HDPE flanged and mechanical joint adapters shall conform to ASTM D3261 and shall be designed for fusion to HDPE pipe and mechanical connection to other pipe material. Glands, material assembly, and bolting shall be in accordance with ANSI A21.11 (AWWA C111); full-face rubber gasket shall be included in the kit. The adaptor connection shall provide a fully self-restrained joint and shall not require additional restraint.

2.05 THRUST BLOCK

A. Thrust blocks shall be constructed as necessary for bends, tees, and dead ends not embedded in concrete. Thrust blocks shall be constructed with TxDOT Class B concrete, poured against undisturbed soil. Keep joints free of concrete. Allow working room around nuts and bolts.

B. Required bearing areas and volumes for thrust blocking shall be as shown in the tables below, as determined based on working pressure rating of the pipe, minimum soil bearing capacity of 1,000 pounds per square foot, and unit weight of concrete of 150 pound per cubic foot.

Type of Fitting	Area or Volume of Thrust Block Concrete Required
Tee or Dead End	60 square feet
Horizontal Bends:	
11¼°	12 square feet
22½°	24 square feet
45°	46 square feet
90°	85 square feet
Vertical Bends:	
11¼°	3 cubic yards
22½°	6 cubic yards
45°	12 cubic yards

PART 3 – EXECUTION

3.01 GENERAL

A. Size pipe and fittings as indicated on the Drawings. Install as shown in accordance with manufacturer's recommendations.

B. Do not lay pipe when trenches or weather conditions are not suitable for such work.

C. Keep the interior of all pipes, fittings, and other accessories free from dirt and foreign matter at all times. Stack stockpiled materials so as to minimize entrance of foreign matter. Seal open piping with butt fusion end caps or with an approved manufacturer end cap at the end of each work day. No open pipe ends will be allowed at the end of the day.

D. Furnish adequate temporary support, protection, and maintenance of all underground and surface utilities encountered in the progress of the work. Wherever existing utility lines present obstructions to the grade and alignment of the pipe, they shall be permanently supported, removed, relocated, or reconstructed by the Contractor through cooperation with the owner of the utility, structure, or obstruction involved. In those instances where their relocation or reconstruction is impractical, a deviation from line and grade must be approved by the Owner.

3.02 HANDLING AND PLACEMENT

A. During loading, transportation, and unloading, every precaution shall be taken to prevent injury to the pipe. No pipe shall be dropped from cars or trucks, or allowed to roll down slides without proper restraining ropes. During transportation each pipe shall rest on suitable

pads, strips, skids, or blocks securely wedged or tied in place. Any pipe damaged shall be replaced.

B. Store pipe on clean, level ground to prevent undue scratching or gouging. If the pipe must be stacked for storage, such stacking shall be done in accordance with manufacturer's recommendations. Store pipe under cover out of direct sunlight and protect from excessive heat or harmful chemicals in accordance with manufacturer's recommendations.

C. During handling and placement, carefully observe and inspect all materials, and mark, reject, and remove from the job site any damaged, defective, or unsound materials. Sections of pipe having been discovered with cuts or gouges in excess of 10% of the pipe wall thickness shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the heat fusion joining method.

D. Observe the allowable cold bending radius and do not exceed it under any circumstances.

E. Fused segments of the pipe shall be handled so as to avoid damage to the pipe. Chains or cable type chokers must be avoided when lifting fused sections of pipe. Nylon slings are preferred. Spreader bars are recommended when lifting long fused sections.

F. Protect pipe and fittings which have been placed but not joined, backfilled, etc. in a manner satisfactory to the Owner. To avoid field damage, do not join fittings to more than one pipe before placement in the trench.

3.03 EXCAVATION, TRENCHING, EMBEDMENT, AND BACKFILLING

A. EXCAVATION AND TRENCHING

1. Trenching shall be performed in accordance with ASTM D2774. Provide trench sheeting, shoring and bracing, and trench safety systems, in accordance with current Occupational Safety and Health Administration (OSHA) and all other applicable federal, state and local rules, regulations and ordinances. A Trench Safety Plan, sealed by a Professional Engineer registered in the State of Texas, shall be submitted prior to any excavation.

2. Before laying pipe, remove all water, slush, debris, and loose material encountered. If necessary, install dewatering systems to keep the excavation dry while the pipe is laid and backfilled.

B. FOUNDATION

1. The entire foundation area in the bottom of all excavation shall be firm, stable and at uniform density as nearly practicable. Unless necessary, foundation materials shall not be disturbed.

2. Where the soil encountered at the grades indicated on the Drawings is unsuitable for use as foundation, remove unsuitable soils for the entire trench width to a depth required to stabilize the foundation, minimum 6 inches, and replace with a concrete seal, foundation rock, or coarse aggregate materials in uniform layers not to exceed 6 inches and compacted by mechanical tamping or other means to provide a stable foundation.

C. EMBEDMENT AND BACKFILLING

1. Embedment and backfill materials shall be as indicated on the Drawings and as specified herein.

2. Embedment and backfill shall be placed in uniform layers not to exceed 6 inches and compacted by mechanical tamping or other means to the densities indicated on the Drawings and specified herein. Embedment material shall be appropriately placed and consolidated under the pipe at the haunches to provide proper pipe support. The method of compaction shall be left to the discretion of the Contractor with the following exceptions, unless otherwise specified, provided the degree of compaction is obtained and that the pipe is not damaged in the process. If any potential damage to the pipe due to a method of compaction exists, in the opinion of the Owner, that method of compaction shall not be allowed. Compaction by flooding or jetting shall not be allowed.

3.04 FUSION

A. Conform to the requirements of the Plastics Pipe Institute (PPI) Technical Report 3 (TR-33) as the minimum requirements for fusion procedures.

B. Inspect the pipe for defects before installation and fusion. Defective, damaged, or unsound pipe will be rejected.

C. Join sections of HDPE pipe into continuous lengths on the jobsite above ground. Use the butt fusion method in strict accordance with manufacturer's recommendations. The butt fusion equipment used in the joining procedures should be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, temperature requirements of 400 degrees Fahrenheit, alignment, and an interfacial fusion pressure of 75 pounds per square inch. The butt fusion joining shall produce a joint weld strength equal to or greater than the tensile strength of the pipe itself. Use a data logger for all welds to record temperature and fusion pressure with a graphic representation of the fusion cycle to include as part of the quality control records.

D. All butt fusions must be performed by qualified personnel. The Contractor's supervisor shall be present during all pipe fusions to ensure that all required procedures are adhered to and to witness the quality of each joint. Fusion certified contract employees found to not be following manufacturer's guidelines will have their fusion certificate revoked and will not be allowed to perform fusions for the remaining duration of the Contract.

E. Allow fusion joints to cool for the times recommended by the pipe manufacturer prior to any movement of the fused joint.

F. Electofusion fittings manufactured and installed to the specifications herein may be used in lieu of butt fusion.

G. Mechanical joining may be used where the butt fusion method cannot be used. Mechanical joining will be accomplished by using either an HDPE flange adaptor with a ductile iron back-up ring or an HDPE mechanical joint adapter with a ductile iron back-up ring.

H. Do not use socket fusion, hot gas fusion, threading, solvents, or epoxies to joint HDPE pipe.

3.05 TESTING

A. Pressure testing shall be conducted in accordance with ASTM F2164. The pipe shall be filled with water, raised to test pressure and allowed to stabilize. The test pressure shall be 1.5 times the working pressure rating at the lowest point in the system. The pipe shall pass if the final pressure is within 5% of the test pressure for 1 hour. For safety reasons, hydrostatic testing only will be allowed.

END OF SECTION

SECTION 31 23 33

TRENCHING, BACKFILLING AND COMPACTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. All material, labor, equipment, tools and superintendence necessary to perform Trenching, Backfilling and Compaction operations for utility construction in accordance with *Public Works Construction Standards*, NCTCOG, 4th Edition, Items 107.19.3, 203 and 504.

1.02 REFERENCES

A. *Public Works Construction Standards*, NCTCOG, 4th Edition, Items 107.19.3, 203 and 504.

1.03 SUBMITTALS

A. The Trench Safety Plan in accordance with *Public Works Construction Standards*, NCTCOG, 4th Edition, Item 107.19.3.3.

PART 2 – PRODUCTS

2.01 Refer to Public Works Construction Standards, NCTCOG, 4th Edition, Item 504.2.

PART 3 – EXECUTION

3.01 CONSTRUCTION

A. Refer to *Public Works Construction Standards*, NCTCOG, 4th Edition, Items 107.19.3, 203 and 504.

B. If any excavation is required for the performance of the work in this Contract, the Contractor shall furnish and implement a trench safety system for all trenches in this project.

C. The trench safety design shall be in accordance with the Department of Labor criteria, OSHA safety and health standards (29CFR 1926/1010), and the Texas trench safety criteria. The design shall be prepared, signed and sealed by a registered professional engineer registered in Texas. Submit the sealed safety plan to the Owner prior to commencing any excavation activity. The engineer shall have sufficient professional engineering competence to designate necessary geotechnical investigation, interpret information, and formulate structural design. The engineer shall be experienced in trench safety design and shall have had no trench safety design failures. The design shall provide for safety of all personnel, and the public present in or adjacent to any trench constructed under the scope of this contract.

D. Trenches shall be excavated by a trenching machine, backhoe or dragline, except in locations where hand trenching is required. The banks of trenches shall be vertical, to a point one foot (1') above the top of pipe.

E. Pipe shall be laid in all trenches that have been opened before the end of each day's work, unless the Contractor secures written permission to do otherwise from the Inspector.

F. The final backfill shall be moisture treated to a minimum of 3 percentage points above optimum moisture content at a minimum of 95 percent standard Proctor (ASTM D 698).

END OF SECTION

SECTION 32 01 90

90 DAY ESTABLISHMENT PLANTING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Scheduling of maintenance

B. Monitoring, adjustment and repair of sprinkler irrigation.

C. Mowing, edging and trimming of lawn areas.

D. Pruning and trimming of trees and shrubs.

E. Weeding of lawn and bed areas.

F. Application of fertilizers and pesticides.

G. General site cleanup and removal of trash.

H. Provide long term landscape maintenance instructions.

I. Cold Weather Maintenance of Irrigation System

1.2 RELATED SECTIONS

A. Section 32 92 23 – Sodding

B. Section 32 93 00 – Landscape Planting

1.3 REFERENCES

A. ANSI Z60.1 -American Standard for Nursery Stock; 1996.

B. ANSI A300 -American National Standard for Tree Care Operations --Tree, Shrub and Other Woody Plant Maintenance --Standard Practices; 1995.

1.4 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:

1. Perform all work in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work.

2. Provide for all inspections and permits required by Federal, State, or local authorities in furnishing, transporting, and installing of all agricultural chemicals.

3. Provide monthly records of all fertilizers and pesticides used for the project.

B. Work Force:

1. Experience: The landscape establishment firm shall have a full time foreman assigned to the job for the duration of the contract. He shall have a minimum of four years' experience in landscape establishment supervision, with experience or training in turf management, entomology, pest control, soils, fertilizers and plant identification.

2. Labor Force: The landscape establishment firm's labor force shall be thoroughly familiar and trained in the work to be accomplished and perform the task in a competent, efficient manner acceptable to the Owner.

3. Supervision: The designated foreman shall directly supervise the work force at all times. Notify the Owner of all changes in supervision.

4. Identification: Provide proper identification at all times for landscape establishment firm's labor force. Be uniformly dressed in a manner satisfactory to the Owner.

1.5 QUALITY ASSURANCE

A. See Section 01330 -Submittal Requirements, for submittal procedures, if applicable.

B. Prior to commencing the landscape installation, submit to Owner's Representative for approval, two (2) copies each of the following items:

1. Proposed schedule of establishment operations.

2. All licenses and insurances required by the Owner, Town of Addison, County of Dallas, State of Texas, or any other entity, pertaining to this work.

C. During the landscape establishment period at monthly intervals submit to Owner's Representative two (2) copies each of the following items:

1. Written application recommendation by a licensed pesticide applicator for any proposed weed, pest and disease control which is intended to be used where restrictions are required by the Department of Agriculture.

2. Provide monthly records of all fertilizers and pesticides used for the project.

3. Provide each month of the establishment period, written reports and logs as follows:

a. Provide monthly status report of site conditions outlined weekly.

b. Provide monthly status report of irrigation controller operations and adjustments required.

D. Submit to the Owner's Representative written maintenance instructions as outlined

below.

1.6 SCHEDULING

A. Perform all establishment during hours mutually agreed upon between Owner and Contractor.

B. Work force shall be present at the project site at least once a week, and as often as necessary, to perform specified establishment in accordance with the approved establishment schedule.

1.7 PROJECT CONDITIONS

A. Site Visit: At beginning of establishment period, visit and walk the site with the Owner's Representative to clarify scope of work and understand existing project/site conditions.

B. Documentation of Conditions: Document general condition of existing trees, shrubs, vines, ground covers and lawn and replace all plant materials which are damaged or dying, if any.

C. Irrigation System: Document general condition of existing irrigation system, making sure that faulty electrical controllers, broken or inoperable sprinklers are repaired or replaced.

1.8 CONTRACTOR RESPONSIBILITIES

A. The Contractor shall begin maintenance after any portion of the sprinkler irrigation, any plant or any lawn portion is installed. The cost of landscape maintenance until the end of the ninety (90) day establishment period will be at the expense of the Contractor.

B. The Contractor's establishment period shall begin upon inspection and approval at Final Completion and shall be for a minimum of ninety (90) days. Should the contractor's own work prevent Final Acceptance of the site, the site shall be maintained at the Contractor's expense until Final Acceptance of the Contractor's work. The ninety-day establishment period will start only upon Final Acceptance of the Work by the Owner.

C. Sprinkler Irrigation System: Monitor and adjust the duration and frequency of the watering schedule, adjustment of heads for coverage and elevation, repair leaks, and all other work required to maintain a complete working sprinkler irrigation system.

D. Trees, Shrubs, Ground covers and Vines: The Contractor's responsibilities for the new planting shall consist of, but not be limited to; watering, fertilization, weeding, mulching, re-staking, adjustment of tree staking and/or guying, resetting plants to proper grades or upright position, maintenance of the tree rings, and protecting the plantings from insects and disease infestation.

E. Lawns: The Contractor's maintenance of new lawns shall consist of weekly mowing, edging, watering, fertilization, weeding, repair of all erosion and reseeding and re-sodding as necessary to establish a full and uniform stand of the specified grasses.

1.9 PROTECTION

A. Protect planting areas and lawns at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection fences, barriers and signs as required for protection. If any plants become damaged or injured, because sufficient protection was not provided, treat or replace as directed by Owner at no additional cost to the Owner.

1.10 FINAL ACCEPTANCE

A. Work under this Section will be accepted by the Owner's Representative upon satisfactory completion of all work, including establishment, but exclusive of the required guaranteed sprinkler irrigation obligations, replacement of plant materials and lawns under the Warranty Period. Upon Final Acceptance, the Owner will assume responsibility for maintenance of the work. This assumption will not relieve the Contractor of his warranty obligations.

1.11 WARRANTIES AND REPLACEMENTS

A. Refer to Section 32 93 00 – Landscape Planting. Coordinate with the Town of Addison

1.12 MAINTENANCE INSTRUCTIONS

A. At the completion of work, furnish two (2) copies of written maintenance instructions to the Owner and one (1) copy to the Owner's Representative for maintenance and care of the sprinkler irrigation system, lawns and all planting area throughout the year.

PART 2 PRODUCTS

2.1 MATERIALS

A. All materials and equipment necessary for maintenance operations will be provided by the Contractor. The selection of materials to be used for maintenance operations will be left to the discretion of the Contractor. Any materials, and the application of those materials, must comply with all federal, state, county, city and local laws and codes. The Contractor shall use established and accepted horticultural practices. Failure to do so may result in plant replacement at the Contractor's expense.

B. Water: Clean, potable and fresh, furnished and paid for by the Owner.

C. Annuals/Perennials: Nursery-grown in pots, full, healthy plants just ready to bloom matching on site materials.

D. Lawn Sod for Resodding: Match existing sodded lawn.

E. Tree Guys, Stakes, Ties and Wires: Provide detail(s) in 8-1/2 in. x 11 in. format for staking which will vary from the site staking due to unusual or unknown site conditions.

2.2 REQUIRED MAINTENANCE EQUIPMENT

A. Contractor's option, well maintained in first class condition, capable of successfully executing the work.

PART 3 EXECUTIONS

3.1 GENERAL

A. Duration: Continuously maintain all landscape areas after installation, during progress of work, and for a period of no less than ninety (90) days after Final Acceptance of all planting work.

B. Protection:

1. Protect all planting areas from damage from beginning of work until the end of the ninety-day establishment period.

2. Establishment includes temporary protection fences, barriers and signs as required for protection.

C. Replacements:

1. Immediately replace all plants that become damaged or injured, as directed by the Owner's Representative at no additional cost to the Owner.

2. Replacement plants shall be of the size, condition and variety originally installed.

3.2 DEBRIS AND LITTER REMOVAL

A. It shall be the responsibility of the Contractor to inspect the site weekly and remove all litter and debris accumulations.

3.3 SUPPLEMENTAL WATERING

A. It shall be the responsibility of the Contractor to assure that the correct watering of plant materials is being accomplished through the use of the irrigation system, hand-watering, 'gator' bags, water truck, etc.

B. Contractor shall monitor settings of automatic sprinkler controls and make necessary adjustments according to climatic changes.

C. Contractor shall not be responsible for supplemental watering areas that do not have irrigation systems, unless required by the Contract.

D. Contractor shall be responsible for damages to irrigation system caused by mowing and other maintenance operations. Such damage will be repaired immediately at the Contractor's expense.

3.4 TREES, SHRUBS AND VINES

A. General:

1. The Contractor shall use established and accepted horticultural practices in the care of the plant material.

2. Maintain originally specified depth of mulch to reduce evaporation and frequency of watering.

3. Check for moisture penetration throughout the root zone at least once per week.

B. Weed Control:

1. All materials and equipment necessary for maintenance operations will be provided by the Contractor. The selection of materials to be used for maintenance operations will be left to the discretion of the Contractor. Any materials, and the application of those materials, must comply with all federal, state, county, city and local laws and codes. The Contractor shall use established and accepted horticultural practices. Failure to do so may result in plant replacement at the Contractor's expense.

2. All lawn areas, tree rings and planting areas will be maintained in a healthy weed-free condition.

C. Pruning:

1. Remove any broken, damaged, or crossing branches not removed at installation.

2. No stripping of lower branches ('raising' or 'skirting') or cutting back ('heading' or 'topping') of trees will be permitted. The Contractor shall use established and accepted horticultural practices in the care of the plant material.

3. Prune damaged trees or those that constitute health or safety hazards at any time of year as required.

4. Do not use pruning paint or pruning compounds on pruning cuts. Allow the cuts to callous naturally.

5. Do not prune or clip shrubs into balled or boxed forms unless specifically called for by design.

3.5 GROUNDCOVERS

A. Watering:

1. Check for moisture penetration throughout the root zone at least twice a month.

2. Water as frequently as necessary to maintain healthy growth of ground covers.

B. Weed Control:

1. All planting areas will be maintained in a healthy weed-free condition by the use of pre-and post-emergent herbicides or hand-pulling.

2. To avoid root damage to young plants, minimize weed growth and protect the chemical barrier of pre-emergent herbicides, cultivation of beds and tree wells will not be permitted.

3.6 LAWNS

A. Watering:

1. Water lawns at such frequency as weather conditions require replenishing soil moisture to 6 in. below soil surface.

2. Apply enough water to newly sodded areas to wet the soil to a depth of 2"-3" (approx. ¼ inch in clay soils). In newly seeded areas; provide only enough water to keep the soil surface moist, but not water logged. In established lawn areas, apply enough water to wet the soil to a depth of 6" (approx. ½ inch in clay soils). These application rates are suggestions only. The frequency and actual duration of watering cycles will vary according to weather, soil type, slopes, etc. The contractor will be solely responsible for providing the optimum watering schedule for the project.

3. In established areas, water during early morning hours when the wind is calmest.

B. Weed Control:

1. All lawn areas will be maintained in a healthy weed-free condition by the use of pre- and post-emergent herbicides or hand-pulling. Any materials, and the application of those materials, must comply with all federal, state, county, city and local laws and codes. The Contractor shall use established and accepted horticultural practices. Failure to do so may result in plant replacement at the Contractor's expense.

2. Provide the Owner with 48 hour notice of chemical applications. Within 48 hours of application, provide Owner with a copy of the applicator's log book showing the time, date, and type and amount of chemical used.

C. Mowing and Edging:

1. Mowing lawn/grass areas shall be accomplished with sharp, properly adjusted mowers of the correct size for the various areas

2. Mowing frequency shall be weekly. Blade heights shall be set according to the type of turf and weather conditions.

3. Trim edges with each mowing or as required for neat appearance. Edging shall be performed with a blade type mechanical edger, shovel or herbicide. String whips shall not be permitted. Remove clippings.

D. In the event of a prolonged rainy period and a surge of leaf growth is anticipated, the mower height may be re-adjusted to prevent "scalping" or skinning of lawn on preceding cuts. At no time shall more than 1/3 of the leaf blade be removed in one mowing.

E. Lawn Fertilizer: Applied during the establishment period at 45 days after turf installation.

1. Preparation: Water areas to receive fertilizer 48 hour prior to application. Allow leaf surface to dry before fertilizer application. Do not apply fertilizer to turf wet from dew, rain or irrigation. Water lightly after application to remove fertilizer

granules from leaf blades.

2. Application: Apply no more than ½ lb. of actual nitrogen per 1000 square feet.

3. Re-sodding of Lawn Areas: Match existing sodded lawn.

   a. Until the establishment of the turf, the Contractor will be responsible for replacing soils that have eroded onto the paved areas. Residual soils on paving will be removed and if not mingled with objectionable materials, may be re-used in eroded areas.

   b. Immediately upon observing any lawn grass spreading into shrub or ground cover areas, the Contractor shall initiate a program of mechanical removal and maintain this program throughout the maintenance period.

   c. Treat any lawn grass appearing in paved areas with a non-selective foliar herbicide. Do not use brush killers or soil sterilants.

4. Special effort shall be given to the control of fire ants infesting the site. After control is accomplished, the ant mounds shall be removed.

3.7 ANNUALS AND PERENNIALS

A. Care for all seasonal color and perennial beds per established and accepted horticultural practices. Failure to use proper horticultural practices may result in replacement of the plant material at the Contractor's expense.

B. Weed Control: All planters with annuals and perennials shall be weed-free at all times.

C. Pruning:

1. Limit pruning to removal of damaged or dead twigs and foliage.

2. Remove spent flowers on a weekly basis.

D. Replacements of Annuals:

1. Replace annuals when materials exhibit a "spent" condition or as directed by the Owner or Landscape Architect.

2. Thoroughly cultivate soil, incorporate slow release fertilizers and rake smooth.

3.8 INSECTS, PESTS, AND DISEASE CONTROL

A. Contractor shall be continuously alert for signs of the presence of insect or disease infestation. The Contractor shall immediately take action to control to infestation. Plant material that is damage or that dies from insect or disease infestation while under the Contractor's care shall be immediately replaced at the Contractor's expense.

B. Application: Perform spraying for insect, pest and disease control only by licensed personnel. Spray with extreme care to avoid all hazards to any person or animals in the

area or adjacent areas.

3.9 IRRIGATION SYSTEM

A. General:

1. Repair without charge to the Owners all damages to system caused by Contractor's operations. Perform all repairs within 24 hours of the damage occurring.

2. Report promptly to the Owner all accidental damage not resulting from Contractor's negligence or operations.

3. Do not run the irrigation system during periods of rain. Set and program automatic controllers for seasonal water requirements.

4. Twice a month, use a probe or other acceptable tool to check the root ball moisture of representative plants as well as the surrounding soil.

B. Cleaning and Monitoring the System:

1. Continually monitor the irrigation systems to verify that they are functioning properly as designed. Make program adjustments required by changing field conditions.

2. If applicable clean pump filter and strainer as often as necessary to keep the irrigation systems free of sand and other debris.

3. Prevent spraying on windows, building walls, (game courts) by balancing the flow control on the remote control valves and the adjustment screws on the sprinkler heads. Do not allow spray to atomize and drift.

C. Winterization: Normally, the irrigation system should be left operational during the winter. While the frequency may be as little as one cycle per month, the landscape will need supplemental water if winter rainfall is not adequate.

Should winterization be necessary, the Contractor shall take any and all steps necessary to protect the irrigation system. It shall also be the Contractor's responsibility to take whatever steps necessary to protect the landscape and pavement from icing caused by the irrigation system.

The Contractor will re-activate the system as soon as the freezing conditions have ended.

3.10 THE 90-DAY ESTABLISHMENT PERIOD

A. Preliminary Review: As soon as all plantings are completed per Contract Documents, hold a preliminary review to determine the condition of the work.

B. Date of Review: Submit a written request to the Owner's Representative at least five (5) working days prior to anticipated date of review.

C. Beginning of the 90-Day Establishment Period: The date on which the Owner's Representative issues a letter of Preliminary Acceptance to the Contractor. Generally, the date of final acceptance of the landscape.

3.11 FINAL ACCEPTANCE

A. Acceptance:

1. Work will be accepted by the Owner's Representative upon satisfactory completion of all work, including establishment period, but exclusive of replacement of materials under the Warranty Period.

2. Submit a written request to the Owner's Representative for review for Final Acceptance at least five (5) working days prior to the anticipated Final Review date, which is at the end of the Establishment Period.

B. Corrective Work:

1. Work requiring corrective action or replacement in the judgment of the Owner's Representative shall be performed within ten (10) calendar days after the Final Review.

2. Corrective work and materials replacement shall be performed in accordance with the Drawings and Specifications, and shall be made by the Contractor at no cost to the Owner.

3. After corrective work is completed, the Contractor shall again request a Final Review for Final Acceptance as outlined above.

4. Continue establishment of all landscaped areas until such time as all corrective measures have been completed and accepted.

C. Conditions for Acceptance of Work at End of Establishment Period:

1. Green grass shall cover at least 75% of the area indicated in the plans as requiring sod and any other locations where grass is disturbed during construction. The grass shall be alive and thriving, showing signs of growth and no signs of stress, disease, or any other weaknesses.

2. Each plant shall be alive and thriving, showing signs of growth and no signs of stress, disease, or any other weaknesses.

3. All grasses and plants not meeting these conditions shall be replaced and a 90 Day Establishment Period commenced for such plants.

D. Owner's Acceptance of the Work: Upon completion of the ninety (90) establishment period and installation of all warranty replacements, the Owner will assume responsibility for maintenance of the work.

3.12 CLEAN-UP

A. All areas shall be kept neat and orderly at all times. Debris from maintenance operations shall be gathered and shall not be allowed to remain in place in excess of two (2) hours. Remove all such debris from the site at the end of each day.

END OF SECTION

SECTION 32 01 92

LANDSCAPE MAINTENANCE (1 YEAR)

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Scheduling of maintenance

B. Monitoring, adjustment and minor repair of sprinkler irrigation.

C. Mowing, edging and trimming of lawn areas.

D. Pruning and trimming of trees and shrubs.

E. Weeding of mulched areas.

F. Application of fertilizers, insecticides, and herbicides.

G. General site cleanup; removal of trash and products of maintenance.

H. Provide long-term landscape maintenance instructions.

I. Winterization of Irrigation System (if applicable)

1.2 RELATED SECTIONS

A. Section 32 92 23 – Sodding

B. Section 32 93 00 – Landscape Planting

1.3 REFERENCES

A. ANSI Z60.1 -American Standard for Nursery Stock; 1996.

B. ANSI A300 -American National Standard for Tree Care Operations --Tree, Shrub and Other Woody Plant Maintenance --Standard Practices; 1995.

1.4 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:
   1 Perform all work in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work.
   2 Provide for all inspections and permits required by Federal, State, or local authorities in furnishing, transporting, and installing of all agricultural chemicals.
   3 Provide monthly records of all fertilizers and pesticides used for the project.

B. Work Force:
   1. Experience: The landscape establishment firm shall have a full time foreman assigned to the job

for the duration of the contract. He shall have a minimum of four years' experience in landscape establishment supervision, with experience or training in turf management, entomology, pest control, soils, fertilizers and plant identification.

2. Labor Force: The landscape establishment firm's labor force shall be thoroughly familiar and trained in the work to be accomplished and perform the task in a competent, efficient manner acceptable to the Owner.
3. Supervision: The designated foreman shall directly supervise the work force at all times. Notify Owner of all changes in supervision.
4. Identification: Provide proper identification at all times for landscape establishment firm's labor force. Be uniformly dressed in a manner satisfactory to the Owner.

1.5 SUBMITTALS

A. Prior to commencing the landscape installation, submit to Owner's Representative for approval, two (2) copies each of the following items:
   1. Proposed schedule of maintenance operations.
   2. All licenses and insurances required by the owner, Town of Addison, or any other entity, pertaining to this work.

B. During the landscape maintenance period at monthly intervals submit to Owner's Representative two (2) copies each of the following items:
   1. Written application recommendation by a licensed agricultural pest control advisor for any proposed weed, pest and disease control which is intended to be used where restrictions are required by the Department of Agriculture.
   2. Provide weekly records of all fertilizers, herbicides, insecticides and disease control methods used for the project
   3. Provide each month of the maintenance period, written reports and logs as follows:
      a. Provide monthly status report of site conditions outlined weekly.
      b. Provide monthly status report of irrigation controller operations and adjustments required.

C. Submit to Owner's Representative written maintenance instructions as outlined below.

1.6 SCHEDULING

A. Perform all maintenance during hours mutually agreed upon between Owner and Contractor.

B. Work force shall be present at the project site at least twice a week and as often as necessary to perform specified maintenance in accordance with the approved maintenance schedule.

1.7 PROJECT CONDITIONS

A. Site Visit: Prior to the beginning of the 1-year maintenance period, visit and walk the site with the Owner's representative to clarify scope of work and understand existing project/site conditions.

B. Documentation of Conditions: Document general condition of existing trees, shrubs, vines, ground covers and lawn recording all plant materials which are damaged or dying, if any.

C. Irrigation System: Document general condition of existing irrigation system, making sure that faulty electrical controllers, broken piping are repaired or replaced

1.8 CONTRACTOR RESPONSIBILITIES

A. The Contractor shall begin one year maintenance after receiving written notice to proceed from the Owner (following completion of 90 day establishment period, reference Section 32 01 90). At this time, the contractor will be responsible for any and all existing conditions in regard to the landscape planting and irrigation system.

B. Sprinkler Irrigation System: Monitor and adjust The Contractor's maintenance of the sprinkler irrigation system shall consist of monitoring and adjustment of the duration and frequency of the watering schedule, adjustment of heads for coverage and elevation, repair leaks in both mains and lateral lines, and all other work required to maintain a complete working sprinkler irrigation system.

C. Trees, Shrubs, Ground Covers and Vines: The Contractor's responsibilities for maintenance of the new planting shall consist of, but not be limited to; watering, fertilization, weeding, mulching, re-staking, adjustment of tree staking and/or guying, resetting plants to proper grades or upright position, maintenance of the tree rings, and protecting the plantings from insects and disease infestation.

D. Lawns: The Contractor's maintenance of lawns shall consist of, but not be limited to, weekly mowing, edging, watering, fertilization, weeding, repair of all erosion and reseeding and re-sodding as necessary to maintain a full, uniform and weed-free stand of the specified grasses.

1.9 PROTECTION

A. Protect planting areas and lawns at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection fences, barriers and signs as required for protection. If any plants become damaged or injured, because sufficient protection was not provided, treat or replace as directed by Owner at no additional cost to Owner.

1.10 WARRANTIES AND REPLACEMENTS

A. Plant material that dies under the care of the contractor shall be replaced by material of equal size and quality at no cost to the Owner. Damage to the site and/or irrigation system resulting from maintenance activities shall be repaired at no cost to the Owner.

PART 2 PRODUCTS

2.1 MATERIALS

A. General: All materials and equipment necessary for maintenance operations will be provided by the Contractor. The selection of materials to be used for maintenance operations will be left to the discretion of the Contractor. Any materials, and the application of those materials, must comply with all federal, state, county, city and local laws and codes. The Contractor shall use established and accepted horticultural practices. Failure to do so may result in plant replacement at the Contractor's expense.

B. Materials required for replacement of installed items shall match those already in use.

C. Samples of all materials not specified under other Sections of these Specifications shall be submitted for review by Owner's Representative prior to use.

D. Water: Clean, potable and fresh, furnished and paid for by the Owner.

E. Annuals/Perennials: Nursery-grown in pots, full, healthy plants just ready to bloom matching on site materials.

G. Lawn Sod for Re-sodding: Match existing sodded lawn.

H. Replacement Tree Guys, Stakes, Ties and Wires: Match existing materials on the site. Provide detail(s) in 8-1/2 in. x 11 in. format for staking which will vary from the site staking due to unusual or unknown site conditions.

2.2 REQUIRED MAINTENANCE EQUIPMENT

A. Contractor's option, well maintained in first class condition, capable of successfully executing the work within the agreed time allotment. Deflectors or guards shall be in place and in good working order at all times.

PART 3 EXECUTIONS

3.1 GENERAL

A. Duration: Continuously maintain all landscape areas after installation, during progress of work, and for a period of no less than one year after 90 day maintenance period.

B. Protection:

1. Protect all newly planted areas from damage.

2. Establishment of newly installed material includes temporary protection fences, barriers and signs as required for protection.

C. Replacements:

Immediately treat or replace all plants that become damaged or injured, as directed by Owner's Representative at no additional cost to Owner.

Replacement plants shall be of a size, condition and variety acceptable to Owner's Representative.

3.2 DEBRIS AND LITTER REMOVAL

A. It shall be the responsibility of the Contractor to inspect the site twice weekly and remove all litter and debris accumulations in planting and paved areas.

3.3 SUPPLEMENTAL WATERING

A. It shall be the responsibility of the Contractor to assure that the correct watering of plant materials is being accomplished through use of the irrigation system, hand-watering, 'gator' bags, water truck, etc.

B. Contractor shall monitor settings of automatic sprinkler controls and make necessary adjustments

according to climatic changes.

C. Contractor shall not be responsible for supplemental watering areas that do not have irrigation systems, unless required by the Contract.

D. Contractor shall be responsible for damages to irrigation system caused by mowing and other maintenance operations. Such damage will be repaired immediately at the Contractor's expense.

3.4 TREES, SHRUBS AND VINES

A. Watering Basins:

1. Maintain all watering basins around plants so that enough water can be applied to establish moisture through major root zones.
2. In rainy season, open basins to allow surface drainage away from the root crown where excess water may accumulate. Restore watering basins at end of rainy season.
3. For supplemental hand watering of watering basins, use a water wand to break the water force. Do not permit crown roots to become exposed to air through dislodging of soil and mulch.
4. Maintain originally called for depth of mulch to reduce evaporation and frequency of watering.
5. Check for moisture penetration throughout the root zone at least once per week.
6. To avoid root damage to young plants, minimize weed growth and protect any pre-emergent barriers, **cultivation of beds and tree wells will not be permitted.**
7. Resetting: Reset plants to proper grades or upright position. Maintain staking and guying to insure plants remain upright.

B. Weed Control:

1. Control weeds with hand removal or the use of legally approved herbicides by the Town of Addison Parks Department.
2. All areas between plants, including watering basins, shall be weed free.
3. Use only recommended and legally approved organic herbicides to control weed growth.
4. **No soil cultivation will be permitted**

C. Pruning:

1. Prune trees to select and develop permanent scaffold branches that are smaller in diameter than the trunk or branch to which they are attached, and which have vertical spacing of 18 in. to 48 in. and radial orientation so as not to overlay one another.
2. Prune trees to eliminate diseased or damaged growth, and narrow V-shaped branch forks that lack strength. Reduce toppling and wind damage by thinning out crowns.
3. Prune trees to maintain growth within space limitations, maintaining a natural appearance and balancing crown with roots.
4. No stripping of lower branches ("raising up") of young trees will be permitted.
5. Retain lower branches in a "tipped back" or pinched condition to promote caliper trunk growth (tapered trunk). Do not cut back to fewer than six buds or leaves on such branches. Only cut lower branches flush with the trunk after the tree is able to stand erect without staking or other support.
6. Thin out and shape evergreen trees when necessary to prevent wind and storm damage. Do primary pruning of deciduous trees during the dormant season. Do not permit any pruning of trees prone to excessive "bleeding" during growth season.
7. Prune damaged trees or those that constitute health or safety hazards at any time of year as required.

8. Make all cuts clean and close to the trunk, without cutting into the branch collar. "Stubbing" will not be permitted. Cut smaller branches flush with trunk or lateral branch. Make larger cuts (1 in. in diameter or larger) parallel to shoulder rings, with the top edge of the cut at the trunk or lateral branch.
9. Branches too heavy to handle shall be precut in three stages to prevent splitting or peeling of bark. Make the first two cuts 18 in. or more from the trunk to remove the branch. Make the third cut at the trunk to remove the resulting stub.
10. Do not prune or clip shrubs into balled or boxed forms unless specifically called for by design. The use of hedge shears for the pruning of shrubs WILL NOT be allowed.

D. Clip shrubs to be hedged when branches project 2 in. beyond limit of clipped hedge shown on the Drawings.

3.5 GROUNDCOVERS

A. Watering:
1. Check for moisture penetration throughout the root zone at least twice a month.
2. Water as frequently as necessary to maintain healthy growth of ground covers.

B. Weed Control:

1. All planting areas will be maintained in a healthy weed-free condition by the use of legally approved pre-and post-emergent organic herbicides or hand-pulling. No soil cultivation will be permitted. In the case of heavy compaction, spading folks shall be used to loosen the soil without damaging the roots on the plant material. In these cases, the bed will be raked smooth and re-mulched.
2. Minimize hoeing of weeds in order to avoid plant damage.
3. Use only recommended and legally approved organic herbicides to control weed growth.

3.6 LAWNS

A. Watering:

1. Water lawns at such frequency as weather conditions require, replenishing soil moisture to 6 in. below root zone.
2. Apply enough water to newly sodded areas to wet the soil to a depth of 2"-3" (approx. ¼ inch in clay soils). In established lawn areas, apply enough water to wet the soil to a depth of 6" (approx. ½ inch in clay soils). These application rates are suggestions only. The frequency and actual duration of watering cycles will vary according to weather, soil type, slopes, etc. The contractor will be solely responsible for providing the optimum watering schedule for the project. In sloped areas where runoff may be a problem, break each watering period into 3-4 shorter periods to allow better water absorption.
3. Watering shall be done during early mornings.

B. Weed Control:

1. All lawn areas will be maintained in a healthy weed-free condition by the use of legally approved pre-and post-emergent organic herbicides or hand-pulling.

2. In areas where crabgrass has infested the lawn, apply corn gluten meal within the seasonal parameters listed in Section 3.6.E.2

3. Use only recommended and legally approved organic herbicides to control weed growth. Do not irrigate for 48 hours after application of all herbicide sprays.

C. Mowing and Edging:

1. Mowing lawn/grass areas shall be accomplished with sharp, properly adjusted mowers of the correct size for the various areas.

2. Mowing frequency shall be weekly. Blade heights shall be set according to the type of turf and weather conditions. Typically:
   Bermudagrass: 1 inch St. Augustinegrass: 2-1/2 inches
   Zoysia: 1 inch Ryegrass: 2 inches
3. Trim edges with each mowing or as required for neat appearance. Edging shall be performed with a blade type mechanical edger, shovel or herbicide. Line trimmers may only be used along walls and bed edges, not walks and curbs. Blow trimmings back into lawn area or collect and transfer to a designated compost area.
4. A grass free clear space (edge) two (2") inches in width shall outline all obstacles.

D. In the event of a prolonged rainy period and a surge of leaf growth is anticipated, the mower height may be re-adjusted to prevent "scalping" or skinning of lawn on preceding cuts. Never remove more than 1/3 of the leaf growth in a single mowing.

E. Top Dress Fertilizer: Applied during the establishment period at 45 Days after turf installation.
1. Preparation: Immediately prior to top-dress application, cut lawn and leave clippings.
2. Application: Per 1000 square feet, apply fertilizer at following schedules and rates: Product 40 Days 80 Days

   *Corn Gluten Meal Early Spring and Late Fall 20lbs

   Slow Release Fertilizer Mid Summer and Winter 20lbs

   *IMPORTANT: Corn Gluten Meal is a natural pre-emergent herbicide and fertilizer. DO NOT fertilize with Corn Gluten Meal if you will be seeding the area within 6 weeks of application. Use Slow Release Fertilizer approved by the Town of Addison if there is a conflict with a seeding or overseeding schedule and resume the above schedule during the next application. Thoroughly water in the gluten meal and allow to dry for 2 days immediately after application.
3. Reseeding of Lawn Areas: Match existing seed mix of adjacent areas.
   a. Until the establishment of the turf, the Contractor will be responsible for replacing soils that have eroded onto the paved areas. Residual soils on paving will be removed and if not mingled with objectionable materials, may be re-used in eroded areas.
   b. Immediately upon observing any lawn grass spreading into shrub or ground cover areas, the Contractor shall initiate a program of mechanical removal and maintain this program throughout the maintenance period.
   c. Any lawn grass appearing in paved areas shall receive an application of or organic herbicides such as 25% acidic White Vinegar or Burn Out II® Weed and Grass Killer.
4. Special effort shall be given to the control of fire ants infesting the site. Use an organic product such as Garden-Ville brand Fire Ant Control. After control is accomplished, the ant mounds shall be lowered and tamped to the existing grade.

3.7 ANNUALS AND PERENNIALS

A. Care for all seasonal color and perennial beds per established and horticultural practices. Failure to use horticultural practices may result in replacement of the plant material at the Contractor's expense.

B. Weed Control: All planters with annuals and perennials shall be weed-free at all times.

C. Pruning:
1 Limit pruning to removal of damaged or dead twigs and foliage.
2 Remove spent flowers on a weekly basis.

D. Replacements of Annuals:
1 Replace annuals when materials exhibit a "spent" condition.
2 Thoroughly cultivate soil after removal of "spent" or "dead" plants prior to planting new materials.
3 Incorporate slow release fertilizers and rake smooth.

3.8 INSECTS, PESTS, AND DISEASE CONTROL

A. Contractor shall be continuously alert for signs of insect presence or damage or the presence or damage from plant fungi. The Contractor shall immediately take action to control to infestation. Plant material that is damage or that dies from insect or disease infestation while under the Contractor's care shall be immediately replaced at the Contractor's expense.

B. Inspection: Inspect all plant materials weekly for signs of stress, damage and potential trouble from the following:
1 Presence of insects, moles, gophers, ground squirrels, snails and slugs in planting areas.
2 Discolored or blotching leaves or needles.
3 Unusually light green or yellowish green color inconsistent with normal green color of leaves.

C. Personnel: Application of pesticides or beneficial insect release for insect, pest and disease control shall be performed by a certified pesticide applicator.

D. Application: Spray with extreme care to avoid all hazards to any person or pet in the area or adjacent areas. **Notify the Owner's Representative at least 48 hours in advance of any pesticide application**.

3.9 IRRIGATION SYSTEM

A. General:
1 Repair, without charge to Owner, all damages to system caused by Contractor's operations. Perform all repairs within 24 hours.
2 Report promptly to Owner all accidental damage not resulting from Contractor's negligence or operations.
3 Do not run the irrigation system during periods of rain. Set and program automatic controllers for seasonal water requirements.
4 Twice a month, use a probe or other acceptable tool to check the rootball moisture of representative plants as well as the surrounding soil.

B. Cleaning and Monitoring the System:
1 Continually monitor the irrigation systems to verify that they are functioning properly as designed. Make program adjustments required by changing field conditions.

2 If applicable, clean pump filter and strainer once a year and as often as necessary to keep the irrigation systems free of sand and other debris.

3. Prevent spraying on windows, building walls, (game courts) by balancing the throttle control on the remote control valves and the adjustment screws on the sprinkler heads. Do not allow water to atomize and drift.

C. Winterization:

Normally, the irrigation system should be left operational during the winter. While the frequency may be as little as one cycle per month, the landscape will need supplemental water if winter rainfall is not adequate.

The irrigation system is designed to be completely drained to protect pipe from bursting prior to freezing temperatures. To adequately drain the system, the following procedure must be followed:

1. Air blow-out:
   a. Set automatic control stations to 2-1/2 minutes timing.
   b. Attach hose from portable air compressor to 1 in. air inlet installed on main line at backflow preventer.
   c. Operate compressor at 100 cu. ft. per second at 60-80 PSI.

1 Manual drain valves: Open manual drain valves located at low points on the main line to drain main completely after air blow-out has been completed.

2 Backflow Preventer: Provide thermal insulation (heat tape) to protect vacuum barrier during the winter. Rotate backflow unit at unions and open pet cocks and drain. Reverse operation and tighten unions to resume irrigation.

3.10 OWNER ACCEPTANCE

A. Acceptance:
1 Work will be accepted by the Owner's Representative upon satisfactory completion of all work, but exclusive of replacement of materials under the Warranty Period.
2 Submit a written request to Owner's Representative for review for Final Acceptance at least five (5) working days prior to anticipated Final Review date.

B. Corrective Work:
1 Work requiring corrective action or replacement in the judgment of the Owner's Representative shall be performed within ten (10) calendar days after the review.
2 Corrective work and materials replacement shall be performed in accordance with the original Drawings and Specifications, and shall be made by the Contractor at no cost to the Owner.

3.11 CLEAN-UP

A. All areas shall be kept neat and orderly at all times. Debris from maintenance operations shall be gathered and shall not be allowed to remain in place in excess of two (2) hours. Remove all such debris from the site at the end of each day.

END OF SECTION

SECTION 32 91 19

LANDSCAPE GRADING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Filling, backfilling, and compacting for footings, slabs-on-grade, paving, and site structures.

B. Backfilling and compacting for utilities outside the building to utility main connections.

C. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

1.2 RELATED SECTIONS

A. Section 32 92 23 – Sodding

B. Section 32 93 00 – Landscape Planting.

1.3 REFERENCES

A. AASHTO T 180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54 kg (10-lb) Rammer and a 457 mm (18 in.) Drop; American Association of State Highway and Transportation Officials; 2001.

B. ASTM C 136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2001.

C. ASTM D 698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)); 2000a.

D. ASTM D 1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method; 2000.

E. ASTM D 1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN m/m3)); 2002.

F. ASTM D 2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 1994(R 2001).

G. ASTM D 2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2000.

H. ASTM D 2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2001.

I. ASTM D 3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 2001.

1.4 DEFINITIONS

A. Finish Grade Elevations: Indicated on drawings.

B. Subgrade Elevations: Will be left 6 inches below finish grade elevations in lawn and seeded areas, as indicated on drawings; and 6 inches below finish grade in planting areas, as indicated on drawings, unless otherwise indicated.

1.5 SUBMITTALS

A. See Section 01330 Submittal Procedures.

B. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used.

C. Compaction Density Test Reports.

1.6 PROJECT CONDITIONS

A. Provide sufficient quantities of fill to meet project schedule and requirements. When necessary, store materials on site in advance of need.

B. When fill materials need to be stored on site, locate stockpiles where indicated.
1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
2. Prevent contamination.
3. Protect stockpiles from erosion and deterioration of materials.

C. Verify that survey bench marks and intended elevations for the Work are as indicated.

PART 2 PRODUCTS

2.1 FILL MATERIALS

A. General Fill: Subsoil excavated on-site (Provide borrow soil materials when sufficient satisfactory soils materials are not available from excavations.
1. Graded.
2. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.
3. Conforming to ASTM D 2487 Group Symbol CL.

B. Granular Fill: Coarse aggregate, conforming to State of Texas Highway Department standard.

C. Sand: Natural river or bank sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter.
1. Grade in accordance with ASTM D 2487 Group Symbol SW.

D. Topsoil: Dark brown friable loamy topsoil, screened to remove rocks, clay lumps,

clods, vegetative material.

2.2 ACCESSORIES

A. Geotextile Fabric: Non-biodegradable, woven.

B. Vapor Retarder: 10 mil thick, polyethylene.

2.3 SOURCE QUALITY CONTROL

A. See 01400 Quality Assurance, for general requirements for testing and analysis of soil material.

B. Where fill materials are specified by reference to a specific standard, test and analyze samples for compliance before delivery to site.

C. If tests indicate materials do not meet specified requirements, change material and retest.

D. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.1 EXAMINATION

A. Identify required lines, levels, contours, and datum locations.

B. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.

3.2 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused be Work.

B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as direct by Landscape Architect.

E. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.

F. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.

G. Compact subgrade to density equal to or greater than requirements for subsequent fill material.

H. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.4 FILLING

A. Place and compact backfill in excavations promptly, but not before completing the following:
1. Construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
2. Surveying locations of underground utilities and record documents.
3. Inspecting and testing underground utilities.
4. Removing trash and debris.
5. Removing vegetation, topsoil, unsatisfactory soil materials, obstructions, and deleterious materials.
6. Removing concrete formwork.
7. Removing temporary shoring and bracing and sheeting.
8. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Fill to contours and elevations indicated using unfrozen materials.

C. Employ a placement method that does not disturb or damage other work.

D. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.

E. Maintain optimum moisture content of fill materials to attain required compaction density.

F. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.

G. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches compacted depth.

H. Slope grade away from building minimum 2 inches in 10 ft, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.

I. Correct areas that are over-excavated.
1. Load-bearing foundation surfaces: Use structural fill, flush to required elevation, compacted to 100 percent of maximum dry density.
2. Other areas: Use general fill, flush to required elevation, compacted to minimum 97 percent of maximum dry density.

I. Compaction Density Unless Otherwise Specified or Indicated:
1. Under paving, slabs-on-grade, and similar construction: 95 percent of maximum dry density.

J. Reshape and re-compact fills subjected to vehicular traffic.

3.5 FILL AT SPECIFIC LOCATIONS

A. Use general fill unless otherwise specified or indicated.

B. At Foundation Walls and Footings:
1. Use Structural Fill.
2. Fill up to subgrade elevation.
3. Compact each lift to 95 percent of maximum dry density.
4. Do not backfill against unsupported foundation walls.
5. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.

C. Over Subdrainage Piping at Foundation Perimeter and Under Slabs:
1. Cover drainage fill with general fill.
2. Fill up to subgrade elevation.
3. Compact to 95 percent of maximum dry density.

D. Over Buried Utility Piping and Conduits in Trenches:
1. Bedding: Use granular fill.
2. Cover with general fill.
3. Fill up to subgrade elevation.
4. Compact in maximum 8 inch lifts to 95 percent of maximum dry density.

E. At Lawn Areas:
1. Use general fill.
2. Fill up to subgrade elevations.
3. Compact to 85 percent of maximum dry density.
4. See Section 32 93 00 – Landscape Planting for topsoil placement.

F. At Planting Areas Other Than Lawns:
1. Use general fill.
2. Fill up to subgrade elevations.
3. Compact to 85 percent of maximum dry density.
4. See Section 32 93 00 – Landscape Planting for topsoil placement.

3.6 MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight

3.7 COMPACTION OF BACKFILLS AND FILLS

A. Place backfill and fill materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill materials evenly on all sides of structures to required

elevations, and uniformly along the full length of each structure.

C. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
1. Under structures, foundations, footings, building slabs, steps, and pavements, scarify and re-compact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill material at 95 percent.
2. Under walkways, scarify and re-compact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 92 percent.
3. Under lawn or unpaved areas, scarify and re-compact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 85 percent.

3.8 TOLERANCES

A. Top Surface of General Filling: Plus or minus 1 inch from required elevations.

3.9 FIELD QUALITY CONTROL

A. See Section 01400 - Quality Control, for general requirements for field inspection and testing.

B. Perform compaction density testing on compacted fill in accordance with ASTM D1556, ASTM D2167, ASTM D2922, or ASTM D3017.

C. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 698 ("Standard Proctor"), ASTM D 1557 ("modified Proctor"), or AASHTO T 180.

D. If tests indicate work does not meet specified requirements, remove work, replace and retest.

E. Proof roll compacted fill at surfaces that will be under slabs-on-grade.

3.10 CLEAN-UP

A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

END OF SECTION

SECTION 32 92 23

SODDING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Preparation of subsoil.

B. Sod installation.

1.2 RELATED SECTIONS

A. Section 32 93 00 – Landscape Planting

1.3 REFERENCES

A. TPI (SPEC) -Guideline Specifications to Turfgrass Sodding; Turfgrass Producers International; 1995.

1.4 SUBMITTALS

A. See Section 01330 Submittal Procedures

B. Certification: Submit certification of grass species and location of sod source.

1.5 QUALITY ASSURANCE

A. Sod Producer: Company specializing in sod production and harvesting with minimum five years experience and certified by the State of Texas.

B. Installer Qualifications: Company approved by the sod producer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver sod on pallets. Protect exposed roots from dehydration.

B. Do not deliver more sod than can be laid within 24 hours.

1.7 INSPECTIONS

A. Make written request for inspection of finish grade prior to sodding.

B. Make written request for inspection that sodding operations have been completed. Such inspection is for the purpose of establishing the Maintenance Period.

C. Submit written requests for inspections to the Landscape Architect at least seven (7) days prior to anticipated inspection date.

1.8 WARRANTY PERIOD

A. Time Period: Warrant that all lawns and grasses shall be in a healthy and flourishing condition of active growth six (6) months from date of Final Acceptance.

B. Appearance During Warranty: Lawns shall be free of dead or dying patches, and all areas shall show foliage of a normal density, size and color. Complete lush cover with no brown sections or cracks showing.

C. Delays: All delays in completion of planting operations which extend the planting into more than one planting season shall extend the Warranty Period correspondingly.

D. Exceptions: Contractor shall not be held responsible for failures due to neglect by Owner, vandalism, etc., during Warranty Period. Report such conditions in writing.

E. Replacements: Replace, without cost to Owner, and as soon as weather conditions permit, all lawn and grasses not in a vigorous, thriving condition, as determined by Landscape Architect during and at the end of Warranty Period.

F. Matching: Closely match all replacement sod with adjacent areas of lawn or grass. Apply all requirements of this Specification to all replacements

1.9 FINAL ACCEPTANCE

A. Work under this Section will be accepted by Landscape Architect upon satisfactory completion of all work, but exclusive of re-application under the Guarantee Period.

PART 2 PRODUCTS

2.1 MATERIALS

A. Sod: TPI, Certified Turfgrass Sod quality; cultivated grass sod; type indicated in plant schedule on Drawings; with strong fibrous root system, free of stones, burned or bare spots, relatively free of thatch; free from diseases and harmful insects; containing no more than 5 grassy and/or broadleaf weeds per 1000 sq ft; . Minimum age of 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding the upper two corners.

B. Sod shall be rejected if found to contain the following weeds: Quackgrass, johnsongrass, poison ivy, nimbleweed, thistle, bindweed, bentgrass, perennial sorrel, bromegrass.

C. Topsoil: As specified in Section 32 93 00 – Landscape Planting.

2.2 ACCESSORIES

A. Wood Pegs: Softwood, sufficient size and length to ensure anchorage of sod on slope.

B. Wire Mesh: Interwoven hexagonal metal wire mesh of 2 inch size.

2.3 HARVESTING SOD

A. Machine cut sod in accordance with TPI Guidelines.

B. Cut sod in area not exceeding 1 sq yd, with minimum 1/2 inch and maximum 1 inch topsoil base.

PART 3 EXECUTION

3.1 SOD BED PREPARATION

A. Prepare subgrade in accordance with Section 32 93 00 – Landscape Planting.

B. Final Grading
1. Stones, Weeds, Debris: Verify that all areas to receive lawns are clear of stones larger than 1-1/2 in. diameter, weeds, debris and other extraneous materials.
2. Grades: Verify that grades are within 1 in. plus or minus of the required finished grades. Verify that soil preparation and fertilization has been installed in another section. Report all variations in writing.
3. Rake areas to set exact line and final finish grade.

C. Rolling: Roll amended soil with 200 pound water-ballast roller.

D. Soil Moisture:
1. Excessive Moisture: Do not commence work of this section when soil moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in air or that clods will not break readily.
2. Inadequate Moisture: Apply water, as necessary, to bring soil to an optimum moisture content for planting, immediately prior to laying the sod.

E. Timing: Sod immediately thereafter, provided the sod-bed has remained friable.

3.2 LAYING SOD

A. Moisten prepared surface immediately prior to laying sod.

B. Lay sod within 24 hours after harvesting. Sod over 24 hour old will be removed from the site immediately.

C. Lay the first row of sod in a straight line, with subsequent rows parallel to and set tight with no open joints visible, and no overlapping; stagger lateral joints 12 inches minimum. Do not stretch or overlap sod pieces.

D. Lay smooth.

E. Cut sod to fit curves with a sharp knife.

F. Place top elevation of sod 1/2 inch below adjoining edging.

G. On berms and slopes lay sod with strips parallel to contours.

H. On slopes four inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 1 1/2 feet on center. Drive pegs flush with soil portion of sod.

I. Water sodded areas immediately after installation. Saturate sod to 6 inches of soil.

J. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities. Roll sodded areas with roller not exceeding 200 lbs.

K. Immediately after installation of the sod, remove sod clumps and soil, wash off any plant materials and pavements not to have sod. Keep all areas clean during the maintenance period.

3.3 CLEAN-UP

A. General: Keep all areas of work clean, neat and orderly at all times. Keep all paved areas clean during planting operations.

B. Debris: Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance.

END OF SECTION

SECTION 32 93 00

LANDSCAPE PLANTING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Preparation of subsoil.

B. Excavation of plant pits and beds.

C. Backfill planting pits and bed preparation.

D. Installation of new plant material.

E. Finish grading of planting areas.

F. Mulch and Fertilizer.

G. Installation of Steel Edging.

H. Maintenance.

I. Tree Pruning.

J. Warranty and Replacements

1.2 RELATED SECTIONS

A. Section 32 92 23 – Sodding

B. Section 32 01 90 – 90 Day Establishment Planting

1.3 REFERENCES

A. ANSI Z60.1 -American Standard for Nursery Stock; 2004.

B. ANSI A300 -American National Standard for Tree Care Operations --Tree, Shrub and Other Woody Plant Maintenance --Standard Practices; 2006.

1.4 DEFINITIONS

A. Weeds: Any plant life not specified or scheduled.

B. Plants: Living trees, plants, and ground cover specified in this Section.

1.5 SUBMITTALS

A. See Section 01330 Submittal Procedures

B. Provide the following Material Samples and Literature:

1. Photographic image of each variety and size of plant material shown on the plans and plant list and indicated in the specifications. Each image will include a clearly legible measuring device, plant common name, plant botanical name, and the supplier's name, location and phone number. Submit representative photographs for review of all plant materials in the required sizes and in available quantity at least ninety (90) working days prior to shipment to the site.
2. Hardwood Mulch: One (1) gallon (sample) with analysis and literature including supplier's name, location and phone number.
3. Soil Amendments: One (1) gallon (sample) with analysis and literature including supplier's name, location and phone number.
4. Tree Staking/Guying: Literature for materials and shop drawings of installation details and procedures.
5. Plant Material Supplier: Ordering Document, Order Confirmation. Submit documentation within thirty (30) days after Award of Contract that all plant materials have been located and are ready to be secured. Arrange specific review and/or tagging procedure of plant materials at time of submission.
6. Shipping and Transportation Plan for distant material. The plan shall include:
   a) Date of pick-up at nursery or place of storage.
   b) Type of vehicle used for shipping.
   c) Method of protecting trees during transit.
   d) Dates in transit.
   e) Date of delivery to site.
   f) Projected date of installation.
   g) Means of storage, watering and protection to be used between deliveries and installation.
7. Shop Drawings: Supply shop drawings for all items associated with the landscape installation including, but not limited to; staking and guying details, tree protection fencing, steel edging installation, gravel paving, planter installation and drainage, landscape drain installation, etc.

C. Submittal Schedule: All products in this section which are required for submittal shall be included in one (1) submittal package.

1.6 QUALITY ASSURANCE

A. Quality Control: Plant material shall be subject to inspection and approval by Landscape Architect at place of growth or storage and upon delivery for conformity to specifications.

B. Samples: The Owner reserves the right to request samples of materials for conformity to specifications at any time, including plants. Contractor shall furnish samples upon request. Rejected materials shall be immediately removed from the site at Contractor's expense. Cost of samples of materials not meeting specifications shall be paid by Contractor.

C. Nursery Qualifications: Company specializing in growing and cultivating the plants with three years documented experience.

D. Installer Qualifications: Company with a minimum of five years of experience in the installation of commercial landscaping and site construction.

E. Tree Care Qualifications: Firm specializing in the pruning and care of trees. All work will be performed or directly supervised by a certified arborist. All work will be performed according to TCIA – Pruning Standards for Shade Trees. If the installation contractor does not employ a certified arborist, the work shall be subcontracted to a firm that meets the qualifications.

F. Maintenance Services: Performed by qualified professional maintenance contractor. All pesticide applications will be done by an applicator certified by the Texas Department of Agriculture or the Structural Pest Control Board. If the installation contractor does not employ a certified pesticide applicator or licensed irrigator, the work shall be sub-contracted to a firm that meets the qualifications.

1.7 TAGGING

A. Nursery review and plant selections: The Landscape Architect may elect to review any of the material at the place of growth. Upon review and acceptance of plant material photograph, specific items will be selected for field review by the Landscape Architect. The Landscape Contractor shall arrange the review and accompany the Landscape Architect for all reviews and tagging at place of growth, and upon delivery, for conformity to the specifications. Contractor shall insure a sufficient quantity of plants will be available whenever trips are arranged to a nursery for the purposes of tagging material for the project.

B. Plants identified as “specimen” or "selected specimen" shall be approved and tagged at place of growth by Landscape Architect. For distant material, submit photographs with a clearly legible measuring device adjacent to plants for preliminary review. Such review shall not impair the right of review and rejection during progress of the work.

C. Contractor is responsible for all travel related expenses for tagging trips necessary to select and procure material. Owner and Landscape Architect will accompany contractor, but travel expense for these individuals are not included in contractor’s scope of work.

D. All plants inspected at the nursery by the Landscape Architect shall be tagged with serialized self-locking tags. Trees delivered to the site without these tags or with broken tags shall be sufficient reason for rejection.

1.8 PHOTOGRAPHIC ACCEPTANCE

A. Photograph Acceptance and Nursery Review: Acceptance of material through photographs does not preclude rejection of unsatisfactory material upon delivery. The Landscape Architect reserves the right to refuse review from photographs or at the grower if, in his judgment suitable material or sufficient quantities are not available.

1.9 SUBSTITUTIONS

A. Unavailable Material: If any plant material is not available, the Contractor shall bring this to the attention of the Landscape Architect at least 3 days prior to the bid due date. If there is no notice of the lack of availability, it will be assumed that the Contractor has located sources for all materials required to complete the work. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest

equivalent size or variety with corresponding adjustment of Contract price. Substantiate such proof in writing no later than fifteen (15) days after award of contract.

Prior to selecting alternate material, the Landscape Architect may, at his discretion, attempt to locate the material. Should the specified plant material be located by the Landscape Architect for the Contractor, the Contractor shall secure the material from the new source at no change to the contract price.

B. Substitutions of plant materials will not be permitted unless authorized in writing by Landscape Architect. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract Price. Such proof shall be substantiated and submitted in writing to Landscape Architect no later than fifteen (15) days after award of contract. These provisions shall not relieve Contractor of the responsibility of obtaining specified materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.

Prior to selecting alternate material, the Landscape Architect may, at his discretion, attempt to locate the material. Should the specified plant material be located by the Landscape Architect for the Contractor, the Contractor shall secure the material from the new source at no change to the contract price.

1.10 REGULATORY REQUIREMENTS

A. Fertilizers, pesticides and other chemicals and materials required for the completion of the Work shall fully comply with city, county, state and federal regulatory agencies' requirements.

B. Plant Materials: Described by ANSI Z60.1; free of disease or hazardous insects.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Deliver fertilizers, pesticides and other chemicals or materials in the manufacturer's original container. All labeling shall be attached and legible. Dry materials, such as fertilizer, will be delivered in waterproof bags showing weight, chemical analysis, and name of manufacturer.

B. Labeling: All fertilizers, pesticides and other chemicals or materials shall include all of the manufacturer's original labeling legibly showing quantity, analysis and name of manufacturer. Representative samples of all varieties of plant material required will be tagged with labeling showing the botanical name, common name, size and grower. Material delivered to the site without this labeling is subject to rejection. Rejected material will be removed for the site and replaced at the Contractor's expense.

C. Storage: Store products with protection from weather or other conditions which would damage or impair the effectiveness of the product. Protect plant containers from sun during summer months with temperatures above 80 degrees F. During hot weather the Contractor shall transport plant materials subject to heat damage between sunset and sunrise if transported in an open trailer or un-refrigerated box.

D. Loading and Moving: Do not lift or handle plants by tops, stems or trunks at any

time. Do not bind or handle plants with any material or in any manner that could damage or disfigure the plant material at any time.

1 Protect all trunks, stems, branches and root balls during tree tying, wrapping and loading operations.

2 Load balls or containers onto transport vehicle and secure in a manner that protects the structural integrity of the root balls.

3 The Contractor shall be solely responsible for the safe transportation of plants to the site and their condition upon arrival. Trees damaged or dehydrated during transit and/or storage will be rejected.

4 No trees are to be shipped and left in trailers or on trucks for storage. Arrange delivery so that the plant materials are shipped, off loaded, and safely stored or planted allowing the appropriate time from shipment to arrival with no delay. Balled and burlapped trees that are not planted the day of delivery shall be set upright and healed in with mulch until they are installed.

5 The Landscape Architect may inspect any phase of this operation and may reject any plant material improperly handled during any phase of this operation.

E. Anti-Desiccant: At Contractor's option, spray all evergreen or deciduous plant material in full leaf immediately before transporting with anti-desiccant. Apply an adequate film over trunks, branches, twigs and foliage.

F. This Section shall not be interpreted as relieving the Contractor of the responsibility of providing healthy, viable plants, nor shall it have any affect upon the terms of the warranty specified herein.

1.12 ENVIRONMENTAL REQUIREMENTS

A. Do not install plant material when ambient temperatures may drop below 32 degrees F for more than 24 hours. Do not install plant material when temperatures over 100 degrees F without written direction from the Landscape Architect or Owner's Representative.

B. Do not install plant material when wind velocity exceeds 30 mph.

1.13 ESTABLISHMENT PERIOD AND FINAL ACCEPTANCE

A. See Section 32 01 90 – Landscape Maintenance until Final Acceptance & Landscape Establishment for Ninety (90) Days (if applicable)

B. Final acceptance of the Work will mark the beginning of the ninety-day landscape establishment period.

1.14 FINAL ACCEPTANCE

A. Work under this Section will be conditionally accepted by Landscape Architect upon satisfactory completion of all work and punch-list corrections, but exclusive landscape establishment period or replacement of plant materials under the Warranty Period. The Contractor is responsible for all maintenance of the work until Final Acceptance, and the during the ninety-day establishment period. Upon completion of the landscape establishment period, the Owner will assume responsibility for maintenance of the Work.

1.15 WARRANTY

A. Warranty: Warrant that all trees, shrubs, ground covers, and vines planted under this Contract will be healthy and in flourishing condition of active growth one (1) year from date of Final Acceptance. The Contractor shall be responsible for monitoring the condition of the landscape during the warranty period and for reporting any problems, in writing, to the Owner's Representative. Failure to report problems in a timely manner may make the Contractor responsible for the replacement of material damage from improper maintenance.

B. Delays: All delays in completion of planting operations which extend the planting into more than one planting season shall extend the Warranty Period correspondingly. Delays due to water restrictions may extend the warranty period. Requests for changes to the warranty period will be made in writing to the Owner's Representative.

C. Condition of Plants: Plants shall be free of dead or dying branches and branch tips, with all foliage of a normal density, size and color.

D. Replace, without cost to Owner and as soon as weather conditions permit, all dead plants and all plants not in vigorous, thriving condition, as determined by the Owner or Owner's Representative during and at the end of Warranty Period. Plants shall be free of dead or dying branches and branch tips, and shall bear foliage of a normal density, size and color. Replacements shall meet the specifications of the original plant material, and closely match adjacent specimens of the same variety.

E. Replacement Quantities:
1 A new Warranty shall commence on date of replacement.
2 Contractor shall be held responsible for as many replacements as necessary throughout the Warranty Period. The Contractor may ask for an alternate plant material in problem locations. The alternate plant material will be installed under the original warranty.

F. Contractor shall not be held responsible for failure due to neglect by the Owner, vandalism, etc., during Warranty Period. Report such conditions to the Landscape Architect in writing.

PART 2 - PRODUCTS

2.1 TREES, PLANTS, VINES AND GROUND COVER

A. Trees, Plants, and Ground Cover: Species and size identifiable in Plant Schedule in drawings.

B. Unless otherwise noted in the specifications or plant list, all plants shall be nursery grown in accordance with good horticultural practices under climatic conditions similar to those of project for at least two years unless specifically otherwise authorized by Landscape Architect in writing. Unless specifically noted otherwise, all plants shall be exceptionally heavy, symmetrical, tightly knit, so trained or favored in development and appearance as to be superior in form, number of branches, compactness and symmetry.

C. Plants shall be sound, healthy and vigorous, well branched and densely foliated when in

leaf. They shall be free of disease, insect pests, eggs, or larvae, and shall have healthy, well developed root systems. They shall be free from physical damage or adverse conditions that would prevent thriving growth.

D. Container grown native grasses and aquatics (non-woody plants) shall have well-established root balls. Root balls of non-woody plants must not be separated, broken up, or otherwise damage prior to or during installation.

E. Plants shall be true to species and variety and shall conform to measurements specified except that plants larger than specified may be used if approved by Landscape Architect. Use of such plants shall not increase Contract price. If larger plants are approved, the ball of earth or container size shall be increased as specified under "Applicable Standards" and subject to the approval of the Landscape Architect.

F. Plants shall be measured when branches are in their normal position. Height and spread dimensions specified refer to main body of plant and not branch tip to tip. Trunk diameter measurements shall be taken at a point on the trunk six (6") inches above natural ground line for trees four (4") inches in diameter and smaller, and at a point twelve (12") inches above the natural ground line for trees larger than four (4") inches in diameter. Diameter measurements shall be taken using a diameter tape, not calipers.

The measurements specified are the minimum size acceptable and are the measurements after pruning, where pruning is required. Plants that meet the measurements specified, but do not possess a normal balance between height and spread shall be rejected.

G. Container stock, when specified, shall be healthy, vigorous, well rooted, and established in the container in which it is growing. Container grown nursery stock shall have a well-established root system reaching the sides of the container to maintain a firm root ball when the container is removed, but shall not have excessive root growth encircling the inside of the container. Samples must prove no root-bound conditions exist. Container plants that have cracked or broken balls of earth when taken from container shall be rejected. Container stock shall not be pruned before delivery. Field grown plants recently transplanted into containers will not be accepted. Unless specified as 'containerized', no balled and burlap trees transplanted into containers will be accepted.

H. Trees which have damaged, crooked or multiple leaders, unless specified, will be rejected. Trees with abrasions of the bark, sunscalds, disfiguring knots, or fresh cuts of limbs over three-quarter (3/4") inch which have not completely calloused, will be rejected.

I. Balled and burlap (B&B) trees, when accepted shall have a minimum root ball size of ten (10x) times the diameter.

J. Nursery grown B&B material shall be pruned and thinned at the place of growth immediately prior to digging as required for packaging and safe moving. Trees that are over-pruned or misshapen due to improper pruning will be rejected. Method of pruning shall be as approved in the field by the Landscape Architect. Do not remove self-locking tags during this pruning prior to delivery to site.

K. Field collected or plantation grown stock shall conform to the applicable standards.

2.2 ANTI-TRANSPIRANT

A. Anti-transpirant for retarding excessive loss of plant moisture and inhibiting wilt shall be sprayable, water insoluble polymer complex which will produce a moisture retarding barrier not removable by rain.

B. WILT PRUF as manufactured by Wilt Pruf Products, Inc., Essex CT; or accepted equal.

2.3 SOIL MATERIALS

A. Topsoil: Type specified in Section 32 91 19

B. Soil Amendment Materials

1. Pre-Plant Fertilizer: Containing fifty percent of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil, as indicated in analysis.
2. Compost: Completely organic, aerobically composted humus product containing manure, wheat straw, plant matter, hardwood shavings and other organic components consisting of 80% vegetative material and 20% manure. Completely composted; free of weeds, weed seeds, insects, and pests. pH range 6.5-7.0 Supplied by Living Earth Technology, 972-869-9498
3. Professional Bedding Soil: Bedding mix shall consist of compost and expanded shale. Gumbo Buster supplied by Soil Building Systems or equal can be substituted. (50% Shale and 50% Planting Bedding Mix)
4. Top-dress Fertilizer: Per Organic Maintenance Specification
5. Tree and Shrub Planting Fertilizer: Per Organic Maintenance Specification.
6. Water: Clean, fresh, and free of substances or matter which could inhibit vigorous growth of plants. Watering for chemical tanks will not be allowed.
7. Herbicide: For pre-plant preparation, Reference Organic Maintenance Specification. For post-plant weed control, Reference Organic Maintenance Specification. Applications must be approved for use in the State of Texas and be applied by licensed applicators. The Owner and/or Owners' Representative must be notified at least 48 in advance of applications. A copy of the applicator's log must be supplied to the Owner's Representative within 48 of any chemical application.
8. Pesticide: Pesticides may be used for specific pest infestations, but only in limited application. Reference Organic Maintenance Specification. Applications must be approved for use in the State of Texas and be applied by licensed applicators. The Owner and/or Owners' Representative must be notified at least 48 in advance of pesticide applications. A copy of the applicator's log must be supplied to the Owner's Representative within 48 of any chemical application.

2.4 MULCH MATERIALS

A. Mulching Material: Fine-ground shredded hardwood bark mulch – Double-ground, partially composted, and free of growth or germination inhibiting ingredients. pH range 6.0-7.0 Supplied by Living Earth Technology, 972-869-4332

2.5 ACCESSORIES

A. Plant Staking Materials: Contractor shall use staking materials as necessary to meet the

requirements of the specification, subject to approval. Refer to details for staking and/or guying requirements.

1. Tree Stakes: 1.25# studded metal T-Posts -6' long.
2. Wire: High-tensile 12 gauge; 200,000 psi; Class III zinc coating. Refer to details.
3. Cable: 3/16" galvanized or stainless steel aircraft cable; 7x19; min. 4,200 psi break strength; secured with drop-forged galvanized clips
4. Turnbuckles: Minimum ½"x6", hot-dipped galvanized or stainless steel, eye and eye.
5. Ground Anchors: 30"x4" dia. galvanized ground screw for 3"-4" diameter trees, 48"x6" dia. for trees 5"-6" diameter.
6. Plant Protectors: Reinforced black rubber hose sleeves over cable to protect plant stems, trunks, and branches. Tubing or thin-wall hose will not be accepted.

B. Filter Fabric: Mirafi 140N as manufactured by Mirafi Construction Products, Pendergrass, GA.

C. Steel Edging: 3/16" x 4" electrostatically applied, powder-coat painted steel as manufactured by the J.D. Russell Co., 1-800-888-6872

D. Drainage Gravel: 5/8" to 1", smooth, washed gravel.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that prepared subsoil, planters, on-structure decks, etc. are ready to receive work. The Contractor assumes all responsibility for the correction of work installed on improper grades.

B. Verify that required underground utilities are available, in proper location, and ready for use.

C. Finish Grades: Verify that all grades are within one (1") inch, plus or minus, of required finish grade and that all topsoil has been installed (if applicable) as specified under Landscape Grading -Section 8.0.

D. Notification: Submit written notification of all conditions inconsistent with specifications for site grading as described in Landscape Grading -Section 8.0.

3.2 DRAINAGE OF PLANTING AREAS

A. Surface Drainage: Maintain positive surface drainage of planted areas as established under Landscape Grading -Section 8.0.

B. Discrepancies: Contractor shall bear final responsibility for proper surface drainage of planted areas. Submit in writing, all discrepancies in the Drawings or Specifications, obstructions on the site, or prior work done by others, which Contractor feels precludes maintaining proper drainage. Include description of all work required for correction or relief of said responsibility.

3.3 DRAINAGE, DETRIMENTAL SOILS AND OBSTRUCTIONS

A. Test drainage of plant beds and pits by filling with water twice in succession. Conditions permitting the retention of water in planting beds for more than twenty four (24) hours or percolation of less than one (1") inch per hour shall be brought to the attention of the Owner.

B. Notify the Landscape Architect in writing of all soil or drainage conditions Contractor considers detrimental to growth of plant material.

C. Obstructions: If rock, underground construction work, tree roots or other obstructions are encountered in the excavation of plant pits, alternate locations may be used as directed. Where locations cannot be changed, submit for acceptance a written proposal and cost estimate for cost required to remove the obstructions to a depth of not less than six (6") inches below the required pit depth. Proceed with work after written acceptance.

3.4 PREPARATION OF SUBSOIL

A. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.

B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.

C. Scarify subsoil to a depth of 6 inches where plants are to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.

D. Excavate planting pits and beds to the dimensions as shown on Detail Drawings, not less than two times the width of the root ball and slightly less than the depth of the root ball. Do not place trees on uncompacted backfill. If tree pits are excavated too deeply, add soil excavated form the tree pit and compact.

3.5 LAYOUT OF PLANTING AREAS

A. Layout and Staking: Lay out plants at locations shown on Drawings. Use color-coded wire flags for each species of plant material. Stake the location of each tree, vine and major shrub. Outline shrub and groundcover masses and bed edges with marking paint.

B. Locations of plants will be observed in the field by the Landscape Architect and will be adjusted to exact position before planting begins. Right is reserved to refuse review at this time if, in the Landscape Architect's opinion, a sufficient quantity of plants is not available. The Contractor shall be responsible for moving any plant material if layout was not approved by the Landscape Architect prior to planting.

3.6 STEEL EDGING

A. General: Install edging prior to installation of adjacent sprinkler irrigation system.

B. Edging: Install headers true to line and grade as shown on the Drawings. Align edging and set flush with adjacent paving. Curved edges shall be smooth and continuous with no flat areas or abrupt bends. Straight segments will be string-line-straight with no bows or bends.

C. Stakes: Stakes shall be a minimum of twelve (12") inches long and longer as required for solid anchorage. Anchor with steel stakes spaced not more than three (3') feet o/c or as often as necessary to have smooth radius or straight tangent. Drive stake to one (1") inch below top of edging.

3.7 PLANTING OPERATIONS

A. General:

1. Protect plants at all times from sun or drying winds.

2. Keep plants that cannot be planted immediately upon delivery in the shade, well-protected and well-watered.

B. Do not bind or handle any plant with wire or rope at any time so as to damage bark or break branches. Lift and handle plants only from bottom of ball. Improperly handled plant material is subject to rejection.

C. Ball and burlap (B&B) plants shall have firm balls of earth of a size to encompass enough of the fibrous and feeding root system as necessary for the complete recovery of the plant. At a minimum, root balls should be size per the American Standard for Nursery Stock (ANSI Z60.1–2004). Any plants with a root ball that is undersized, cracked or broken, before or during planting operations will not be accepted. B&B material shall be dug only when dormant. Pre-dug and stored B&B material shall be inspected and approved at the storage site. B&B trees with chicken wire of other wire mesh around the root balls will not be accepted.

D. At Contractor's option and expense, spray all evergreen or deciduous plant material in full leaf immediately before digging with anti-desiccant, applying an adequate film over trunks, branches, twigs, and foliage.

3.8 SOIL PREPARATION

A. General: Verify that prepared subsoil, planters, on-structure decks, etc. are ready to receive work. The Contractor assumes all responsibility for the correction of work installed on improper grades.

B. Tree Pit Preparation:

1. Excavation: Excavate planting pits and beds to the dimensions as shown on Detail Drawings, not less than two times the width of the root ball and slightly less than the depth of the root ball. Do not place trees on uncompacted backfill. If tree pits are excavated too deeply, add soil excavated from the tree pit and compact so that the top of root ball will be at 1"-2" above finished grade after settling. Scarify the walls and bottom of all plant pits immediately prior to the placement of plant and backfill mix. The Contractor shall remove all glazing caused by an auger or other mechanical excavation equipment.
2. Tree Backfill Mix: Use native soil excavated from the tree pit. If the pit is excavated in rock, do not backfill with excavated material. Instead, use backfill with topsoil from on-site stockpile or import soil of a type similar to the existing site soil. Excess material is to be used for fine grading or lawfully disposed of at an off-site location depending on site grade conditions.

3. Ornamental Tree Pit Backfill: Mix soil excavated from the pits mixed with Professional Bedding Soil in a 5:1 ratio. If the pit is excavated rock, do not use excavated material as backfill. Instead, use topsoil from on-site stockpile or import soil of a type similar to the existing site soil. Mix in the same 5:1 ratio with Professional Bedding Soil. Excess tree pit spoil material is to be used for fine grading, if needed depending on site grade conditions, or lawfully disposed of at an off-site location at the Contractor's expense.

C. Bed Preparation:

1 Smooth planted areas to conform to specified grades after full settlement has occurred. Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party which Contractor feels precludes establishing proper drainage, shall be brought to the attention of the Landscape Architect in writing prior to any work being started.

2 Till subsoil to a depth of 6 inches where plants are to be placed. In areas where equipment or vehicular traffic has compacted subsoil, rip or scarify the sub-grade to a depth of 12" prior to tilling.

3 Uniformly spread 3 inches of compost and 3 inches of expanded shale in all bed areas and till into existing soil to a depth of 12". In seasonal color beds, use 4" of Professional Bedding Soil

3.9 TREE AND SPECIMEN SHRUB PLANTING

A. Container stock shall be removed carefully without pulling on the trunk or stem. If required, cut can on two sides with approved cutter. Do not use spade to cut cans. Do not lift or handle container plants by trunk at any time. Prune away girdled roots and gently loosen root masses.

B. For boxed material, break vertical bands and remove top and bottom of container. Carefully lower plant into pit, by approved method, and adjust elevation. Cut horizontal bands and remove sides. Prune away girdled roots and gently loosen root masses.

C. Place B&B plants carefully in the prepared planting pit and adjust elevation. Backfill tree pit approximately 50%. Tamp soil and set tree plumb. Remove top 1/3 of the basket and burlap. Add and tamp the remainder of the backfill.

D. Place bare root plant materials so roots lie in a natural position. Backfill with soil mixture in 6 inch lifts. Maintain plant in vertical position.

E. Set plants plumb and orient for best appearance for review and final orientation by Landscape Architect, if requested.

F. Carefully fill pits and compact by watering and tamping each eight (8") inches of backfill to support root ball.

G. Fertilizer: Place evenly distributed in plant pits when backfilled 2/3 according to the organic maintenance specification.

H. Adjustment: Adjust trees so that, after full settlement has occurred, the natural grade at the base of the trees is 1"-2" inches above the adjacent finish grade.

I. Smooth surrounding areas to conform to specified grades after full settlement has occurred. Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party which Contractor feels precludes establishing proper drainage, shall be brought to the attention of the Landscape Architect in writing.

J. Watering Basin: Form circular ring of earth to create a three (3") inch high berm with tree or specimen shrub in the center. The inside diameter of the basin shall be equal to the diameter of the root ball.

K. Water all trees immediately again after planting.

L. Apply pre-emergent weed control material in areas to receive mulch.

M. Spread mulch in watering basins to the depth of three (3") inches.

N. Remove all flagging, tags, plastic ties, wire, string, cord or any other material that may damage the bark. DO NOT remove Landscape Architect's lock-rings or plant identification tags until instructed by the Landscape Architect.

3.10 SHRUB AND GROUNDCOVER PLANTING

A. Tilling: Immediately prior to planting, re-till bed areas to be planted with groundcover, perennials or seasonal color.

B. Planting: Set plant material so that the top of the root ball is slightly above the surrounding grade. Avoid air pockets. Equally space as directed by the details or plant list. Refer to details for plant mass or bed edge planting.

C. Fertilizer: Apply topdressing fertilizer to all groundcover, perennial and seasonal color beds. Backfill all shrub pits ½ and add fertilizer per organic specifications.

D. Smooth surrounding areas to conform to specified grades after full settlement has occurred. Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party which Contractor feels precludes establishing proper drainage, shall be brought to the attention of the Landscape Architect in writing.

E. Water all plant material immediately again after planting.

F. Apply pre-emergent weed control material in areas to receive mulch.

G. Spread mulch in bed areas to the depth of two (3") inches. Keep mulch away from plant stems.

3.11 AQUATIC PLANTING

A. Staking: All aquatics to receive a minimum of one 3/8" re-bar pin. The pin shall be bent into an 'L' shape with the long leg 12" in length and the short leg 3" in length. Push pin

through root ball into sides or bottom of planting pit so that it is flush with the top of root ball.

B. The following are planting requirements for various non-woody aquatics:
1 Install aquatics when lakes are drained down (well turned off) below planting shelf. Planting areas to be moist but not flooded or saturated (boggy).
2 Install at soil surface, but NOT above soil surface. Be sure crowns are fully covered and not washed out.
3 Ensure there is full contact, with no air or water pockets, between root ball and surrounding soil. Water in.
4 Install stakes as specified above.
5 Maintain NON-flooded condition for minimum of three days after installation prior to restoring flooded condition.

3.12 PLANT SUPPORT

A. Trees that are not capable of standing upright without falling or leaning shall be staked or guyed. The Contractor is responsible for material remaining plumb and straight for all given conditions through the guarantee period. Tree support shall be performed as outlined below.

B. Staking shall be completed immediately after planting. Plants shall stand plumb after staking.

C. Brace plants vertically with plant protector wrapped guy wires and stakes to the following:
1 For trees 3" diameter and less, use two (2) steel T posts. Orient stakes, generally, one to the south of the trunk, and one to the north. Install a loop of wire from the trunk just above the lowest branches (or level with the top of the T post for plants that are full-to-the-ground) to the top of the T post. Provide hose to protect the bark of the tree. Twist the two strands of wire until slightly less than taut. DO NOT OVER-TIGHTEN. Trees should be free to move in light breezes.
2 For trees larger than 3" diameter and less than 6" diameter, use three (3) steel T posts. Orient stakes, generally, two to the south of the trunk and one to the north, equally spaced. Install a loop of wire from the trunk just above the lowest branches (or level with the top of the T post for plants that are full-to-the-ground) to the top of the T post. Provide hose to protect the bark of the tree. Twist the two strands of wire until slightly less than taut. DO NOT OVERTIGHTEN. Trees should be free to move in light breezes.
3. For trees 6" diameter and larger, use three (3) guy wires. Install three (3) ground-screw anchors oriented, generally, two to the south of the trunk, and one to the north, equally spaced. Run aircraft cable through the eye on the anchor and secure with two cable clips. Loop the other end of the cable through one eye of a turnbuckle and secure with two cable clips. Install a loop of aircraft cable, with hose to protect the bark, around the trunk just above the lowest branches and secure with two cable clips. Loop the other end of the cable through the second eye of the turnbuckle, pull tight and secure with cable clips. Remove any slack by tightening the turnbuckle. DO NOT OVER-TIGHTEN. The trees should be free to move in light breezes.

D. Locate stakes as per Drawing Details outside root ball and as close to the main trunk as is

practical, avoiding root injury. Stakes shall be driven at least eighteen (18") inches into firm ground. Stake shall be straight and plumb. DO NOT install stakes at an angle.

Typically, stakes and guys will be oriented south to north or per local prevailing winds. Verify with Landscape Architect before installing stakes or guys. Site conditions may necessitate a different configuration.

E. Auxiliary stem stakes shipped with trees shall be removed after planting.

3.13 TREE PRUNING

A. Perform pruning of trees as recommended in ANSI A300.

B. Prune newly planted trees as required to remove deadwood, suckers, broken, and split branches. DO NOT head-back any trees or remove lower branches.

C. Prune B&B material, as may be directed by Landscape Architect, by removing a percentage of interior branching proportional to the root loss during digging (no more than 1/3).

D. Use only clean, sharp tools.

3.14 CLEAN-UP

A. Keep all areas of work clean, neat and orderly at all times. Clean walks and drive and remove trash daily.

B. Clean up and remove all materials and debris from the entire site prior to Final Acceptance.

3.15 INSPECTIONS

A. Perform field inspection and testing in accordance with Town of Addison Requirements

B. Plants will be rejected if a ball of earth surrounding roots has been disturbed or damaged prior to or during planting.

C. Make written request for inspections after planting operations are completed.

D. Submit requests for progress inspections to the Owner at least two (2) days prior to anticipated inspection date.

END OF SECTION

AI-1567 **10.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Infrastructure- Development Services

AGENDA CAPTION:

Discuss, Consider And Approve A **Resolution Authorizing The City Manager To Award A Construction Contract to Groves Electrical Services, Inc. For The Construction Of The Les Lacs Pond Well Rebuilding Project** In the Amount Of $224,597.00.

BACKGROUND:

In order to address on-going water quality concerns, Halff Associates recommended various improvements to the Les Lacs Pond. Those recommendations were:

1. The relocation of the existing well discharge piping from the north end of the pond to the south
2. The replacement of the existing well pump
3. A water quality monitoring program for continued maintenance and operations of the pond

This authorization relates to the second recommendation.

The existing pump was installed in 1982 and minimal rehabilitation work has been performed in 1992 and 2000. Preliminary testing has shown that the pump is not pumping at its designed gallons-per-minute rate. Installation of a new pump will provide a more sustainable flow of fresh water into the pond.

The project will include replacement of the existing well pump, motor, and all associated piping and appurtenances. The electric power components of the well will be relocated to the north side of the existing wall and a new masonry wall and gate will be added for ease of access for monitoring and routine maintenance activities. The surrounding trees will be trimmed to provide sight lines and better access. All sod and irrigation damaged will be restored upon completion of the project.

During the construction of this project the eastbound lanes of Beltway Drive will be closed between Les Lacs Avenue and Proton Drive. This is to accommodate the drilling rig that will be required to perform the work related to the well. This area along with the eastern portion of the trail around Les Lacs pond will be closed to pedestrian traffic in order to maintain a safe work zone. Please see the attached sidewalk closure exhibit.

Design was completed in mid January 2016 and the project was advertised on BidSync on January 28, 2016. Plans and specifications for the project can be found on the Town of Addison website under the Finance department tab. The bids closed on February 25, 2016 and a total of one bid was received. The bid information is included in the table below:

Description	**Groves Electrical Services, Inc.**
Base Bid	$224,597.00

This project requires multiple disciplines to complete including electrical, landscaping, and water well services. The water well services portion of the contract requires a special set of equipment and services that only competent well service companies can complete. Five (5) contractors capable of performing this work were contacted by Halff Associates prior to the bid. These companies were: J L Myers, C Miller Drilling, THI Water Wells, and Weisinger, Inc. Each of these firms downloaded the bid documents from Bidsync. When the bids closed and only one bid was received, each of the above companies were contacted to determine why each chose not to submit a bid. Two decided not to bid because, by the nature of the project, the well driller would not be able to be the prime contractor on the project. One company opted not to bid because they could not find a suitable prime contractor to work with. The final contractor indicated that they had pricing concerns with their well drilling sub-contractor. With the extremely technical nature of the project coupled with the multiple required disciplines and the difficulty of performing this project in an occupied and active neighborhood, staff recommends awarding the project to the sole bidder.

Groves Electrical Services, Inc.'s references were checked related to past performance, schedules, change orders, punch list items, and final completion ability. The responses from those interviews were positive. Also, Groves Electrical Services, Inc. has performed a number of projects within the Town of Addison and they have always performed well. Groves Electrical Services, Inc. is currently working for the Town on the Beltway Connectivity Project. They are very familiar with the area and with the Town's expectations regarding construction projects. Therefore, we are recommending the award of the bid to Groves Electrical Services Inc., in the amount of $224,597.00. The project is budgeted for in the Stormwater Capital Projects Fund and is expected to take 6 months to complete, weather permitting.

The initial budget for the well rebuild construction portion of this project is $379,940.00. The actual cost for the water rebuild construction portion of the Les Lacs project is $224,597.00. In the Fiscal Year 2016 budget, $900,000 was budgeted for the entire Les Lacs project. Below is a comparison of the budget and actual expenditures for each portion of this project:

Project	Budget	Bid Price
Water Well Transfer Piping	$263,450.00	$120,325.00
Water Well Rebuild	$379,940.00	$224,597.00
Water Quality Program	$154,932.00	$154,932.00
Total	$798,322.00	$499,854.00

RECOMMENDATION:

Administration recommends approval.

Attachments

Sidewalk Exhibit

Contract

Resolution

LEGEND
SIDEWALK CLOSED IN THIS AREA DURING CONSTRUCTION

SIDEWALK CLOSURE EXHIBIT

ADDISON

HALFF
12225 GREENVILLE AVE, SUITE 200
DALLAS, TEXAS 75243
TEL (214) 572-2272
FAX (214) 572-2273
TBPE FIRM #F-312

N

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

LES LACS POND WATER WELL REBUILDING PROJECT

BID NUMBER 16-43

TOWN OF ADDISON, TEXAS
INFRASTRUCTURE & DEVELOPMENT SERVICES

JANUARY 2016

PREPARED BY

12225 Greenville Avenue, Suite 200
Dallas, Texas 75243
(214) 572-2272
Fax (214) 739-0095

TOWN OF ADDISON, TEXAS

MAYOR

Todd Meier

COUNCIL MEMBERS

Janelle Moore

David Heape

Bruce Arfsten

Mary Carpenter

Ivan Hughes

Dale Wilcox

CITY MANAGER

Wesley Pierson

DIRECTOR OF INFRASTRUCTURE AND DEVELOPMENT SERVICES

Lisa Pyles

DEPUTY CITY MANAGER

Cheryl Delaney

HALFF

12225 Greenville Avenue, Ste. 200
Dallas, Texas 75243
(214) 572-2272

ADDENDUM No. 5

To:	Jayson Shroyer P.E.	**Date:**	**2/23/2016**
From:	Timothy E Lackey, P.E.	**AVO:**	**29751, WA14**
Email:	tlackey@halff.com	**Project:**	**Les Lacs Pond Water Well Rebuilding Project. Addison Bid # 16-43.**
Subject:	Addendum No.5		

The following is a list of changes made to the plans and specifications. The changes are outlined by item number, as well as plan sheet number.

Drawings:

ITEM 1. No Change.

Specifications:

ITEM 1. No Change.

Clarifications:

Question 3 on Overall Bid
On sheet 2.01 it show O symbols that represent Heavy duty tarp limits. What are heavy duty tarp limits and what is the purpose? (Submitted: Feb 18, 2016 11:16:19 AM CST)

> **ANSWER:** The "O" symbols represent the limits of the heavy duty tarp that must be installed before pulling the pump and column pipe from the well. The purpose for this application is to prevent any rust on the pipe, rust in well servicing water, and/or pump from polluting the ground and to prevent any staining on the adjacent sidewalks. Refer to additional notes on the plans for protection of existing improvements through the mobilization, demolition, rebuilding, testing, and clean up phases of the project.

END OF ADDENDUM.

Attachments: No Attachments.

Copies: File.

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Section AB	**Advertisement for Bids**
Section IB	**Instructions to Bidders**
Section PF	**Proposal Form**
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Section CA	**Contract Agreement**
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Section GP	**General Provisions** ***Standard Specifications for Public Works Construction – North Central Texas***
Section SP	**Special Provisions**
Section PS	**Project Sign**
Section TS	**Technical Specifications**

SECTION AB

ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS

1. Sealed bids addressed to the Town of Addison, Texas, for the **Les Lacs Pond Water Well Rebuilding Project** in the Town of Addison, Texas, hereinafter called "City" or "Owner" in accordance with specifications and contract documents prepared by **Halff Associates, Inc.** will be received at the office of Wil Newcomer, Purchasing Manager, Finance Building, 5350 Belt Line Road, Addison, Texas until **2:00 p.m. on Thursday, February 18, 2016**. Bids received by the appointed time will be opened and read aloud. Any bids received after closing time will be returned unopened.

2. The Contractor shall identify his bid on the outside of the envelope by writing the words **INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-43, LES LACS POND WATER WELL REBUILDING PROJECT**.

3. Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a reliable surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties, or a Binder of Insurance executed by a surety company licensed by the State of Texas to act as a surety or its authorized agent as a guarantee that the bidder will enter into a contract and execute a Performance Bond within ten (10) days after notice of award of contract to him.

4. Plans, specifications and bidding documents may be downloaded from www.bidsync.com. The Town of Addison is a "free buyer", meaning that prospective bidders need only a free registration to sign up for plan updates. Bidders assume all risk for acquiring specs and/or plans from third party sites and plan rooms, as only www.bidsync.com will be directly updated by Addison.

5. The right is reserved by the Mayor and the City Council as the interests of the City may require to reject any or all bids and to waive any informality in bids received and to select the proposal deemed most advantageous to the City.

6. The Bidder (Proposer) must supply all the information required by the Proposal Form.

7. A Performance Bond, Labor and Material Payment Bond, and Maintenance Bond will be required by the Owner; each Bond shall be in the amount of 100% of the total contract amount. Bonds shall be issued by a surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties.

8. For information on bidding, call Wil Newcomer, Purchasing Manager, Town of Addison, (972) 450-7091. All questions on the work to be performed shall be submitted through www.bidsync.com.

9. The project consists of rebuilding the Les Lacs Pond Water Well and related improvements in accordance with the plans and specifications.

10. A **Pre-Bid Conference**, will be held at **10:00 a.m. on Monday, February 8, 2016** in the Les Lacs Park, 3925 Beltway Dr., Addison, Texas, (972) 450-7051.

Advertise: January 28, 2016
February 4, 2016
February 11, 2016

SECTION IB

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

A. **PROJECT: WELL REBUILDING**, in the Town of Addison. The bids will be evaluated as stated in Section "O" of these Instructions to Bidders.

B. **PROJECT DESCRIPTION:** The project consists of removing and replacing the existing well pump, carrier pipe and all of the electrical wiring within the well area, removal of existing structures, trees, shrubs and the replacement of grasses and other features disturbed by construction for the Les Lacs Pond Water Well Rebuilding Project.

C. **PROPOSALS:** Proposals must be in accordance with these instructions in order to receive consideration.

D. **DOCUMENTS:** Bidding Documents include the Project Manual (consisting of the Advertisement for Bids, these Instructions to Bidders, Proposal Forms, Contract Agreement, Performance Bond, Payment Bond, Maintenance Bond, Contractor's Affidavit of Bills Paid, General Provisions, Special Provisions, Project Sign, and Technical Specifications), a Waiver of Lien, Drawings, and Addenda which may be issued by the Town of Addison during the bidding period. Bidding Documents may be viewed and/or obtained under the terms and conditions set forth in the Advertisement for Bids, Section AB of this Project Manual.

E. **EXAMINATION OF DOCUMENTS AND SITE:** Bidders shall carefully examine the Bidding Documents and the construction site to obtain firsthand knowledge of the scope and the conditions of the Work. Each Contractor, Subcontractor and Sub-subcontractor, by submitting a proposal to perform any portion of the Work, represents and warrants that he has examined the Drawings, Specifications (Project Manual) and the site of the Work, and from his own investigation has satisfied himself as to the scope, accessibility, nature and location of the Work; the character of the equipment and other facilities needed for the performance of the Work; the character and extent of other work to be performed; the local conditions; labor availability, practices and jurisdictions; and other circumstances that may affect the performance of the Work. No additional compensation will be allowed by the Owner for the failure of such Contractor, Subcontractor or Sub-subcontractor to inform himself as to conditions affecting the Work. A **Pre-Bid Conference, will be held at 10:00 a.m. on Monday, February 8, 2016** in the Les Lacs Park, 3925 Beltway Dr., Addison, Texas, (972) 450-7051.

F. **INTERPRETATION OF DOCUMENTS:** If any person contemplating submitting a bid for the proposed Contract is in doubt as to the meaning of any part of the Drawings, Specifications (Project Manual) or other proposed Contract Documents, he may submit to the Town of Addison, not later than one (1) week prior to the date set for opening bids, a written request for an interpretation or clarification. Bidders should act promptly and allow sufficient time for a reply to reach them before preparing their bids. Any interpretation or clarification will be in the form of an Addendum duly issued. No alleged verbal interpretation or ruling will be held binding upon the Owner.

G. **SUBSTITUTIONS:** Conditions governing the submission of substitutions for specific materials, products, equipment and processes are in the Special Provisions. Requests for

substitutions must be received by the Town of Addison seven (7) calendar days prior to the established bid date.

H. ADDENDA: Interpretations, clarifications, additions, deletions and modifications to the Documents during the bidding period will be issued in the form of Addenda and a copy of such Addenda will be released through www.bidsync.com. It will be the responsibility of each person who has been issued a set of bid documents to secure all Addenda from www.bidsync.com. Addenda will be a part of the Bidding Documents and the Contract Documents, and receipt of them shall be acknowledged in the Bid Form. All such interpretations and supplemental instructions will be in the form of written addenda to the contract documents which, if issued, will be released through www.bidsync.com not later than three (3) calendar days prior to the date fixed for the opening of bids. If any bidder fails to acknowledge the receipt of such addenda in the space provided in the bid form, his bid will nevertheless be construed as though the receipt of such addenda had been acknowledged.

I. COMPLETION TIME: The completion time of the project will be **150** Calendar Days.

J. PREPARATION OF BIDS: Prices quoted shall include all items of cost, expense, taxes, fees and charges incurred by, or arising out of, the performance of the work to be performed under the Contract. Bids shall be submitted in duplicate and shall be signed in ink. Any bid on other than the required form will be considered informal and may be rejected. Erasures or other changes in a bid must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures and alterations, or irregularities of any kind may be rejected as informal. The prices should be expressed in words and figures or they may be deemed informal and may be rejected. In case of discrepancy between the price written in the bid and that given in the figures, the price in writing will be considered as the bid. In the case of a discrepancy between a unit price and its extension, the unit price will govern. Failure to submit all requested information will make a bid irregular and subject to rejection. Bids shall be signed with name typed or printed below signature, and, if a partnership, give full name of all partners. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

NOTE: A COMPUTER-GENERATED PROPOSAL FORM MAY BE USED IN LIEU OF THE ENCLOSED FORMS. THE FORM SHALL BE 8 1/2" BY 11" IN SIZE, AND WILL BE ATTACHED TO THE PROPOSAL IN THE PROPER SECTION, AND WILL BE MADE PART OF THE PROPOSAL AND CONTRACT DOCUMENTS.

NOTE: THE SPREADSHEET OPTION IS FOR THE CONVENIENCE OF THE BIDDER. NO WORDING IN THE SPREADSHEET SHALL MODIFY OR AMEND THE WORDING IN THE BID PROPOSAL OR PLANS. THE UNIT PRICE ON THE FORM SHALL BE THE PRICE OF THE ITEM, AND ERRORS THAT MAY BE PRESENT IN THE PRINTOUT WILL NOT BE RECOGNIZED AS AN OPPORTUNITY TO REVISE THE PROPOSAL. THE SUMMARY SHEET INCLUDED IN THIS BID DOCUMENT SHALL BE UTILIZED FOR SUMMARIZING THE BID. THE SPREADSHEET SHALL PRESENT EACH ITEM IN THE ORDER AND NUMBER AS SHOWN IN THE CITY'S PROPOSAL AND BID SCHEDULE FOR THIS PROJECT. THE SPREADSHEET SHALL BE IN A COLUMN FORMAT WITH THE FOLLOWING COLUMNS:

1. ITEM NUMBER
2. DESCRIPTION & UNIT PRICE IN WORDS
3. UNIT OF MEASURE
4. UNIT PRICE
5. ESTIMATED QUANTITY
6. AMOUNT BID

K. SUBMITTAL OF BIDS: Sealed proposals will be received at the time, date and place stated in the Advertisement for Bids. Proposals shall be made on unaltered Proposal Forms furnished by the Town of Addison. Bidders shall submit proposals in an opaque, sealed envelope addressed to the Owner and plainly mark on the outside of the envelope the name and address of the bidder. The envelopes shall also be marked with the following project description:

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-43
LES LACS WATER WELL REBUILDING PROJECT

The Bid Bond must be completed and signed by each bidder and submitted with the bid. Submit Bids by mail or in person prior to the time for receiving bids set forth in the Advertisement for Bids issued by the Town.

NOTE: THE BID SUBMITTAL FORM SHALL BE 8 1/2" BY 11" IN SIZE. NO ELECTRONIC SUBMITTAL IS ACCEPTABLE. THE BID SUBMITTAL SHALL CONSIST OF THE ORIGINAL COMPLETED BID PROPOSAL WITH BID BOND, TWO COPIES OF THE BID PROPOSAL AND BID BOND, AND A THUMB DRIVE WITH THE ELECTRONIC COPY OF THE BID PROPOSAL.

L. MODIFICATION AND WITHDRAWAL OF BIDS: Prior to the time set for bid opening, bids may be withdrawn or modified. Bids may be modified only on the official bid form and must be signed by a person legally empowered to bind the bidder. No bidder shall modify, withdraw, or cancel his bid or any part thereof for sixty (60) calendar days after the time agreed upon for the receipt of bids.

M. DISQUALIFICATION: The Owner reserves the right to disqualify proposals, before or after the opening, upon evidence of collusion with intent to defraud or other illegal practices relating to this proposal upon the part of the bidder.

N. SUBMISSION OF POST-BID INFORMATION: Upon notification of acceptance, the selected bidder shall, within five (5) calendar days, submit the following:

1. A designation of the portions of the Work proposed to be performed by the bidder with his own force.
2. A list of names of the Subcontractors or other persons or organizations, including those who are to furnish materials and equipment fabricated to a special design proposed for such portions of the Work as may be designated in the Bidding Documents or as may be requested by the Town of Addison. The bidder will be required to establish to the satisfaction of the Owner the reliability and responsibility of the proposed Subcontractors and suppliers to furnish and perform the Work.

O. AWARD: The Owner reserves the right to accept any or to reject any bids without compensation to bidders and to waive irregularities and informalities. The Town of Addison Infrastructure & Development Services Department, in making its recommendation, will consider the following elements:

1. Whether the bidder is a contractor with experience in the type of work involved.
2. Whether the bidder has adequate plant, equipment and personnel to perform the work properly and expeditiously.
3. Whether the bidder has a suitable financial status and reputation for meeting obligations incident to work of the kind specified.
4. Whether the bidder has complied with the terms and conditions.

Alternate items may or may not be awarded. Addition or deletion of other items or schedules will be governed by the *Standard Specifications for Public Works Construction – North Central Texas, 4th Edition*, (hereinafter called SSPWC) Item 104.2 "Change or Modification of Contract".

P. EXECUTION OF THE CONTRACT: The successful bidder will be required to enter into a contract with the Owner within ten (10) days of notice by the Owner that his bid has been accepted. Failure to enter into a contract within the established time limit shall be considered grounds for forfeiture of the bid bond.

Q. CONSTRUCTION SCHEDULE: It is the Owner's desire to have the project completed and operational in as short a time as possible. The number of calendar days for completion of the project will begin with the date specified in the Notice to Proceed. The Notice to Proceed will be issued in a manner to facilitate a smooth construction of the project. The Contractor shall begin construction within ten (10) calendar days of the issuance of the Notice to Proceed.

R. COST PLUS TIME BIDDING: N/A

S. FORM OF CONTRACT: The contract for the construction of the project will be drawn up by the Owner. A sample form of agreement is included in the Contract Agreement Section.

T. BONDS: A Performance Bond, a Labor and Material Payment Bond and a Maintenance Bond will be required by the Owner. The Performance Bond and Payment Bond shall name the Town of Addison, and others as directed by the Town, as joint obligees. Sample forms have been included in the Performance Bond, Payment Bond, and Maintenance Bond sections. (Contractor shall confirm the legal names of obligees prior to execution of Bonds.)

U. BID SECURITY: Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a surety company licensed to do business in the State of Texas as a guarantee that the bidder will enter into a contract and execute a Performance Bond and Payment Bond within ten (10) calendar days after notice of award of contract to him. Such checks or bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the Owner has

made an award of contract, or, if no award has been made within thirty (30) calendar days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

V. RESOLUTIONS: If the bidder is a corporation, a copy of the resolution empowering the person submitting the bid to bind the bidder must be included with the bid.

W. CONSTRUCTION STAKING: Construction staking and re-staking will not be provided by the Owner. Benchmarks and Horizontal Control are shown on the plans. There is no separate bid item for staking, therefore, the contractor must include value for staking in the various bid items as subsidiary to the contract. Any staking or re-staking that is required shall be the responsibility of the Contractor and shall be at no cost to the Owner.

X. FINAL PAYMENT: The general provisions for Final Payment shall be as stated in Item 109.5.4 of the SSPWC including all Amendments and Additions. Prior to final payment the Contractor shall provide the Owner with the following items:

1. A Contractor's Affidavit of Bills Paid in accordance with Section BP.
2. A Consent of Surety Company to Final Payment.
3. A complete set of record plans which indicate all construction variations from the original construction documents in accordance with the Special Provisions.
4. A two (2) year Maintenance Bond in accordance with Section MB.
5. Acknowledgement that the project has been reviewed and accepted by TDLR.

Y. PREVAILING WAGE RATES: Wage rates paid on this project shall not be less than specified in the schedule of general prevailing rates of per diem wages as attached in the Special Provisions.

Z. PRIORITY OF CONTRACT DOCUMENTS: In case of conflict between contract documents, priority of interpretation shall be in the following order: signed agreement; performance and payment bonds; proposal; special provisions (or conditions); technical specifications; general provisions; advertisement for bids; project drawings; Standard Specifications for Public Works Construction (NCTCOG, October 2004); Town of Addison Standard Drawings. This priority list shall take precedence over Item 105.1.1 of the SSPWC.

SECTION PF

PROPOSAL FORM

PROPOSAL FORM

February 25 , 2016

TO: The Honorable Mayor and Town Council
Town of Addison, Texas

Gentlemen:

The undersigned bidder, having examined the plans, specifications and contract documents, and the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all equipment and to perform labor and work necessary for completion of the work described by and in accordance with the Plans, Specifications and Contract for the following prices, to wit:

Signed by: [signature]

ACKNOWLEDGMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1	BB
Addendum No. 2	BB
Addendum No. 3	BB
Addendum No. 4	BB
Addendum No. 5	BB

The following pages contain all bid items for:

BID SCHEDULE – LES LACS POND WATER WELL REBUILDING PROJECT

BID SCHEDULE

LES LACS POND WATER WELL REBUILDING PROJECT
BID NUMBER 16-43

Base Bid – Removal, Site Preparation and Miscellaneous

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
001	1	LS	Mobilization and Town required bonds and insurance, amount not to exceed 5% of the total bid amount, for the sum of Eleven Thousand Two Hundred Twenty Nine Dollars and Zero Cents per Lump Sum.	$ 11,229.00	$ 11,229.00
002	1	LS	Pulling and transportation of pump, motor and cable to and from shop. All replaced parts need to be transported back to Town of Addison, complete in place for the sum of Six Thousand One Hundred Six Dollars and Zero Cents per Lump Sum.	$ 6,106.00	$ 6,106.00
003	1	LS	Perform Television Inspection of well casing and screens, complete in place for the sum of Three Thousand Three Hundred Ninety Three Dollars and Zero Cents per Lump Sum.	$3,393.00	$3,393.00
004	1	LS	Traffic control during construction, including barricades, traffic signs and all other materials and incidentals, complete in place for the sum of Five Thousand Seven Hundred Sixty Two Dollars and Zero Cents per Lump Sum.	$5,762.00	$5,762.00
005	1	LS	Furnish, install, and maintain SW3P, Inlet Protection, Site Protection and Erosion Control including permitting, complete in place for the sum of Twelve Thousand Seventy Dollars and Zero Cents per Lump Sum.	$ 12,070.00	$ 12,070.00
006	3	EA	Furnish and Install Project Signs as specified in plans, complete in place for the sum of Seven Hundred Sixty Nine Dollars and Zero Cents per Each.	$769.00	$2,307.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
007	1	LS	Remove Existing Electrical Equipment (including Electric Meters, Boxes, and Electrical Wires within Well Area) as indicated in plans, complete in place for the sum of One Thousand Seven Hundred Ninety Eight Dollars and Zero Cents per Lump Sum.	$1,798.00	$1,798.00
008	1	LS	Remove and dispose of existing brick screening walls and columns according to the plans and specifications, complete in place for the sum of Two Thousand Fifty Eight Dollars and Zero Cents per Lump Sum.	$2,058.00	$2,058.00
009	15	EA	Remove trees (including shrubs) and grubbing, according to the plans, specifications, and details, complete in place for the sum of One Thousand Seventy Five Dollars and Zero Cents per Each.	$1,075.00	$16,125.00
010	10	SY	Sawing, removal and recycling of existing reinforced or non-reinforced concrete sidewalk, complete in place for the sum of Fifty Seven Dollars and Zero Cents per Square Yard.	$57.00	$570.00
011	10	SY	Sawing, removal and recycling of existing reinforced or non-reinforced concrete pad, complete in place for the sum of Eighty Five Dollars and Zero Cents per Square Yard.	$85.00	$850.00

SUB-TOTAL BASE BID (Items 001-011)

Sixty Two Thousand Two Hundred Sixty Eight **Dollars**

Zero **Cents**

Base Bid – Well and Well Area Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
101	1	LS	Furnish and Install Submersible 21 Stages 80gpm Well Pump @ 935' TDH with 30HP Motor, 460V, 3 Phase, complete in place for the sum of Twenty One Thousand Four Hundred Eighty Four Dollars and Zero Cents per Lump Sum.	$21,484.00	$21,484.00
102	905	LF	Furnish and Install 1/4" Stainless Steel Airline, complete in place for the sum of Four Dollars and Twenty Cents per Linear Foot.	$4.20	$3,801.00
103	1	LS	Furnish and Install motor conductor cable and other incidentals per manufacturer's recommendations, complete in place for the sum of Six Thousand Six Hundred Fifteen Dollars and Zero Cents per Lump Sum.	$6,615.00	$6,615.00
104	45	EA	Furnish and Install 3" X 20' threaded and coupled stainless steel column pipe sections, complete in place for the sum of Eight Hundred Sixty Five Dollars and Zero Cents per Each.	$865.00	$38,925.00
105	2	EA	Furnish and Install 3" in-line stainless steel check valve with plugs and other incidentals, complete in place for the sum of One Thousand Three Hundred Five Dollars and Zero Cents per Each.	$1,305.00	$2,610.00
106	1	EA	Furnish and Install Magnetic Flowmeter and other incidentals as necessary, complete in place for the sum of Two Thousand Two Hundred Five Dollars and Zero Cents per Each.	$2,205.00	$2,205.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
107	1	EA	Furnish and Install Air Release Valve and other incidentals as necessary, complete in place for the sum of One Thousand Four Hundred Twenty Six Dollars and Zero Cents per Each.	$ 1,426.00	$1,426.00
108	1	LS	Reset Pump and motor, return back to service and other incidentals as necessary, complete in place for the sum of Six Thousand One Hundred Six Dollars and Zero Cents per Lump Sum.	$6,106.00	$6,106.00
109	1	LS	Test pump (12 HRS). Provide written completion report, which includes: material settings, installation plan and test pump results and written warranty, complete in place for the sum of Eight Hundred Fourteen Dollars and Zero Cents per Lump Sum.	$ 814.00	$ 814.00
110	45	LF	Furnish and Install 3" PVC Schedule 80 Pipe and other incidentals as necessary, complete in place for the sum of Twenty Eight Dollars and Twenty Cents per Linear Foot.	$28.20	$1,269.00
111	10	SY	Construct 4 inch thick, 3,000 psi reinforced concrete sidewalk including all excavation, forming, expansion joint materials and incidentals necessary according to the plans, specifications, and details for the sum of Sixty Eight Dollars and Zero Cents per Square Yard.	$68.00	$680.00
112	15	SY	Construct 4 inch thick, 3,000 psi reinforced concrete pad including all excavation, forming, expansion joint materials and incidentals necessary according to the plans, specifications, and details, complete in place for the sum of Sixty Eight Dollars and Zero Cents per Square Yard.	$68.00	$1,020.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
113	34	LF	Construct brick screening walls (including columns) according to the plans, specifications, and details, complete in place for the sum of One Hundred Eighty Seven Dollars and Zero Cents per Linear Foot.	$ 187.00	$6,358.00
114	1	EA	Furnish and Install 3' long x 6' tall wrought iron swing gate according to the plans, specifications, and details, complete in place for the sum of Seven Hundred Twenty Four Dollars and Zero Cents per Each.	$724.00	$724.00
115	1	EA	Furnish and Install 10' long x 6' tall wrought iron sliding gate according to the plans, specifications, and details, complete in place for the sum of Two Thousand Six Hundred Seventy Four Dollars and Zero Cents per Each.	$2,674.00	$2,674.00

SUB-TOTAL BASE BID (Items 101-115)

Ninety Six Thousand Seven Hundred Eleven **Dollars**

Zero **Cents**

Base Bid – Electrical Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
201	1	LS	Furnish and Install electrical equipment: a Size 3 starter HOA 30HP, a 100A, 3P Contactor, a 100A Load Center 60A-MCB with (2) 20A Branch Circuits, a 100A Load Center with (6) 1P-20A, splice conductors, required ground boxes and any other incidentals according to the plans, specifications and details, complete in place for the sum of Three Thousand Four Hundred Forty Three Dollars and Zero Cents per Lump Sum.	$3,443.00	$3,443.00
202	30	LF	Furnish and Install, 4- #3/0, 2" PVC Conduit, according to the plans, specifications and details, complete in place for the sum of Fifty Dollars and Thirty Cents per Linear Foot.	$50.30	$1,509.00
203	75	LF	Furnish and Install, 3- #2, #8G, 1 1/2" PVC Conduit to Exist. Vault from ML, according to the plans, specifications and details, complete in place for the sum of Twenty Three Dollars and Ninety Six Cents per Linear Foot.	$ 23.96	$1,797.00
204	10	LF	Furnish and Install, LTG Circuits: (2) 4 #12, 3/4" PVC Conduit, according to the plans, specifications and details, complete in place for the sum of Four Hundred Two Dollars and Zero Cents per Linear Foot.	$40.20	$402.00
205	10	LF	Furnish and Install, 3- #6, 1" PVC Conduit to Irrigation Meter, according to the plans, specifications and details, complete in place for the sum of Forty One Dollars and Eighty Cents per Linear Foot.	$ 41.80	$418.00
206	10	LF	Furnish and Install, 3- #6, 1" PVC Conduit to Well Pump, according to the plans, specifications and details, complete in place for the sum of Forty One Dollars and Eighty Cents per Linear Foot.	$41.80	$418.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
207	1	EA	Furnish and Install Millbank Enclosure, according to the plans, specifications and details, complete in place for the sum of Eleven Thousand Seven Hundred Sixty Dollars and Zero Cents per Each.	$11,760.00	$11,760.00
208	1	EA	Furnish and Install, Millbank Irrigation Enclosure, according to the plans, specifications and details, complete in place for the sum of Two Thousand Six Hundred Ninety Eight Dollars and Zero Cents per Each.	$2,698.00	$2,698.00
209	1	EA	Furnish and Install Panel 'ML' 200A with (3) 100A Frame 3P CB's, 480V, 3 Phase, according to the plans, specifications and details, complete in place for the sum of Seven Hundred Nineteen Dollars and Zero Cents per Each.	$719.00	$719.00
210	1	LS	Furnish and Install Cathodic Protection for steel piping according to the plans, specifications and details, complete in place for the sum of Twenty Eight Thousand Two Hundred Sixty Eight Dollars and Zero Cents per Lump Sum.	$28,268.00	$28,268.00

SUB-TOTAL BASE BID (Items 201-210)

Fifty One Thousand Four Hundred Thirty Two **Dollars**

Zero **Cents**

Base Bid – Landscape Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
301	650	SF	Furnish and Install, Common Bermuda 'Mid Iron' Sod, according to the plans, specifications and details, complete in place for the sum of Zero Dollars and Forty Six Cents per Square Foot.	$.46	$299.00
302	430	SF	Furnish and Install, Wood Chips, according to the plans, specifications and details, complete in place for the sum of One Dollars and Forty Cents per Square Foot.	$1.40	$602.00
303	1	LS	Tree Trimming, complete in place for the sum of Two Thousand Two Hundred Sixty One Dollars and Zero Cents per Lump Sum.	$2,261.00	$2,261.00
304	1	LS	Tree Protection, complete in place for the sum of One Thousand Six Hundred Ninety Six Dollars and Zero Cents per Lump Sum.	$1,696.00	$1,696.00
305	1	LS	90 Day Establishment Period, complete in place for the sum of One Thousand Six Hundred Ninety Six Dollars and Zero Cents per Lump Sum.	$1,696.00	$1,696.00
306	1	LS	1 Year Maintenance, complete in place for the sum of Seven Thousand Six Hundred Thirty Two Dollars and Zero Cents per Lump Sum.	$7,632.00	$7,632.00

SUB-TOTAL BASE BID (Items 301-306)

Fourteen Thousand One Hundred Eighty Six **Dollars**

Zero **Cents**

SUMMARY

BID SCHEDULE – LES LACS POND WATER WELL REBUILDING PROJECT

1. Removal, Site Preparation and Miscellaneous Subtotal

   (Items 001-011) $62,268.00

2. Well and Well Area Improvements Subtotal

   (Items 101-115) $96,711.00

3. Electrical Improvements Subtotal

   (Items 201-210)..... $51,432.00

4. Landscape Improvements Subtotal

   (Items 301-306)..... $14,186.00

TOTAL BID $224,597.00

Written in Words: Two Hundred Twenty Four Thousand Five Hundred Ninety Seven Dollars and Zero Cents

The pay items included in this proposal form comprise all of the pay items for the project. Any additional required work shall be considered subsidiary to the related pay items provided herein.

NOTES:

1. All items, labor, materials, equipment, facilities, incidentals and work required for construction of the project are to be provided and installed by the Contractor as part of the project and payment for the cost of such shall be included in the price bid for the construction of the project.

2. Prices must be shown in words and figures for each item listed in the Proposal. In the event of discrepancy, the words shall control.

3. Materials, which are "tax exempt", are those items which are physically incorporated into the facilities constructed for the Town of Addison, as set forth in the Special Provisions. Materials include, but are not limited to purchased items such as water pipe, sanitary sewer pipe, storm drain pipe, etc.

   Services, which are "not tax exempt", are those items which are used by the Contractor but are not physically incorporated into the Town of Addison's facility and/or items which are consumed by construction, as set forth in the Special Provisions. Services include, but are not limited to, items such as supplies, tools, skill and labor, the purchase, rental or lease of equipment, etc.

Billy Brown
Name of Person Signing Bid

Signature of Person Signing Bid

2410 Squire Place, Farmers Branch, Texas 75234
Address

972-484-2717 — Telephone No.
972-484-2263 — Fax No.

75-1455223
T.I.N. (Tax Identification or Employer's Number)

If BIDDER is:

AN INDIVIDUAL

By N/A (Seal)
(Individual's Name)

doing business as _____

Business address: _____

_____

_____

Phone No. _____

A PARTNERSHIP

By N/a (Seal)
(Firm Name)

_____
(General Partner)

doing business as _____

Business address: _____

_____

_____

Phone No. _____

A CORPORATION

By Groves Electrical Service, Inc.
(Corporation Name)

Texas
(State of Incorporation)

By Bill Groves
(Name of Person Authorized to Sign)

President
(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business address: 2410 Squire Place Suite A. Farmers Branch, Texas 75234

Phone No. 972-484-2717

A JOINT VENTURE

By N/A
(Name)

(Address)

By _____
(Name)

(Address)

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

SECTION PQ

PREQUALIFICATION STATEMENT

PREQUALIFICATION STATEMENT

FOR

PUBLIC IMPROVEMENTS

IN THE

TOWN OF ADDISON

Contractor: Groves Electrical Service, Inc. Date: 2/25/16

Project name, if applicable: Les Lacs Pond Water Well Rebuilding Project

INSTRUCTIONS

All information on the PREQUALIFICATION STATEMENT FOR PUBLIC IMPROVEMENTS *and the* PREQUALIFICATION STATEMENT OF CONTRACTOR'S SURETY *must be complete and the forms submitted together with bid documents as indicated in the Advertisement for Bids and Instructions to Bidders.*

This Prequalification Statement consists of two (2) parts. The first part (Sections A through D) pertains to Contractor's status information and work history. The second part is the Prequalification Statement of Contractor's Surety, in which the Surety Company will need to complete. Additional information/documentation from the Contractor or Surety Company may be required during the application review process.

CONTRACTOR INFORMATION:
Please complete the appropriate Section A, B, or C. All contractors must complete Section D.

SECTION A: If the contractor is a CORPORATION, complete this section

Name of corporation:

Groves Electrical Service, Inc.		1968
Registered name of corporation		Doing business as
	Texas	8/24/1974
Date charter expires	State of corporation	Date of corporation filing (if non-Texas corporation, date Certificate of Authority was issued)

Registered agent:

Lee	Claude		Groves	
First name	Middle name		Last name	
2410 Squire Place Suite A.	Farmers Branch	Dallas	Texas	75234
Address	City	County	State	Zip
972-484-2717		972-484-2263		
Area code and phone number		Area code and fax number		
Area code and cell phone number		e-mail address		

Corporation's principal office:

2410 Squire Place Suite A.	Farmers Branch	Dallas	Texas	75234
Street address	City	County	State	Zip
Mailing address (if different from above)	City	County	State	Zip
972-484-2717		972-484-2263		
Area code and phone number		Area code and fax number		

Person executing contract on behalf of corporation:

Bill	Homer	Groves		President
First name	Middle name	Last name		Title
2410 Squire Place Suite A.	Farmers Branch	Dallas	Texas	75234
Street address	City	County	State	Zip
Mailing address (if different from above)	City	County	State	Zip
972-484-2717	972-484-2263		75-1455223	
Area code and phone number	Area code and fax number		Federal Tax Identification No.	
Area code and cell phone number		e-mail address		

Additional Officers/Personnel:

First name	Middle name	Last name	Title
Area code and cell phone number		e-mail address	
First name	Middle name	Last name	Title
Area code and cell phone number		e-mail address	

SECTION B: If the contractor is a PARTNERSHIP, complete this section

First Partner:

N/A

First name	Middle name	Last name		
Residence Address	City	County	State	Zip
Area code and cell phone number		email address		

Second Partner:

First name	Middle name	Last name		
Residence Address	City	County	State	Zip
Area code and cell phone number		email address		

Business:

Name under which you are engaged in business (if operating under an assumed name)				Website Address
Street address	City	County	State	Zip
Mailing address (if different from above)	City	County	State	Zip
Principal place of business - County & State		Name of contact person		Title
Area code and phone number	Area code and fax number		Federal Tax Identification No.	

SECTION C: If the contractor is a SOLE PROPRIETOR, complete this section

Name:

N/A

First name | Middle name | Last name

Business name under which you are engaged in business (if operating under an assumed name)

Residence:

Street address | City | County | State | Zip

Area code and phone number

Business:

Street address | City | County | State | Zip

Mailing address (if different from above) | City | County | State | Zip

Area code and phone number | Area code and fax number | Federal Tax Identification No.

Area code and cell phone number | e-mail address

Principal place of business:

County | State

Contact Person:

First name | Middle name | Last name | Title

Area code and phone number | Area code and fax number

Area code and cell phone number | email address

SECTION D: Work history and references

1. **Name of Bidder:** Groves Electrical Service, Inc.

2. **Do you operate under assumed name(s)?** No **If yes, please list:**

3. **How many years engaged in the contracting business under present firm or trade name?** 48 years **Give former names of firm or trade names, with dates of operation under each:**

4. **Number of years in business as a general contractor on the types of work requesting to be prequalified for:** 5

5. **Types of work done: (check all that apply)**

☒ Asphalt Paving	☐ Concrete Structures	☐ Landscaping	☐ Subgrade Preparation
☐ Auxiliary Lanes	☐ Demolition	☐ Misc. Concrete	☐ Manhole Rehabilitation
☐ Bridge Work	☐ Earth Work	☐ Sidewalks	☐ Booster/Pump Stations
☐ Channel Lining	☐ Fencing	☐ Storm Sewer	☐ Tank Erection
☐ Concrete Paving	☐ Gabions	☐ Street Repair	☐ Plant Construction
☐ Painting	☐ Water & Sanitary Sewer Line	☐ Water Wells	☐ Other _____

6. **List major construction equipments, such as paving machine or other equipments appropriate to perform work (for example, GOMACO GPH 2800 Slipform Paver):** (use attachments if necessary)

Excavators

7. **Greatest number of contracts in excess of $100,000 under construction at one time in the company's history:**

35

8. **Greatest number of contracts in excess of $1,000,000 under construction at one time in the company's history:**

5

9. **Approximate average of dollar volume of incomplete work outstanding under contract at any one time:**

$450,000.00

10. **List completed projects of the type of work qualifying for or similar work, plus the following information on each project:** (use attachments if necessary)

a. Beltline — 2011
Project — Year Built

General Contractor/Electrician
Type(s) of work

TOA | 2 Million | Jason Shroyer
Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

b. Beltway — 2015
Project — Year Built

General Contractor/Electrician
Type(s) of work

TOA | 2 Million | Michael Kashuba
Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

c. SH289 — 2013
Project — Year Built

General Contractor/Electrician
Type(s) of work

Frisco | 1.5 Million | Tracy Smith
Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

Tracy Smith 972-880-6347
City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

11. Experience in water well improvement work within the past 10 years similar in cost and length to this project. Include, at a minimum, three (3) projects. (use attachments if necessary).

a. Trinity Forest Golf Course — 2015
Project Name and Location — Year Built

Hook up the deep wells and circulating pumps
Describe Scope of Work

City of Dallas — $40,000.00
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

b. Frisco — 2011
Project Name and Location — Year Built

Hook deep well
Describe Scope of Work

Fisco ISD — $28,000.00
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

e. Craig Ranch — 2007
Project Name and Location — Year Built

Hooked up deep well
Describe Scope of Work

Craig International — $20,000.00
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

12. On the projects listed in response to question #11 above, what were the final project change order amounts? Were the projects completed within the specified timeframes (this includes both substantial completion and interim milestone dates)? If not, why not, and were any damages or liquidated damages paid to the Owner as a result of the late completion?

None

13. Background and experience of the Project Manager and Superintendent that will be utilized on this project. Include Owner references and contact names with area code and telephone numbers indicating experience with projects similar in size and to those listed in response to question #11 above.

30 years

14. **Will a subcontractor be performing any work for this project?** Yes **If yes, provide subcontractor's name, address, telephone and provide information to question #s 15, 16, 17 below.** (use attachments if necessary)

Earthtech, American Landscape, & Capitol

15. **Subcontractor's experience in performing similar work within the past 10 years similar in cost and length to this project. Include, at a minimum, three (3) projects.** (use attachments if necessary).

a. Beltline — 2011
Project Name and Location — Year Built

Landscaping and irrigation
Describe Scope of Work

TOA
Owner/Design Engineer | Contract Price | Contact Person | Area code and phone number

City Inspector/Contact Number (required) | City Engineer/Contact Number (optional)

b. Betlway
Project Name and Location — Year Built

Landscaping and irrigation
Describe Scope of Work

TOA
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

c. Beltway
Project Name and Location — Year Built

Hardscaping
Describe Scope of Work

TOA
Owner/Design Engineer — Contract Price — Contact Person — Area code and phone number

City Inspector/Contact Number (required) — City Engineer/Contact Number (optional)

16. On the projects listed in response to question #15 above, what were the final project change order amounts? Were the projects completed within the specified timeframes (this includes both substantial completion and interim milestone dates)? If not, why not, and were any damages or liquidated damages paid to the Owner as a result of the late completion?

None

17. **If subcontractor is performing work, provide background and experience of the subcontractor's Project Manager and Superintendent that will be utilized on this project. Include Owner references and contact names with area code and telephone numbers indicating experience with projects similar in size and to those listed in response to question #15 above.**

20+ years

18. **Have you even been terminated by the Owner of a project? If so, where and why? Give name of Owner.**

No

19. List incomplete projects, plus the following information for each project listed: (use attachments if necessary)

a. N/A
Project _____ Year Built _____

Type(s) of work _____

Owner/Design Engineer _____ Contract Price _____ Contact Person _____ Area code and phone number _____

City Inspector/Contact Number (required) _____ City Engineer/Contact Number (optional) _____

b. _____
Project _____ Year Built _____

Type(s) of work _____

Owner/Design Engineer _____ Contract Price _____ Contact Person _____ Area code and phone number _____

City Inspector/Contact Number (required) _____ City Engineer/Contact Number (optional) _____

c. _____
Project _____ Year Built _____

Type(s) of work _____

Owner/Design Engineer _____ Contract Price _____ Contact Person _____ Area code and phone number _____

City Inspector/Contact Number (required) _____ City Engineer/Contact Number (optional) _____

20. Have you or any present partner(s) or officer(s) failed to complete a contract? No

If yes, name of project _____ Year built _____

Owner/Engineer _____ Contract price _____ Contact person _____ Area code & phone number _____

Name of owner and/or surety _____ Contact person _____ Area code & phone number _____

21. Are there any unsatisfied demands upon you as to your accounts payable? _____

If yes, give names, amounts, and explanations:

_____

_____

_____

22. Bank reference (use additional sheets of paper, if necessary):

Wells Fargo		Dustin Gibson		
Name of bank		Bank officer		
13297 Josey Lane	Farmers Branch	Dallas	Texas	75234
Mailing address	City	County	State	Zip
972-419-3113				
Area code and phone number			Area code and fax number	

23. Municipality reference (use additional sheets of paper, if necessary):

TOA	Jason Shroyer			
Name of city	Contact person			Title
Mailing address	City	County	State	Zip
Area code and phone number		Area code and fax number		
Area code and cell phone number		e-mail address		

24. Other credit references:

a. Parrish Hare Electrical Supply	214-905-1001		214-951-8101	
Name	Area code and phone number		Area code and fax number	
P.O. Box 560547	Dallas	Dallas	Texas	75356
Address	City	County	State	Zip
		mgarcia@parrish-hare.com		
Area code and cell phone number		e-mail address		

b. Crawford Electric Supply	972-869-3633		972-869-0533	
Name	Area code and phone number		Area code and fax number	
P.O. Box 847160	Dallas	Dallas	Texas	75284
Address	City	County	State	Zip
		cherrera@cescoltd.com		
Area code and cell phone number		e-mail address		

25. Will you, upon request, fill out a detailed financial statement and furnish any other pertinent information that may be required by the Town of Addison?

Yes, please request by emailing maria@groveselectric.com

26. Please provide OSHA safety record, including a list and status of all OSHA violations.

One violation in the past 5 years. November 7, 2012-Fall Hazard Violation

Pursuant to advertisement for bids and information for prospective bidders for above-mentioned types of projects, the undersigned is submitting the information as required with the understanding that the purpose is for your confidential use, only to assist in determining the **Prequalifications** for this organization to perform the type and magnitude of work designated, and further, guarantee the truth and accuracy of all statements made, and will accept your determination of prequalifications without prejudice. The surety herein named, any other bonding company, bank, subcontractor, supplier, or any other person(s), firm(s), or corporation(s) with whom I (we) have done business, or who have extended any credit to me (us) are hereby authorized to furnish you with any information you may request concerning performance on previous work and my (our) credit standing with any of them; and I (we) hereby release any and all such parties from any legal responsibility whatsoever on account of having furnished such information to you.

CONTRACTOR:

Groves Electrical Service, Inc.
Company name (please type or print)

Signature

President
Title

2/25/16
Date

Copy to local underwriting office of proposed surety:

PCL Bonding Company
Company name (please type or print)

8615 North Freeport Suite 155
Address

Irving | Texas | 75063
City | State | Zip

972-459-4749
Area code and phone number | Fax number

SECTION BB

BID BOND

BID BOND

Bidder shall submit a bid bond equal to five percent (5%) of the bid price. Failure to submit a bid bond when required may deem the bid non-responsive. Bid Bonds may NOT be submitted electronically.

SECTION CI

INDEMNIFICATION AGREEMENT

Town of Addison
Indemnification Agreement

Contractor's Indemnity Obligation. Contractor covenants, agrees to, and shall DEFEND (with counsel reasonably acceptable to Owner), INDEMNIFY, AND HOLD HARMLESS Owner, its past, present and future elected and appointed officials, and its past, present and future officers, employees, representatives, and volunteers, individually or collectively, in both their official and private capacities (collectively, the "Owner Persons" and each being an "Owner Person"), from and against any and all claims, liabilities, judgments, lawsuits, demands, harm, losses, damages, proceedings, suits, actions, causes of action, liens, fees (including attorney's fees), fines, penalties, expenses, or costs, of any kind and nature whatsoever, made upon or incurred by Owner and/or Owner Person, whether directly or indirectly, (the "Claims"), that arise out of, result from, or relate to: (i) the services to be provided by Contractor pursuant to this Agreement, (ii) any representations and/or warranties by Contractor under this Agreement, (iii) any personal injuries (including but not limited to death) to any Contractor Persons (as hereinafter defined) and any third persons or parties, and/or (iv) any act or omission under, in performance of, or in connection with this Agreement by Contractor or by any of its owners, directors, officers, managers, partners, employees, agents, contractors, subcontractors, invitees, patrons, guests, customers, licensees, sublicensees, or any other person or entity for whom Contractor is legally responsible, and their respective owners, directors, officers, directors, officers, managers, partners, employees, agents, contractors, subcontractors, invitees, patrons, guests, customers, licensees, sublicensees (collectively, "Contractor Persons"). SUCH DEFENSE, INDEMNITY AND HOLD HARMLESS SHALL AND DOES INCLUDE CLAIMS ALLEGED OR FOUND TO HAVE BEEN CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR GROSS NEGLIGENCE OF OWNER OR ANY OTHER OWNER PERSON, OR CONDUCT BY OWNER OR ANY OTHER OWNER PERSON THAT WOULD GIVE RISE TO STRICT LIABILITY OF ANY KIND.

Contractor shall promptly advise Owner in writing of any claim or demand against any Owner Person related to or arising out of Contractor's activities under this Agreement and shall see to the investigation and defense of such claim or demand at Contractor's sole cost and expense. The Owner Persons shall have the right, at the Owner Persons' option and own expense, to participate in such defense without relieving Contractor of any of its obligations hereunder. This defense, indemnity, and hold harmless provision shall survive the termination or expiration of this Agreement.

The provisions in the foregoing defense, indemnity and hold harmless are severable, and if any portion, sentence, phrase, clause or word included therein shall for any reason be held by a court of competent jurisdiction to be invalid, illegal, void, or unenforceable in any respect, such invalidity, illegality, voidness, or unenforceability shall not affect any other provision thereof, and this defense, indemnity and hold harmless provision shall be considered as if such invalid, illegal, void, or unenforceable provision had never been contained in this Agreement. **In that regard, if the capitalized language included in the foregoing indemnity is so determined to be void or unenforceable, the parties agree that:**

(i) the foregoing defense, indemnity, and hold harmless obligation of Contractor shall be to the extent Claims are caused by, arise out of, or result from, in whole or in part, any act or omission of Contractor or any Contractor Persons; and

(ii) notwithstanding the provisions of the foregoing subparagraph (i), to the fullest extent permitted by law, Contractor shall INDEMNIFY, HOLD HARMLESS, and DEFEND Owner and Owner Persons from and against all Claims arising out of or resulting from bodily injury to, or sickness, disease or death of, any employee, agent or representative of Contractor or any of its subcontractors, regardless of whether such Claims are caused, or are alleged to be caused, in whole or in part, by the negligence, or any act or omission, of Owner or any Owner Persons, it being the expressed intent of Owner and Contractor that IN SUCH EVENT THE CONTRACTOR'S INDEMNITY, HOLD HARMLESS, AND DEFENSE OBLIGATION SHALL AND DOES INCLUDE CLAIMS ALLLEGED OR FOUND TO HAVE BEEN CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR GROSS NEGLIGENCE OF OWNER OR ANY OTHER OWNER PERSON, OR CONDUCT BY OWNER OR ANY OTHER OWNER PERSON THAT WOULD GIVE RISE TO STRICT LIABILITY OF ANY KIND. The indemnity obligation under this subparagraph (ii) shall not be limited by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor under workers compensation acts, disability benefit acts, or other employee benefit acts.

I understand that the indemnification provisions are required of all Town of Addison Contracts. I have read the provisions and agree to the terms of these provisions.

Project/Bid#: _____

Company Name: _____

Signature: _____ Date: _____

SECTION CA

CONTRACT AGREEMENT

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2016, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and Groves Electrical Service, Inc., of the City of Farmers Branch, County of Dallas, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-43

LES LACS POND WATER WELL REBUILDING PROJECT

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date of written notice to do so shall have been given to him, to complete the work within **one hundred and fifty (150)** calendar days, after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR, Two Hundred Twenty Four Thousand Five Hundred and Ninety Seven Dollars (**$224,597.00**) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

SECTION CA

CONTRACT AGREEMENT

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2016, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and Groves Electrical Service, Inc., of the City of Farmers Branch, County of Dallas, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-43

LES LACS POND WATER WELL REBUILDING PROJECT

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date of written notice to do so shall have been given to him, to complete the work within **one hundred and fifty (150)** calendar days, after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR, Two Hundred Twenty Four Thousand Five Hundred and Ninety Seven Dollars (**$224,597.00**) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON, TEXAS (OWNER)

By: _____
Wesley Pierson, City Manager

ATTEST:

By: _____
Chris Terry, Assistant City Manager

(CONTRACTOR)

By: _____
Groves Electrical Service, Inc.
2410 Squire Place
Farmers Branch, TX 75234

ATTEST:

By: _____

The following to be executed if the CONTRACTOR is a corporation:

I, _____ certify that I am the secretary of the corporation named as CONTRACTOR herein; that _____, who signed this Contract on behalf of the CONTRACTOR is the _____ (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: _____

Corporate Seal

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON, TEXAS (OWNER)

By: _____
Wesley Pierson, City Manager

ATTEST:

By: _____
Chris Terry, Assistant City Manager

(CONTRACTOR)
William H (Bill) Groves, President

By: Bill Groves
Groves Electrical Service, Inc.
2410 Squire Place
Farmers Branch, TX 75234

ATTEST:
Dorothy Groves, Business Secretary

By: Dorothy Groves

The following to be executed if the CONTRACTOR is a corporation:

I, Dorothy Groves certify that I am the secretary of the corporation named as CONTRACTOR herein; that William H Groves, who signed this Contract on behalf of the CONTRACTOR is the President (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

GROVES ELECTRICAL SERVICE, INC. CORPORATE Corporate Seal SEAL TEXAS

Signed: Dorothy Groves

PROPOSAL FORM

February 25 , 2016

TO: The Honorable Mayor and Town Council
Town of Addison, Texas

Gentlemen:

The undersigned bidder, having examined the plans, specifications and contract documents, and the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all equipment and to perform labor and work necessary for completion of the work described by and in accordance with the Plans, Specifications and Contract for the following prices, to wit:

Signed by:

ACKNOWLEDGMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1	BB
Addendum No. 2	BB
Addendum No. 3	BB
Addendum No. 4	BB
Addendum No. 5	BB

The following pages contain all bid items for:

BID SCHEDULE – LES LACS POND WATER WELL REBUILDING PROJECT

BID SCHEDULE

LES LACS POND WATER WELL REBUILDING PROJECT
BID NUMBER 16-43

Base Bid – Removal, Site Preparation and Miscellaneous

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
001	1	LS	Mobilization and Town required bonds and insurance, amount not to exceed 5% of the total bid amount, for the sum of Eleven Thousand Two Hundred Twenty Nine Dollars and Zero Cents per Lump Sum.	$ 11,229.00	$ 11,229.00
002	1	LS	Pulling and transportation of pump, motor and cable to and from shop. All replaced parts need to be transported back to Town of Addison, complete in place for the sum of Six Thousand One Hundred Six Dollars and Zero Cents per Lump Sum.	$ 6,106.00	$ 6,106.00
003	1	LS	Perform Television Inspection of well casing and screens, complete in place for the sum of Three Thousand Three Hundred Ninety Three Dollars and Zero Cents per Lump Sum.	$3,393.00	$3,393.00
004	1	LS	Traffic control during construction, including barricades, traffic signs and all other materials and incidentals, complete in place for the sum of Five Thousand Seven Hundred Sixty Two Dollars and Zero Cents per Lump Sum.	$5,762.00	$5,762.00
005	1	LS	Furnish, install, and maintain SWPP, Inlet Protection, Site Protection and Erosion Control including permitting, complete in place for the sum of Twelve Thousand Seventy Dollars and Zero Cents per Lump Sum.	$ 12,070.00	$ 12,070.00
006	3	EA	Furnish and Install Project Signs as specified in plans, complete in place for the sum of Seven Hundred Sixty Nine Dollars and Zero Cents per Each.	$769.00	$2,307.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
007	1	LS	Remove Existing Electrical Equipment (including Electric Meters, Boxes, and Electrical Wires within Well Area) as indicated in plans, complete in place for the sum of One Thousand Seven Hundred Ninety Eight Dollars and Zero Cents per Lump Sum.	$1,798.00	$1,798.00
008	1	LS	Remove and dispose of existing brick screening walls and columns according to the plans and specifications, complete in place for the sum of Two Thousand Fifty Eight Dollars and Zero Cents per Lump Sum.	$2,058.00	$2,058.00
009	15	EA	Remove trees (including shrubs) and grubbing, according to the plans, specifications, and details, complete in place for the sum of One Thousand Seventy Five Dollars and Zero Cents per Each.	$1,075.00	$16,125.00
010	10	SY	Sawing, removal and recycling of existing reinforced or non-reinforced concrete sidewalk, complete in place for the sum of Fifty Seven Dollars and Zero Cents per Square Yard.	$57.00	$570.00
011	10	SY	Sawing, removal and recycling of existing reinforced or non-reinforced concrete pad, complete in place for the sum of Eighty Five Dollars and Zero Cents per Square Yard.	$85.00	$850.00

SUB-TOTAL BASE BID (Items 001-011)

Sixty Two Thousand Two Hundred Sixty Eight **Dollars**

Zero **Cents**

Base Bid – Well and Well Area Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
101	1	LS	Furnish and Install Submersible 21 Stages 80gpm Well Pump @ 935' TDH with 30HP Motor, 460V, 3 Phase, complete in place for the sum of Twenty One Thousand Four Hundred Eighty Four Dollars and Zero Cents per Lump Sum.	$21,484.00	$21,484.00
102	905	LF	Furnish and Install 1/4" Stainless Steel Airline, complete in place for the sum of Four Dollars and Twenty Cents per Linear Foot.	$4.20	$3,801.00
103	1	LS	Furnish and Install motor conductor cable and other incidentals per manufacturer's recommendations, complete in place for the sum of Six Thousand Six Hundred Fifteen Dollars and Zero Cents per Lump Sum.	$6,615.00	$6,615.00
104	45	EA	Furnish and Install 3" X 20' threaded and coupled stainless steel column pipe sections, complete in place for the sum of Eight Hundred Sixty Five Dollars and Zero Cents per Each.	$865.00	$38,925.00
105	2	EA	Furnish and Install 3" in-line stainless steel check valve with plugs and other incidentals, complete in place for the sum of One Thousand Three Hundred Five Dollars and Zero Cents per Each.	$1,305.00	$2,610.00
106	1	EA	Furnish and Install Magnetic Flowmeter and other incidentals as necessary, complete in place for the sum of Two Thousand Two Hundred Five Dollars and Zero Cents per Each.	$2,205.00	$2,205.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
107	1	EA	Furnish and Install Air Release Valve and other incidentals as necessary, complete in place for the sum of One Thousand Four Hundred Twenty Six Dollars and Zero Cents per Each.	$ 1,426.00	$1,426.00
108	1	LS	Reset Pump and motor, return back to service and other incidentals as necessary, complete in place for the sum of Six Thousand One Hundred Six Dollars and Zero Cents per Lump Sum.	$6,106.00	$6,106.00
109	1	LS	Test pump (12 HRS). Provide written completion report, which includes: material settings, installation plan and test pump results and written warranty, complete in place for the sum of Eight Hundred Fourteen Dollars and Zero Cents per Lump Sum.	$ 814.00	$ 814.00
110	45	LF	Furnish and Install 3" PVC Schedule 80 Pipe and other incidentals as necessary, complete in place for the sum of Twenty Eight Dollars and Twenty Cents per Linear Foot.	$28.20	$1,269.00
111	10	SY	Construct 4 inch thick, 3,000 psi reinforced concrete sidewalk including all excavation, forming, expansion joint materials and incidentals necessary according to the plans, specifications, and details for the sum of Sixty Eight Dollars and Zero Cents per Square Yard.	$68.00	$ 680.00
112	15	SY	Construct 4 inch thick, 3,000 psi reinforced concrete pad including all excavation, forming, expansion joint materials and incidentals necessary according to the plans, specifications, and details, complete in place for the sum of Sixty Eight Dollars and Zero Cents per Square Yard.	$68.00	$1,020.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
113	34	LF	Construct brick screening walls (including columns) according to the plans, specifications, and details, complete in place for the sum of One Hundred Eighty Seven Dollars and Zero Cents per Linear Foot.	$ 187.00	$6,358.00
114	1	EA	Furnish and Install 3' long x 6' tall wrought iron swing gate according to the plans, specifications, and details, complete in place for the sum of Seven Hundred Twenty Four Dollars and Zero Cents per Each.	$724.00	$724.00
115	1	EA	Furnish and Install 10' long x 6' tall wrought iron sliding gate according to the plans, specifications, and details, complete in place for the sum of Two Thousand Six Hundred Seventy Four Dollars and Zero Cents per Each.	$2,674.00	$2,674.00

SUB-TOTAL BASE BID (Items 101-115)

Ninety Six Thousand Seven Hundred Eleven **Dollars**

Zero **Cents**

Base Bid – Electrical Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
201	1	LS	Furnish and Install electrical equipment: a Size 3 starter HOA 30HP, a 100A, 3P Contactor, a 100A Load Center 60A-MCB with (2) 20A Branch Circuits, a 100A Load Center with (6) 1P-20A, splice conductors, required ground boxes and any other incidentals according to the plans, specifications and details, complete in place for the sum of Three Thousand Four Hundred Forty Three Dollars and Zero Cents per Lump Sum.	$3,443.00	$3,443.00
202	30	LF	Furnish and Install, 4- #3/0, 2" PVC Conduit, according to the plans, specifications and details, complete in place for the sum of Fifty Dollars and Thirty Cents per Linear Foot.	$50.30	$1,509.00
203	75	LF	Furnish and Install, 3- #2, #8G, 1 1/2" PVC Conduit to Exist. Vault from ML., according to the plans, specifications and details, complete in place for the sum of Twenty Three Dollars and Ninety Six Cents per Linear Foot.	$23.96	$1,797.00
204	10	LF	Furnish and Install, LTG Circuits: (2) 4 #12, 3/4" PVC Conduit, according to the plans, specifications and details, complete in place for the sum of Four Hundred Two Dollars and Zero Cents per Linear Foot.	$40.20	$402.00
205	10	LF	Furnish and Install, 3- #6, 1" PVC Conduit to Irrigation Meter, according to the plans, specifications and details, complete in place for the sum of Forty One Dollars and Eighty Cents per Linear Foot.	$41.80	$418.00
206	10	LF	Furnish and Install, 3- #6, 1" PVC Conduit to Well Pump, according to the plans, specifications and details, complete in place for the sum of Forty One Dollars and Eighty Cents per Linear Foot.	$41.80	$418.00

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
207	1	EA	Furnish and Install Millbank Enclosure, according to the plans, specifications and details, complete in place for the sum of Eleven Thousand Seven Hundred Sixty Dollars and Zero Cents per Each.	$11,760.00	$11,760.00
208	1	EA	Furnish and Install, Millbank Irrigation Enclosure, according to the plans, specifications and details, complete in place for the sum of Two Thousand Six Hundred Ninety Eight Dollars and Zero Cents per Each.	$2,698.00	$2,698.00
209	1	EA	Furnish and Install Panel 'ML' 200A with (3) 100A Frame 3P CB's, 480V, 3 Phase, according to the plans, specifications and details, complete in place for the sum of Seven Hundred Nineteen Dollars and Zero Cents per Each.	$719.00	$719.00
210	1	LS	Furnish and Install Cathodic Protection for steel piping according to the plans, specifications and details, complete in place for the sum of Twenty Eight Thousand Two Hundred Sixty Eight Dollars and Zero Cents per Lump Sum.	$28,268.00	$28,268.00

SUB-TOTAL BASE BID (Items 201-210)

Fifty One Thousand Four Hundred Thirty Two **Dollars**

Zero **Cents**

Base Bid – Landscape Improvements

Item No.	Quantity	Unit	Description/Unit Price In Words	Unit Price In Figures	Total
301	650	SF	Furnish and Install, Common Bermuda 'Mid Iron' Sod, according to the plans, specifications and details, complete in place for the sum of Zero Dollars and Forty Six Cents per Square Foot.	$.46	$299.00
302	430	SF	Furnish and Install, Wood Chips, according to the plans, specifications and details, complete in place for the sum of One Dollars and Forty Cents per Square Foot.	$1.40	$602.00
303	1	LS	Tree Trimming, complete in place for the sum of Two Thousand Two Hundred Sixty One Dollars and Zero Cents per Lump Sum.	$2,261.00	$2,261.00
304	1	LS	Tree Protection, complete in place for the sum of One Thousand Six Hundred Ninety Six Dollars and Zero Cents per Lump Sum.	$ 1,696.00	$1,696.00
305	1	LS	90 Day Establishment Period, complete in place for the sum of One Thousand Six Hundred Ninety Six Dollars and Zero Cents per Lump Sum.	$ 1,696.00	$1,696.00
306	1	LS	1 Year Maintenance, complete in place for the sum of Seven Thousand Six Hundred Thirty Two Dollars and Zero Cents per Lump Sum.	$7,632.00	$7,632.00

SUB-TOTAL BASE BID (Items 301-306)

Fourteen Thousand One Hundred Eighty Six **Dollars**

Zero **Cents**

SUMMARY

BID SCHEDULE – LES LACS POND WATER WELL REBUILDING PROJECT

1. Removal, Site Preparation and Miscellaneous Subtotal

   (Items 001-011) $62,268.00

2. Well and Well Area Improvements Subtotal

   (Items 101-115) $96,711.00

3. Electrical Improvements Subtotal

   (Items 201-210)..... $51,432.00

4. Landscape Improvements Subtotal

   (Items 301-306)..... $14,186.00

TOTAL BID $224,597.00

Written in Words: Two Hundred Twenty Four Thousand Five Hundred Ninety Seven Dollars and Zero Cents

The pay items included in this proposal form comprise all of the pay items for the project. Any additional required work shall be considered subsidiary to the related pay items provided herein.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-26897

Date Filed:
03/16/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Groves Electrical Service, Inc.
Farmers Branch, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Town of Addison, Texas

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the goods or services to be provided under the contract.

Bid Number 16-43
Electrical Improvements

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

NOTARY PUBLIC STATE OF TEXAS
Leeann May Hawkins
Commission Expires
08-02-2017

Maria Groves
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Maria Groves, this the 16th day of March, 2016, to certify which, witness my hand and seal of office.

Leeann May Hawkins

Maria Groves — Maria Groves — C.F.O.
Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

SECTION PrB

PERFORMANCE BOND

PERFORMANCE BOND

STATE OF TEXAS }
COUNTY OF DALLAS }

WHEREAS, _____ as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct _____
_____
_____
which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall well, truly and faithfully perform all of the undertakings, duties, terms, conditions and agreements of the Contract; shall satisfy all claims and demands incurred under the Contract; shall fully indemnify and hold the Town harmless; shall reimburse and repay the Town for any outlay or expense which the Town may incur in making good any default, and shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR: SURETY: 1

By:_____ By:_____

Title:_____ Title:_____

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS }
COUNTY OF DALLAS }

Before me _____ (insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS }
COUNTY OF DALLAS }

This instrument was acknowledged before me on the ____day of _____, 2_____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary

My Commission Expires:_____

1 Please see attached contact sheet for Surety and the Texas Department of Insurance.

Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

_____
(Name of surety)

_____
(Mailing address)

_____
(Physical address)

_____
(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION PyB

PAYMENT BOND

PAYMENT BOND

STATE OF TEXAS }
COUNTY OF DALLAS }

WHEREAS, _____, as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct _____
_____

which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension of time or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR: SURETY: 1

By:_____ By:_____

Title:_____ Title:_____

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS }
COUNTY OF DALLAS }

Before me _____ (insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS }
COUNTY OF DALLAS }

This instrument was acknowledged before me on the _____ day of _____, 2_____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary

My Commission Expires:_____

1 Please see attached contact sheet for Surety and the Texas Department of Insurance

Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

_____
(Name of surety)

_____
(Mailing address)

_____
(Physical address)

_____
(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION MB

MAINTENANCE BOND

MAINTENANCE BOND – TWO YEAR

STATE OF TEXAS '

COUNTY OF DALLAS '

WHEREAS,_____, as principal ("Contractor") and _____, a corporation organized under the laws of _____ and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to he held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns the sum of _____ Dollars in the lawful currency of the United States of America ($) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, under the Contract it is provided that the Contractor will maintain and keep in good repair all work to be performed and done under the Contract for a period of **two (2) year** from the date of acceptance of the completed work by the Town, and to do and perform all necessary work and repair any defective condition, it being understood that the purpose of this maintenance bond is to insure all warranties, express or implied, made or given by the Contractor to the Town and to cover all defective, inadequate or non-conforming conditions arising by reason of any materials or labor installed, provided, constructed or performed by the Contractor and in case the Contractor shall fail to correct any such conditions it is agreed that the Town may make such corrections and charge the cost of making those corrections against the Contractor and the Surety on this obligation, and the Contractor and Surety shall be subject to the liquidated damages provided in the contract, the plans and the specifications for each day's failure on its part to comply with the terms and provisions of the Contract;

NOW, THEREFORE, if the Contractor shall keep and perform its obligation to maintain the work and keep the work in repair for the full maintenance period of two (2) year as herein provided, then these presents shall be null and void and have no further effect, but if default shall be made by Contractor in the performance of its obligations, then these presents shall have full force and effect, and the Town shall have and recover from the Contractor and its Surety damages in the premises as provided and it is further understood and agreed that this obligation shall be a continuing one against the Contractor and the Surety and that successive recoveries may be had hereon for successive breaches until the full amount of this bond shall have been exhausted; and it is further understood that the obligation under this bond to maintain the work shall continue throughout the maintenance period and shall not be changed, diminished, or in any other manner affected during the term of this bond. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the _____ day of _____, 2_____.

CONTRACTOR:	SURETY:
By:_____	By:_____
Printed Name:_____	Printed Name:_____
Title:_____	Title:_____
Address of Principal:	Address of Surety:
_____	_____
_____	_____
_____	_____

ACKNOWLEDGMENTS

[Contractor]

STATE OF TEXAS '
COUNTY OF DALLAS '

Before me _____(insert the name of the officer) on this day _____ personally appeared _____ known to me (or proved to me on the oath of _____) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
My Commission Expires:_____

[Surety]

STATE OF TEXAS '
COUNTY OF DALLAS '

This instrument was acknowledged before me on the ___ day of _____, 2____ by _____ who is the _____ of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2_____.

_____ _____
Notary Public in and for the State of Texas Typed or Printed Name of Notary
2-4-13 2 yr

SECTION BP

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

STATE OF TEXAS

COUNTY OF DALLAS

Personally, before me the undersigned authority, on this day appeared _____ who, being duly sworn, on oath, says that he is a legal representative of _____
(full name of Contractor as in contract)

and that the contract for the construction of the project, designated as

INFRASTRUCTURE & DEVELOPMENT SERVICES BID NUMBER 16-43
LES LACS POND WATER WELL REBUILDING PROJECT

has been satisfactorily completed and that all bills for materials, apparatus, fixtures, machinery and labor used in connection with the construction of this project have, to the best of my knowledge and belief, been fully paid.

_____
Signature

_____
Title

Sworn to and subscribed before me this _____day of _____, 201_.

_____
Notary Public in and for

_____ County, Texas

Instructions:

If the contractor is an individual, he shall sign the affidavit. If the contractor is a partnership, any partner may sign the affidavit. If the contractor is a corporation, a person authorized by the by-laws or by the Board of Directors shall sign the affidavit. If the Contractor is a joint-venture of individuals, any of the individuals may sign the affidavit. If the Contractor is a joint-venture of partnerships, or of individuals and partnerships, the affidavit may be signed by the individual or any partner of any partnership. If the contractor is a joint-venture in which a corporation is a party, separate affidavits must be executed in the name of the joint-venture: one by each corporation and one by each individual or partnership. Signatures for corporations should be by a duly authorized officer. If signature is by another, a showing of authority to sign must accompany the affidavit.

SECTION GP

GENERAL PROVISIONS

GENERAL PROVISIONS

The General Provisions of the Contract shall be as stated in the *Standard Specifications for Public Works Construction – North Central Texas, 4th Edition (2004)*, under Division 100, "General Provisions," Items 101.1 through 109.6 inclusive, as amended or supplemented and except as modified by the Special Provisions, Instructions to Bidders, and Technical Specifications.

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SPECIAL PROVISIONS

SPECIAL PROVISIONS

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SPECIAL PROVISIONS

1. **SCOPE OF WORK**: The work to be performed under the provisions of these Contract Documents shall consist of furnishing all materials, labor, equipment, supplies and appurtenances; providing all construction, removal, installation, planting, equipment and tools; performing all necessary labor and supervision; and the construction complete, including all work appurtenant thereto, the proposed improvements for: *Les Lacs Pond Water Well Rebuilding Project.*

2. **GENERAL:** This work shall conform to the requirements of the specifications and the details as shown on the Drawings. These Contract Documents are intended to be complementary. Requirements of any of the Contract Documents are as binding as if called for by all. In the event of conflict between the Drawings and the Specifications, the Contractor will be deemed to have assumed the more expensive way of doing the work unless, before submitting a bid, the Contractor shall have asked for and obtained (by addendum) a written decision as to which method or material is intended.

   In cases of discrepancies, calculated dimensions shall govern over scaled dimensions; special provisions and special specifications shall govern over both general and standard specifications; and quantities shown on the plans shall govern over those shown in the proposal.

3. **EXAMINATION OF SITE:** The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, or similar physical conditions at the site, conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor acknowledges that he has inspected the site of the work and is familiar with the soil conditions to be encountered. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Town of Addison assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Town and the Engineer.

4. **SPECIFICATIONS:** Construction improvements shall be governed by the following published specifications and details (except as modified by these Special Provisions):

   Standard Specifications for Public Works Construction, North Central Texas - North Central Texas Council of Governments (latest edition);

   Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges – Texas Department of Transportation, 2004;

   Town of Addison Standard Construction Details;

The Contractor shall keep copies of applicable specifications on the project site at all times. Where reference is made to specifications compiled by other agencies, organizations or departments, such referenced specifications are hereby made a part of the project specifications.

5. **SUBSURFACE INVESTIGATION:** There is no subsurface geotechnical report prepared for this project. Subsurface exploration to ascertain the nature of soils, including the amount of rock, if any, is the responsibility of any and all prospective bidders. It shall be the responsibility of the bidders to make such subsurface investigations as he deems necessary to determine the nature of the material to be encountered. Some preliminary subsurface exploration has been performed by the Town of Addison and the Engineer, and is provided to the Contractor in the plan documents. This information is provided only as preliminary and all bids shall be based on information obtained by the Contractor. The Town of Addison and the Engineer disclaim any responsibility for the accuracy, true location and extent of the soils information that has been prepared by others. They further disclaim responsibility for interpretation of that data by bidders, as in projecting soil bearing values, rock profiles, soils stability and the presence, level and extent of underground water.

6. **COMPLIANCE WITH LAWS:** The Contractor shall familiarize himself with the nature and extent of the specifications, site conditions, traffic and safety requirements, and shall fully comply with all local, state and federal laws, including all codes, ordinances, rules and regulations applicable to this Contract and the work to be done hereunder, which exist or which may be enacted later by governmental bodies having jurisdiction or authority for such enactment. The Contractor shall comply with all federal, state and local laws, rules and regulations of every kind and nature applicable to the performance of its Work hereunder, and shall hold the Town of Addison and the Engineer harmless therefrom.

7. **PERMITS, LICENSES. AND REGULATIONS:** Permits and licenses for the prosecution of the Work shall be secured and paid for by the Contractor. Wherever the work under this contract requires the obtaining of permits from the Town of Addison or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor hereunder before the work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS ARE OBTAINED.**

8. **RIGHTS-OF-WAY AND EASEMENTS:** No right-of-way acquisition or easements are required for this project. However, when working within the public rights-of-way and easements, the Contractor shall at all times observe and comply with all Federal and State Laws, and Town of Addison ordinances and regulations which in any way affect the conduct of the work or his operations, and shall observe and comply with all orders, laws, ordinances and regulations which exist or which may be enacted later by bodies having jurisdiction or authority for such enactment. No plea of misunderstanding or ignorance thereof will be considered. The Contractor and his Sureties shall indemnify and save harmless the Town of Addison, the Engineer and all of their officers, agents, and employees against any and all claims or liability arising from or based on the violation of any such law, ordinance, regulation, or order, whether it be by himself or his employees.

There shall be no work performed on private property. If necessary, it shall be the responsibility of the Contractor, prior to the initiation of construction on easements through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the Work. All easements and property shall be cleaned up after use and restored to their original conditions or better.

9. **RESTRICTED WORK HOURS:** Construction may only occur from 7 a.m. to 7 p.m. Monday through Friday and from 8 a.m. to 7 p.m. on Saturdays. No work shall occur on Sundays or on legal Holidays, as determined by the Town of Addison. It is in the interest of the public safety and convenience for the work under this project to occur within the standard work hours. As a submittal, the Contractor must present a detailed work schedule to the Town for approval prior to construction.

10. **COMPLIANCE WITH IMMIGRATION LAWS:** Contractor shall take all steps necessary to ensure that all of the Contractor's employees are authorized to work in the United States as required by the Immigration Reform and Control Act of 1986.

11. **NON-DISCRIMINATION POLICY:** It is the policy of the Town of Addison to afford all people an equal opportunity to bid on any contract being let by the Town. The Town of Addison has a policy that prohibits discrimination against any person because of race, color, sex, or national origin, in the award or performance of any contract. The Town of Addison will require its employees, agents, and Contractors to adhere to this policy.

12. **ANTITRUST LAWS:** The Contractor hereby assigns to the Town of Addison any and all claims for overcharges associated with this contract which arise under the antitrust laws of the United States 15 U.S.C.A. Sec. 1, et seq. (1973).

13. **ABANDONMENT:** The Town of Addison reserves the right to abandon, without obligation to the Contractor, any part of the project, or the entire project, at any time before the Contractor begins any construction work authorized by the Town of Addison. In case of total abandonment of the project, the contract becomes void. The Town of Addison may abandon portions of the project at any time during the project duration. In case of such partial abandonment, the Contractor shall not be due any payment for lost or unrealized profits on the abandoned portions of the project.

14. **DISCREPANCIES:** If the Contractor, in the course of the Work, finds any discrepancy between the Contract Documents and the physical conditions of the locality, or any errors or omissions in drawings or in the layout as given by survey points and instructions, or if it appears that any Plan, Specification or other Contract Document is or may not be in compliance with any building code or other requirement of any governmental body, he shall immediately inform the Town of Addison and the Engineer in writing, and the Town of Addison and the Engineer shall promptly verify the same. Any Work done after such discovery, until authorized, will be done at the Contractor's risk.

15. **PREPARATION OF STORM WATER POLLUTION PREVENTION PLAN:** A Storm Water Pollution Prevention Plan (SW3P) will be prepared by the Contractor in accordance with the Texas Pollution Discharge Elimination System, General Permit Number TXR150000 relating to Discharges from Construction Activities issued by the Texas Commission on Environmental Quality (TCEQ). The SW3P will include the following information as required by the TCEQ Permit: Project description that includes: description of the construction activities, intended schedule or sequence of major soil disturbing activities, number of total acres of the project area and number of acres where soil will be disturbed, estimate of the runoff coefficient of the site for pre-construction and post-construction conditions, data describing the soil, a general location map, the name of receiving waters at or near the site, and a copy of the TPDES General Permit.

A Best Management Plan is provided in the plans with minimum elements for perspective Bidders. The contractor is required to prepare a detailed site map will be prepared showing drainage patterns and approximate slopes after grading, areas where soil disturbance will occur, locations of major structural controls, locations where stabilization practices are expected to be used, surface waters, and locations where storm water discharges from the site directly to a surface water.

The Contractor shall prepare a SW3P and submit a Notice of Intent (NOI) as required by the TPDES Permit if the total disturbed area is 5 acres or more.

A three-ring SW3P binder will be prepared containing all information and reports that are required as part of the SW3P. The Contractor will be required to prepare and utilize the SW3P as listed above, and maintain all records on-site during the project including performing inspections and maintaining all required documentation required by the TPDES General Permit.

This specification is not all inclusive of the requirements for an SW3P. The Contractor shall comply with all requirements of the TCEQ TPDES permit and the local authorities' storm water ordinance and/or regulations.

The SW3P plan provided by the Contractor shall be designed, signed, and sealed by a professional engineer registered in Texas.

16. **ADDENDA:** Bidders desiring further information, or interpretation of the Plans and Specifications, must make written request for such information to the Engineer (not later than three (3) working days prior to the date set for the Bid opening. The ability to ask questions will close at 2:00 pm, February 15, 2016. Answers to all such requests will be issued in the form of Addenda and a copy of such Addenda will be released through *www.bidsync.com*. It will be the responsibility of each person who has been issued as set of Bidding Documents to secure all Addenda from *www.bidsync.com*. Addenda will be bound with and made a part of the Contract Documents. No other explanation or interpretation will be considered official or binding. Should a Bidder find discrepancies in, or omissions from, the Plans, Specifications or Contract Documents, or should he be in doubt as to their meaning, he shall at once notify the Engineer in writing in order that a written addendum may be sent to all Bidders.

17. **PAY ITEMS:** Pay items provided are intended to be all-inclusive of the work required on this project. Work required by the plans or specifications but not provided with a specific pay item shall be considered incidental to other items of work. Final payment to the construction Contractor shall not be made until all Work has been finally completed and verified in accordance with the construction contract, plans and specifications and have been finally accepted by the Town of Addison.

See Special Provisions 93. Bid Item Descriptions for reference specifications, plans, and details.

18. **INCREASE OR DECREASE IN QUANTITIES:** The quantities shown in the proposal are approximate. Final payment will be based on quantities determined by measurement methods described for each work item.

When the quantity of work to be done or materials to be furnished under any major pay item or contract is more than 125% of the quantity stated in the contract, whether stated by Town of Addison or by Contractor, then either party to the contract, upon demand, shall be entitled to negotiate for revised consideration on the portion of work above 125% of the quantity stated in the contract.

When the quantity of the work to be done or materials to be furnished under any major pay item of the contract is less than 75% of the quantity stated in the contract, whether stated by Town of Addison or by Contractor, then either party to the contract, upon demand, shall be entitled to negotiate for revised consideration on the portion of work below 75% of the quantity stated in the contract. This paragraph shall not apply in the event Town of Addison deletes a pay item in its entirety from this contract.

19. **SUBSIDIARY WORK:** Any and all work specifically governed by documentary requirements for the project, such as conditions imposed by the Plans or these Special Provisions, in which no specific item for bid has been provided for in the Proposal, shall be considered as a subsidiary item of work, the cost of which shall be included in the various bid items in the Proposal. Costs of permits, inspection fees, traffic control, construction staking, surface restoration and cleanup are general items of work which fall in the category of subsidiary work. Any repairs or replacement of items damaged during demolition or as a result of new construction will be considered subsidiary. Limits of all work requiring repair will be determined by the Town of Addison staff or the inspector. Extreme care should be taken during all demolition and construction operations.

20. **QUALIFICATION OF BIDS:** The Town of Addison reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. The Town reserves the right to reject the Bid of any Bidder if the Town believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Town. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor

of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolve in favor of the correct sum.

To be considered responsive, the apparent three lowest bidders are required to submit the Statement of Experience per Spec 00 45 16 within 5 days.

The apparent low three bidders will be notified by the Engineer to request the information.

21. **AWARD AND EXECUTION OF CONTRACT:** For the purpose of award, each bid submitted shall consist of two parts whereby the correct summation of the products of the estimated quantities shown in the proposal, multiplied by their bid unit prices for the following parts:

- **Base Bid – Parts 001 thru 306**

The method of Award will be as shown below:
Award = Total Base Bid

The Town reserves the right to accept whichever bid is determined to be in the best interest of the public and to reject all bids.

All payments will be based on actual quantities and bid unit prices.

22. **EXPLANATION OF CONTRACT TIME:** The term "Contract Time" as used in this Provision will mean the **150** calendar days for completion of the work of the Contract from the date the Contract was executed. The term "calendar day" as used in this Article will mean every day shown on the calendar. Calendar days will be consecutively counted from commencement of Contract Time regardless of weather, weekends, holidays, suspensions of Contractor's operations, delays or other events as described herein.

In the event of a catastrophic event (i.e., war, invasion, riot, declared state of emergency, national strike, or other situations as declared by the Town of Addison) directly and substantially affecting the Contractor's operations on the Contract, the Contractor and the Town shall agree as to the number of calendar days to extend the Contract Time. In the event the Contractor and Town are unable to agree to the number of calendar days to extend the Contract Time, the Town shall unilaterally determine the number of calendar days to extend the Contract Time reasonably necessary and due solely to such catastrophic event and the Contractor shall have no right whatsoever to contest such determination, save and except that the Contractor establishes that the number of calendar days determined by the Town were arbitrary or without any reasonable basis.

Should the Contractor fail to complete the Contract on or before expiration of the Allowable Contract Time, as adjusted in accordance with the provisions above, the Town shall deduct from the moneys due the Contractor the Liquidated Damages as shown in provision 95 for each calendar day completion exceeds the Allowable Contract Time. The term "Allowable Contract Time" as used in this Article shall mean the Original Contract Time plus

adjustments pursuant to the statements above. This deduction shall be the disincentive for the Contractor's failing to timely complete the Contract. **This shall be strictly enforced.**

23. **COPIES OF PLANS FURNISHED:** One (1) copy of 11" x 17" and one (1) electronic copy of the plans shall be furnished to the successful Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of $150.00 per set upon request.

24. **PRE-CONSTRUCTION CONFERENCE:** The successful Contractor, Engineer, and Town of Addison shall meet for a pre-construction conference before any of the work begins on this project. At this time, details of sequencing of the work, contact individuals for each party, testing requirements, submittals, and pay requests will be covered. Prior to the meeting, the Contractor shall prepare schedules showing the sequencing and progress of their work and its effect on others. A final composite schedule will be prepared during this conference to allow an orderly sequence of project construction.

25. **MOBILIZATION:** The work specified in this item consists of the preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of temporary offices, utilities, and other facilities, if necessary, for the construction of proposed improvements. The provisions of TxDOT Standard Specification Item (TxDOT Item) 500 "Mobilization" shall apply, except the maximum amount allowed will be 5% of the total bid amount.

26. **GENERAL SEQUENCE OF CONSTRUCTION:** Prior to the start of work, the Contractor shall develop a detailed construction and sequence of construction schedule using the critical path method (CPM) and submit to the Town of Addison for approval. The CPM shall reflect all definable features of work and activities that shall cause minimum interference with traffic along, across and adjacent to the project during construction. If the schedule or sequence becomes unworkable or unsatisfactory as work proceeds, adjustments shall be made. During all phases of construction access to all existing residences and businesses must be maintained at all times unless otherwise authorized in writing by the Town of Addison. Erosion control devices must be properly installed and maintained during all stages of construction.

    The Contractor must comply with all lane closure and traffic movement restrictions as indicated in the plans unless specifically authorized in writing ty the Town of Addison.

    The general intent is for the contractor to begin at one end and steadily progress limiting the area of construction to minimize disruptions to the traveling public, residences and businesses along the route.

27. **PROJECT REPRESENTATIVE:** The Town of Addison, the Engineer, the Contractor(s), and any applicable public utilities shall designate a single individual within their organization to act as liaison for the project. This individual shall be aware of the day to day activities on the project, have authority to make decisions binding on the party, and serve as single point

for coordination of activities with the other team members. The Contractor's representative must be available to meet and discuss construction related issues on site or at the Town's offices within 20 minutes of a request during working hours and throughout the entire construction period. Upon repeated failure of attendance at requested meetings, Contractor will be required to have a project representative on-site at all times.

28. **COORDINATION WITH OTHERS:** In the event that other Contractors are doing work in the same area simultaneously with this project, the Contractor shall coordinate his proposed construction with that of the other Contractors. The Town of Addison and/or the Engineer shall mediate any disputes, and the Contractors shall comply with their decisions.

29. **INSURANCE/INDEMNIFICATION**

Attached as separate documents are the required insurance and indemnification forms. These forms must be signed and included in the bid.

Each insurance policy that the Contractor must furnish in accordance with these contract documents shall name the Town of Addison and the Engineer as additional insured. Contractor shall include in their bid package, a copy of their certificate of insurance showing compliance to the limits established by the Town of Addison.

1.0 The Contractor shall agree to furnish and maintain continuously during the period of this agreement, any renewals or extension, insurance coverage meeting all of the following requirements:

1.1 Commercial General Liability Insurance at minimum combined single limits of $1,000,000 per occurrence and $2,000,000 general aggregate for Bodily Injury and Property Damage, which coverage shall include Products/Completed Operations, and XCU Hazards. Coverage for product/completed operations must be maintained for at least two (2) years after the construction work has been completed. Coverage must be amended to provide for an each-project aggregate limit of insurance. Contractual Liability must be included.

1.2 Workers Compensation Insurance at statutory limits, including employer's liability coverage at minimum limits of $1,000,000 each occurrence-each accident, $1,000,000 by disease-each occurrence and $1,000,000 by disease aggregate

1.3 Commercial Automobile Liability Insurance at minimum combined single limits of $1,000,000 per occurrence for bodily injury and property damage, including owned, non-owned, and hired car coverage.

1.4 Umbrella Liability at minimum limits of $1,000,000 each-occurrence $4,000,000 aggregate with respect to primary commercial general liability, automobile liability and employer's liability policies.

1.5 Any Subcontractor(s) hired by the Contractor shall maintain insurance coverage equal to that required by the Contractor. It is the responsibility of the Contractor to assure compliance with this provision. The Town accepts no responsibility arising from the conduct, or lack of conduct, of the Subcontractor.

1.6 A comprehensive general liability insurance form may be used in lieu of a commercial general liability form. In this event, coverage must be written on an occurrence basis, at limits of $1,000,000 each-occurrence, combined single limit and coverage must include a broad form comprehensive general liability endorsement, products/completed operations, XCU hazards and contractual liability.

2.0 With reference to the foregoing insurance requirements, Contractor shall specifically endorse applicable insurance policies as follows:

2.1 The Town shall be named as an additional insured with respect to general liability and automobile liability.

2.2 All liability policies shall contain no cross liability exclusions or insured versus insured restrictions.

2.3 A waiver of subrogation in favor of the Town of Addison shall be contained in the workers compensation and all liability policies.

2.4 All insurance policies shall be endorsed to require the insured to immediately notify the Town of Addison of any material changes in the insurance coverage.

2.5 All insurance policies shall be endorsed to the effect that the Town will receive at least thirty (30) days notice prior to cancellation or non-renewal of the insurance.

2.6 All certificates shall be mailed to Town of Addison, Purchasing Dept., P.O. Box 9010, Addison, Texas 75001 or emailed to purchasing@addisontx.gov.

2.7 All insurance policies, which name the Town as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.

2.8 Required limits may be satisfied by any combination of primary and umbrella liability insurances.

2.9 Contractor may maintain reasonable and customary deductibles, subject to approval by the Town.

3.0 All insurance shall be purchased from an insurance company who meets the following requirements:

3.1 Must be issued by a carrier, which is rated "A-" VII or better by A.M. Best's Key Rating Guide.

3.2 Licensed and admitted to do business in the State of Texas and is a subscriber to the Texas Guaranty Fund.

4.0 All insurance must be written on forms filed with and approved by the Texas State Board of Insurance. Certificates of insurance shall be prepared and executed by the

insurance company or its authorized agent and shall contain provisions representing and warranting the following:

4.1 Set forth all endorsements and insurance coverages according to requirements and instruction contained herein.

4.2 Shall specifically set forth the notice-of-cancellation or termination provisions to the Town.

5.0 Upon request, Contractor shall furnish the Town of Addison with certified copies of all insurance policies.

30. WORKERS' COMPENSATION INSURANCE COVERAGE:

A. Definitions.

Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self insure issued by the Texas Workers' Compensation Commission (the "TWCC"), or a coverage agreement (TWCC-81, TWCC-82, TWCC-83 or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the Project - includes the time from the beginning of the work on the project until the Contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons Providing Services on the Project ("Subcontractor" in Section 406.096 of the Texas Labor Code) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, Subcontractors, leasing companies, motor carriers, Town-operators, employees of any such entity or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The Contractor shall provide coverage, based on property reporting of classification codes and payroll amounts and filing of any coverage agreement, which meets the statutory requirements of Texas Labor Code, 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.

C. The Contractor must provide a certificate of coverage to the Town of Addison prior to being awarded the contract.

D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Town of Addison, showing that the coverage has been extended.

E. The Contractor shall obtain from each person providing services on the project, and provide to the Town of Addison:

(1) a certificate of coverage, prior to that person beginning work on the project, so that the Town of Addison will have on file certificates of coverage showing coverage for all persons providing services on the project; and,

(2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

F. The Contractor shall retain all required certificates of coverage on file for the duration of the project and for one year thereafter.

G. The Contractor shall notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

H. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the TWCC, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage.

I. The Contractor shall contractually require each person with whom it contracts to provide Services on a project to:

(1) Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Codes 401.011 (44) for all its employees providing services on the project, for the duration of the project;

(2) Provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) Provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) Obtain from each person with whom it contracts, and provide to the Contractor;

a. a certificate of coverage, prior to the other person beginning work on the project; and,

b. a new certificate of coverage showing extension of the coverage period, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

(5) Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) Notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(7) Contractually require each other person with whom it contracts to perform as required by paragraphs (1) - (7) with the certificate of coverage to be provided to the person for whom they are providing services.

J. By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Town of Addison that all employees of the Contractor who will provide services on the project will be covered by worker's compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the TWCC's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties or other civil actions.

K. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Town of Addison to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Town.

The following is the form of notice of workers' compensation coverage prescribed by the TWCC. Pursuant to Section 110.110 (d) (7), this notice must be printed with a title in at least 30-point bold type, and text in at least 19-point nominal type, and shall be in both English and Spanish and any other language common to the worker population.

REQUIRED WORKERS' COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee.

"Call the Texas Workers' Compensation Commission (TWCC) at (512) 440-3789 to receive further information on the legal requirements for coverage,

to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

31. **CLEAN AIR ACT AND CLEAN WATER ACT:** Include in all construction contracts exceeding $100,000, the following requirement: "Contractor is responsible for compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act, Section 505 of the Clean Water Act, Executive Order 11738, and Environmental Protection Agency regulations."

32. **RESOLUTION OF DISPUTES:** The parties hereby covenant and agree that in the event of any controversy, dispute, or claim, of whatever nature arising out of, in connection with or in relation to the interpretation, performance or breach of this agreement, including but not limited to any claims based on contract, tort or statute, before filing a lawsuit, the parties agree to submit the matter to Alternative Dispute Resolution pursuant to the laws of the State of Texas. The parties shall select a third party arbitrator or mediator from the current list of neutrals on file with the Alternative Dispute Resolution Administrator of the Dallas County District Courts. All forms of Alternative Dispute Resolution may be used except binding arbitration. The proceedings shall be conducted in accordance with the laws of the State of Texas.

33. **SHOP DRAWINGS:** The Contractor shall provide, review, approve and submit all shop drawings, product data and samples required by the Town of Addison, the Engineer and the Contract Documents in accordance with Item 1.28 of the Standard Specifications for Public Works Construction, North Central Texas Council of Governments, latest edition. The Contractor shall furnish a minimum of four and a maximum of six copies of shop drawings for review by the Engineer, who will review, approve and forward to the Town of Addison for acceptance. Approved submittals will be returned as follows:

Two (2) – Town of Addison

One (1) – Contractor

Two (2) – Halff Associates, Inc.

Maximum size of submittals shall be 11 x 17 inch. No fax copies are acceptable. Shop drawings shall include all items to be installed in the project, including:

- Concrete Mix Designs
- Backfill Materials
- Traffic Control Plan
- Irrigation Fittings & Appurtenances
- Structures & Other Improvements
- Construction Entrance Layout
- Operation Site Layout
- Electrical Equipment
- Pump & Motor
- Piping
- Meters
- Finishes

34. **PROJECT VIDEO:** Prior to the start of construction, Contractor shall video the construction area and property adjacent to construction in the presence of the Project Manager. The format shall be DVD. The video shall be narrated. The Contractor shall furnish the Town of Addison a copy of the video in DVD format prior to commencement of project. This shall be subsidiary to project.

35. **SAMPLES AND TESTS OF MATERIALS:** The Contractor shall designate and pay an independent testing laboratory to furnish testing for this project. Random testing will be provided by the independent lab as necessary for compliance with the specifications. The Contractor shall coordinate construction with the testing lab and the Town of Addison, and shall provide assistance to the testing labs by providing excavation, access, trench safety, materials for testing and any other work required to insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All costs for the field quality control testing shall be paid for by the Contractor, including any and all re-testing. As a guide, the Contractor shall be responsible for providing any test required by the specifications.

All samples and tests shall be performed in accordance with the Standard Specifications for Public Works Construction, North Central Texas Council of Governments (Latest Edition) as amended or supplemented. The Town of Addison may elect to have its own independent lab if it so desires.

36. **INSPECTION:** The Town of Addison and the Engineer reserve the right to inspect, test, measure or verify the construction work for this project as they deem necessary to ascertain that the Work is being accomplished in accordance with the standards and requirements set forth in the Contract Documents. Notwithstanding such reviews, the Contractor will be held responsible for the finished Work and any acceptance of the Work by the Town or governmental agencies will not relieve the Contractor from responsibility for the Work. The Town reserves the right to place full-time construction inspectors at the site of the Work. Costs for inspection services will be paid by the Town of Addison. The Contractor shall provide assistance to the Town of Addison and the Engineer by providing excavation, trench safety, or other work necessary to facilitate inspection activities, and shall give sufficient notice well in advance of pending construction activities for scheduling of inspection services.

If the Specifications, the Town's instructions, laws, ordinances, or any public authority require any Work to be specially tested, the Contractor shall give the Town timely notice (at least 48 hours) of its readiness for testing, and if the testing is by an authority other than the Town, of the date fixed for such testing. Tests by the Town shall be made promptly, and where practicable at the source of supply.

37. **ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS:** All haul roads and access routes and the location of job site trailers, staging areas, and storage areas shall be subject to the approval of the Town and the Engineer. The Contractor shall be responsible for maintaining and repairing all roads and other facilities used during construction. Upon completion of the project all existing roads and other disturbed areas shall be left in a condition equal to that at the time the Contractor commences work on this project.

38. **PROPERTY ACCESS:** Access to adjacent properties shall be maintained at all times unless otherwise directed by the Engineer and/or Town of Addison. Contractor shall also

maintain sufficient access throughout the project limits to the existing buildings and businesses during construction operations.

39. **PLANT, PROCEDURES, METHODS AND EQUIPMENT:** The Contractor shall determine the methods to be employed, the procedures to be followed, and equipment to be used on the work under this contract, subject to the requirements of these specifications and approval of the Engineer and Town of Addison. Only adequate and safe procedures, methods and equipment shall be used.

The Contractor shall so arrange his work and provide such plant and equipment as is necessary in order to meet the progress requirements of the approved time schedule and to complete the work within the period of time as specified in the Construction Agreement. Only such materials and equipment as are necessary for the construction of the work under this contract shall be placed, stored or allowed to occupy any space at the site of the work.

It is expressly agreed that the acceptance or approval of any order of procedure, methods or equipment submitted or employed by the Contractor shall not in any manner relieve the Contractor of responsibility for the safety, maintenance and repairs of any work, or for the construction maintenance and safety of the work hereunder, or from any liability whatsoever on account of any procedure or method employed by the Contractor.

Where the work under this contract requires permits from the Town of Addison, the State of Texas, or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor before the work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE REQUIRED PERMITS ARE OBTAINED AND DISTRIBUTED.**

40. **PARKING OF CONSTRUCTION EQUIPMENT:** At night and during all other periods of time when equipment is not being actively used on the construction work, the Contractor shall park the equipment at locations, within project limits, which are approved by the Town of Addison or the Engineer. The Contractor shall provide adequate barricades, markers and lights to protect the Town of Addison, the Engineer, the public and other work. All barricades, lights, and markers must meet the requirements of the Town of Addison, State and Federal regulations.

41. **ZONING REQUIREMENTS:** During the construction of this project, the Contractor shall comply with the present zoning requirements of the Town of Addison in the use of vacant property for storage purposes.

42. **CONSTRUCTION IN PUBLIC ROADS AND PRIVATE DRIVES:** No public road shall be entirely closed overnight (except as shown in plans). It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads involved in the work included in this contract. No interference with traffic flow on city streets shall be permitted during the hours of 6:30 a.m. to 9:30 a.m. and 3:30

p.m. to 7:30 p.m., Mondays through Fridays (except as shown in plans).

The Contractor shall make every effort to complete construction and allow immediate access to adjacent property at driveway entrances located along the roadways. Towns or tenants of improvements where access and/or entrance drives are located shall be notified at least twenty-four (24) hours prior to the time the construction will be started at their driveways or entrances and informed as to the length of time driveways will be closed. Contractor shall at all times maintain at least one point of access into all properties, unless obtaining written permission from property Town to do otherwise with such written permission being provided to the Town's inspector.

The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of two years from the date of such reconstruction. In the event the repairs and maintenance are not made immediately to the satisfaction of the Town, and it becomes necessary for the Town to make such repairs, the Contractor shall reimburse the Town for the cost of such repairs.

The Contractor shall, at all times, keep a sufficient width of the roadway clear of dirt and other material to allow the free flow of traffic. The Contractor shall assume any and all responsibility for damage, personal or otherwise, that may be caused by the construction along roads and private drives.

43. **HAULING ON TOWN OF ADDISON STREETS**: The Contractor shall receive approval of his haul routes and type of equipment to be used prior to beginning construction. The Contractor shall be responsible for maintaining the cleanliness of existing paved roadways and shall provide equipment and manpower for that purpose.

44. **EXISTING POWER POLES & GUY WIRES:** The Contractor shall have the responsibility of coordinating with the proper authorities for the bracing, replacing or relocating of all utility poles and guy wires which interfere with the construction of this project prior to beginning his construction operations. The Contractor will also be responsible for all damage to poles, guy wires, etc. that are damaged or destroyed by Contractor's operations.

45. **SAFETY RESTRICTIONS - WORK NEAR HIGH VOLTAGE LINES:** The following procedures shall be followed for work near high voltage lines on this contract:

a. A warning sign not less than five (5) inches by seven (7) inches, painted yellow with black letters that are legible at twelve (12) feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile driver, hoisting equipment or similar apparatus. The warning sign shall read as follows: "Warning - Unlawful to Operate This Equipment within Six Feet of High Voltage Lines."

b. Equipment that may be operated within ten (10) feet of high voltage lines shall have an insulating cage guard protecting the boom or arm, except backhoes or dippers, and insulator links on lift hook connections.

c. When necessary to work within six (6) feet of high voltage electric lines, notify the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. All such work done by the power company shall be at the expense of the Contractor. The Contractor shall maintain an accurate log of all such calls to the power company.

d. The Contractor is required to make arrangements with the power company for the temporary relocation or raising of high voltage lines at the Contractor's sole expense.

e. No person shall work within six (6) feet of high voltage lines without protection measures having been taken as outlined in Paragraph c.

46. **PROTECTION OF EXISTING UTILITIES AND STRUCTURES:** The location and dimensions shown on the plans relative to existing utilities and subsurface structures are based on the best records and/or field information available and are not guaranteed by the Town of Addison or the Engineer to be accurate as to location and depth. It shall be the Contractor's responsibility to verify locations of adjacent and conflicting utilities sufficiently in advance of his activities in order that he may negotiate such restrictive locations with the Town of Addison of the conflicting utility and/or make local adjustments to provide adequate clearances. The Contractor shall take all necessary precautions in order to protect all utilities and services encountered, whether or not they are indicated on the plans. All damage to utilities resulting from Contractor's operations shall be restored at his expense. The Town of Addison and the Engineer assume no responsibility for failure to show any or all of these utilities or structures on the plans, or to show them in their exact locations. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special work, provisions for which are not made in the plans, in which case, provisions in these specifications for extra work shall apply.

47. **PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED:** In case it is necessary to change or move the property of a public utility, such property shall not be moved or interfered with until authorized by the Town of Addison or the Engineer. The right is reserved for the Owner of public utilities to enter upon the limits of the project for the purpose of making such changes or repairs of their property that may be made necessary by performance of the Contract. The Contractor shall be responsible for coordination with the Town of Addison and the Engineer, and all utility companies whose utility lines or streets may be affected by the proposed improvements. The Contractor shall observe the following:

a. Prior to any excavation, the Contractor shall determine the locations of all existing water, gas, sewer, electric, telephone, telegraph, television, pipelines and other underground utilities and structures.

b. After commencing work, the Contractor shall use every precaution to avoid interference with existing underground and surface utilities and structures, and protect them from damage.

c. Where the locations of existing underground and surface utilities and structures are indicated, these locations are generally approximate, and all items which may be encountered during the work are not necessarily indicated. The Contractor shall determine the exact locations of all items indicated, and the existence and locations of all items not indicated.

d. The Contractor shall repair or pay for all damage caused by his operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall settle in total the cost of all damage suites which may arise as a result of his operations.

e. To avoid unnecessary interferences or delays, the Contractor shall coordinate all utility removals, replacements and construction with the appropriate utility company, and then request written authorization from the Town of Addison or the Engineer. The Town of Addison and the Engineer will not be liable for damages due to delay as a result of the above.

48. **MAINTENANCE AND REPAIRS:** The Contractor shall maintain and keep in good repair all work contemplated under these plans, specifications, and drawings which shall include the maintenance and repair of all existing streets, storm sewer crossings, utility crossings, temporary crossings for access to adjacent property, barricades, lights, and danger signals, and all work which is necessary for the well being of the general public. In the event the Contractor fails in his obligations to properly maintain the work, the Town of Addison shall make such repairs as are necessary and the cost of such repairs shall be deducted from payment due the Contractor.

49. **PROTECTION OF WORK:** During performance and up to date of final acceptance, the Contractor shall be under the absolute obligation to protect the finished work against damage, loss or injury. In the event of damage, loss or injury, the Contractor shall promptly replace or repair such work, whichever the Town of Addison shall determine to be preferable. The obligation to deliver finished work in strict accordance with the contract prior to final acceptance shall be absolute and shall not be affected by the Town of Addison's approval of or failure to prohibit means and methods of construction used by the Contractor. All risk of loss or damage to the work shall be borne solely by the Contractor until final acceptance of all work by the Town of Addison, as evidenced by the Town of Addison's issuance of a certificate of acceptance.

50. **PUBLIC CONVENIENCE AND SAFETY:** In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.

Materials stored about the work site shall be so placed, and the work shall at all times be so conducted, as to cause no greater obstruction to the traveling public than is considered necessary by the Town of Addison. The materials excavated shall be placed so as not to

endanger the work or prevent free access to all fire hydrants, water valves, gas valves, manholes (telephone, telegraph or electrical conduits, and sanitary sewers) and fire alarm or police call boxes in the vicinity.

The Town of Addison reserves the right to remedy any neglect on the part of the Contractor as regards to the public convenience and safety which may come to the Town of Addison's attention, after 24 hours notice in writing to the Contractor, save in cases of emergency, when the Town of Addison shall have the right to remedy any neglect without notice; and, in either case, the cost of such work done by the Town of Addison shall be deducted from the monies due or to become due the Contractor. The Contractor shall notify the Town of Addison and the Engineer when any street is to be closed or obstructed. The Contractor shall provide for emergency vehicle access at all times.

The Contractor, material, and equipment shall stay within the project limits. The Contractor shall notify the proper representatives of any public utility, corporation, company or individual, not less than 48 hours in advance of work which might damage or interfere with the operation of their property along or adjacent to the work. The Contractor shall be responsible for all damage or injury to property of any character (except such as may be required by the provisions of the Contract Documents, or caused by agents or employees or the Town of Addison) by reason of any negligent act or omission on the part of the Contractor, his employees, agents or Subcontractors, or at any time due to defective work or materials, or due to his failure to reasonably or properly prosecute the work, and said responsibility shall not be released by the fact that the work shall have been completed and accepted.

When and where any such damage or injury is done to public or private property on the part of the Contractor, he shall restore or have restored at his own cost and expense such property to a condition equal to or better than that existing before such damage was done, by repairing, rebuilding or otherwise restoring as he may be directed, or he shall make good such damage or injury in a manner acceptable to the property Town of Addison and the Engineer. In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Town of Addison may, upon 48 hour written notice under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be determined necessary, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under this contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

51. **PROTECTION OF PERSONS AND PROPERTY:** The Contractor shall have the responsibility to provide and maintain all warning devices and take all precautionary measures required by law or otherwise necessary to protect persons and property while said persons or property are approaching, leaving or within the work site or any area adjacent to said work site. No separate compensation shall be paid to the Contractor for the installation or maintenance of any warning devices, barricades, lights, signs, or any other precautionary measures required by law or otherwise necessary for the protection of persons or property.

The Contractor shall assume all responsibilities to the general public in connection with the general public's immediate approach to and travel through the work site and the area adjacent to said work site.

Where the work is in or adjacent to any street, alley, sidewalk, public right-of-way or public place, the Contractor shall at his own cost and expense provide such flagmen and watchmen and furnish, erect and maintain such warning devices, barricades, lights, signs, and other precautionary measures for the protection of persons or property as may be prudent or necessary, or as required by law. The Contractor's responsibility for providing and maintaining flagmen, watchmen, warning devices, barricades, signs and lights and other precautionary measures shall not cease until the project shall have been completed and accepted by the Town of Addison, and shall cease when the Town of Addison notifies the Contractor in writing of final project acceptance.

If the Town of Addison discovers that the Contractor has failed to comply with applicable federal or state laws (by failing to furnish the necessary flagmen, warning devices, barricades, lights, signs or other precautionary measures for the protection of persons or property), the Town of Addison may order the Contractor to take such additional precautionary measures as required by law to protect persons and property. In addition, the Contractor shall be held responsible for all damages to the work and other public or private property due to the failure of warning devices, barricades, signs, lights or other precautionary measures in protecting said property; and whenever evidence is found of such damage, the Town of Addison may order the damaged portion immediately removed and replaced by and at the cost and expanse of the Contractor.

52. **TRAFFIC CONTROL**: It shall be the responsibility of the Contractor to provide traffic control during the construction as required by the State of Texas, the Town of Addison, and in accordance with the following additional requirements:

a. The Contractor shall be required to furnish barricades, flares, flagmen, etc., for the protection of the public, employees and the work.

b. The Contractor shall prosecute his work in such a manner as to create a minimum of interruption to traffic along adjacent roadways.

c. The unit price bid under the appropriate bid item of the proposal shall cover all cost for providing signage, markings, lighting, barricades, flagmen and other devices and personnel required for traffic control during construction of the project.

d. The Contractor shall not remove any regulatory sign, instructional sign, warning sign, street name sign or any other sign or signal which currently exists.

e. The Contractor shall provide a comprehensive Traffic Control Plan to the Town of Addison and Engineer for review, comment, and approval in the event the planned sequence of work is different in any way from that sequence of work provided for in the plans or where additional details are required. The Traffic Control Plan shall be designed in accordance with established standards and regulations and signed and sealed by a

professional engineer, registered in the State of Texas. The comprehensive plan shall reflect the Contractor's proposed construction phasing and methodology and include the design layout for all proposed detour and traffic situations.

53. BARRICADES, WARNING SIGNS, DETOURS AND SEQUENCE OF CONSTRUCTION: Throughout the construction operations, streets and intersections will remain open to traffic by constructing the work in stages. All streets, driveways, adjacent business and alleys shall remain open to traffic as far as is practicable.

A. General Construction: The Contractor shall plan his work sequence in a manner that will cause minimum interference with traffic during construction operations. Before beginning work on this project, the Contractor shall submit, for approval by the Town of Addison, a plan of construction operations outlining in detail a sequence of work to be followed; setting out the method of handling traffic on streets, roads and driveways along, across and adjacent to the work. If at any time during the construction, the Contractor's proposed plan of operation for handling traffic does not provide for safe comfortable movement, the Contractor shall immediately change his operations to correct the unsatisfactory conditions.

Ditches across the traffic lanes will be kept covered with a portable traffic-bearing surface at all times unless work in the ditch is in progress. Only one lane of traffic may be closed at a time when work is in progress in a ditch.

B. Safety: The Contractor shall provide, construct and maintain barricades and signs at locations set out in the plans and in the Special Provisions in accordance with the Texas Manual on "Uniform Traffic Control Devices for Streets and Highways". In addition, he shall provide and maintain such other barricades and signs as deemed necessary by the Town or the Engineer, and provide and maintain, between sunset and sunrise, a sufficient number of lights at barricades and points of danger for the protection of vehicular and pedestrian traffic.

Barricades shall be placed in such a manner as not to interfere with the sight distance of drivers entering the street from side streets.

The Contractor shall keep traveled surfaces used in his hauling operation clear and free of dirt, mud, silt, or other material.

The Contractor shall provide and maintain qualified flagmen at such points and for such periods of time as may be required to provide for the safety and convenience of public travel and Contractor's personnel.

54. EXCAVATION SAFETY SYSTEMS

The work performed under this section of the specifications consists of providing trench safety systems consisting of shoring, sheeting, trench shield, and/or laid back slopes to meet the trench safety requirements of the Occupational Safety and Health Administration (O.S.H.A.), as required for this project and specified herein.

A. General: Trench safety systems shall be provided by the Contractor as provided in Subpart P - Excavation, Trenching and Shoring, Part 1926 of the Code of Federal Regulations which describes safety and health regulations as administered by the U.S. Department of Labor Occupational Safety and Health Administration (O.S.H.A.). The standards specified by the O.S.H.A. Regulations shall be the minimum allowed on this project. It shall be the responsibility of the Contractor to design and install adequate trench safety systems for all trenches excavated on this project.

The Contractor shall furnish to the Town for review, prior to beginning construction activity, a Trench Safety Plan for the entire project. The trench safety plan must be prepared and sealed by a Professional Engineer registered in the State of Texas. In addition, all trench safety systems utilized in this project must be designed by a Professional Engineer registered in the State of Texas. The Contractor shall be totally responsible for the safety of all persons involved in the construction of this project.

B. Core Borings: Any core borings and soil data furnished by the Town are for the convenience of the Contractor. The Contractor shall be responsible for any additional soil or geotechnical information required. The Contractor shall be responsible for properly designed trench safety systems to be utilized for any type of subsurface condition found on this project. The furnishing of soil information by the Town of Addison in no way relieves the Contractor of this obligation. If no core borings or soil data are furnished by the Town, it shall be the Contractor's responsibility to obtain whatever geotechnical information required for preparation of trench safety systems.

C. Inspections: In addition to the inspections of the trench and trench safety systems required of the Contractor by the O.S.H.A. Regulations, the Town may further inspect the work. The Town shall have the right to reject any trench safety systems which he finds to be inadequate, and the Contractor shall immediately improve the system to comply with this specification.

D. Measurement and Payment: Measurement and payment of Trench Safety Systems shall be based on lump sum for the entire project. The payment shall be full compensation for all planning, engineering, materials, equipment, fabrications, installation, recovery and all incidental work required. All excavation and backfill in addition to that specified elsewhere in these specifications shall be considered subsidiary to this bid item.

55. TRENCH EXCAVATION, BACKFILL AND COMPACTION: Trench excavation, backfill and compaction of storm drain and utility trenches shall be in accordance with Town of Addison Standards and with details shown on the Construction Drawings.

A. Trench Excavation: If the stated maximum trench widths are exceeded, either through accident or otherwise, and if the Engineer determines that the design loadings of the pipe will be exceeded, the Contractor will be required to support the pipe with an improved trench bottom. The expense of such remedial measures shall be entirely the Contractor's own. All trenching operations shall be confined to the width of permanent rights-of-way, permanent

easements and any temporary construction easements. All excavation shall be in strict compliance with the Trench Safety Systems Special Conditions of this document.

B. Trench Backfill: Trenches shall be backfilled above the top of the embedment material with approved backfill material per Town of Addison Standards for the appropriate pipe size, pipe material, depth, and soil condition. NCTCOG, Type B backfill, item 504.2.3.3 or native material meeting the requirements of Type B backfill are considered the minimum requirement.

C. Compaction: All trenches under proposed or existing pavement shall be compacted to within a range of 95% to 100% Standard Proctor Density. Trenches which lie outside limits of pavement shall be compacted to a minimum of 90% Standard Proctor Density (ASTM D-698).

56. **TRENCH WALLS:** The Contractor shall use shoring or a drag box in those areas where it is required to protect existing improvements. This shall be subsidiary to the linear foot cost of the pipe and not a separate pay item.

57. **PROPERTY LINES AND MONUMENTS:** The Contractor shall protect all property corner markers, and when any such markers or monuments are in danger of being disturbed, they shall be properly referenced and if disturbed shall be reset at expense of the Contractor.

58. **CONSTRUCTION STAKING:** Construction staking will not be provided by the Town of Addison or Engineer. This item will be performed by the Contractor and shall be subsidiary to other bid items. The Contractor will also be responsible for maintaining stakes. If re-staking is required for any reason, it will be the Contractor's responsibility, including associated costs.

All construction staking shall be done under the supervision of a Registered Professional Land Surveyor registered in the State of Texas. The Contractor shall submit copies of cut sheets and field books for the construction of all paving, water, wastewater, and stormwater improvements to the Town of Addison for review prior to construction of the improvements. The information on the cut sheets and field books shall include but not be limited to the following:

a. Heading to include date, contract number, project name, surveying firm, Contractor, and construction plan sheet number.

b. Location, description of street/line and street/line name, number, letter, etc. designation.

c. Benchmark Data: Location, description, and elevation.

d. Slope or percent of grade of each curb line or utility line.

e. Stations at 50 foot intervals and including all PC, PT, PI, PVC, PVI, PVT, PRC, grade changes, etc.

f. Offset description including distance to center line or back of curb and direction of offset; left, right, east, west, etc,

g. Cut to subgrade, pavement, top of curb, or flowline of the street or utility being staked.

h. Clarifying remarks such as top of curb, gutter, pavement, subgrade, manhole, cleanout, valve, tee, cross, fire hydrant, wastewater lateral, water service, etc.

i. Cut sheets shall be signed by a Texas Registered Professional Land Surveyor.

59. **VENDOR'S CERTIFICATION:** All materials used in construction shall have a vendor's certified test report. Test reports shall be delivered to the Engineer before permission will be granted for use of the material. All vendors' test reports shall be subject to review by the Engineer, and shall be subject to verification by testing of samples of materials as received for use on the project. In the event additional tests are required, they shall be performed by an approved independent testing laboratory and shall be paid for by the Contractor.

60. **PVC WATER PIPE:** All water mains three-inch (3") diameter and smaller shall be PVC Schedule 80 pressure pipe with cast iron o.d. or when pipe penetrates meter vault walls it shall be ductile iron. Pipe joints shall be rubber ring and integral thickened bell, assembled with a factory supplied lubricant. Water mains shall have a minimum class rating of 165-psi for domestic use. Joint material for PVC shall conform to ASTM D1784.

61. **POLYETHYLENE WRAPPING:** All valves, ductile iron pipe, cast iron fittings, and specials, shall be polyethylene wrapped. Payment for the polyethylene wrapping for these components shall be subsidiary to the various items bid for the furnishing and installing pipe complete in place. Polyethylene wrap shall precede blocking.

62. **PIPE CLEANING:** Joints shall be wiped and then inspected for proper installation by the inspectors. Each joint shall be swept daily and kept clean during installation. A temporary night plug shall be installed on all exposed pipe ends during any period of work stoppage.

63. **PLUGS:** Pipe plugs for water and wastewater lines shall be considered incidental and shall not be a separate pay item.

64. **PIPE EMBEDMENT:** All storm drain and utility construction shall be installed with embedment per the Town of Addison Standard Details shown on the plans for the appropriate pipe size, pipe material, depth and soil condition unless otherwise directed by the Town of Addison or the Engineer.

65. **REMOVALS, ADJUSTMENTS AND REPLACEMENTS:** Existing pavements, driveways, curbs, gutters, sidewalks, etc., to be removed to facilitate the construction of the improvements shall be broken up and disposed of. Care shall be exercised to leave a neat, uniform edge or joint at the excavation limits or sections removed where only portions are to be removed. The Engineer will designate the limits to be removed. Where pavements,

driveways, curbs, gutters, sidewalks, etc., shall be replaced, then said replacements shall be to the standard of the previously removed portion or better. Re-sawing of damaged edges will be at the Contractor's expense.

Existing structures such as manholes, inlets, cleanouts, valve boxes, etc. which are not the property of a private firm or company, or an individual required to move their own property, shall be adjusted, altered or reset to the required elevation and alignment. New materials and workmanship necessary shall conform to the requirements of these Specifications covering the particular Work. Salvaged materials in good condition may be used in rebuilding such structures, provided the materials are thoroughly cleaned before their use. These items shall be subsidiary to other bid items unless quantified in the proposal as a separate bid item.

All private obstructions which are indicated on the Plans to be moved, will be removed and replaced, or moved to new permanent locations by the Contractor, without additional payment to the Contractor. Any such additional item which the Contractor moves or causes to be moved for his own convenience shall be at his own expense.

66. **PAVEMENT REPAIR:** The unit price bid under the appropriate bid item of the proposal shall cover all cost for providing pavement repair per the pavement repair detail provided in the plans.

67. **WATER FOR CONSTRUCTION:** The Contractor shall acquire a meter and make the necessary arrangements with the Town of Addison for securing and transporting all water required for construction, including water required for mixing of concrete, sprinkling, testing or flushing. There will be no separate pay item for connection into the existing water system and quantity of water required for construction purposes. The Town of Addison will not furnish water for initial cleaning and sterilization of water lines. All additional water used by the Contractor for compaction or any other purpose incidental to this project may be obtained from existing hydrants along adjacent roadways. Note that the Contractor will be responsible for supplying chlorine gas or chlorinated lime (HTH) for water line sterilization.

68. **EXISTING STOCKPILES OF MATERIAL ON SITE:** There shall be no stockpiling of silt material on site.

69. **BORROW SOURCE**: If additional sources of earthen material are required to complete the project to the alignment, grades and cross sections indicated on the plans, Contractor will be required to locate, obtain, excavate, deliver and place suitable fill material from an off-site source. Borrow materials should be compatible with existing on-site materials and shall be tested by the Geotechnical Engineer (employed and paid for by the Contractor) for acceptance as an approved source of borrow prior to borrow operations. Item 3.6 - Borrow of the Standard Specifications for Public Works Construction, North Central Texas Council of Governments shall apply for all work performed.

70. **EXCESS MATERIAL**: Suitable excess material (if any) may not be disposed of on this site. Tree stumps and limbs, concrete debris, discarded materials and all unsuitable excess spoil material, including rock measuring larger than 12" in the largest dimension, shall become the

property of the Contractor and shall be removed from the site and disposed of by the Contractor at his expense. The Contractor shall also comply with all applicable laws governing spillage of debris while transporting to a disposal site, and shall indemnify and save harmless the Town of Addison and the Engineer from all suits, actions, or claims of any character resulting from his arrangements for the disposal of spoil.

71. **DURING CONSTRUCTION:** During construction of the work, the Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove same from any portion of the site if, in the opinion of the Town of Addison or the Engineer, such material, debris or rubbish constitutes a nuisance or is objectionable. In case of failure on the part of the Contractor to maintain a clean site, the Town of Addison may, upon 24 hour written notice, clean the site, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under his contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

72. **CONTRACTOR'S CONTINUING OBLIGATION:** Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the Town of Addison, nor the issuance of a certificate of Substantial Completion, nor any payment by Town of Addison to Contractor under the Contract Documents, nor any use or occupancy of the Work or any part thereof by Town of Addison, nor any act of acceptance by Town of Addison nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by the Town of Addison pursuant to final payment nor any correction of defective Work by Town of Addison will constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

73. **TOP SOILING, SODDING AND FERTILIZING:** This item shall cover the topsoiling, sodding, fertilizing, watering and required maintenance for the grassing of all unpaved areas of the right-of-way and the easements, and all other areas of the project site that have been disturbed by this Contractors' operations including batch plant site, haul roads, etc. excluding building pad sites and lots which will not require seeding and fertilizing. The pay item shall only include that area which is within the right-of-way and the easements. All other disturbed areas requiring seeding and fertilizing shall be considered subsidiary to the cost of the project. Top soiling, sodding and fertilizing shall be provided in accordance with NCTCOG Items 202.2, 202.5 and 202.4, respectively and as amended by the Special Provisions and Technical Specifications Section 32 92 23 "Sodding".

74. **IRRIGATION AND SPRINKLER REPAIR:** The Contractor shall maintain all existing irrigation systems within the limits of the project during the duration of the contract. The Contractor shall employ a licensed irrigator who is responsible for the repair or replacement of any damage to irrigation lines, valves, controllers, sprinklers, wiring and appurtenances which are damaged during construction. This repair is subsidiary to the various other items

bid. The Contractor will be responsible for any vegetation that dies as a result of damage to the irrigation system and replace it with equal vegetation at his own cost.

After construction is complete, the Contractor shall reinstall the sprinkler heads. The Town will test the sprinkler system. Any defects due to construction shall be the Contractor's responsibility.

75. **REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:** All work which has been rejected or condemned shall be repaired; or if it cannot be repaired satisfactorily, it shall be removed and replaced at the Contractor's expense. Defective materials shall be immediately removed from the work site. Work done without line and grade having been provided; work done beyond the line or not in conformity with the grades shown on the Drawings or as provided, work done without proper inspection; or any extra or unclassified work done without written authority and prior agreement in writing as to prices, shall be at the Contractor's risk and will be considered unauthorized, and at the option of the Town of Addison may not be measured and paid for and may be ordered removed at the Contractor's expense. Upon failure of the Contractor to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized or condemned work or materials immediately after receiving notice from the Town of Addison, the Town will, after giving written notice to the Contractor, have the authority to cause defective work to be remedied or removed and replaced, or to cause unauthorized work to be removed and to deduct the cost thereof from any monies due or to become due to the Contractor under his contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or his surety shall reimburse the Town of Addison for all such costs.

76. **DISPOSITION AND DISPOSAL OF MATERIALS:** All materials to be removed from the site including refuse and other debris shall become the property of the Contractor and shall be disposed of outside the limits of the project. Contractor shall also comply with all applicable laws governing the spillage of debris while transporting to a disposal site.

77. **CLEAN-UP FOR FINAL ACCEPTANCE:** The Contractor shall make a final cleanup of all parts of the work before acceptance by the Town of Addison. This cleanup shall include removal of all objectionable rock and other construction materials, and in general preparing the site of the work in an orderly manner and appearance.

78. **TV INSPECTION OF WATER WELL SYSTEM:** TV inspection of the well casing pipe and screens is required for this project. Refer to Technical Specification 11005: "Well Pump and Motor" for more details.

79. **MATERIALS TO BE FURNISHED BY FRANCHISE UTILITY COMPANIES:** No franchise utility materials are to be furnished for this project.

80. **TESTING REQUIREMENTS:** Testing shall be conducted in accordance with Town of Addison Specifications except as modified in the Special Provisions, Technical Specifications, or as on the plans. The Contractor shall coordinate with the Town of Addison, and shall insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All retesting shall be at the

expense of the Contractor. As a general guide, the Contractor shall be responsible for providing the following tests:

(1) Compressive strength tests on concrete.
(2) Gradation soil tests on backfill as may be required.
(3) Providing test results from manufacturer as specified in Town of Addison Specifications.
(4) Well pump testing per plans and specifications.

81. **SILICONE JOINT SEALANT:** Silicone joint sealant must be used in all instances where joint sealant applies to Portland Cement Concrete pavement and curbs. Payment for the use of silicone joint throughout this project will in all cases be subsidiary to this contract at no extra cost.

82. **CLAIMS FOR DAMAGES OR INJURY:** Item 1.24.3 - SMALL CLAIMS FOR DAMAGE OR INJURY is amended to read as follows: If any person files a claim against the Town of Addison or Contractor for personal injury or property damage resulting from, arising out of, or caused by, the operations of the Contractor, or any work within the limits of the project, the Contractor must either submit to the Town of Addison, a duly executed full release within thirty (30) days from the date of written claim, or immediately report the claim to his liability insurance carrier for their action in adjusting the claim. If the Contractor fails to comply with this provision within the stipulated time limit, it will be automatically deemed that the Contractor has appointed the Town as it's irrevocably Attorney-In-Fact authorizing the Town to report the claim directly with the liability insurance carrier. This provision is in and of itself a Power-of-Attorney from the Contractor to the Town which authorizes the Town to take said action on behalf of the Contractor without the necessity of the execution of any other document. If the Contractor fails to comply with the provisions of this item the Town, at its own discretion, may terminate this contract or take any other actions it deems appropriate. Any payment or portion thereof due the Contractor, whether it is a final payment, progress payment, payment out of retainage or refund payment may be withheld by the Town as is authorized by Item 109.4. Bankruptcy, insolvency or denial of liability by the insurance carrier shall not exonerate the Contractor from liability.

As a result of the additional work created to Town of Addison due to un-responded claims for damages by Contractor to third parties, Contractor shall incur penalties for failure to abide by this Special Provision.

Contractor shall respond to the claimant in writing regarding the status of the claim, including whether Contractor disputes the claim, wishes to settle, or will notify its liability insurance carrier regarding the claim. Contractor will be assessed a penalty by the Town of $75.00 per claim, for its failure to respond to the claimant as described above within thirty days of its written notice of claim by the Town.

To ensure Contractor compliance, the Town of Addison shall be notified, by copied correspondence of responses or settlement by Contractor.

83. **WAIVER OF CLAIMS:** The making and acceptance of final payment will constitute:

A. A waiver of all claims by Town of Addison against Contractor, except claims arising from unsettled Liens, from defective Work appearing after final inspection or failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by Town of Addison of any rights in respect of Contractor's continuing obligations under the Contract Documents.

B. A waiver of all claims by Contractor against Town of Addison other than those previously made in writing and still unsettled.

84. **MECHANICS AND MATERIALMEN'S LIEN:** The Contractor shall be required to execute a release of mechanics and materialmen's liens upon receipt of payment.

85. **CONTRACTOR'S AFFIDAVIT OF BILLS PAID:** The Contractor shall be required to execute the form provided in Section BP prior to the acceptance of the project.

86. **PROJECT RECORD DOCUMENTS:** The Contractor shall maintain record drawings and legibly annotate shop drawings to record changes made after review. A red felt-tip marking pen shall be used for all recording.

Maintenance of Documents: The Contractor shall maintain at the job site one record copy of the Contract Drawings, Specifications, Shop Drawings, Change Orders, other modification to the Contract, field test records and other documents submitted by Contractor in compliance with specification requirements. These documents shall be maintained at the job site apart from documents used for construction. These documents are not to be used for construction purposes. The documents shall be maintained in clean, legible condition. The documents shall be made available at all times for inspection by the Town.

Recording: Each document shall be labeled Project Record Copy in 2-inch high printed letters. The record documents shall be kept current. No work shall be covered until required information has been recorded.

Contract Drawings: The appropriate drawing shall be legibly marked to record, where applicable:

a. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.

b. Field changes of dimension and detail made during construction process.

c. Changes made by Change Order or Supplemental Agreement.

d. Details not on original Contract Drawings.

e. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.

f. Changes made by Change Order or Supplemental Agreement.

g. Other matters not originally specified.

Shop Drawing: The Contractor shall maintain the Shop Drawings as record drawings and legibly annotate shop drawings to record changes made after review.

Submittal: At the completion of the project, the Contractor shall deliver record drawings to the Town. The transmittal letter shall be accompanied, in duplicate, with:

a. Date, project title and number.
b. Contractor's name and address.
c. Title and number of each record document.
d. Certification that each document as submitted is complete and accurate.
e. Signature of Contractor or his authorized representative.

87. **TOWN OF ADDISON APPROVAL:** This project is subject to final approval and acceptance by the Town of Addison. Final approval acceptance will not be given until the punch list items are completed to the Town's satisfaction and as-built drawings are given to the Town of Addison.

88. **USE OF EXPLOSIVES:** The use of explosives by the Contractor to complete the Work shall be prohibited.

89. **POWER FOR CONSTRUCTION:** The Contractor shall contract with the local power provider and make the necessary arrangements for securing power required for the construction, including power required for lighting, machinery operation, or temporary offices. There will be no separated pay item for connection into the existing power system or for the power required for construction purposes.

90. **LIQUIDATED DAMAGES:** If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Town of Addison in the amount of $ 500 for each calendar day of delay until the work is completed or accepted.

91. **PREVAILING WAGE RATES:** Wage rates paid on this project shall not be less than specified in the schedule of general prevailing rates of per diem wages as attached hereto under Davis & Bacon Wage Determinations for Heavy Highway.

PREVAILING WAGE RATES

General Decision Number: TX160028 01/08/2016 TX28

Superseded General Decision Number: TX20150028

State: Texas

Construction Type: Heavy

Counties: Collin, Dallas, Denton, Ellis, Kaufman and Rockwall

Counties in Texas.

Water and Sewer Lines/Utilities (Including Related Tunneling

Where the Tunnel is 48" or Less in Diameter)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

* PLUM0100-002 07/01/2013

	Rates	Fringes
Plumbers and Pipefitters.....	$ 28.88	8.83

SUTX1991-004 09/23/1991

	Rates	Fringes
Laborers:		
Common.....	$ 7.25	
Utility.....	$ 7.467	

Pipelayer..... $ 7.828

Power equipment operators:

Backhoe.....$ 10.804

Crane.....$ 10.942

Front End Loader.....$ 9.163

Tunneling Machine (48" or less).....$ 9.163

TRUCK DRIVER.....$ 8.528

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number

used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1,2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator.(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

92. **BID ITEMS/REFERENCE SPECIFICATIONS:** The requirements of NCTCOG standard s specifications for Public Works construction 4th Edition dated 2004, and TxDOT standard specifications for construction and maintenance of highways, streets and bridges, dated 2004, shall apply as described.

93. **BID ITEM DESCRIPTIONS:** The series of numbers shown after the description are for either the Texas Department of Transportation (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (2004), the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction, Fourth Edition (October 2004), or technical specifications number provided with this document.

Description of Bid Items

Bid Item #001 **Mobilization**

The provisions of TxDOT Item 500, "Mobilization", shall apply except as modified or clarified below:

A. Partial payments of the lump sum bid for mobilization shall be per the provisions of TxDOT Item 500.
B. Measurement for this bid item shall be for Lump Sum.
C. Payment for this bid item shall be paid for at the unit price bid for "Mobilization".

Bid Item #002 **Transportation of Pump**

"Transportation of pump, motor and cable to and from shop. All replaced parts need to be transported back to Town of Addison, complete in place for the sum of"

No additional description.

Bid Item #003 **TV Inspection of Well casing and screens**

Perform Television Inspection of well casing and screens, complete in place for the sum of

This item shall consist of all labor, tools, equipment, materials and incidentals necessary for performing television inspection of the well casing pipe and screens.

Bid Item #004 **Traffic Control**

The following provisions shall apply:

A. Contractor shall submit proposed traffic control plan (TCP) to the Engineer and Town for approval. The TCP must conform to guidelines established in the Texas Manual of Uniform Traffic Control Devices (TMUTCD).
B. This item includes all labor, equipment, materials and incidentals required to provide traffic control as necessary. Materials include but are not limited to signage including full time changeable message signs, traffic control devices, barricades, low profile concrete barrier, temporary striping, and any other items called for in the plans or necessary for the safe and efficient operation of traffic.
C. Contractor shall provide access to existing driveways at all times, except when concrete is curing. Gravel shall be placed at driveways and sidewalks once existing pavement has been removed for construction. Gravel material is incidental to this bid item.
D. Street access shall be maintained at all times for emergency vehicles.
E. Measurement for this bid item shall be per Lump Sum.
F. Payment for this bid item shall be paid for at the unit price bid for "Traffic Control".

Bid Item #005 **SW3P Including Maintenance, Site Protection and Erosion Control**

The provisions of NCTCOG Item 201, "Temporary Erosion, Sedimentation, and Water Pollution Prevention and Control", shall apply except as modified or clarified below:

A. This item includes all labor, equipment, materials, planning, excavating, compacting, testing and incidentals required to complete the work in accordance with plans and specifications.
B. Refer to NCTCOG Item 201.3, "Preconstruction Submittals", and Special Provisions, Number 15, "Preparations of Storm Water Pollution Prevention Plan," for additional specification on submitting the Storm Water Pollution Prevention Plan prior to the beginning of construction.
C. Refer to NCTCOG Item 201.4, "Construction Requirements", for additional specification on erosion control during construction.
D. Refer to NCTCOG Item 201.5, "Silt Fence", for additional specification regarding inlet protection.
E. Refer to NCTCOG Item 201.14, "Inlet Protection", for additional specification regarding inlet protection.
F. Contractor shall refer to the Stormwater Pollution Prevention Plan (SWPPP) for requirements of all temporary and permanent erosion control measures. Preparation of the SWPPP shall be subsidiary to these bid items.
G. Measurement for this bid item shall be per Lump Sum, including silt fence, inlet protection, sidewalk protection, and SW3P maintenance and erosion control.
H. Payment for this bid item shall be paid for at the unit price bid for "SW3P Including Maintenance, Site Protection and Erosion Control".

Bid Item #006 **Project Signs**

The provisions of NCTCOG Item 107.20, "Project Signs", shall apply except as modified or clarified below:

A. The Contractor shall be responsible for furnishing the project signs per the specifications shown on the Project Sign Detail Sheet (see Section PS of this Contract Documents and Specifications book).
B. Measurement for this bid item shall be for Each.
C. Payment for this bid item shall be paid for at the unit price bid for "Project Signs".

Bid Item #007 **Remove Electrical Equipment**

The provisions of NCTCOG Item 203, "Site Preparation", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 01732, "Demolition" for additional requirements.
B. Refer to Demolition Plan for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, compacting, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum, which includes electric meters, electric boxes, electrical wires and any other electrical appurtenances.
E. Payment for this bid item shall be paid for at the unit price bid for "Remove Existing Electrical Equipment (including Electric Meters, Boxes, and Electrical Wires within Well Area)"

Bid Item #008 **Remove and Dispose of Screening Walls and Columns**

The provisions of NCTCOG Item 203, "Site Preparation", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 01732, "Demolition" for additional requirements.
B. Refer to Demolition Plan for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, compacting, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum (concrete box fountain).
E. Payment for this bid item shall be paid for at the unit price bid for "Remove and dispose of existing brick screening walls and columns".

Bid Item #009 **Tree Removal and Grubbing**

The provisions of TxDOT Item 752, "Tree and Brush Removal", and NCTCOG Item 202.1, "Removal, Protection, and Replacement of Trees, Shrubbery, Plants, Sod, and Other Vegetation", shall apply except as modified or clarified below:

A. Refer to Removal Plans for locations, general notes, and details of trees to be removed.
B. No trees are to be replaced.
C. Measurement for this bid item shall be per Each.
D. Payment for this bid item shall be paid for at the unit price bid for "Tree Removal and Grubbing".

Bid Item #010 **Remove Existing Concrete Sidewalk**

The provisions of TxDOT Item 104, "Removing Concrete", shall apply except as modified or clarified below:

A. This item includes all labor, equipment, materials and incidentals required to eliminate existing concrete in accordance with plans and specifications.
B. All concrete to be removed shall be sawcut. Sawcut shall be subsidiary to removal bid items.
C. This item when called for in the plans shall include saw cutting the concrete and disposal of the material at an approved location outside of the project limits. This surplus material shall become property of the Contractor.
D. Concrete shall be properly disposed of at an off-site location by the Contractor.
E. Measurement for this bid item shall be per Square Yard.
F. Payment for this bid item shall be paid for at the unit price bid for "Remove Existing Concrete Sidewalk."

Bid Item #011 **Remove Existing Concrete Pad**

The provisions of TxDOT Item 104, "Removing Concrete", shall apply except as modified or clarified below:

A. This item includes all labor, equipment, materials and incidentals required to eliminate existing concrete in accordance with plans and specifications.
B. All concrete to be removed shall be sawcut. Sawcut shall be subsidiary to removal bid items.
C. This item when called for in the plans shall include saw cutting the concrete and disposal of the material at an approved location outside of the project limits. This surplus material shall become property of the Contractor.
D. Concrete shall be properly disposed of at an off-site location by the Contractor.
E. Measurement for this bid item shall be per Square Yard.
F. Payment for this bid item shall be paid for at the unit price bid for "Remove Existing Concrete Pad."

Bid Item #101 **Well Pump and Motor**

The following provisions shall apply:

A. The pump and motor shall meet the performance and design requirements outlined per this Contract Documents and Specifications book. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, compacting, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Well Pump and Motor".

Bid Item #102 **Stainless Steel Airline**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "Stainless Steel Airline".

Bid Item #103 **Motor Conductor Cable**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Motor Conductor Cable".

Bid Item #104 **3"x20' Threaded and Coupled Stainless Steel Column Pipe**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional

details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "3"x20' Threaded and Coupled Stainless Steel Column Pipe".

Bid Item #105 **3" In-Line Stainless Steel Check Valves**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "3" In-Line Stainless Steel Check Valves".

Bid Item #106 **Magnetic Flowmeter**

The following provisions shall apply:

A. Refer to Technical Specification Section 11280, "Electromagnetic Flowmeter" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "Magnetic Flowmeter".

Bid Item #107 **3" Air Release Valve**

The following provisions shall apply:

A. Refer to Technical Specification Section 15141, "Air Valves for Potable Water Systems" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "3" Air Release Valve".

Bid Item #108 **Reset Pump and Motor**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum.

E. Payment for this bid item shall be paid for at the unit price bid for "Reset Pump and Motor".

Bid Item #109 **Pump Testing**

The following provisions shall apply:

A. Refer to Technical Specification Section 11005, "Well Pump and Motor Replacement" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Pump Testing".

Bid Item #110 **3" PVC Schedule 80 Piping**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Linear Foot.
D. Payment for this bid item shall be paid for at the unit price bid for "3" PVC Schedule 80 Piping".

Bid Item #111 **Concrete Sidewalk**

The provisions of NCTCOG Item 305.2, "Sidewalks", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 03312, "Cast-in-Place Concrete" for additional details.
B. This item includes all labor, equipment, materials, grading and incidentals required to provide a finished concrete pavement section including any required saw joints and expansion joints in accordance with the specifications. Any concrete sidewalk which tests below the required strength or is out of alignment or is of insufficient thickness, is subject to removal and replacement at the Engineer's sole discretion at the Contractor's expense.
C. Sidewalks shall have a thickness of four inches (4").
D. Concrete shall be Class 'C' concrete designed to meet a minimum compressive strength of 3,600 psi at 28 days.
E. Measurement for this bid item shall be per Square Yard.
F. Payment for this bid item shall be paid for at the unit price bid for "Concrete Sidewalk".

Bid Item #112 **Concrete Pad**

The provisions of NCTCOG Item 305, "Miscellaneous Roadway Construction", shall apply except as modified or clarified below:

A. Refer to Technical Specification Section 03312, "Cast-in-Place Concrete" for additional details.
B. This item includes all labor, equipment, materials, grading and incidentals required to provide a finished concrete pavement section including any required saw joints and expansion joints in accordance with the specifications. Any concrete sidewalk which tests below the required strength or is out of alignment or is of insufficient thickness, is subject to removal and replacement at the Engineer's sole discretion at the Contractor's expense.
C. Sidewalks shall have a thickness of four inches (4").
D. Concrete shall be Class 'C' concrete designed to meet a minimum compressive strength of 3,600

psi at 28 days.
E. Measurement for this bid item shall be per Square Yard.
F. Payment for this bid item shall be paid for at the unit price bid for "Concrete Pad".

Bid Item #113 **Screening Walls and Columns**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Linear Foot.
D. Payment for this bid item shall be paid for at the unit price bid for "Screening Wall and Columns".

Bid Item #114 **3' Wrought Iron Swing Gate**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Each.
D. Payment for this bid item shall be paid for at the unit price bid for "3' Wrought Iron Swing Gate".

Bid Item #115 **10' Wrought Iron Sliding Gate Manhole**

The following provisions shall apply:

A. Refer to Plans for location, details, and general notes.
B. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Each.
D. Payment for this bid item shall be paid for at the unit price bid for "3' Wrought Iron Swing Gate".

Bid Item #201 **Basic Electrical Materials**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 00 50, "Basic Electrical Materials and Methods" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Basic Electrical Materials".

Bid Item #202 **#3/0- 2" PVC Conduit**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 05 19, "Low-Voltage Electrical Power Conductors and Cables" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.

D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "#3/0- 2" PVC Conduit".

Bid Item #203 **#2- #8G, 1 ½" PVC Conduit**

The following provisions shall apply:

A. Refer to Technical Specification Section 260519, "Low-Voltage Electrical Power Conductors and Cables" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "#2- #8G, 1 ½" PVC Conduit".

Bid Item #204 **LTG Circuits: (2) 4 #12, 3/4" PVC Conduit**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 05 19, "Low-Voltage Electrical Power Conductors and Cables" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "LTG Circuits: (2) 4 #12, 3/4" PVC Conduit".

Bid Item #205 **#6- 1" PVC Conduit (Irrigation Meter)**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 05 19, "Low-Voltage Electrical Power Conductors and Cables" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "#6- 1" PVC Conduit (Irrigation Meter)".

Bid Item #206 **#6- 1" PVC Conduit (Well Pump)**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 05 19, "Low-Voltage Electrical Power Conductors and Cables" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Linear Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "#6- 1" PVC Conduit (Well Pump)".

Bid Item #207 **Millbank Power Distribution Enclosure**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 29 13, "Enclosed Controllers" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "Millbank Power Distribution Enclosure".

Bid Item #208 — **Millbank Irrigation Enclosure**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 29 13, "Enclosed Controllers" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "Millbank Irrigation Enclosure".

Bid Item #209 — **Panel 'ML'**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 24 16, "Panelboards" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, excavating, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "Panel 'ML".

Bid Item #210 — **Cathodic Protection**

The following provisions shall apply:

A. Refer to Technical Specification Section 26 42 00, "Cathodic Protection" for additional details.
B. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, testing and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Each.
E. Payment for this bid item shall be paid for at the unit price bid for "Cathodic Protection".

Bid Item #301 — **Bermuda 'Mid Iron' Sod**

The following provisions shall apply:

A. Refer to Technical Landscape Specification Section 32 92 23, "Sodding" for additional requirements.
B. Refer to Plans for location and general notes.
C. This item includes all labor, equipment, materials, excavating, compacting, and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be per Square Foot.
E. Payment for this bid item shall be paid for at the unit price bid for "Common Bermuda Mid Iron Sod".

Bid Item #302 **Wood Chips**

The following provisions shall apply:

A. Refer to Plans for location and general notes.
B. This item includes all labor, equipment, materials, excavating, compacting, and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Square Foot.
D. Payment for this bid item shall be paid for at the unit price bid for "Wood Chips".

Bid Item #303 **Tree Trimming**

The following provisions shall apply:

A. Refer to Technical Specification Section 32 93 00, "Landscape Planting" for additional requirements.
B. Tree trimming shall occur within the project limits. Refer to Plans for location, details, and general notes.
C. This item includes all labor, equipment, materials, disposal, and incidentals required to complete the work in accordance with plans and specifications.
D. Measurement for this bid item shall be Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "Tree Trimming".

Bid Item #304 **Tree Protection**

The provisions of NCTCOG Item 202.1, "Removal, Protection, and Replacement of Trees, Shrubbery, Plants, Sod, and Other Vegetation" shall apply except as modified or clarified below:

A. All trees not noted in Demolition plans as to be removed shall be protected.
B. This item includes all labor, equipment, materials, excavating, compacting, and incidentals required to complete the work in accordance with plans and specifications.
C. Measurement for this bid item shall be per Lump Sum.
D. Payment for this bid item shall be paid for at the unit price bid for "Tree Protection".

Bid Item #305 **90 Day Establishment Period**

The following provisions shall apply:

A. Refer to Technical Specification Section 32 01 90, "90 Day Establishment Planting" for additional requirements.
B. Refer to Construction Plans for details, and general notes.
C. This item includes all labor, equipment, materials, and incidentals required to implement landscape maintenance program for a period of 90days after planting in accordance with plans and specifications.
D. Measurement for this bid item shall be Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for "90 Day Establishment Period".

Bid Item #306 **1 Year Maintenance**

The following provisions shall apply:

A. Refer to Technical Specification Section 32 01 92, "Landscape Maintenance - 1 Year" for additional requirements.

B. Refer to Construction Plans for details, and general notes.
C. This item includes all labor, equipment, materials, and incidentals required to implement landscape maintenance program for a period of 1 year after final acceptance from Town in accordance with plans and specifications.
D. Measurement for this bid item shall be Lump Sum.
E. Payment for this bid item shall be paid for at the unit price bid for Implementation of Landscape Maintenance Program for a Period of (1) Year from Date of Final Acceptance.

SECTION PS

PROJECT SIGN

PROJECT SIGN

1. **Quantity**

Three (3) Project Designation signs will be constructed and installed on the project site as directed by the Owner. It will be the responsibility of the Contractor to maintain the sign in a presentable condition at all times during construction. Maintenance will include painting and repairs as directed by the City Engineer or his appointee. The locations of the signs will be given to the Contractor by the Town of Addison at the Pre-Construction Conference.

2. **Material**

Sign shall be constructed of ¾-inch thick smooth finish fir plywood (Grade A-C, exterior or better).

Sign will be securely mounted to 6" x 6" square posts. Nuts and bolts will not protrude from face of sign. Posts will be mounted to a support system that will provide adequate stabilization to ensure the sign will not fall over in heavy winds. Sand bags or other techniques may be necessary to protect sign.

3. **Dimensions**

Size of sign will be four feet tall and six feet wide. The height and arrangement of the lettering shall be in accordance with the attached detail.

4. **Paint**

Sign will be one-sided and will have a white background. Text will be black, except for the word "Addison!" which will be a blue color approved by the City Engineer. The paint will be an outdoor paint and will be maintained throughout the project in proper order. The quality of the paint, painting, and lettering on the signs shall be approved by the City Engineer or his appointee.

5. **Payment**

Project Signs will be a separate pay item. This will include all labor, equipment, tools, and incidentals necessary to complete and install the work.

3.5 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260050 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.6 PROTECTION

A. Protect coatings, finishes, and cabinets from damage and deterioration.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION

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SECTION 26 24 16

PANELBOARDS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Distribution panelboards.
2. Lighting and appliance branch-circuit panelboards.

1.2 DEFINITIONS

A. MCCB: Molded-case circuit breaker.

B. SPD: Surge protective device.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of panelboard.

B. Shop Drawings: For each panelboard and related equipment.

1. Include dimensioned plans, elevations, sections, and details.
2. Detail enclosure types including mounting and anchorage, environmental protection, knockouts, corner treatments, covers and doors, gaskets, hinges, and locks.
3. Detail bus configuration, current, and voltage ratings.
4. Short-circuit current rating of panelboards and overcurrent protective devices.
5. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
6. Include wiring diagrams for power, signal, and control wiring.

1.4 INFORMATIONAL SUBMITTALS

A. Panelboard schedules for installation in panelboards.

1.5 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.

1.6 FIELD CONDITIONS

A. Service Conditions: NEMA PB 1, usual service conditions, as follows:

1. Ambient temperatures within limits specified.
2. Altitude not exceeding 6600 feet (2000 m).

1.7 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace panelboards that fail in materials or workmanship within specified warranty period.

1. Panelboard Warranty Period: **18** months from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PANELBOARDS COMMON REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NEMA PB 1.

C. Comply with NFPA 70.

D. Enclosures: **Surface**-mounted, dead-front cabinets.

1. Rated for environmental conditions at installed location.
   a. Wet or Damp Locations: NEMA 250, Type 4.

2. Height: 84 inches (2.13 m) maximum.
3. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box. Trims shall cover all live parts and shall have no exposed hardware.
4. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover. Trims shall cover all live parts and shall have no exposed hardware.

E. Incoming Mains Location: Top, Bottom or Convertible between top and bottom.

F. Phase, Neutral, and Ground Buses: Hard-drawn copper, 98 percent conductivity.

G. Conductor Connectors: Suitable for use with conductor material and sizes.

1. Material: Hard-drawn copper, 98 percent conductivity.
2. Main and Neutral Lugs: Compression type, with a lug on the neutral bar for each pole in the panelboard.
3. Ground Lugs and Bus-Configured Terminators: Compression type, with a lug on the bar for each pole in the panelboard.

4. Feed-Through Lugs: Compression type, suitable for use with conductor material. Locate at opposite end of bus from incoming lugs or main device.

H. NRTL Label: Panelboards shall be labeled by an NRTL acceptable to authority having jurisdiction for use as service equipment with one or more main service disconnecting and overcurrent protective devices. Panelboards shall have meter enclosures, wiring, connections, and other provisions for utility metering. Coordinate with utility company for exact requirements.

I. Future Devices: Panelboards shall have mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.

J. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals. Assembly listed by an NRTL for 100 percent interrupting capacity.

2.2 POWER PANELBOARDS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Eaton.
2. General Electric Company; GE Energy Management - Electrical Distribution.
3. Siemens Energy.
4. Square D; by Schneider Electric.

B. Panelboards: NEMA PB 1, distribution type.

C. Doors: Secured with vault-type latch with tumbler lock; keyed alike.

1. For doors more than 36 inches (914 mm) high, provide two latches, keyed alike.

D. Mains: Circuit breaker.

E. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on circuit breakers or Plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.

F. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers or Plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.

G. Contactors in Main Bus: NEMA ICS 2, Class A, mechanically held, general-purpose controller, with same short-circuit interrupting rating as panelboard.

1. External Control-Power Source: 120-V branch circuit.

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Eaton.
2. General Electric Company; GE Energy Management - Electrical Distribution.
3. Siemens Energy.
4. Square D; by Schneider Electric.

B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.

C. Mains: Circuit breaker.

D. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.

E. Contactors in Main Bus: NEMA ICS 2, Class A, mechanically held, general-purpose controller, with same short-circuit interrupting rating as panelboard.

1. External Control-Power Source: 120-V branch circuit.

F. Doors: Concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.4 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Eaton.
2. General Electric Company; GE Energy Management - Electrical Distribution.
3. Siemens Energy.
4. Square D; by Schneider Electric.

B. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents.

1. Thermal-Magnetic Circuit Breakers:

a. Inverse time-current element for low-level overloads.
b. Instantaneous magnetic trip element for short circuits.
c. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.

2. GFCI Circuit Breakers: Single- and double-pole configurations with Class A ground-fault protection (6-mA trip).
3. GFEP Circuit Breakers: Class B ground-fault protection (30-mA trip).
4. MCCB Features and Accessories:

a. Standard frame sizes, trip ratings, and number of poles.
b. Breaker handle indicates tripped status.
c. UL listed for reverse connection without restrictive line or load ratings.
d. Lugs: Compression style, suitable for number, size, trip ratings, and conductor materials.

e. Application Listing: Appropriate for application; Type HID for feeding fluorescent and HID lighting circuits.
f. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.
g. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.

2.5 IDENTIFICATION

A. Panelboard Label: Manufacturer's name and trademark, voltage, amperage, number of phases, and number of poles shall be located on the interior of the panelboard door.

B. Breaker Labels: Faceplate shall list current rating, UL and IEC certification standards, and AIC rating.

C. Circuit Directory: Directory card inside panelboard door, mounted in metal frame with transparent protective cover.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with NECA 1.

B. Install panelboards and accessories according to NECA 407 or NEMA PB 1.1.

C. Mount panelboard cabinet plumb and rigid without distortion of box.

D. Install overcurrent protective devices and controllers not already factory installed.

E. Make grounding connections and bond neutral for services and separately derived systems to ground. Make connections to grounding electrodes.

F. Install filler plates in unused spaces.

G. Arrange conductors in gutters into groups and bundle and wrap with wire ties.

3.2 IDENTIFICATION

A. Identify field-installed conductors, interconnecting wiring, and components; install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems."

B. Create a directory to indicate installed circuit loads; Obtain approval before installing. Handwritten directories are not acceptable. Install directory inside panelboard door.

C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

D. Device Nameplates: Label each branch circuit device in power panelboards with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

E. Install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems" identifying source of remote circuit.

3.3 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Acceptance Testing Preparation:

1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
2. Test continuity of each circuit.

C. Tests and Inspections:

1. Perform each visual and mechanical inspection and electrical test for low-voltage air circuit breakers stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

D. Panelboards will be considered defective if they do not pass tests and inspections.

E. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results, with comparisons of the two scans. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

END OF SECTION

SECTION 26 29 13

ENCLOSED CONTROLLERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the following enclosed controllers rated 600 V and less:
   1. Full-voltage magnetic.

1.2 DEFINITIONS

A. CPT: Control power transformer.

B. MCCB: Molded-case circuit breaker.

C. MCP: Motor circuit protector.

D. N.C.: Normally closed.

E. N.O.: Normally open.

F. OCPD: Overcurrent protective device.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of enclosed controller.

B. Shop Drawings: For each enclosed controller. Include dimensioned plans, elevations, sections, details, and required clearances and service spaces around controller enclosures.

   1. Wiring Diagrams: For power, signal, and control wiring.

1.4 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.

1.6 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 FULL-VOLTAGE CONTROLLERS

A. General Requirements for Full-Voltage Controllers: Comply with NEMA ICS 2, general purpose, Class A.

B. Combination Magnetic Controller: Factory-assembled combination of magnetic controller, OCPD, and disconnecting means.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. Eaton.
b. General Electric Company.
c. Siemens Industry, Inc.
d. Square D; by Schneider Electric.

2. Nonfusible Disconnecting Means:

a. NEMA KS 1, heavy-duty, horsepower-rated, nonfusible switch.
b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
c. Auxiliary Contacts: N.O./N.C., arranged to activate before switch blades open.

2.2 ENCLOSURES

A. Enclosed Controllers: NEMA ICS 6, to comply with environmental conditions at installed location.
1. Outdoor Locations: Type 4X.
2. Wet or Damp Indoor Locations: Type 4.

2.3 ACCESSORIES

A. Push Buttons, Pilot Lights, and Selector Switches: NEMA ICS 5; heavy-duty type; factory installed in controller enclosure cover unless otherwise indicated.

B. Control Relays: Auxiliary and adjustable time-delay relays.

C. Phase-Failure, Phase-Reversal, and Undervoltage and Overvoltage Relays: Solid-state sensing circuit with isolated output contacts for hard-wired connections. Provide adjustable undervoltage, overvoltage, and time-delay settings.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Wall-Mounted Controllers: Install enclosed controllers on walls with tops at uniform height, and with disconnect operating handles not higher than 79 inches (2006 mm) above finished floor, unless otherwise indicated, and by bolting units to wall or mounting on lightweight structural-steel channels bolted to wall. For controllers not at walls, provide freestanding racks.

B. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

C. Install heaters in thermal overload relays. Select heaters based on actual nameplate full-load amperes after motors have been installed.

D. Comply with NECA 1.

3.2 IDENTIFICATION

A. Identify enclosed controllers, components, and control wiring. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

1. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
2. Label each enclosure with engraved nameplate.
3. Label each enclosure-mounted control and pilot device.

3.3 CONTROL WIRING INSTALLATION

A. Install wiring between enclosed controllers and remote devices.

B. Bundle, train, and support wiring in enclosures.

C. Connect selector switches and other automatic-control selection devices where applicable.

1. Connect selector switches to bypass only those manual- and automatic-control devices that have no safety functions when switch is in manual-control position.
2. Connect selector switches with enclosed-controller circuit in both manual and automatic positions for safety-type control devices such as low- and high-pressure cutouts, high-temperature cutouts, and motor overload protectors.

3.4 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Acceptance Testing Preparation:
1. Test insulation resistance for each enclosed controller, component, connecting supply, feeder, and control circuit.
2. Test continuity of each circuit.

C. Tests and Inspections:
1. Inspect controllers, wiring, components, connections, and equipment installation. Test and adjust controllers, components, and equipment.
2. Test insulation resistance for each enclosed-controller element, component, connecting motor supply, feeder, and control circuits.
3. Test continuity of each circuit.
4. Verify that voltages at controller locations are within plus or minus 10 percent of motor nameplate rated voltages. If outside this range for any motor, notify Owner before starting the motor(s).
5. Test each motor for proper phase rotation.
6. Perform each electrical test and visual and mechanical inspection stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
7. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
8. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.

D. Enclosed controllers will be considered defective if they do not pass tests and inspections.

E. Prepare test and inspection reports. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

A. Set field-adjustable switches and overload-relay pickup and trip ranges.

B. Adjust the trip settings of thermal-magnetic circuit breakers with adjustable instantaneous trip elements. Initially adjust to six times the motor nameplate full-load ampere ratings and attempt to start motors several times, allowing for motor cooldown between starts. If tripping occurs on motor inrush, adjust settings in increments until motors start without tripping. Do not exceed eight times the motor full-load amperes (or 11 times for NEMA Premium Efficient motors if required). Where these maximum settings do not allow starting of a motor, notify Owner before increasing settings.

3.6 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain enclosed controllers.

END OF SECTION

SECTION 26 42 00

CATHODIC PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes passive cathodic protection systems that use magnesium or zinc anodes to protect iron and steel piping.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design, supervise, test, and inspect the installation of cathodic protection systems, including comprehensive engineering analysis by a qualified professional engineer Registered in the State of Texas, using performance requirements and design criteria indicated.

1. Design cathodic protection for column pipe according to NACE RP0169. No cathodic protection for well pump is included.

B. Survey site and determine soil or water corrosivity (resistivity), current requirements, potential surveys, stray currents, and water chemistry/corrosivity (pH).

C. Select anodes and accessories relevant to level of protection. Design anodes for an estimated life of 30 years before replacement.

D. Cathodic protection systems shall provide protective potential that complies with referenced NACE standards. Insulators are required if needed to insulate protected metals from other structures.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For cathodic protection. Include plans, evaluations, sections, details, and attachments to other work.

1. Detail locations of cathodic protection equipment, devices, and outlets, with characteristics and cross-references to products.
2. Include calculations and details of anode designs.
3. Include labeling and identifying scheme for wires, cables, and test boxes.

C. Delegated-Design Submittal: For cathodic protection system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified corrosion engineer responsible for their preparation.

1. Conduct site tests necessary for design, including soil resistivity, close-interval potential surveys, testing during construction, interference testing, and training of Owner's personnel.
2. Provide system design calculations, stating the maximum recommended anode current output density, and the rate of gaseous production, if any, at that current density.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Plans, drawn to scale, and coordinating connections to piping.

B. Qualification Data: For qualified professional engineer. Submit evidence of current license, corporate authorization (if applicable) of the engineering business, and NACE certifications.

C. Warranty: Sample of special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: In addition to items specified in Section 260050 "Operation and Maintenance Data," include the following:

1. Basic system operation, outlining the step-by-step procedures required for system startup, operation, adjustment of current flow, and shutdown.
2. Instructions for pipe-to-reference cell potential measurements and frequency of monitoring.
3. Instructions for dielectric connections, interference and sacrificial-anode bonds; and precautions to ensure safe conditions during repair of pipe, tank or other metallic systems. Instructions shall be neatly bound.
4. Locations of all anodes, test stations, and insulating joints.
5. Structure-to-reference cell potentials as measured during the tests required by "Field Quality Control" Article.
6. Recommendations for maintenance testing, including instructions for pipe-to-reference cell potential measurements and frequency of testing.
7. Precautions to ensure safe conditions during repair of pipe system.

1.7 QUALITY ASSURANCE

A. Corrosion Engineer Qualifications: A qualified professional engineer Registered in the State of Texas, who has education and experience in cathodic protection of buried and submerged metal structures and has NACE accreditation or certification as a Corrosion Specialist or Cathodic Protection Specialist.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Protect anodes from exposure to rain and direct sunlight.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace permanent reference electrodes that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 30 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MAGNESIUM ANODES, TYPE II

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Corrpro Companies, Inc.
2. Cott Manufacturing Company.
3. CPMasters, Inc.
4. ELTECH Systems Corporation USA.
5. Farwest Corrosion Control Company.
6. Loresco International.
7. MESA Products, Inc.

B. Comply with ASTM B 843.

C. Chemical composition as percent of weight shall be as follows:

1. Aluminum: 0.010 maximum.
2. Manganese: 0.50 to 1.3.
3. Zinc: 0.05 maximum.
4. Silicon: 0.50 maximum.
5. Copper: 0.02 maximum.
6. Nickel: 0.001 maximum.
7. Iron: 0.03 maximum.
8. Other Impurities: 0.05 each; 0.3 maximum total.
9. Magnesium: Remainder.

D. Anode Core: Galvanized steel with anode wire silver-soldered to the core. Connection shall be recessed and epoxy insulated for 600-V rating. Connection shall be covered with heat-shrinkable tubing, and insulation shall be extended over connection.

E. Anode Wires: Factory-installed cables, with copper conductors, suitable for direct burial; not less than No. 10 AWG with Type THWN insulation according to ASTM D 1248 and NEMA WC 70/ICEA S-95-658; long enough to extend to accompanying junction box without splicing.

F. Anode Backfill: Backfill materials packaged in water-permeable fabric sack or cardboard container. Anodes shall be factory installed in packaged backfill using methods that result in dense packing of fill with factory-installed anode spacers to ensure centering of anode in

packaged anode backfill. Backfill material shall have the following chemical composition by weight:

1. Hydrated Gypsum: 75 percent.
2. Bentonite Clay: 20 percent.
3. Anhydrous Sodium Sulfate: 5 percent.

2.2 MAGNESIUM/MANGANESE ALLOY ANODES

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Corrpro Companies, Inc.
2. Cott Manufacturing Company.
3. CPMasters, Inc.
4. ELTECH Systems Corporation USA.
5. Farwest Corrosion Control Company.
6. Loresco International.
7. MESA Products, Inc.

B. Chemical composition as percent of weight shall be as follows:

1. Aluminum: 0.01 maximum.
2. Manganese: 0.50 to 1.3.
3. Copper: 0.02 maximum.
4. Nickel: 0.001 maximum.
5. Iron: 0.03 maximum.
6. Other Impurities: 0.05 each; 0.3 maximum total.
7. Magnesium: Remainder.

C. Bare Anode Weight: 40 lb, not including core, and a nominal length of 60 inches.

D. Anode Wires: Factory-installed cables, with copper conductors, suitable for direct burial; not less than No. 10 AWG with Type THWN insulation according to ASTM D 1248 and NEMA WC 70/ICEA S-95-658; long enough to extend to accompanying junction box without splicing.

E. Anode Backfill: Backfill materials packaged in water-permeable fabric sack or cardboard container. Anodes shall be factory installed in packaged backfill using methods that result in dense packing of fill with factory-installed anode spacers to ensure centering of anode in packaged anode backfill. Backfill material shall have the following chemical composition by weight:

1. Hydrated Gypsum: 75 percent.
2. Bentonite Clay: 20 percent.
3. Anhydrous Sodium Sulfate: 5 percent.

2.3 ZINC ANODES FOR BURIED SERVICE, TYPE Z-1

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Corrpro Companies, Inc.
2. Cott Manufacturing Company.
3. CPMasters, Inc.
4. ELTECH Systems Corporation USA.
5. Farwest Corrosion Control Company.
6. Loresco International.
7. MESA Products, Inc.

B. Comply with ASTM B 418, Type II.

C. Chemical composition as percent of weight shall be as follows:

1. Aluminum: 0.005 maximum.
2. Cadmium: 0.003 maximum.
3. Iron: 0.0014 maximum.
4. Zinc: Remainder.

D. Bare Anode Ingot Weight: 30 lb, 2 inches square and 30 inches long. Packaged weight of anode bag shall be 70 lb.

E. Anode Wires: Factory-installed cables, with copper conductors, suitable for direct burial; not less than No. 10 AWG with Type THWN insulation according to ASTM D 1248 and NEMA WC 70/ICEA S-95-658; long enough to extend to accompanying junction box without splicing.

F. Anode Backfill: Backfill materials packaged in water-permeable fabric sack or cardboard container. Anodes shall be factory installed in packaged backfill using methods that result in dense packing of fill with factory-installed anode spacers to ensure centering of anode in packaged anode backfill. Backfill material shall have the following chemical composition by weight:

1. Hydrated Gypsum: 75 percent.
2. Bentonite Clay: 20 percent.
3. Anhydrous Sodium Sulfate: 5 percent.

2.4 PERMANENT REFERENCE ELECTRODES

A. Copper/copper sulfate (Cu/CuSO4), suitable for direct burial. Electrode shall be guaranteed by supplier for 30 years' service in the installed environment.

2.5 WIRE AND CABLE

A. Anode Header Cable: Single-conductor, Type HMWPE, insulated cable specifically designed for direct-buried dc service in cathodic protection installations.

1. Conductor: Stranded, annealed, uncoated copper, not less than No. 8 AWG, complying with ASTM B 3 and ASTM B 8.
2. Insulation: High-molecular-weight polyethylene, complying with NEMA WC 70/ICEA S-95-658.
3. Minimum Average Thickness of Insulation: 110 mils for Nos. 8 through 2 AWG, and 125 mils for Nos. 1 through 4/0 AWG; rated at 600 V.
4. Connectors: Exothermic welds.

B. Conductors and Cables: Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

1. Bonding Conductors for Joint and Continuity Bonds: Not less than No. 8 AWG, stranded, Type THWN copper conductors.
2. Flexible Pipe Coupling Bonds: Flexible copper straps with electrical resistance equal to No. 1/0 AWG stranded copper wire and with five holes for five exothermic welds to pipe.
3. Test Wires: No. 12 AWG, Type THWN copper conductors.
4. Resistance Wires: No. 16 or No. 22 AWG nickel-chromium wire.
5. Cables for Installation in Conduit: Type THWN copper conductors.

2.6 TEST STATIONS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Corrpro Companies, Inc.
2. Cott Manufacturing Company.
3. MESA Products, Inc.

B. Plastic Test Stations: Flush-mounted type, manufactured of high-impact-resistant PVC or polycarbonate with watertight conduit connections and cover and removable terminal board having at least five terminals.

C. Test Station Mounting Enclosures:

1. Non-Traffic-Area Boxes: Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems."

2.7 SEALING, POTTING, AND DIELECTRIC COMPOUNDS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. 3M.
2. Chase Corporation - Chase Specialty Coatings.

B. Sealing and Dielectric Insulating Compound: Comply with NACE RP0188. Black, rubber based, soft, permanently pliable, tacky, moldable, and unbacked; 0.5 inch thick.

C. Potting Compound: Comply with NACE RP0188. Cast-epoxy, two-package type; fabricated for this purpose and covered with heat-shrinkable tape.

D. Pressure-Sensitive, Vinyl-Plastic Electrical Tape: Comply with UL 510.

2.8 EXOTHERMIC WELDING MATERIALS

A. Exothermic Weld Kits: Specifically designed by manufacturer for welding materials and shapes required.

B. Exothermic Weld Caps: Dome of high-density polyethylene, 10-mil minimum thickness, filled with mastic and containing a tunnel portion to separate lead wire from exothermic weld.

2.9 COATING REPAIR MATERIALS

A. Touchup Coating Materials: Comply with Manufacturer's Recommendation requirements in Section 260050.

B. Adhesive-Applied Coating Materials: Coating materials shall be compatible with factory-applied coating system.

1. Nominal thickness of coating materials shall be not less than 8 mils, plus or minus 5 percent.
2. Coating materials shall be one of the following supplied by factory-applied coating system manufacturer:

a. Polyvinyl-chloride, pressure-sensitive, adhesive tape.
b. High-density polyethylene/bituminous rubber compound tape.
c. Butyl rubber tape.
d. Coal-tar epoxy.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION REQUIREMENTS

A. Comply with ANSI/IEEE C2 and NFPA 70.

B. Make connections to ferrous pipe using exothermic welding.

C. Coat welds with the coating repair material and apply an exothermic weld cap.

3.2 MAGNESIUM ANODE INSTALLATION

A. Install magnesium anodes at locations that clear obstructions. Install at least 36 inches and no more than 10 feet from pipe to be protected or as required by Cathodic report. Install in augered holes with top of anode a minimum of 36 inches below finished grade. In soils that will collapse into augered holes, use casing of galvanized sheet steel.

B. Install anodes in a dry condition after plastic or waterproof protective covering has been completely removed from water-permeable permanent container that houses anode metal. Do not use anode-connecting wire for lowering anode into hole. Backfill annular space around anode with fine earth in 6-inch layers; compact each layer using hand tools. Do not strike anode or connecting wire during backfilling and compacting. After backfilling and compacting to within 6 inches of finished grade, pour approximately 5 gal. of water into each filled hole. After water has been absorbed by earth, complete backfilling to finished level.

C. If rock strata are encountered before achieving specified augured hole depth, install anodes horizontally at depth at least as deep as bottom of pipe to be protected.

D. Install anodes spaced as indicated, connected through a test station to the pipeline, allowing slack in connecting wire to compensate for movement during backfill operation.

E. Do not use resistance wires to reduce current output of individual or group anodes.

3.3 ZINC ANODE INSTALLATION

A. Install zinc anode horizontally in a hole at least 3 inches larger than anode. Install anode under new copper water tubing, including service lines, blowoffs, and air releases. Separate piping and anode by at least 24 inches, but not more than 60 inches.

B. Install anode midway between both ends of piping. Install anode wire in piping trench and connect to piping at an accessible location. Install anode wire in PVC conduit where rising out of the ground to the aboveground connection.

3.4 INSTALLATION OF REFERENCE ELECTRODES

A. Install directly beneath the buried metallic component being protected.

3.5 CABLE AND WIRE INSTALLATION

A. Install conductors, except anode wires, in PVC conduit with waterproof PVC junction boxes. Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems" for conduit and its installation.

B. Anode Wire Installation: Cover trench bottom for the anode wire with 3-inch layer of sand or stone-free earth. Center wire on backfill layer and do not stretch or kink the conductor. Place backfill over wire in layers not exceeding 6 inches deep, and compact each layer. Use clean fill, free from roots, vegetable matter, and refuse. Place cable underground-line warning tape within 18 inches of finished grade, above cable and conduit.

C. Bonding Conductors: Install conductors on metallic pipe, to and across buried flexible couplings, mechanical joints, and flanged joints except at places where insulating joints are specified. Welded and threaded joints are considered electrically continuous and do not require bonding.

1. Install at least two bonds between parts requiring bonding.

2. Bonding conductors must contain sufficient slack for anticipated movement between structures. Bonding conductors across pipe joints shall have not less than a 4-inch slack for pipe expansion, contraction, and soil stress.
3. Connect bonding conductors to pipe, coupling follower rings and coupling middle ring or sleeve. Connect bonding conductors with exothermic welds.

D. For wire splicing, use compression connectors or exothermic welds.

3.6 TEST STATIONS

A. Install test stations as follows:

1. At insulating joints.
2. At both ends of casings when casing material is included in the cathodic protection system.
3. Where pipe crosses other metal pipes.
4. Where pipe connects to existing piping system.
5. Where pipe connects to dissimilar metal pipe.

B. Install test stations on backfill complying with requirements for trench bottom fill for anode wires unless otherwise indicated.

C. Terminate test conductors on terminal boards and install a spare set of test leads at each testing location.

3.7 PIPE JOINTS

A. Insulating Flange Sets: Cover flanges with sealing and dielectric compound.

B. Insulating Unions: Install electrical isolation at each building entrance and at other locations indicated on approved Delegated-Design Drawings. Cover unions with sealing and dielectric compound.

3.8 DISSIMILAR METALS

A. Underground Dissimilar Piping: Coat insulating joint and pipe at joints of dissimilar piping material with sealing and dielectric compound for a minimum distance of 10 pipe diameters on both sides of joint.

B. Underground Dissimilar Valves: Coat dissimilar ferrous valves and pipe with sealing and dielectric compound for a minimum distance of 10 pipe diameters on both sides of valve.

C. Aboveground Dissimilar Pipe and Valves: If dissimilar metal pipe joints and valves are not buried and are exposed only to atmosphere, coat connection or valve, including pipe, with sealing and dielectric compound for a minimum distance of three pipe diameters on both sides of junction.

3.9 COATINGS

A. Field Joints: Apply adhesive-applied coating system in a thickness to achieve corrosion protection equal to adjacent factory-applied coating.

3.10 IDENTIFICATION

A. Comply with requirements in Section 260553 "Identification for Electrical Systems."

1. Identify anode wires and anode header cables with marker tape.
2. Identify underground wires and cables with underground-line warning tape.
3. Identify text boxes with engraved, laminated acrylic or melamine label, permanently attached to text box.

3.11 FIELD QUALITY CONTROL

A. Comply with NACE RP0169 and NACE RP0285.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installation, including connections.

C. Tests and Inspections:

1. Static Pull Test: Choose, at random, one completed anode of each type for this destructive test. Demonstrate that anode wire connections have enough strength to withstand a minimum tensile load of 300 lb. If test fails, replace all anodes and repeat test at another randomly selected anode.
2. Insulation Testing: Before anode system is connected to pipe, test insulation at each insulating joint and fitting. Demonstrate that no metallic contact, or short circuit, exists between the two insulated sections of pipe. Replace defective joints or fittings.
3. Bonding Tests: Test for electrical continuity across all bonded joints. Repair or add additional bonds until electrical continuity is achieved.
4. Baseline Potentials: After backfilling of pipe and anodes is completed, but before anodes are connected to pipe, measure the static potential of pipe to soil. Record initial measurements.
5. Anode Output: Measure electrical current as anodes or groups of anodes are connected to pipe. Use a low-resistance ammeter. Record current, date, time, and location of each measurement.
6. Pipe-to-Reference Electrode Potential Measurements: On completion of installation of entire cathodic protection system, make electrode potential measurements according to NACE RP0169, using a copper/copper-sulfate reference electrode and a potentiometer-voltmeter, or a dc voltmeter with an internal resistance (sensitivity) of not less than 100,000 ohms per volt and a full scale of 1 or 2 V. Make measurements at same locations as those used for baseline potentials. Record voltage, date, time, and location of each measurement, using one of the following two methods:

a. 0.85 V Negative Voltage: With cathodic system in operation, measure a negative voltage of at least minus 0.85 V between pipe and a saturated copper/copper-sulfate reference electrode contacting the earth directly over pipe.

b. 100-mV Polarization Voltage: Determine polarization voltage shift by interrupting protective current and measuring polarization decay. An immediate voltage shift will occur if protective current is interrupted. Use voltage reading, after immediate shift, as base reading from which to measure polarization decay. Measure at least a minimum polarization voltage shift of 100 mV between pipe and a saturated copper/copper-sulfate reference electrode contacting the earth directly over pipe.

D. Location of Measurements for Piping: For coated piping or conduit, measure from reference electrode in contact with the earth directly over pipe. Measure at intervals not exceeding 400 feet. Make additional measurements at each distribution service riser, with reference electrode placed directly over service line.

E. Location of Measurements for Tanks: For underground tanks, measure from reference electrode located as follows:

1. Directly over center of tank.
2. At a point directly over tank and midway between each pair of anodes.
3. At each end of tank.

F. Interference Testing: Test interference with cathodic protection from any foreign pipes in cooperation with Owner of foreign pipes. Report results and recommendations.

G. Stray Current Measurements: Perform at each test station. Mitigate stray currents due to lightning or overhead ac power transmission lines as provided for in NACE standards.

H. Inspect coatings; comply with NACE RP0188. Repair imperfections of factory-applied coatings as specified in "Coatings" Article.

1. Use electronic holiday detectors to detect coating imperfections.
2. All damage to the protective coating during transit and handling shall be repaired before installation.
3. Repair factory-applied coatings to have equal or better corrosion resistance than the factory-applied coating system. Field-repair material shall be of the type approved by, and shall be applied as recommended by, manufacturer of the coating material.

3.12 ADJUSTING

A. Adjust cathodic current using resistors as recommended by corrosion engineer who prepared the Delegated-Design Submittal in Part 1.

B. During the first year after Substantial Completion, test, inspect, and adjust cathodic protection system every three months to ensure its continued compliance with specified requirements.

3.13 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain cathodic protection system.

END OF SECTION

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TOWN OF ADDISON, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS APPROVING A CONSTRUCTION CONTRACT BETWEEN THE TOWN OF ADDISON AND GROVES ELECTRICAL SERVICES, INC. FOR SERVICES RELATED TO THE LES LACS POND WATER WELL REBUILDING PROJECT IN AN AMOUNT NOT TO EXCEED $224,597.00, AUTHORIZING THE CITY MANAGER TO EXECUTE THE CONTRACT, AND PROVIDING AN EFFECTIVE DATE.

BE IT RESOLVED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS:

Section 1. The Contract Agreement between the Town of Addison and Groves Electrical Services, Inc. for services related to the Les Lacs Pond Water Well Rebuilding Project in an amount not to exceed $224,597.00, a copy of which is attached to this Resolution as **Exhibit A,** and which incorporates the Town of Addison's General and Specific Conditions for construction contracts, and the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans and other bid documents is hereby approved. The City Manager is hereby authorized to execute the agreement.

Section 2. This Resolution shall take effect from and after its date of adoption.

PASSED AND APPROVED by the City Council of the Town of Addison, Texas this the 22nd day of March, 2016.

_____
Todd Meier, Mayor

ATTEST:

By: _____
Laura Bell, City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

AI-1572 **11.**

Work Session and Regular Meeting

Meeting Date: 03/22/2016

Department: Infrastructure- Development Services

AGENDA CAPTION:

Consider An **Ordinance Granting A Meritorious Exception For A Sign Located at 4875 Belt Line Road for Home2 Suites.**

BACKGROUND:

In December 2013, the Council approved an Special Use Permit (SUP) for a Home2 Suites by Hilton to be developed at 4875 Belt Line Road. That hotel is currently under construction. The building will be five stories, measuring 69 feet 10 inches in height.

Because the development site is located behind a row of existing restaurant and retail buildings, any attached signage on the Home2 Suites building would be approximately 590 feet from Belt Line Road. The restaurants and retail buildings include On the Border, BJ's Brew House and a multi-tenant building that includes Taco Diner and Potbelly Sandwich Shop among other users. These properties make up the Belt Line Quorum Shopping Center and are all owned by Beltway Commercial Real Estate.

The site on which Home2 is located was also owned by Beltway Commercial until it was replatted and sold to Magnolia Lodging for the hotel development. The shopping center always anticipated having a detached sign for a development on the Home2 site along Belt Line Road in the existing median at the entrance between On the Border and BJ's Brew House. The wiring for such as sign is already in place. This would have been permitted because the lots were all under the same ownership and could be considered a single premises.

However, when the property was replatted and sold off, the lot and the sign could no longer be considered part of the same premises. According to the Sign Code, a sign at this location or any location along Belt Line would now be considered an off-premises sign. Such signage is prohibited by Section 62-182. – Premises signs., which requires that all detached signage be on the same premises as the use advertised on the sign.

The property owner, Magnolia Lodging, is requesting a Meritorious Exception from Section 62-182. – Premises signs., to allow them to place a sign that would meet all other Sign Code regulations at the originally planned location.

The Sign Code states that the "council may consider appeals on the basis that such regulations and/or standards will, by reason of exceptional circumstances or surroundings, constitute a practical difficulty or unnecessary hardship."

RECOMMENDATION:

Administration recommends denial.

Attachments

Exception Package

We are requesting a signage variance for the new Home2 Suites by Hilton hotel that will benefit both hotel visitors and the Town of Addison with added convenience, safety, and exposure. This proposed sign is a necessary piece of our hotel's overall success, and will positively impact the area.

Our sign will improve safety and convenience for Beltline Road drivers.

- Unlike existing Beltline Road businesses, our hotel is not visible from the street, which necessitates street signage.
- Throughout the hotel's construction process, delivery trucks have repeatedly driven past the hotel's driveway, forcing them to make a U-turn on Beltline and circle back, and past, to our hotel's entrance multiple times.
- As this road is a high-traffic thoroughfare, signage would alert drivers to the hotel's location, eliminating the need for potentially-dangerous U-turns, wasted time, and excess traffic.

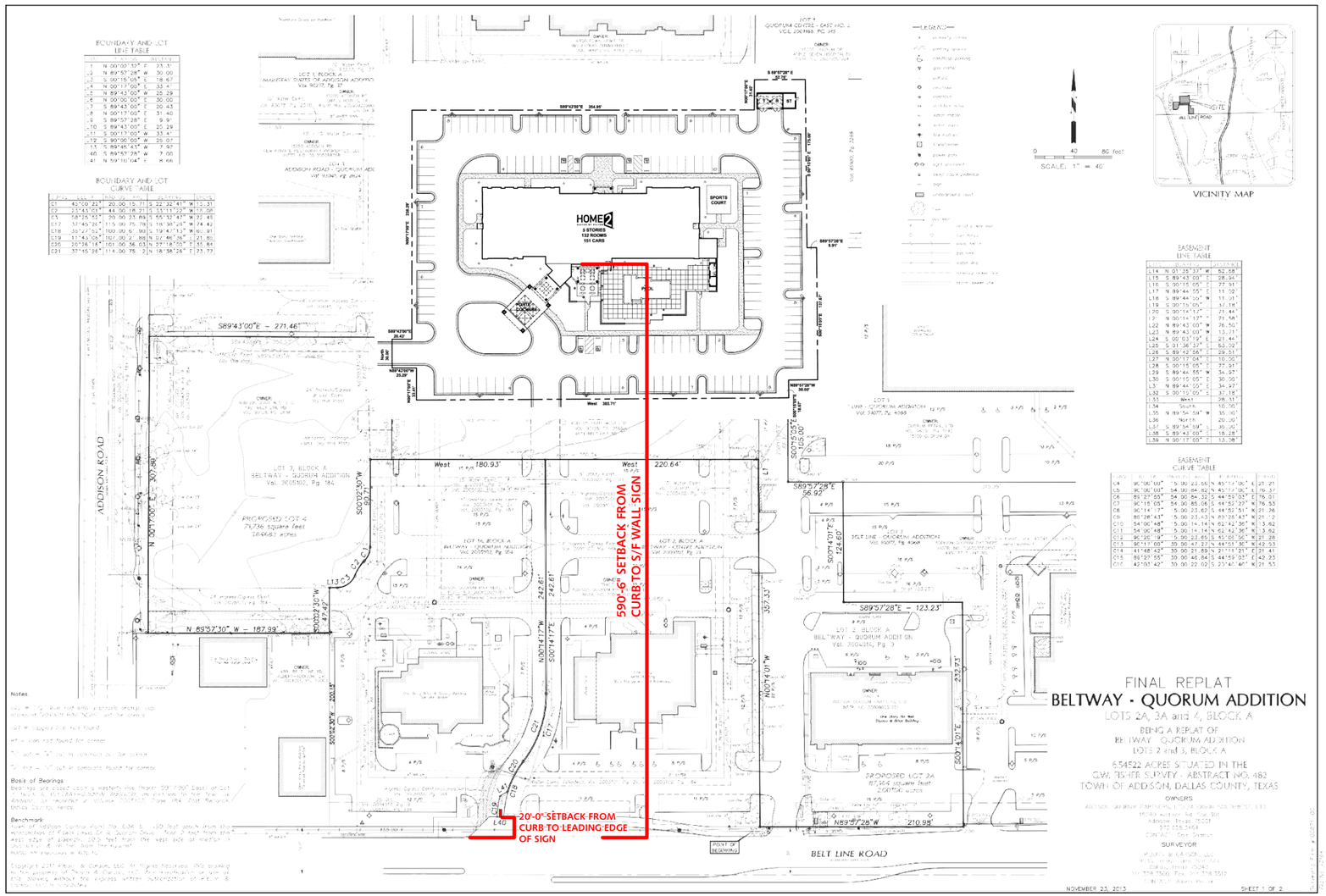
Our sign will direct visitors to our hotel from Beltline Road.

- The Home2 Suites does not face the street, but has a Beltline Road address; the traffic island situated at the end of our driveway (see attached property map) provides a convenient, visible location for our sign. Also, we have an easement for access and signage at this location.
- The master plan for this area included a sign in this island location.
- The island is wired for signage.

Our sign will be a win for our hotel, the area, and the Town of Addison

- The sign will be professionally-installed, well-lit, and in line with the neighborhood aesthetics.
- Signage will be city-approved and will not block access or visibility to existing businesses.
- With an easy-to-find location, our hotel will attract more business, which in turn will provide additional revenue for the city.

We ask the Town of Addison to grant approval to this effort to benefit both our hotel and the area. Thank you.



SITE PLAN

1/128" = 1'-0"

HOME2 SUITES BY HILTON

Design #
0376514Ar4
Sheet 11 of 11

Client
HOME 2

Address
4875 BELTLINE RD.
ADDISON, TEXAS

Revision/Date
R1 RFF 01.23.14 update design
R2 RFF 05.05.15 update
R3-07/10/15(CJR): Added note about fasteners. Revised "E".
R4 KMc 7/31/15: add civil plan

HILTON WORLDWIDE
www.hiltonworldwide.com
Corporate Office:
755 Crossover Lane
Memphis, Tennessee, 38117

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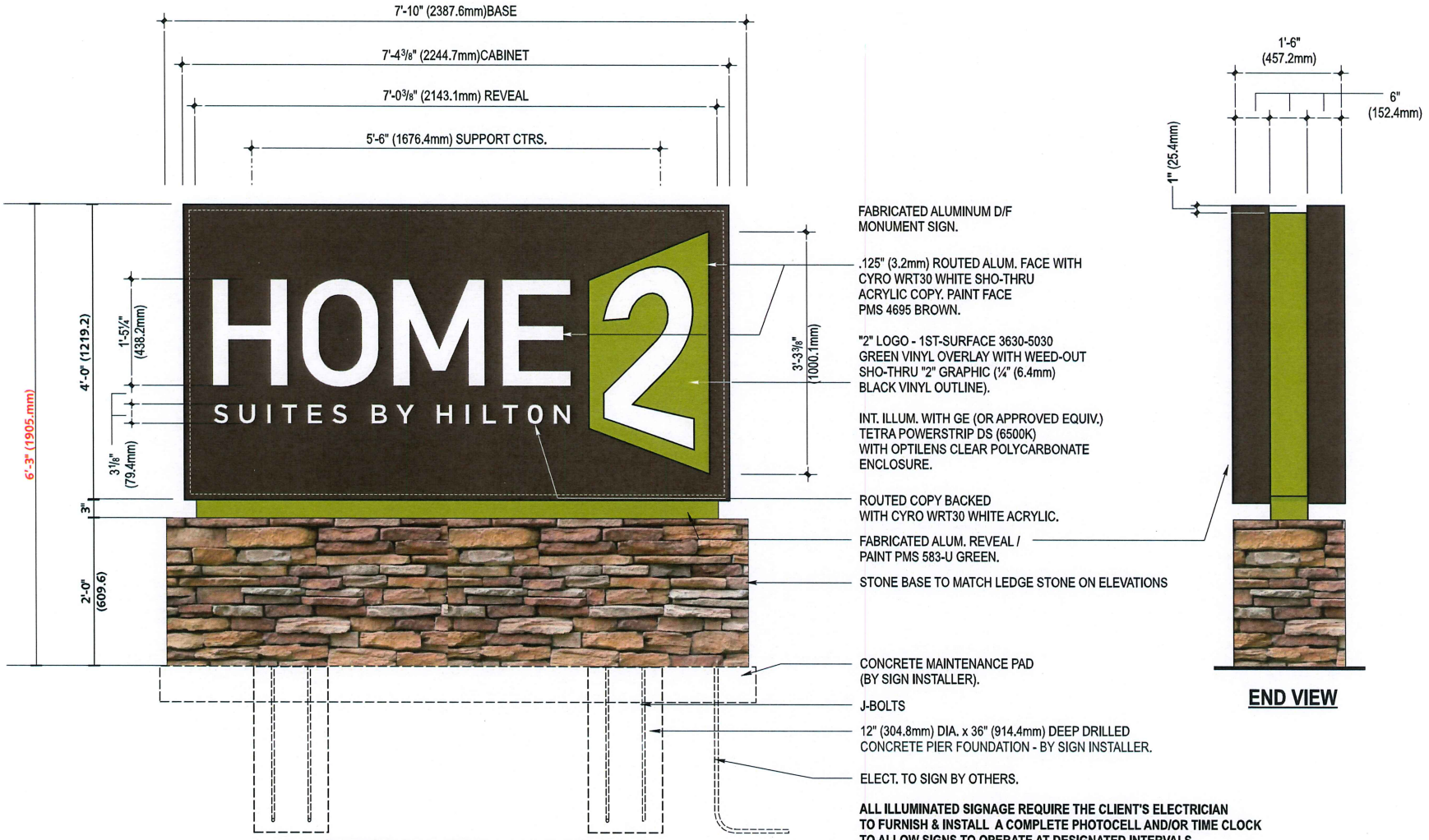

ALL ILLUMINATED SIGNAGE REQUIRE THE CLIENT'S ELECTRICIAN TO FURNISH & INSTALL A COMPLETE PHOTOCELL AND/OR TIME CLOCK TO ALLOW SIGNS TO OPERATE AT DESIGNATED INTERVALS. HOWEVER, SIGN SHALL NEVER OPERATE ON A 24/7 BASIS.

A D/F MONUMENT SIGN - OPTION 2

(1) REQUIRED - MANUFACTURE & INSTALL SCALE: 3/4" = 1'-0"

HOME 2 SUITES BY HILTON

Design #
0376514Ar6
Sheet 7 of 13

Client
HOME 2

Address
4875 BELTLINE RD.
ADDISON, TEXAS

Revision/Date
R1 RFF 01.23.14 update design
R2 RFF 05.05.15 update
R3-07/10/15(CJR): Added note about fasteners. Revised "E".
R4 KMc 7/31/15: add civil plan
R5 RFF 09.01.15 update A
R6 RG 10/30/15 A option

HILTON WORLDWIDE
www.hiltonworldwide.com

Corporate Office:
755 Crossover Lane
Memphis, Tennessee, 38117

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A PROPOSED SIGN - ELEVATION - OPTION 2 SCALE: 3/8" = 1'-0"

20' SET BACK FROM THE BACK OF CURB

HOME 2 SUITES BY HILTON

Design #

0376514Ar6

Sheet 5 of 13

Client

HOME 2

Address

4875 BELTLINE RD.

ADDISON, TEXAS

Revision/Date

R1 RFF 01.23.14 update design

R2 RFF 05.05.15 update

R3-07/10/15(CJR): Added note about fasteners. Revised "E".

R4 KMc 7/31/15: add civil plan

R5 RFF 09.01.15 update A

R6 RG 10/30/15 A option

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